KUNZMAN ASSOCIATES, INC.

DOLLAR GENERAL - PHELAN PROJECT (REVISED)

TRAFFIC IMPACT ANALYSIS

March 14, 2016

Traffic Engineering | Transportation Planning | Parking | Noise/Vibration | Expert Witness
Air Quality | Global Climate Change | Health Risk Assessment

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I. INTRODUCTION

The purpose of this report is to provide an assessment of the traffic impacts resulting from the proposed Dollar General - Phelan 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 County 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 full occupancy of the development in Opening Year 2017, at which time it will be generating trips at its full potential, and for the Horizon Year (2035).

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 site is at the northwest corner of Phelan Road and Sierra Vista Road in the County of San Bernardino. A vicinity map showing the project location is provided on Figure 1.

The project site is proposed to be developed with 9,100 square feet of variety store land use on a vacant 1.87 acre parcel. Figure 2 illustrates the project site plan.

B. Study Area

Regional access to the project site is provided by the SR-138 and the I-15 Freeway. Local access is provided by various roadways in the vicinity of the site. The north-south roadways which will be most affected by the project include Sheep Creek Road, Sierra Vista Road, Valle Vista Road, and Johnson Road. The east-west roadway which will be most affected by the project includes Phelan Road.

A series of scoping discussions were conducted with the following agency to define the desired analysis locations (see Appendix B):

- County of San Bernardino

In addition, the San Bernardino Transportation Analysis Model (SBTAM) has been obtained through discussions with the Southern California Association of Governments (SCAG) staff for purposes of this analysis for 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 (Opening Year or Horizon Year) 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 does not contribute trips greater than the freeway threshold volume of 100 two-way peak hour trips. The project does contribute trips greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the County of San Bernardino.

C. Phasing and Timing

The project is proposed to be constructed in one phase. For the purposes of this analysis, the Opening Year is 2017. Existing Plus Project will exemplify the existing traffic conditions with the project built out.

D. 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 project (no other development) as well as with and without the project. The following analysis years are considered in this report:

- Existing Conditions (2014)
- Existing Plus Project Conditions[1]
- Opening Year Conditions (2017)
- Horizon Year Conditions (2035)

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates, Inc. in December 2014 and January 2016 (see Appendix C). In addition, truck classification counts were conducted at the study area intersections. The existing percent of trucks were 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 Manual, 9th Edition, 2012.

To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site and other additional information were reviewed, including a San Bernardino Transportation Analysis Model select zone distribution for the project site.

[1] The existing plus project conditions has been analyzed to comply with the Sunnyvale West Neighborhood Association v. City of Sunnyvale CEQA court case. This scenario assumes the full development of the proposed project and full absorption of the proposed project trips on the circulation system at the present time.

The average daily traffic volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model (SBTAM) Year 2008 and Year 2035 average daily traffic volume forecasts (see Appendix D). This difference defines the growth in traffic over the 27 year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2014 and Year 2035. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2014 and Year 2035 is 21 years of the 27 year time frame, a factor of 0.78 (i.e., 21/27) was used.

The Horizon Year (2035) Without Project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model Year 2008 and Year 2035 peak hour volumes. The growth increment calculation worksheets are shown in Appendix D. 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.

Potential other developments within the study area are included in the analysis if they are not currently built, they are approved, their approval has not expired, and they would contribute trips to the study area intersections. These other developments are included to provide a comprehensive analysis for growth augmentation of the San Bernardino Transportation Analysis Model data.

The Opening Year (2017) traffic volumes have been interpolated from the Horizon Year (2035) traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the San Bernardino Transportation Analysis Model traffic 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 E) based on the 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. The 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 projects traffic demand exceeding roadway capacity with heavily congested flow and poor travel time.

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 has 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) / (3.5 feet/second)] + 7 seconds.

For Existing/Existing Plus Project/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 Horizon Year (2035) 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. The Horizon Year (2035) 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 Horizon Year (2035) 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 Horizon Year (2035) that was attributed to the project-generated trips.

E. Definition of Deficiency and Significant Impact

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

1. Definition of Deficiency

The definition of an intersection deficiency has been obtained from the County of San Bernardino General Plan. The General Plan states that peak hour intersection operations of Level of Service C or better are generally acceptable in the Desert Region of the County. Therefore, any intersection operating at Level of Service D or worse 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 California Environmental Quality Act. The County 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 County 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 or pro-rata contributions to the local transportation fee program for improvements.

This area of Phelan is currently not included in the Nexus improvements listing and improvements in this area are not eligible for Nexus transportation fee credits.

For intersections which have Level of Service D or better prior to the project, a traffic impact is considered significant if the project traffic contribution changes the Level of Service at any off-site location from D or better to E or worse. Level of service D may be maintained during interim improvements for Intersections, which currently have level of service D; however, level of service C or better will be provided with final improvements or pro-rata contributions for Year 2035 local transportation plan improvements.

Figure 1
Project Location Map

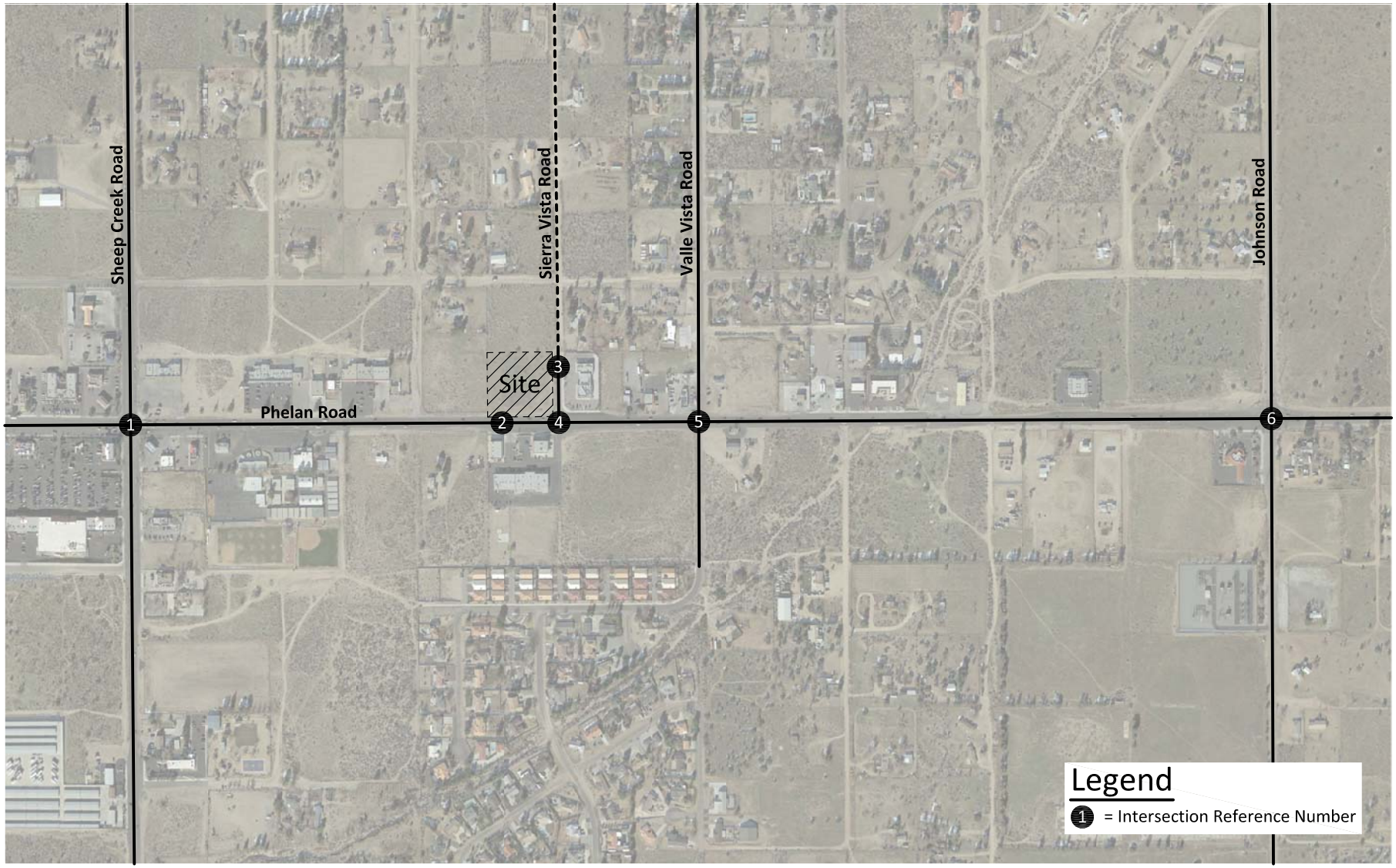

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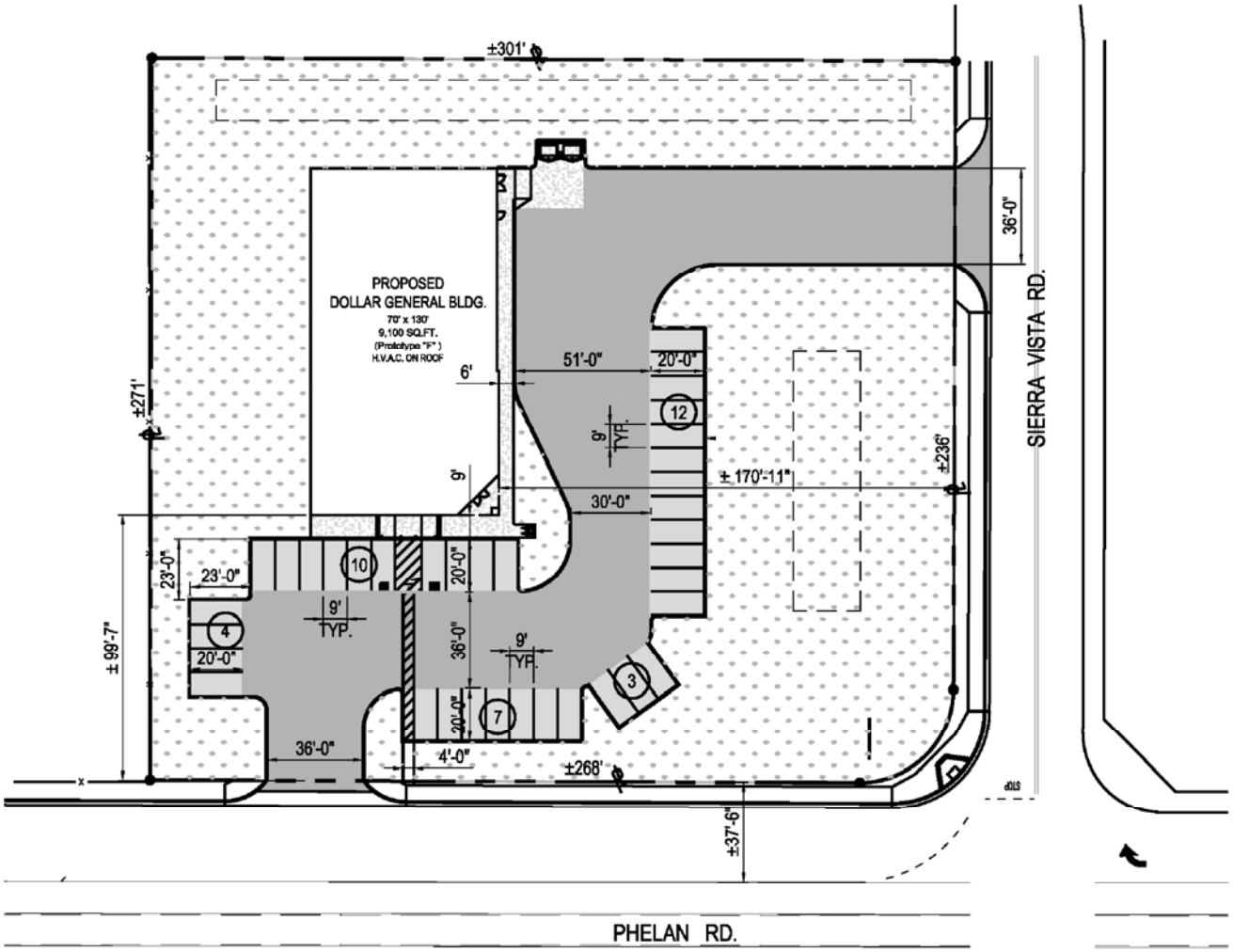
Figure 2
Site Plan



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 SR-138 and the I-15 Freeway. Local access is provided by various roadways in the vicinity of the site. The north-south roadway which will be most affected by the project includes Sheep Creek Road, Sierra Vista Road, Valle Vista Road, and Johnson Road. The east-west roadway which will be most affected by the project includes Phelan Road.

B. Existing Volumes

Figure 4 depicts the Existing average daily traffic volumes. The Existing average daily traffic volumes were factored from peak hour counts (see Appendix C) obtained by Kunzman Associates, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + 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, Inc. from December 2014 and January 2016 (see Appendix C) 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.

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

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. For Existing traffic conditions, the study area intersections currently operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that currently operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

Existing delay worksheets are provided in Appendix E.

D. Planned Transportation Improvements and Relationship to General Plan

The County of San Bernardino General Plan Circulation Element is shown on Figure 7. Existing and future roadways are included in the Circulation Element of the General Plan and are graphically depicted on Figure 7. This Figure shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The County of San Bernardino General Plan roadway cross-sections are shown on Figure 8.

Table 1

Existing Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at: Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	28.0-C	27.6-C
Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	19.5-C	17.8-C
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	18.6-C	25.6-D
Johnson Road (NS) at: Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	25.6-C	24.3-C

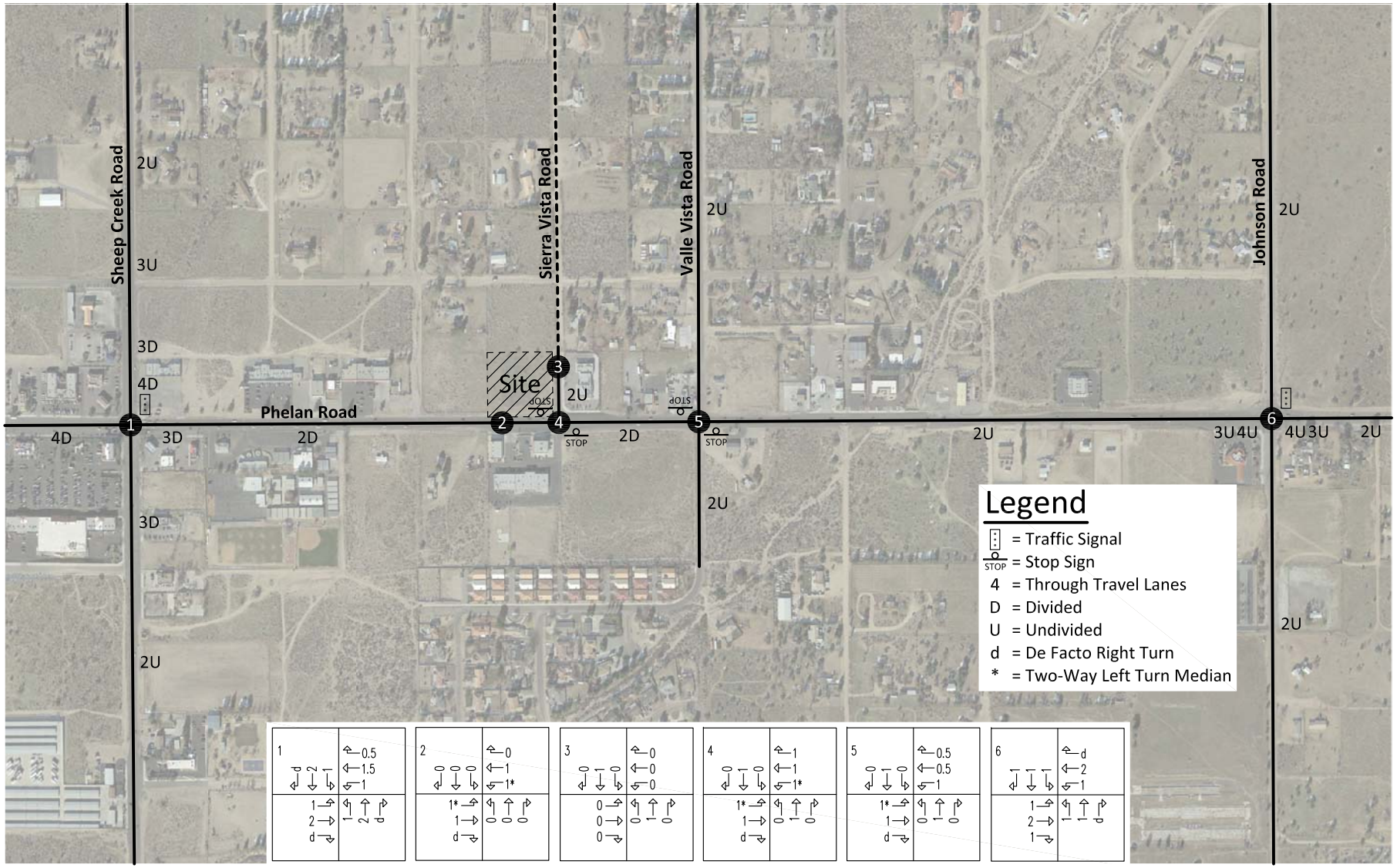
[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = De Facto Right Turn Lane.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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

[4] Two-way left turn lane median.

Figure 3
Existing Through Travel Lanes and Intersection Controls



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

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Figure 4
Existing Average Daily Traffic Volumes

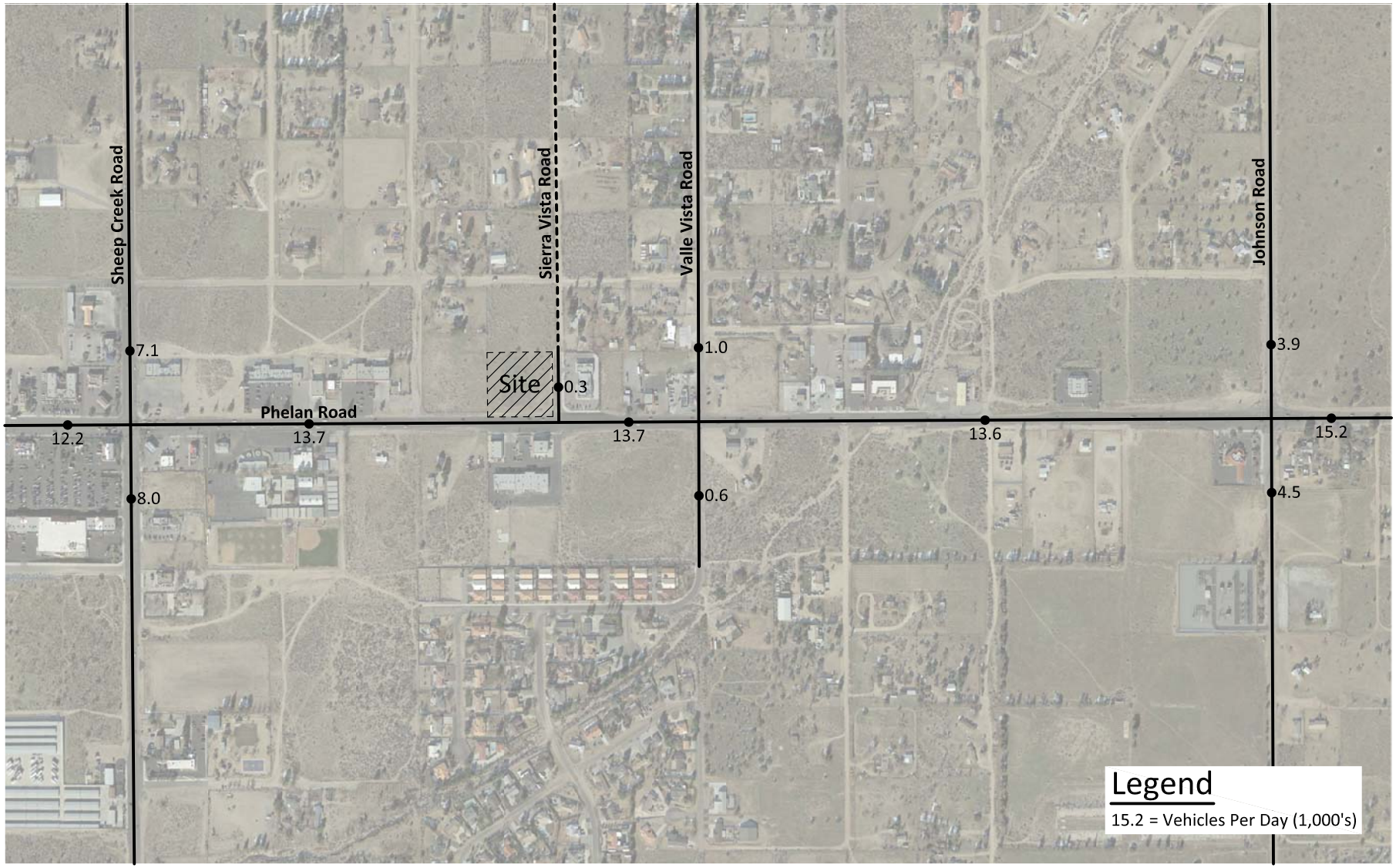

Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes

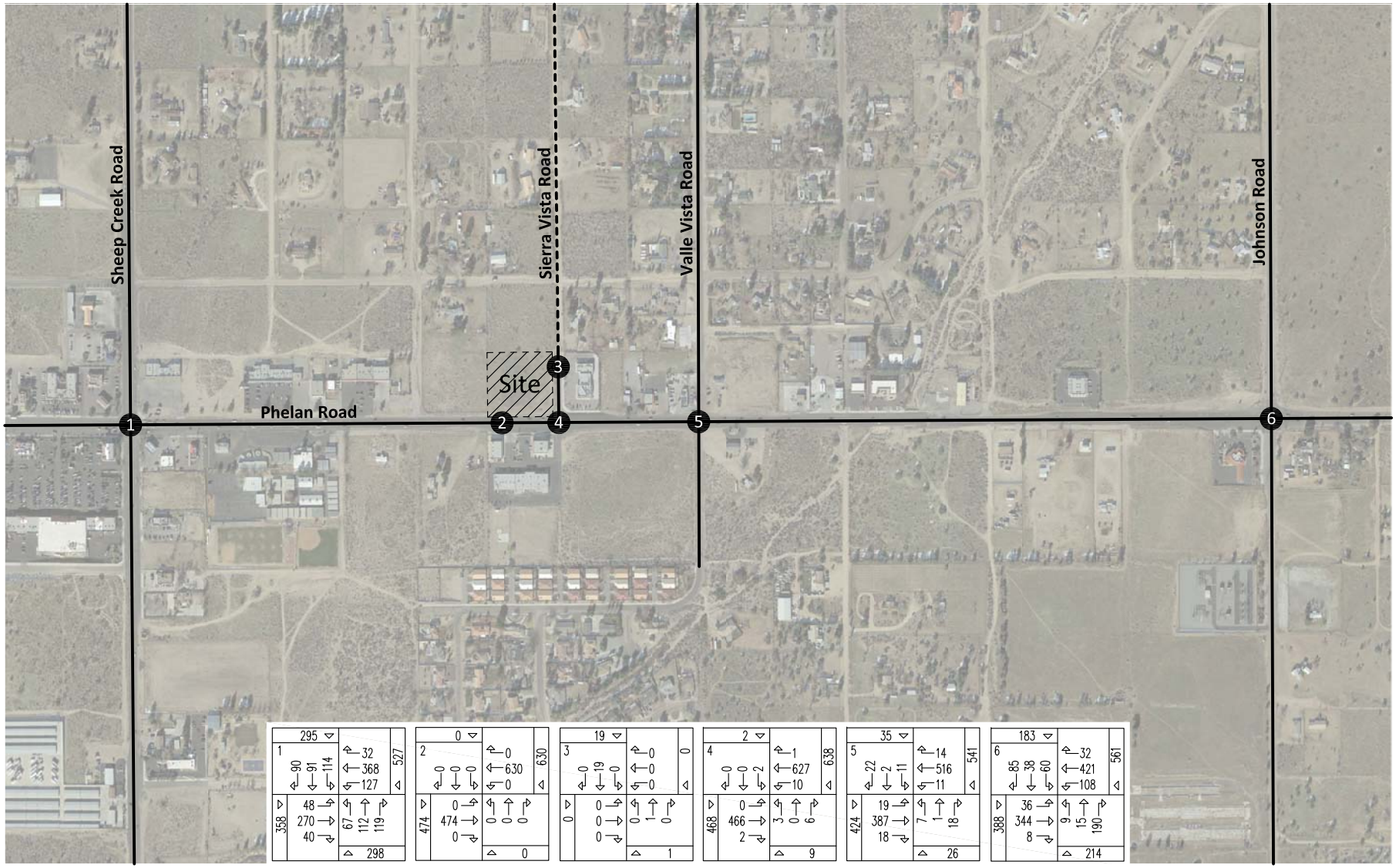

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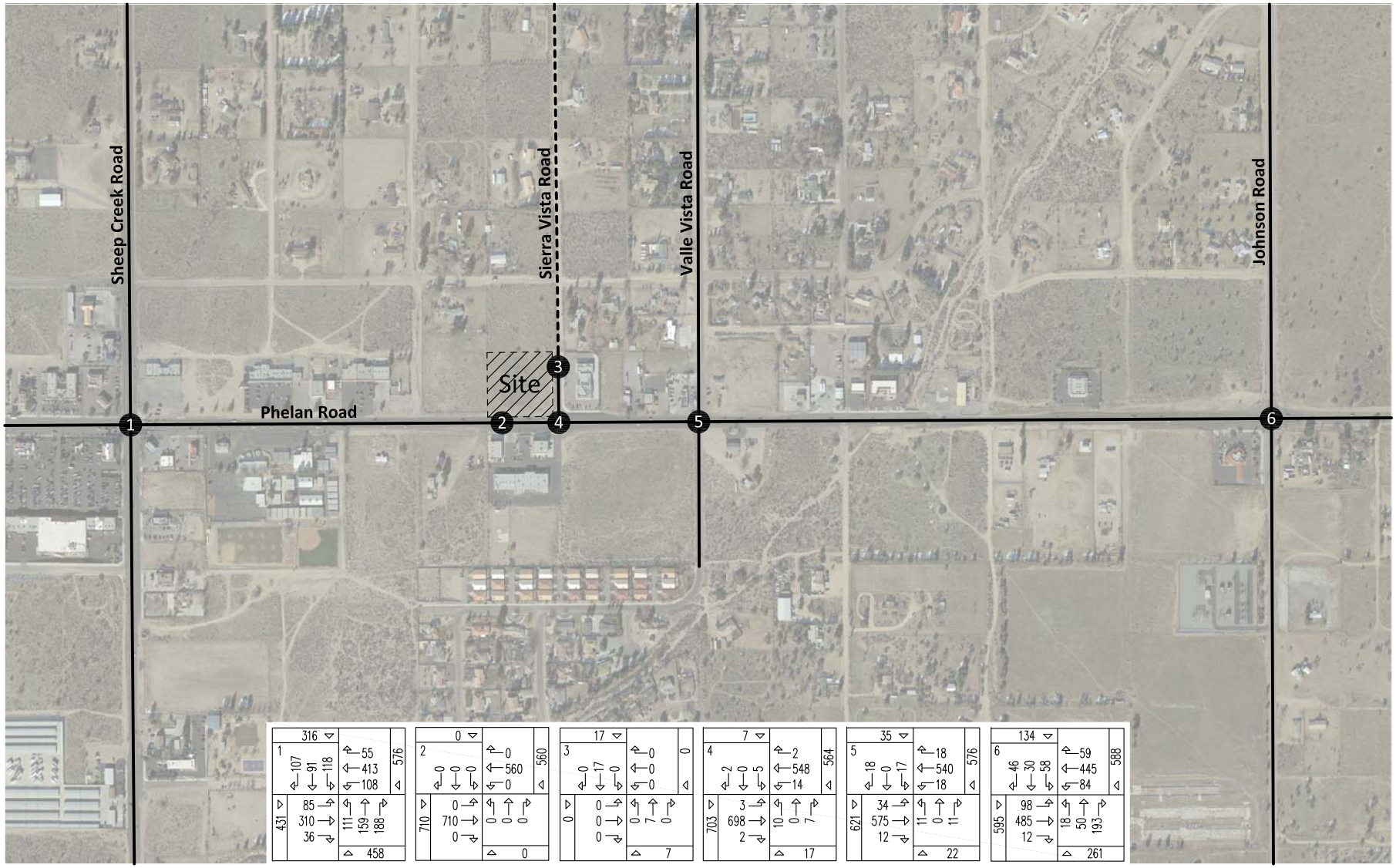
Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

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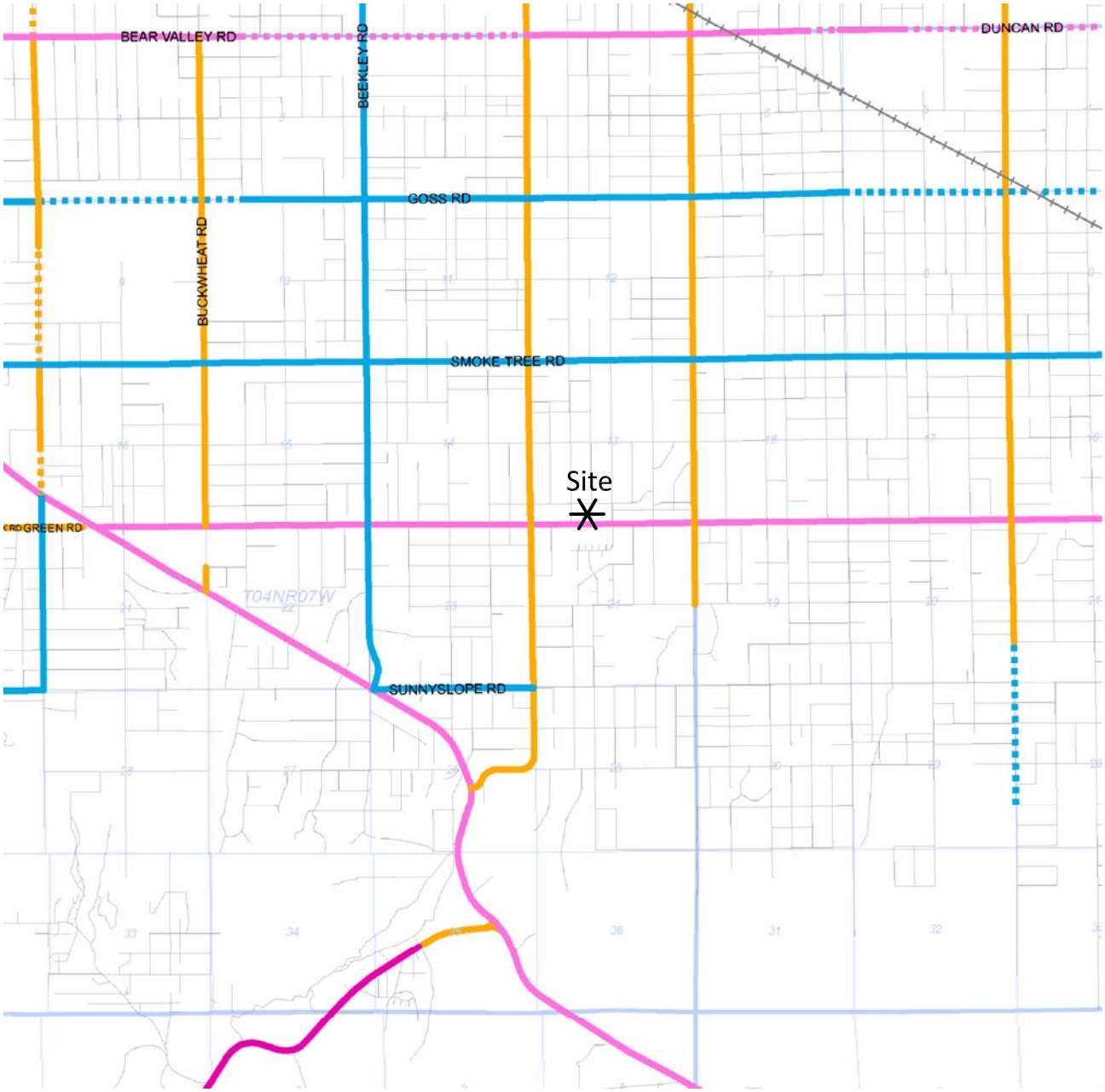
Figure 7
County of San Bernardino General Plan Circulation Element



Legend

Existing	Proposed
	Freeway
	Major Divided Highway
	Major Arterial Highway
	Major Highway
	Secondary Highway
	Controlled/Limited Access Collector
	Mountain Major Highway
	Mountain Secondary Highway
	State Highway (Special Standards or Conditions)

Park & Ride — Railroad — Airport / Airfield

KUNZMAN ASSOCIATES, INC. Source: County of San Bernardino JN 6368

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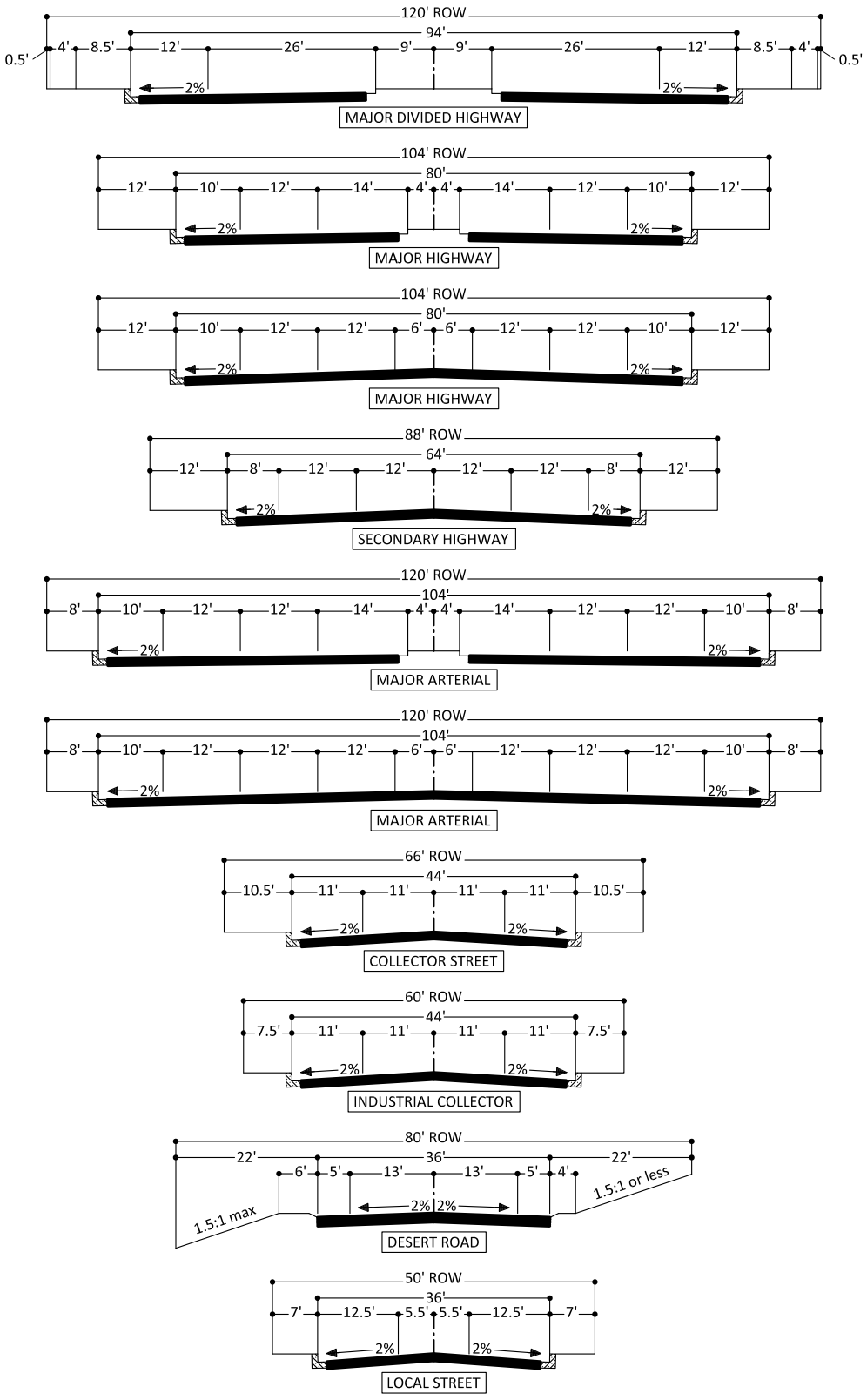
Figure 8
County of San Bernardino General Plan Roadway Cross-Sections



KUNZMAN ASSOCIATES, INC. Source: County of San Bernardino JN 6368

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III. PROJECT TRIPS

A. Project Description

The project site is proposed to be developed with 9,100 square feet of variety store land use on a vacant 1.87 acre parcel.

B. Trip Generation

The trips generated by the project are 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 life styles remain similar to what are known today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily trips, morning peak hour inbound and outbound trips, and evening peak hour inbound and outbound trips for the proposed land use. By multiplying the trip generation rates by the land use quantity, the traffic volumes are determined. Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012.

As shown in Table 2, the proposed development is projected to generate approximately 583 daily vehicle trips, 35 which will occur during the morning peak hour and 62 of which will occur during the evening peak hour.

It should be noted that for variety store land use, a portion of the trips would come from pass-by trips, trips that are currently on the roadway system. In order to analyze a "conservative" scenario in terms of the assignment of traffic, the traffic volumes from the variety store have not been reduced as a result of pass-by trips.

C. Trip Distribution

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

D. Trip Assignment

Based on the identified trip 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 12and 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 (Opening Year or Horizon Year) 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.

For Opening Year (2017), Figure 14 graphically depicts the project trip contribution test volumes on all of the roadways segments adjacent to the potential intersection analysis locations previously identified, until the project volume contribution has clearly dropped below the 50 trip threshold and 100 trip threshold.

The project does not contribute trips greater than the freeway threshold volume of 100 two-way peak hour trips. The project does contribute trips greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the County of San Bernardino.

Table 2

Project Trip Generation[1]

Land Use	Quantity	Units[2]	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Trip Generation									
Variety Store		TSF	2.29	1.52	3.81	3.41	3.41	6.82	64.03
Trips Generated									
Variety Store	9.100	TSF	21	14	35	31	31	62	583

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, Land Use Category 814. Inbound/ outbound trip distribution split utilizes the morning and evening peak hour inbound/outbound ratio splits for specialty retail/strip commercial from the San Diego Association of Governments, Traffic Generators, May 2003.

[2] TSF = Thousand Square Feet.

Figure 9
Project Outbound Trip Distribution

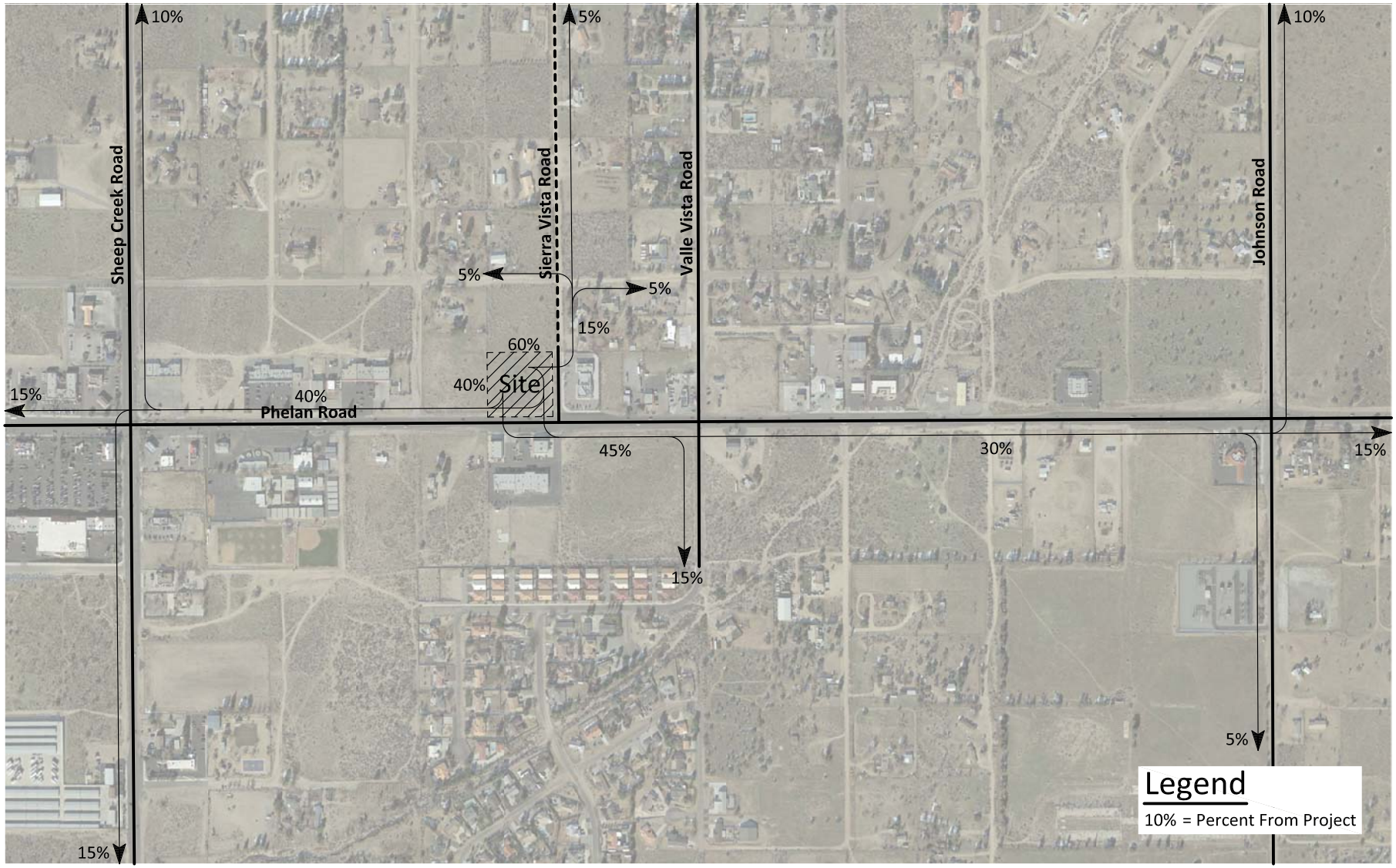

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Figure 10
Project Inbound Trip Distribution

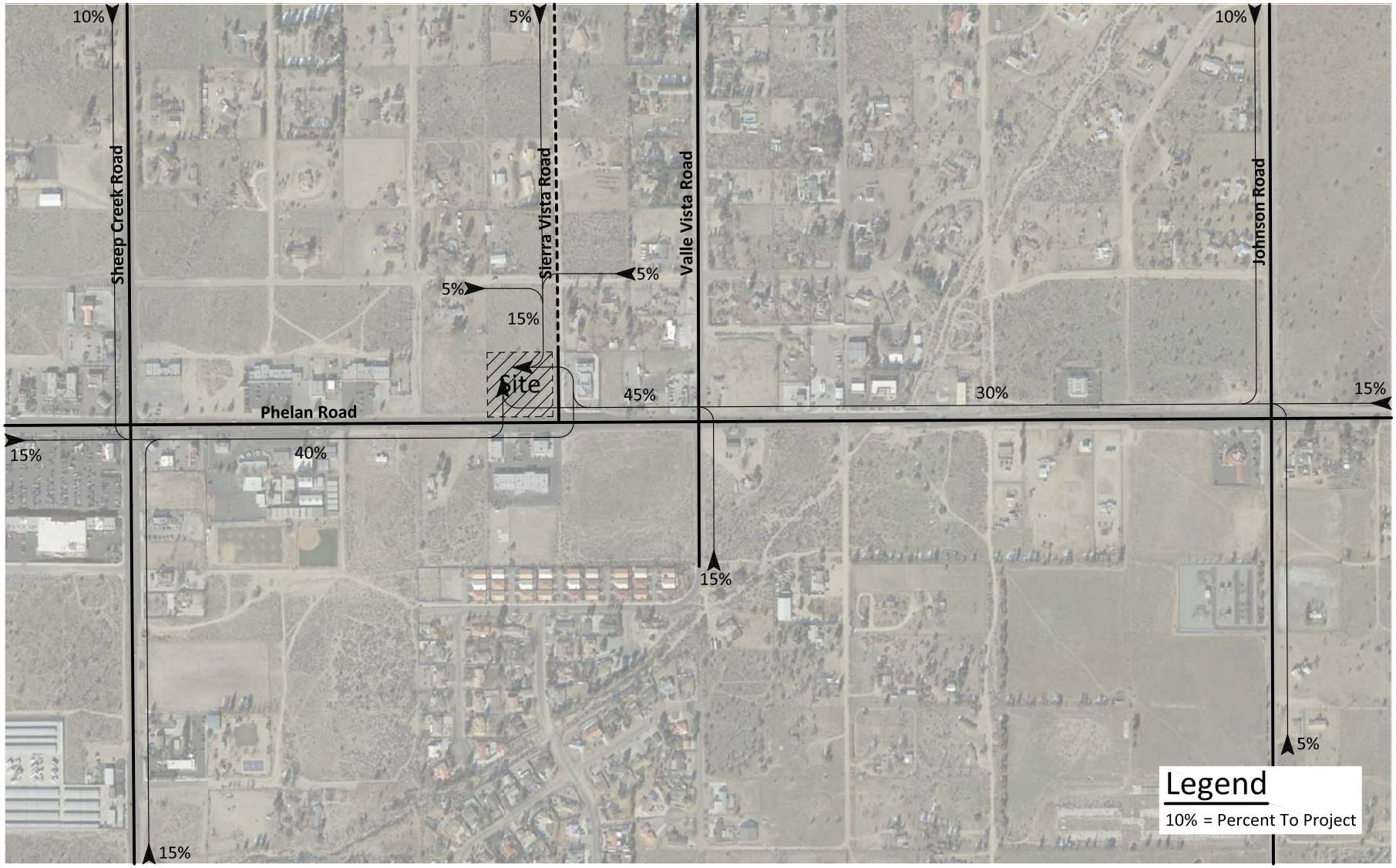

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Figure 11
Project Average Daily Traffic Volumes

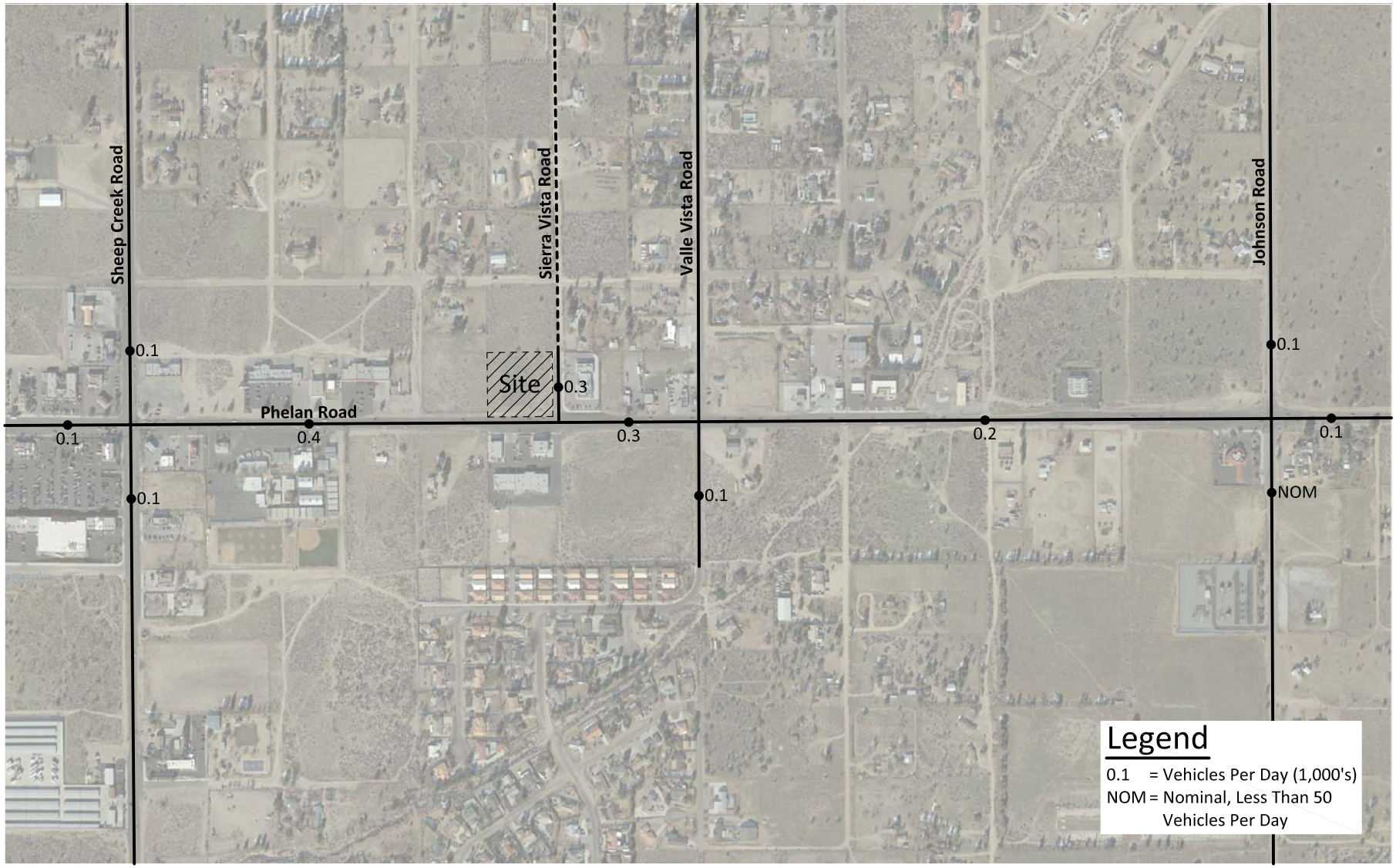

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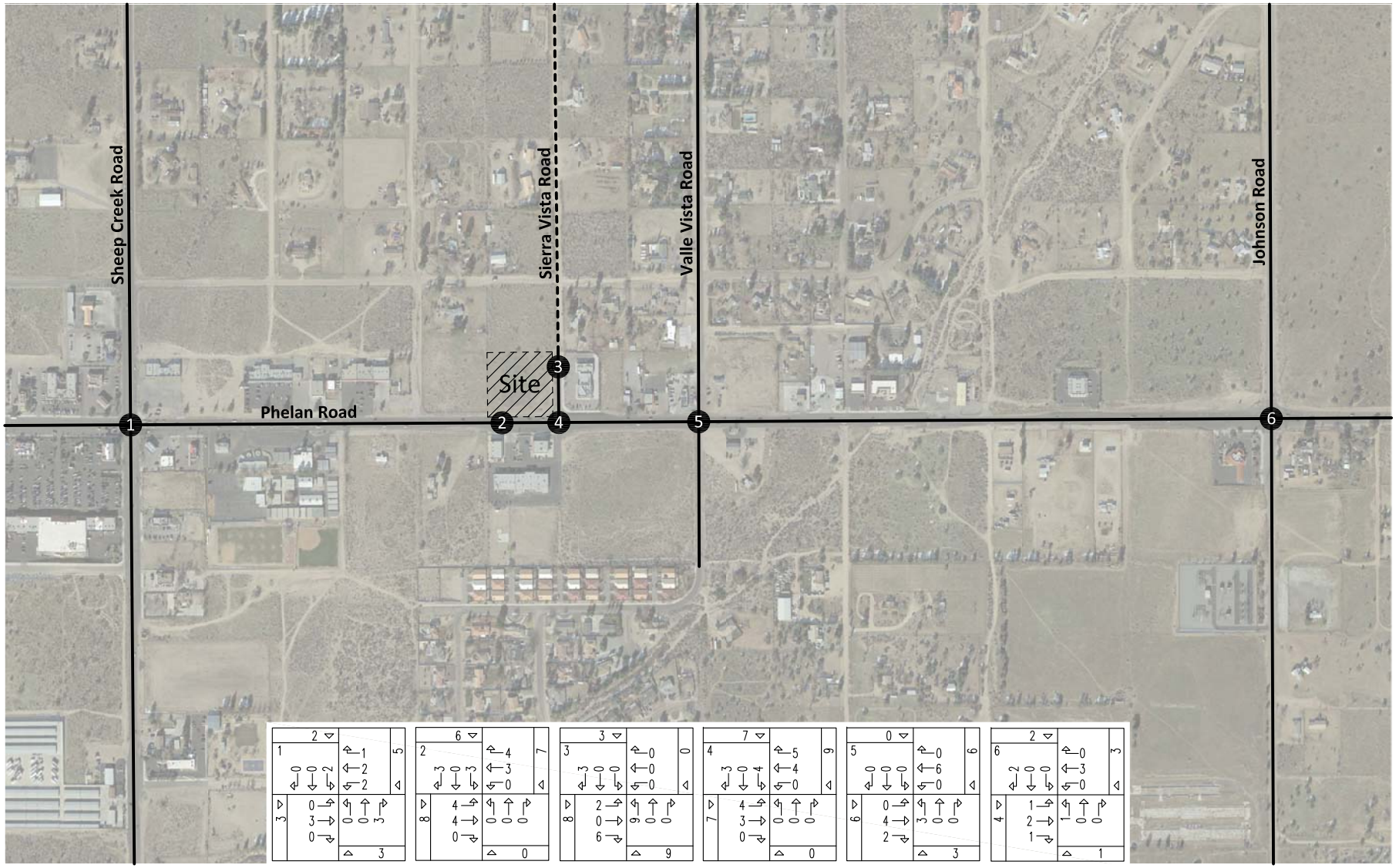
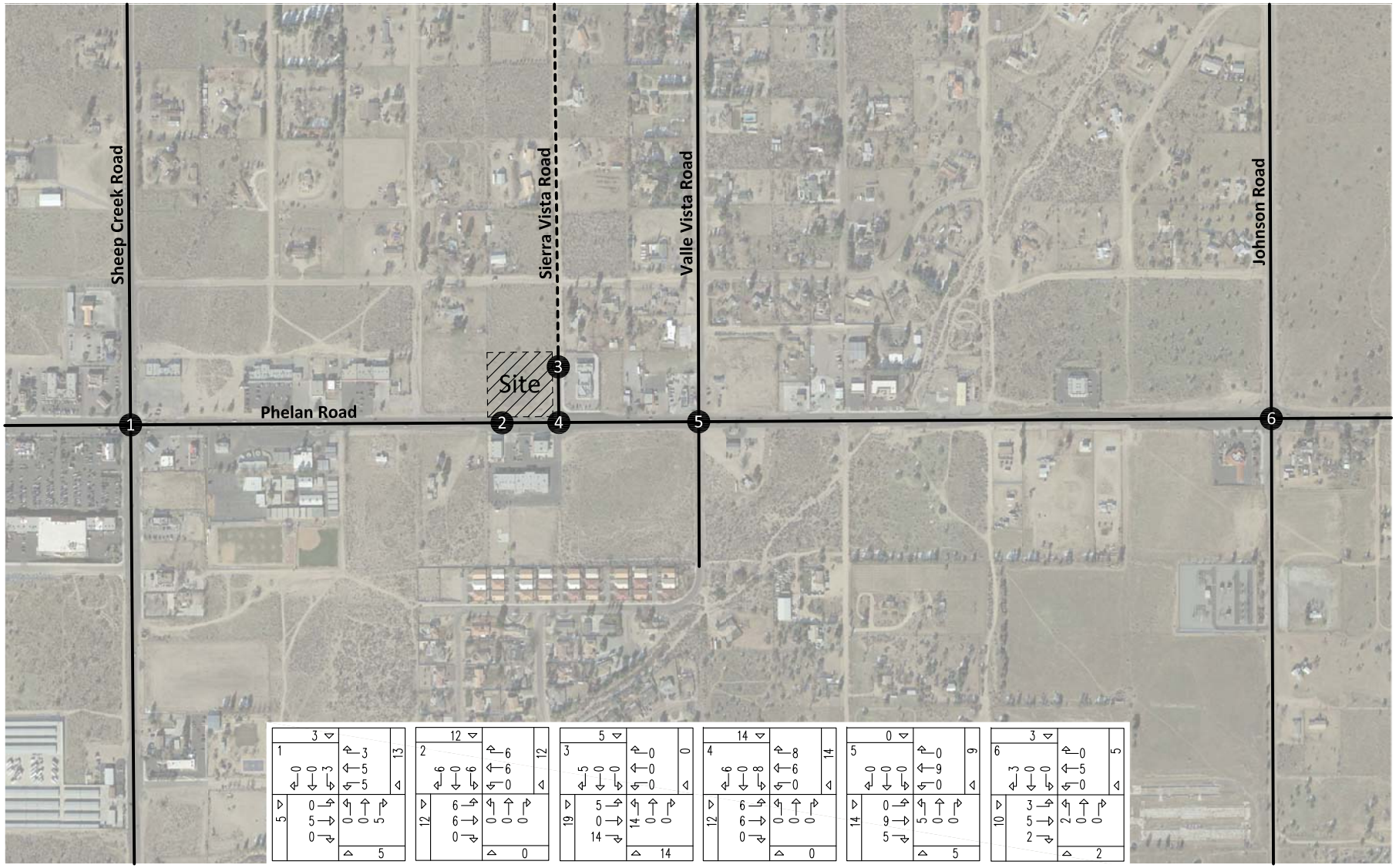
Figure 12
Project Morning Peak Hour Intersection Turning Movement Volumes



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

Figure 13
Project Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

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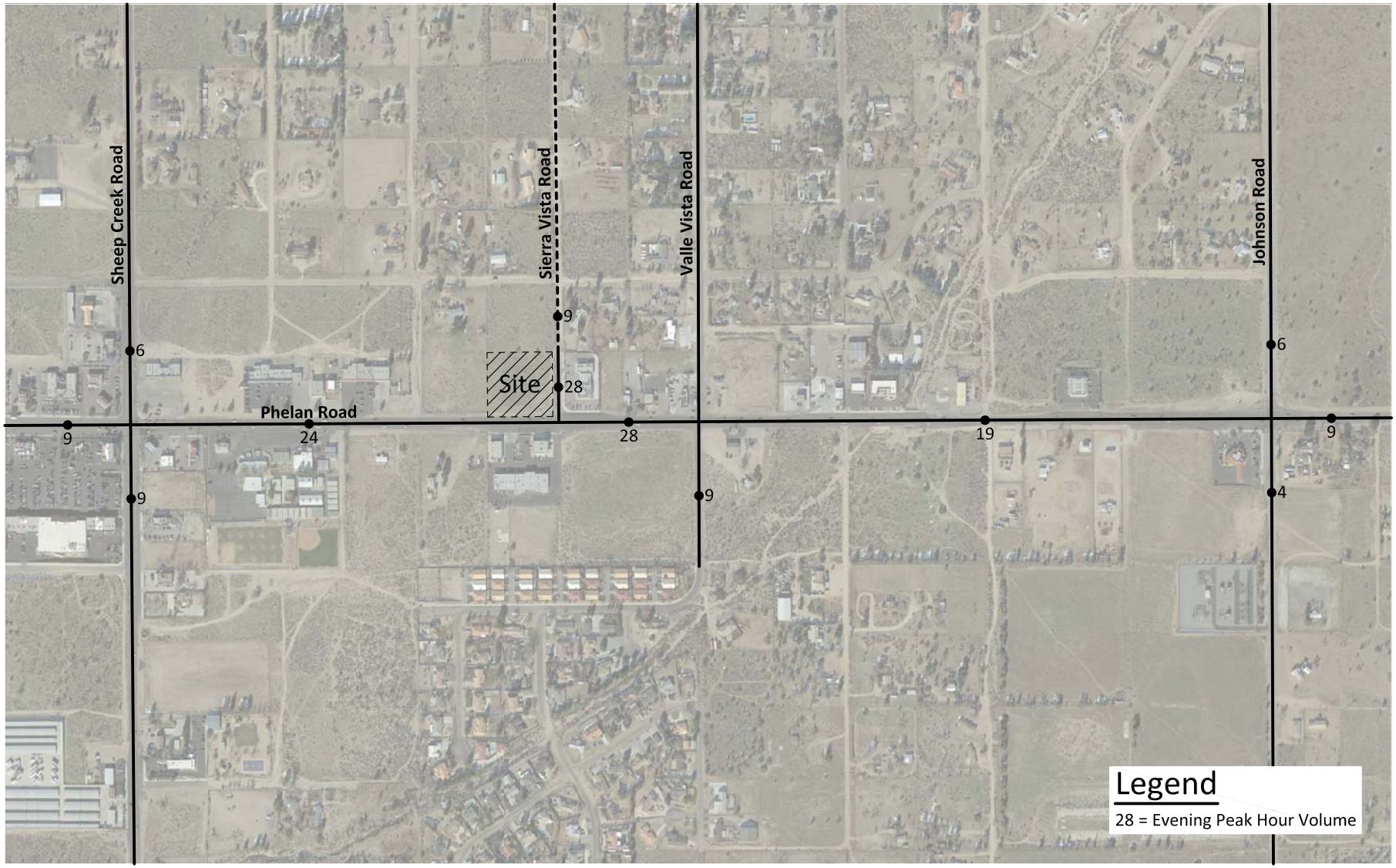
Figure 14
Project Traffic Contribution Test Volumes



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OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

IV. FUTURE CONDITIONS

A. Other Development Trip Generation

1. Method of Projection

To assess Opening Year traffic conditions, project traffic is combined with existing traffic, areawide growth, and other development. For this analysis, the Opening Year (2017) traffic volumes include the project related trips the total other development volumes.

2. Areawide Growth

To account for areawide growth on roadways, the future without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model Year 2008 and Year 2035 peak hour volumes.

3. Other Development

Potential other developments within the study area are included in the analysis if they are not currently built, they are approved, their approval has not expired, and they would contribute trips to the study area intersections. The San Bernardino Transportation Analysis Model, used to determine background traffic, projects traffic volumes based on the projected job/housing table for a particular zone and generates trips at the zone level. Since the traffic model does recognize development on a project or parcel basis, these other developments are included to provide a comprehensive analysis for growth augmentation of the San Bernardino Transportation Analysis Model data.

Table 3 lists the proposed land uses for the nearby development (see Figure 15). Table 3 shows the daily and peak hour vehicle trips generated by the other development in the study area. Other development trip distributions are shown on Figures 16 and 17. Other development average daily traffic volumes are shown on Figure 18. Other development morning and evening peak hour turning movement volumes are shown on Figures 19 to 20, respectively.

B. Future Volumes

As described within Section I.C, the Year 2035 average daily traffic volume forecasts with the project are developed using a growth increment process based on volumes predicted by the San Bernardino Transportation Analysis Model Year 2008 and Year 2035 traffic models. The growth increment for Year 2035 on each roadway segment is the increase in traffic model volumes from existing Year 2014 to Year 2035. The final Year 2035 roadway segment volume used for analysis purposes is then determined by adding the Year 2035 growth increment volume to the existing counted volume.

1. Existing Plus Project

The average daily traffic volumes for Existing Plus Project traffic conditions have been determined. Existing Plus Project average daily traffic volumes are shown on Figure 21.

2. Opening Year (2017) With Project (No Other Development)

The average daily traffic volumes for Opening Year (2017) With Project (No Other Development) traffic conditions have been determined as described above using the growth interpolation process (see Section I.C.). Opening Year (2017) With Project (No Other Development) average daily traffic volumes are shown on Figure 22.

3. Opening Year (2017) Without Project

The average daily traffic volumes for Opening Year (2017) Without Project traffic conditions have been determined as described above using the growth interpolation process (see Section I.C.). Opening Year (2017) Without Project average daily traffic volumes are shown on Figure 23.

4. Opening Year (2017) With Project

The average daily traffic volumes for Opening Year (2017) With Project traffic conditions have been determined as described above using the volume addition process (see Section I.C.). Opening Year (2017) With Project average daily traffic volumes are shown on Figure 24.

5. Year 2035 With Project (No Other Development)

The average daily traffic volumes for Year 2035 With Project (No Other Development) traffic conditions have been determined as described above using the growth interpolation process (see Section I.C.). Year 2035 With Project (No Other Development) average daily traffic volumes are shown on Figure 25.

6. Year 2035 Without Project

The average daily traffic volumes for Year 2035 Without Project traffic conditions have been determined as described above using the growth increment process (see Section I.C.). Year 2035 Without Project average daily traffic volumes are shown on Figure 26.

7. Year 2035 With Project

The average daily traffic volumes for Year 2035 With Project traffic conditions have been determined as described above using the volume addition process (see Section I.C.). Year 2035 With Project average daily traffic volumes are shown on Figure 27.

C. Future Level of Service

Study area intersection delay and level of service values are shown based on existing geometrics (without improvement) and with improvements when the intersection level of service falls below the Level of Service threshold set by the County of San Bernardino. The Existing Plus Project traffic operations analysis is summarized in Table 4. Morning and evening peak hour traffic operations analysis are summarized in Tables 5 to 10 for Opening Year (2017) and the Year 2035 traffic conditions. Intersection delay calculation worksheets for the various traffic conditions are provided in Appendix E.

See Tables 11 and 12 for the Summary of Intersection Improvements and Costs as well as Project Fair Share Intersection Traffic Contribution and Cost.

1. Existing Plus Project

The Existing Plus Project delay and Level of Service for the study area intersections are shown in Table 4. Table 4 shows delay values based on the geometrics at the study area intersections without and with improvements. Existing Plus Project morning and evening peak hour intersection turning movement volumes are shown on Figures 28 and 29, respectively.

For Existing Plus Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

2. Opening Year (2017) With Project (No Other Development)

The Opening Year (2017) With Project (No Other Development) delay and Level of Service for the study area intersections are shown in Table 5. Table 5 shows delay values based on the geometrics at the study area intersections without and with improvements. Opening Year (2017) With Project (No Other Development) morning and evening peak hour intersection turning movement volumes are shown on Figures 30 and 31, respectively.

For Opening Year (2017) With Project (No Other Development) traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

3. Opening Year (2017) Without Project

The Opening Year (2017) delay and Level of Service for the study area intersections without the proposed project are shown in Table 6. Table 6 shows delay values based on the geometrics at the study area intersections without and with improvements. Opening Year (2017) Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 32 and 33, respectively.

For Opening Year (2017) Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

4. Opening Year (2017) With Project

The Opening Year (2017) delay and Level of Service for the study area intersections with the proposed project are shown in Table 7. Table 7 shows delay values based on the geometrics at the study area intersections without and with improvements. Opening Year (2017) With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 34 and 35, respectively.

For Opening Year (2017) With Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

5. Year 2035 With Project (No Other Development)

The Year 2035 With Project (No Other Development) delay and Level of Service for the study area intersections are shown in Table 8. Table 8 shows delay values based on the geometrics at the study area intersections without and with improvements. Year 2035 With Project (No Other Development) morning and evening peak hour intersection turning movement volumes are shown on Figures 36 and 37, respectively.

For Year 2035 With Project (No Other Development) traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service E or F during the peak hours:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 With Project (No Other Development) traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

6. Year 2035 Without Project

The Year 2035 delay and Level of Service for the study area intersections without the proposed project are shown in Table 9. Table 9 shows delay values based on the geometrics at the study area intersections without and with improvements. Year 2035 Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 38 and 39, respectively.

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service F during the peak hours:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

7. Year 2035 With Project

The Year 2035 delay and Level of Service for the study area intersections with the proposed project are shown in Table 10. Table 10 shows delay values based on the geometrics at the study area intersections without and with improvements. Year 2035 With Project delay calculation worksheets are provided in Appendix E. Year 2035 With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 40 and 41, respectively.

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersections that are projected to operate at Level of Service F during the peak hours:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

D. Future Traffic Signal Warrant Analysis

The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (November 2014).

1. With Other Development (No Project)

A traffic signal is projected to be warranted at the following study area intersection for Year 2019 opening year phase 3 for the VVR Commercial project traffic conditions (see Appendix F):

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

2. Without Project (No Other Development)

A traffic signal is projected to be warranted at the following study area intersection for Year 2035 Without (No Other Development) Project traffic conditions (see Appendix F):

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

Table 3

Other Development Trip Generation

Location Number	Other Development	Quantity	Units[1]	Peak Hour						Daily
				Morning			Evening			
				Inbound	Outbound	Total	Inbound	Outbound	Total	
1	Shopping Center (APN: 3066-121-03, -62, -63)[2]	19.882	TSF	41	32	73	106	113	219	2,385
2	Shopping Center (VVR Phase 1 - 2017)[3]	24.77	TSF	28	17	45	53	58	111	1,931
	Shopping Center (VVR Phase 2 to 7 - 2024)[3]	53.047	TSF	123	100	223	172	170	342	6964
Total		97.699	TSF	192	149	341	331	341	672	11,280

[1] TSF = Thousand Square Feet

[2] Source: NEC of Sheep Creek Road and Phelan Road Traffic Impact Analysis, by RK Engineering Group, Inc. (2008)

[3] Source: VVR, LLC Commercial Project Traffic Impact Analysis (Revised), by Kunzman Associates, Inc. (February 19, 2016)/ (SWC Valle Vista Road and Phelan Road).

Table 4

Existing Plus Project Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at: Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	28.9-C	28.3-C
West Driveway (NS) at: Phelan Road (EW) - #2	SB County	**CSS**[5]	0	0	0	0	**1**[5]	0	1[4]	1	d	1[4]	1	**1**[5]	15.7-C	14.9-B
Sierra Vista Road (NS) at: North Driveway (EW) - #3	SB County	**CSS**[5]	0	1	0	0	1	0	0	**1**[5]	0	0	0	0	8.5-A	8.6-A
Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	18.3-C	18.1-C
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	18.9-C	28.8-D
Johnson Road (NS) at: Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	25.6-C	25.2-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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

[4] Two-way left turn lane median.

[5] Project related improvement or lane additon.

Table 5

Opening Year (2017) With Project Only (No Other Development) Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at: Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	29.3-C	28.7-C
West Driveway (NS) at: Phelan Road (EW) - #2	SB County	**CSS**[5]	0	0	0	0	**1**[5]	0	1[4]	1	d	1[4]	1	**1**[5]	15.9-C	14.9-B
Sierra Vista Road (NS) at: North Driveway (EW) - #3	SB County	**CSS**[5]	0	1	0	0	1	0	0	**1**[5]	0	0	0	0	8.5-A	8.6-A
Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	18.6-C	18.5-C
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	21.1-C	31.0-D
Johnson Road (NS) at: Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	25.6-C	25.3-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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.

[4] Two-way left turn lane median.

[5] Project related improvement or lane additon.

Table 6

Opening Year (2017) Without Project Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at: Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	29.3-C	29.1-C
Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	20.7-C	20.1-C
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	21.5-C	32.8-D
Johnson Road (NS) at: Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	25.6-C	25.4-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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.

[4] Two-way left turn lane median.

Table 7

Opening Year (2017) With Project Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at: Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	29.5-C	29.3-C
West Driveway (NS) at: Phelan Road (EW) - #2	SB County	**CSS**[5]	0	0	0	0	**1**[5]	0	1[4]	1	d	1[4]	1	**1**[5]	16.2-C	15.8-C
Sierra Vista Road (NS) at: North Driveway (EW) - #3	SB County	**CSS**[5]	0	1	0	0	1	0	0	**1**[5]	0	0	0	0	8.5-A	8.6-A
Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	19.2-C	19.0-C
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	21.8-C	34.8-D
Johnson Road (NS) at: Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	25.6-C	25.5-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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.

[4] Two-way left turn lane median.

[5] Project related improvement or lane additon.

Table 8

Year 2035 With Project Only (No Other Development) Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at:																
Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	33.1-C	31.6-C
West Driveway (NS) at:																
Phelan Road (EW) - #2	SB County	**CSS**[5]	0	0	0	0	**1**[5]	0	1[4]	1	d	1[4]	1	**1**[5]	18.7-C	16.2-C
Sierra Vista Road (NS) at:																
North Driveway (EW) - #3	SB County	**CSS**[5]	0	1	0	0	1	0	0	**1**[5]	0	0	0	0	8.5-A	8.6-A
Sierra Vista Road (NS) at:																
Phelan Road (EW) - #4	SB County	CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	22.7-C	21.2-C
Valle Vista Road (NS) at:																
Phelan Road (EW) - #5	SB County															
Without Improvements		CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	38.7-E	89.0-F
With Improvements		**TS**[6]	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	10.4-B	15.9-B
Johnson Road (NS) at:																
Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	26.0-C	27.1-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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.

[4] Two-way left turn lane median.

[5] Project related improvement or lane addition.

[6] A traffic signal is projected to be warranted in Year 2035 without project or other development (see Appendix F).

Table 9

Year 2035 Without Project Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at:																
Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	34.1-C	33.6-C
Sierra Vista Road (NS) at:																
Phelan Road (EW) - #4	SB County															
Without Improvements		CSS	0	1	0	0	1	0	1 [4]	1	d	1 [4]	1	1	27.6-D	26.4-D
With Improvements		CSS	0	1	0	0	1	0	1 [4]	**1.5** [5]	0.5	1 [4]	1	1	23.1-C	21.1-C
Valle Vista Road (NS) at:																
Phelan Road (EW) - #5	SB County															
Without Improvements		CSS	0	1	0	0	1	0	1 [4]	1	d	1	0.5	0.5	99.9-F [6]	99.9-F
With Improvements		**TS**[7]	**1** [5]	0.5	0.5	**1** [5]	0.5	0.5	**1** [5]	1	**1** [5]	1	1	**1** [5]	12.8-B	18.9-B
Johnson Road (NS) at:																
Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	28.0-C	27.9-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

[2] Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all way 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.

[4] Two-way left turn lane median.

[5] Other development related improvement or lane addition. Source: VVR, LLC Commercial Project Traffic Impact Analysis (Revised), by Kunzman Associates, Inc. (February 19, 2016)/ (SWC Valle Vista Road and Phelan Road).

[6] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[7] A traffic signal is projected to be warranted in Year 2035 without project or other development (see Appendix F).

Table 10

Year 2035 With Project Intersection Levels of Service

Intersection	Jurisdiction	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
Sheep Creek Road (NS) at:																
Phelan Road (EW) - #1	SB County	TS	1	2	d	1	2	d	1	2	d	1	1.5	0.5	34.2-C	33.8-C
West Driveway (NS) at:																
Phelan Road (EW) - #2	SB County	**CSS**[5]	0	0	0	0	**1**[5]	0	1[4]	1	d	1[4]	1	**1**[5]	20.5-C	18.8-C
Sierra Vista Road (NS) at:																
North Driveway (EW) - #3	SB County	**CSS**[5]	0	1	0	0	1	0	0	**1**[5]	0	0	0	0	8.5-A	8.6-A
Sierra Vista Road (NS) at:																
Phelan Road (EW) - #4	SB County															
Without Improvements		CSS	0	1	0	0	1	0	1[4]	1	d	1[4]	1	1	26.0-D	27.5-D
With Improvements		CSS	0	1	0	0	1	0	1[4]	**1.5**[6]	0.5	1[4]	**1.5**[5]	0.5	22.4-C	20.3-C
Valle Vista Road (NS) at:																
Phelan Road (EW) - #5	SB County															
Without Improvements		CSS	0	1	0	0	1	0	1[4]	1	d	1	0.5	0.5	99.9-F[7]	99.9-F
With Improvements[6]		**TS**[8]	**1**[6]	0.5	0.5	**1**[6]	0.5	0.5	**1**[6]	1	**1**[6]	1	1	**1**[6]	12.9-B	18.9-B
Johnson Road (NS) at:																
Phelan Road (EW) - #6	SB County	TS	1	1	d	1	1	1	1	2	1	1	2	d	28.1-C	28.0-C

[1] When a right turn lane 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; d = De Facto Right Turn Lane; **Bold** = Improvements.

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

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

[4] Two-way left turn lane median.

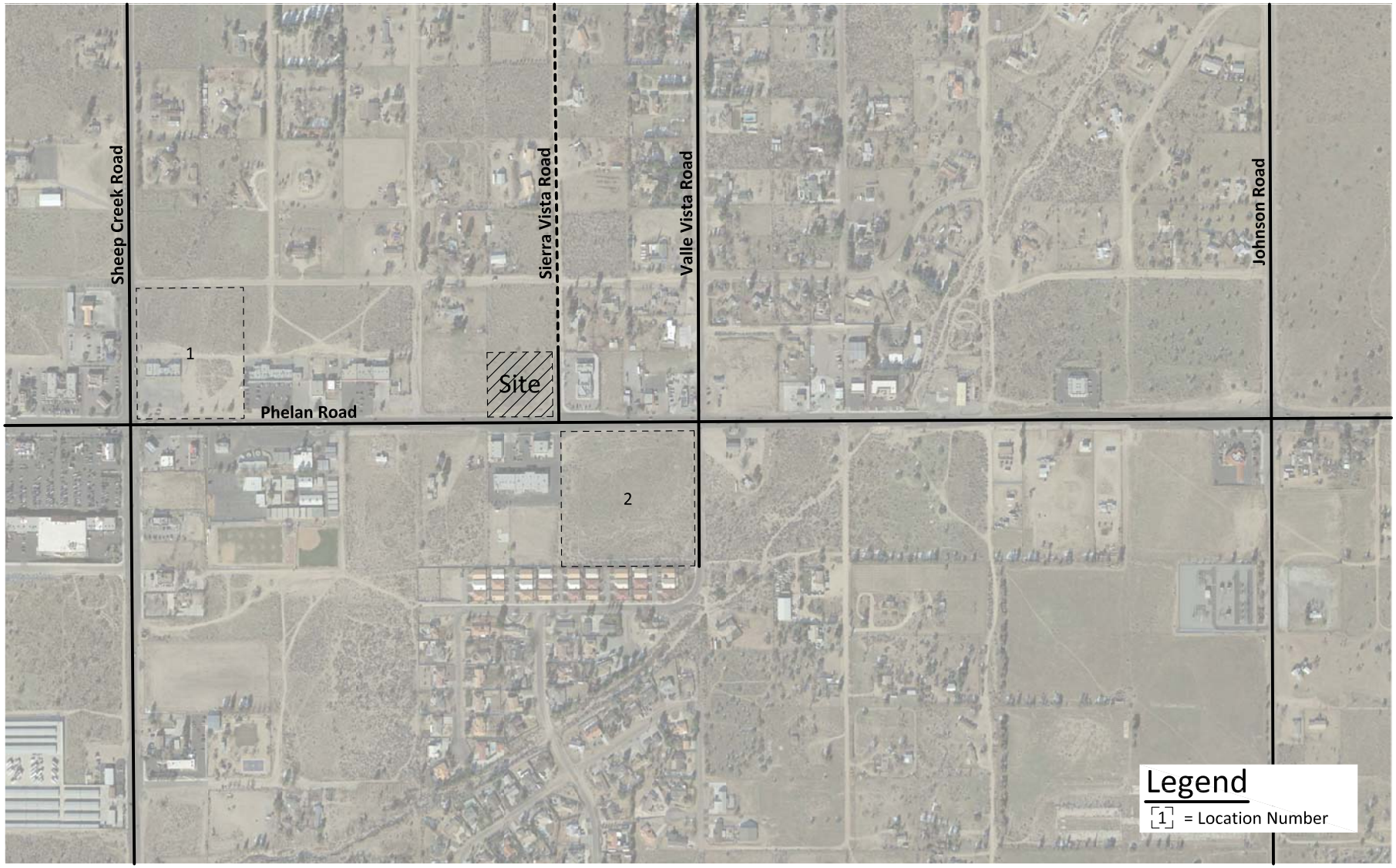
[5] Project related improvement or lane additon.

[6] Other development related improvement or lane addition. Source: VVR, LLC Commercial Project Traffic Impact Analysis (Revised), by Kunzman Associates, Inc. (February 19, 2016)/ (SWC Valle Vista Road and Phelan Road).

[7] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[8] A traffic signal is projected to be warranted in Year 2035 without project or other development (see Appendix F).

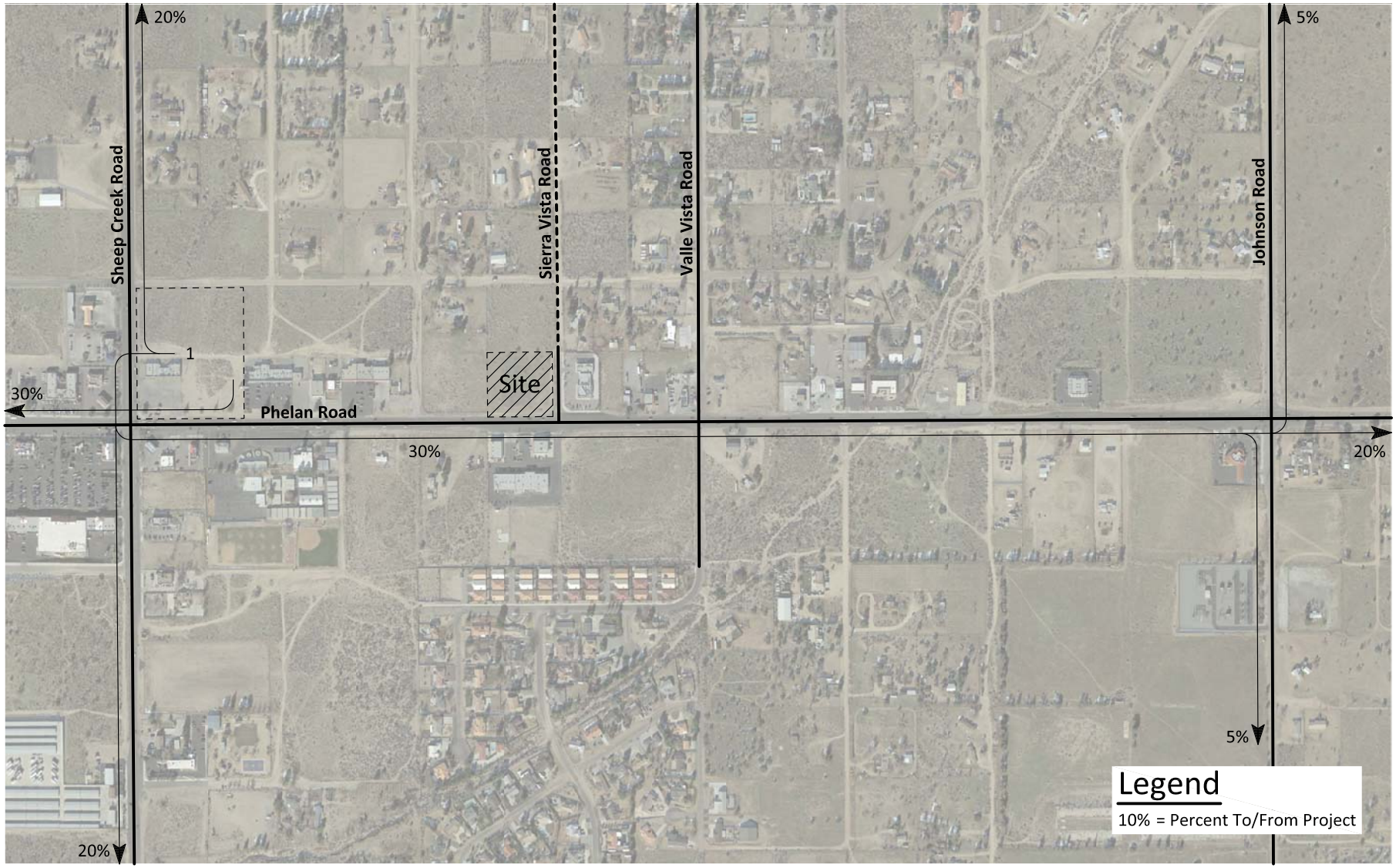
Figure 15
Other Development Location Map



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

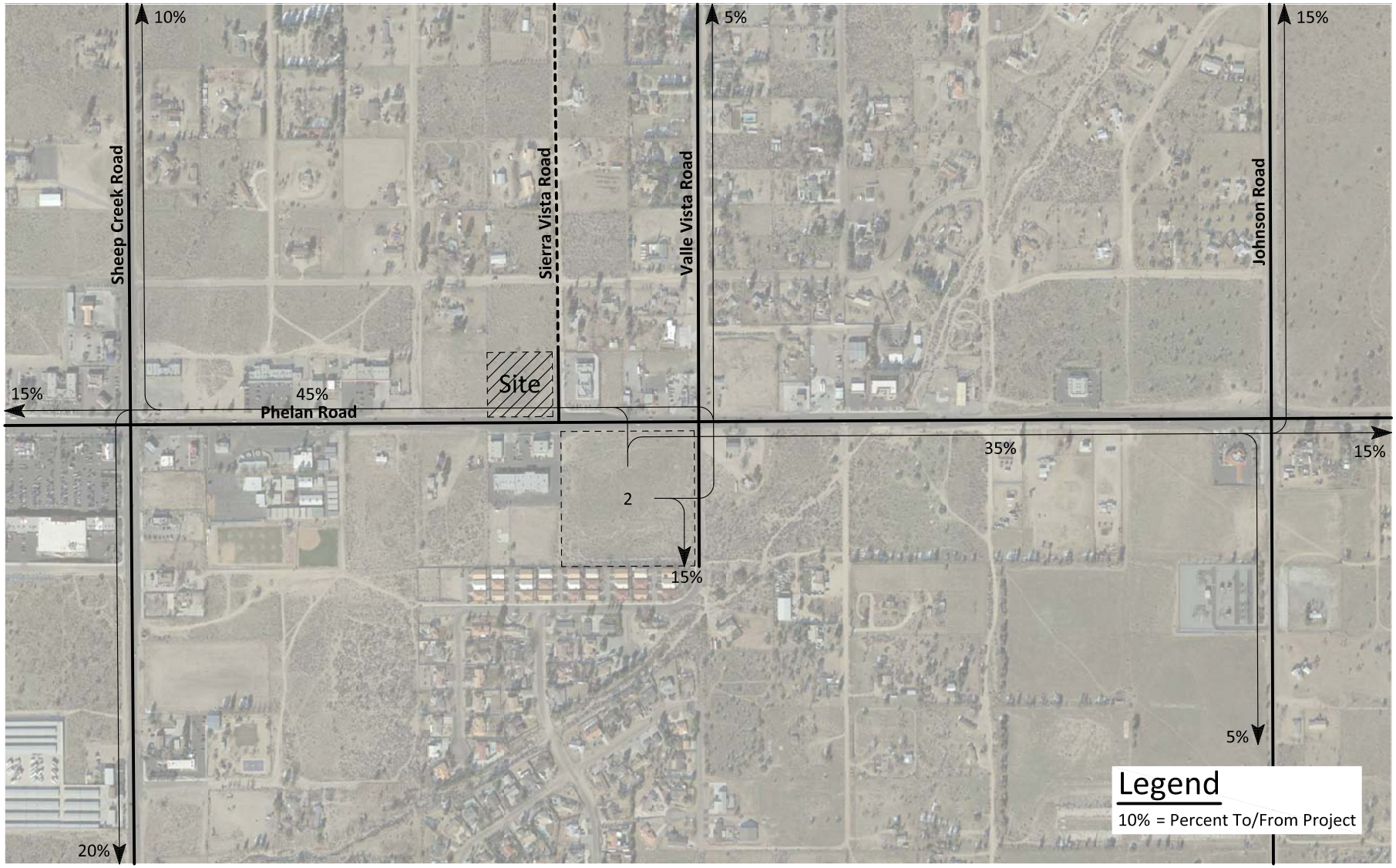
Figure 16
Other Development Trip Distribution - Location 1



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

Figure 17
Other Development Trip Distribution - Location 2

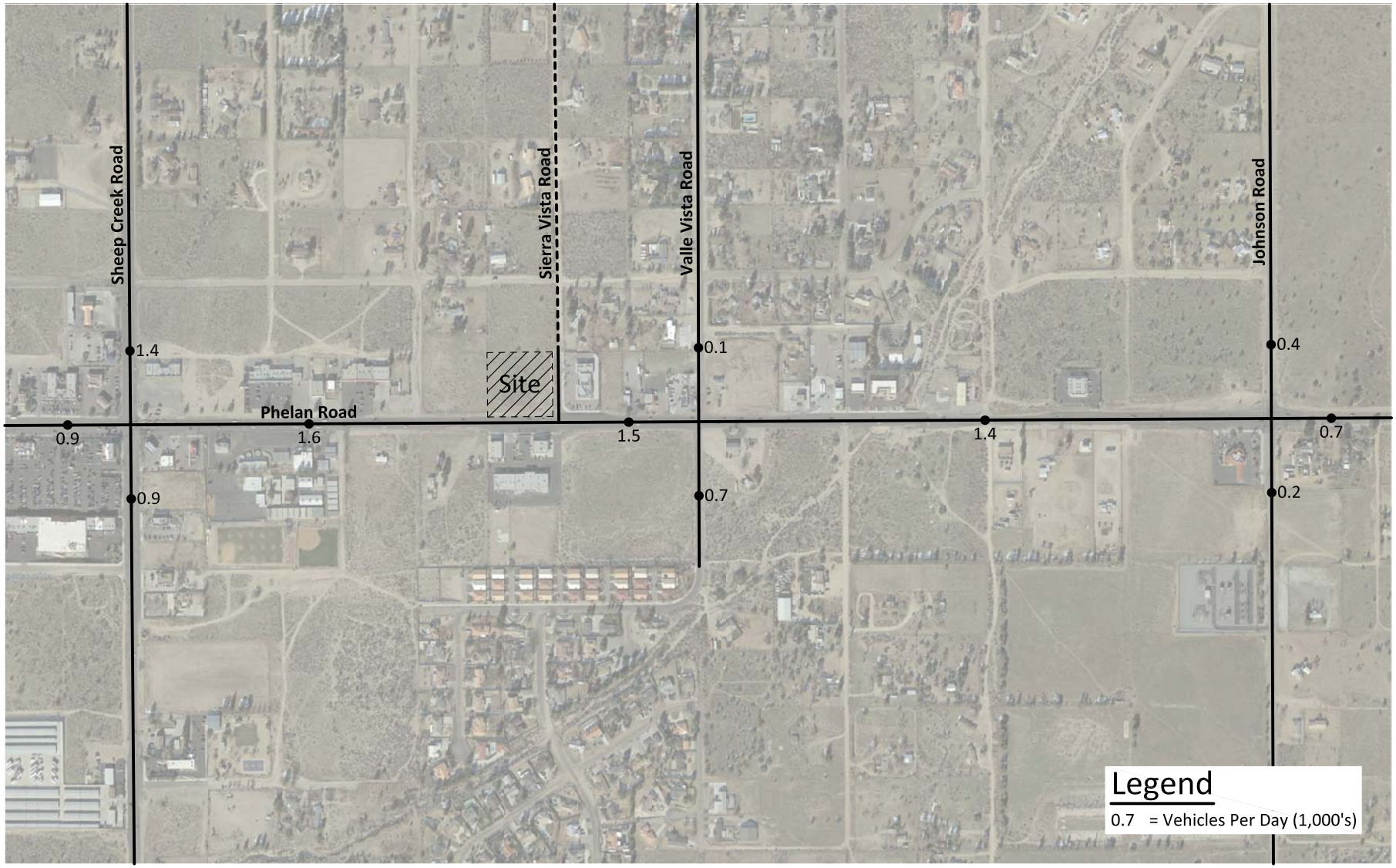


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

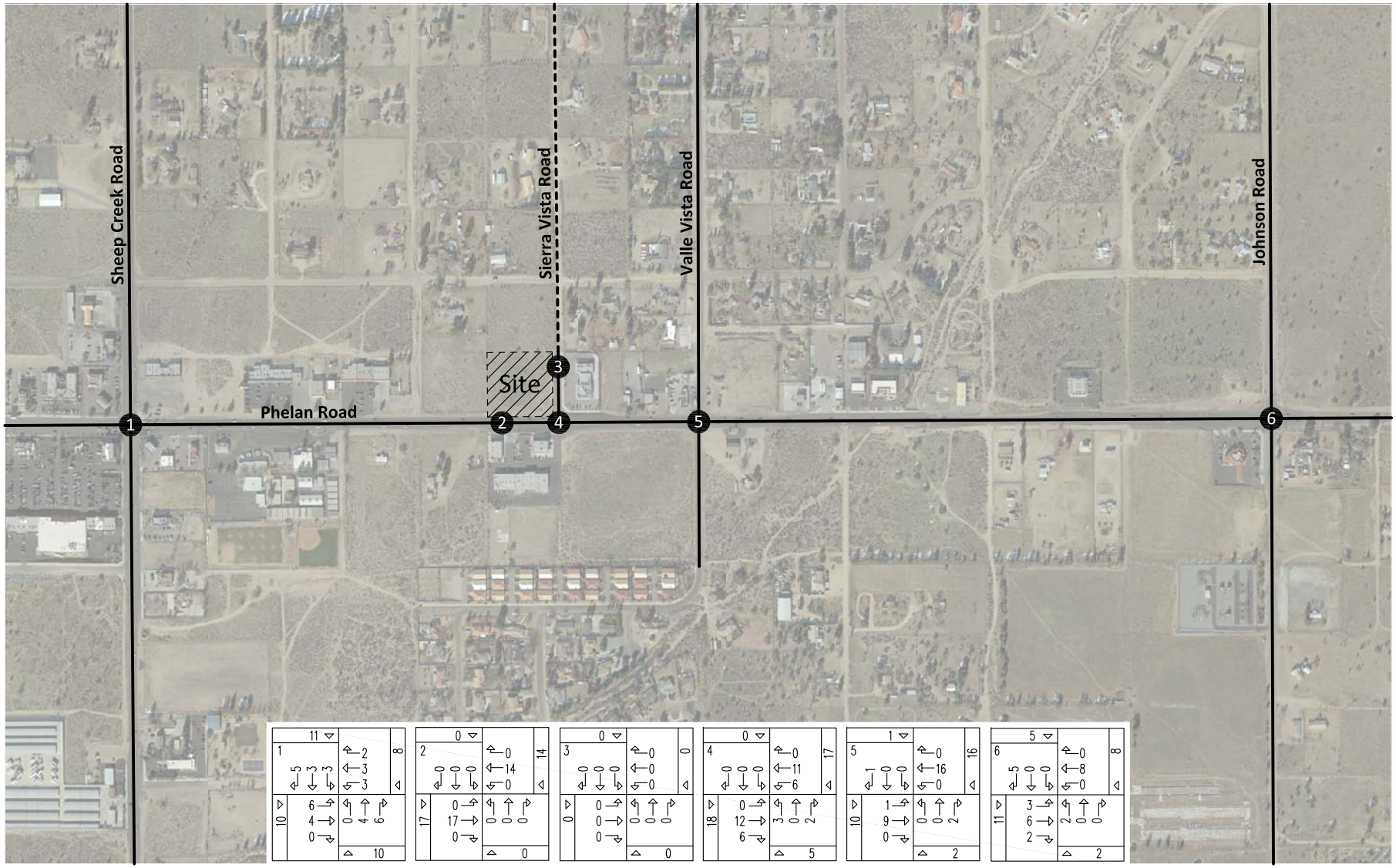
Figure 18
Other Development Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

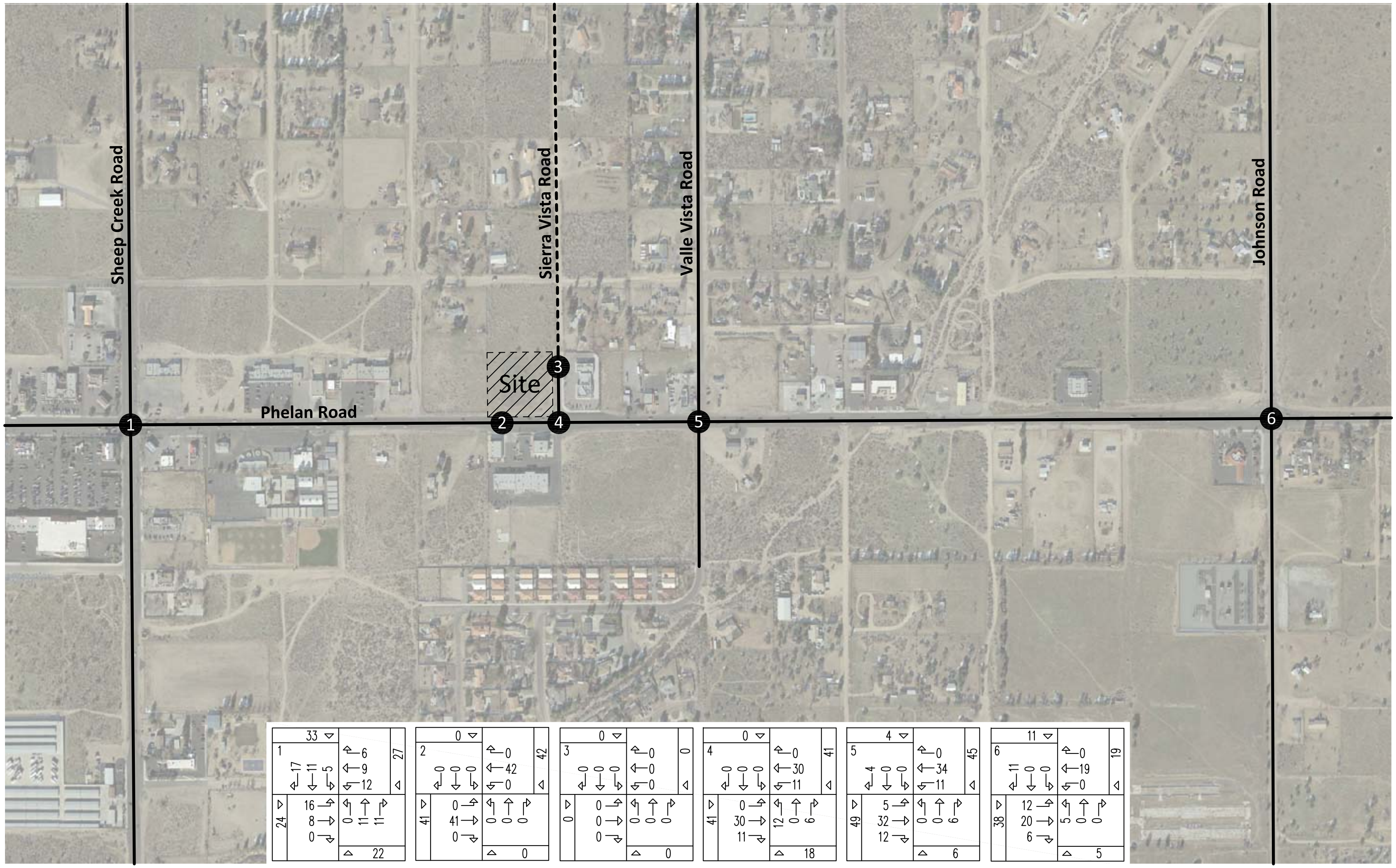
Figure 19
Other Development
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

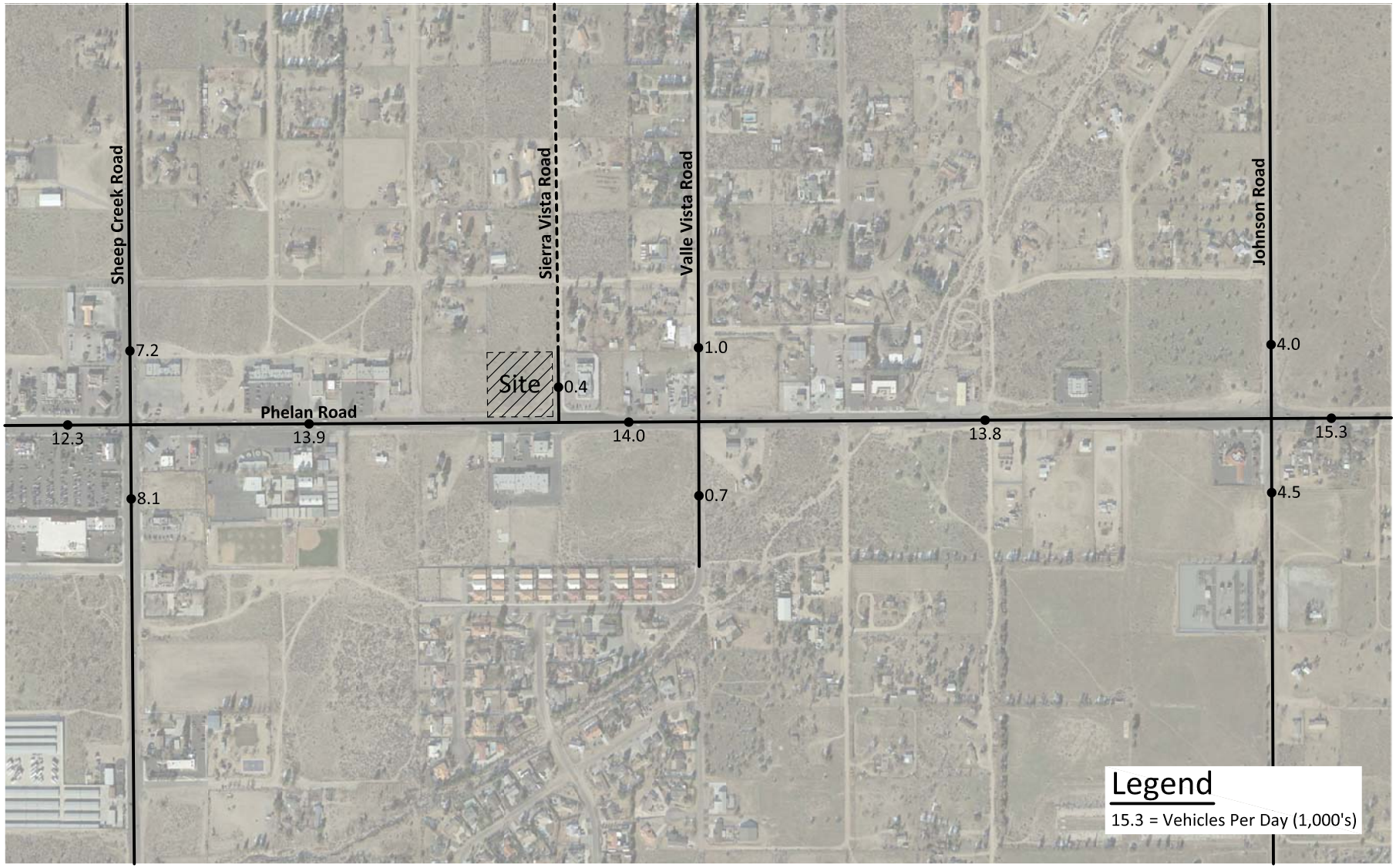
Figure 20
Other Development
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

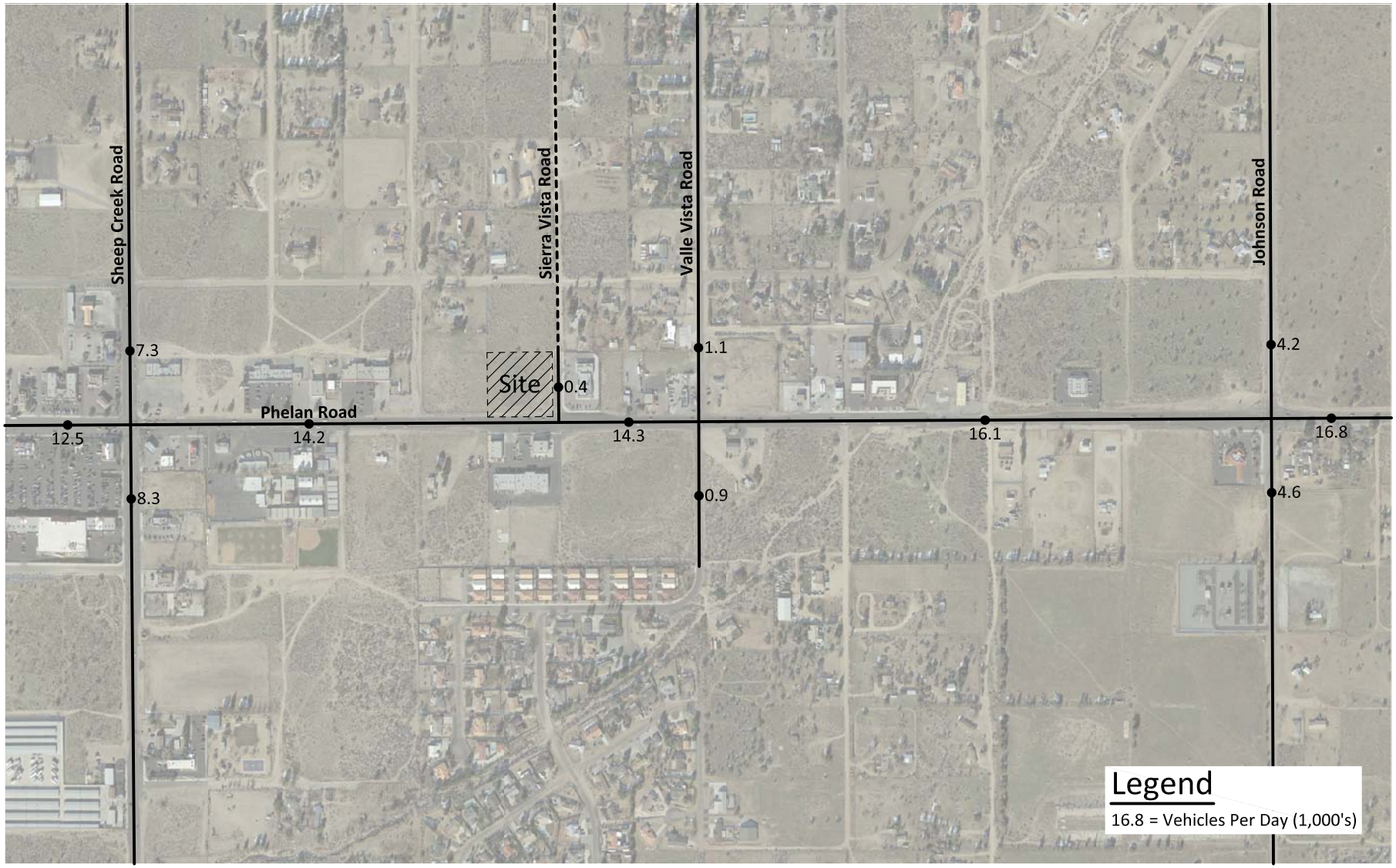
Figure 21
Existing Plus Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

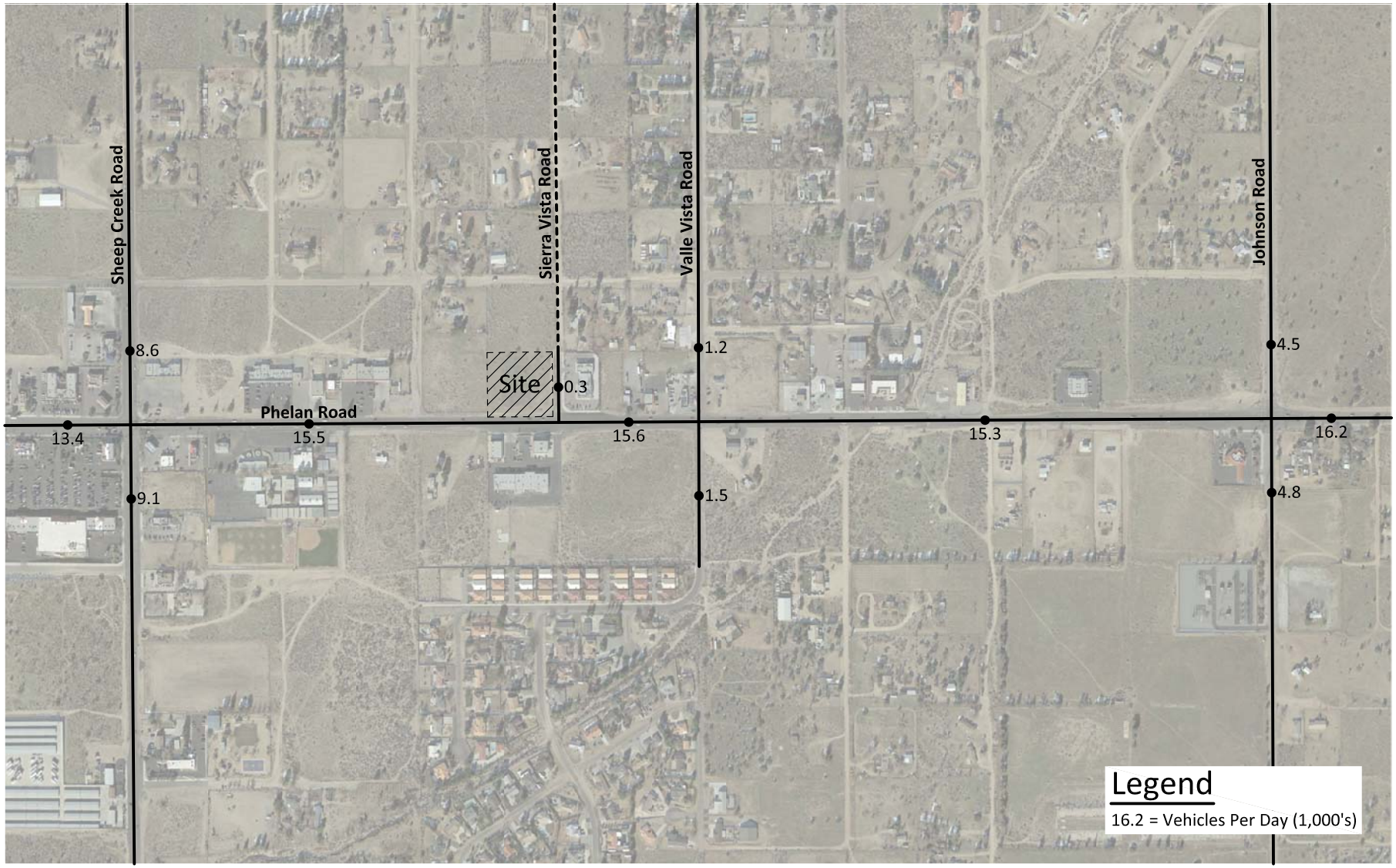
Figure 22
Opening Year (2017) With Project (No Other Development)
Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

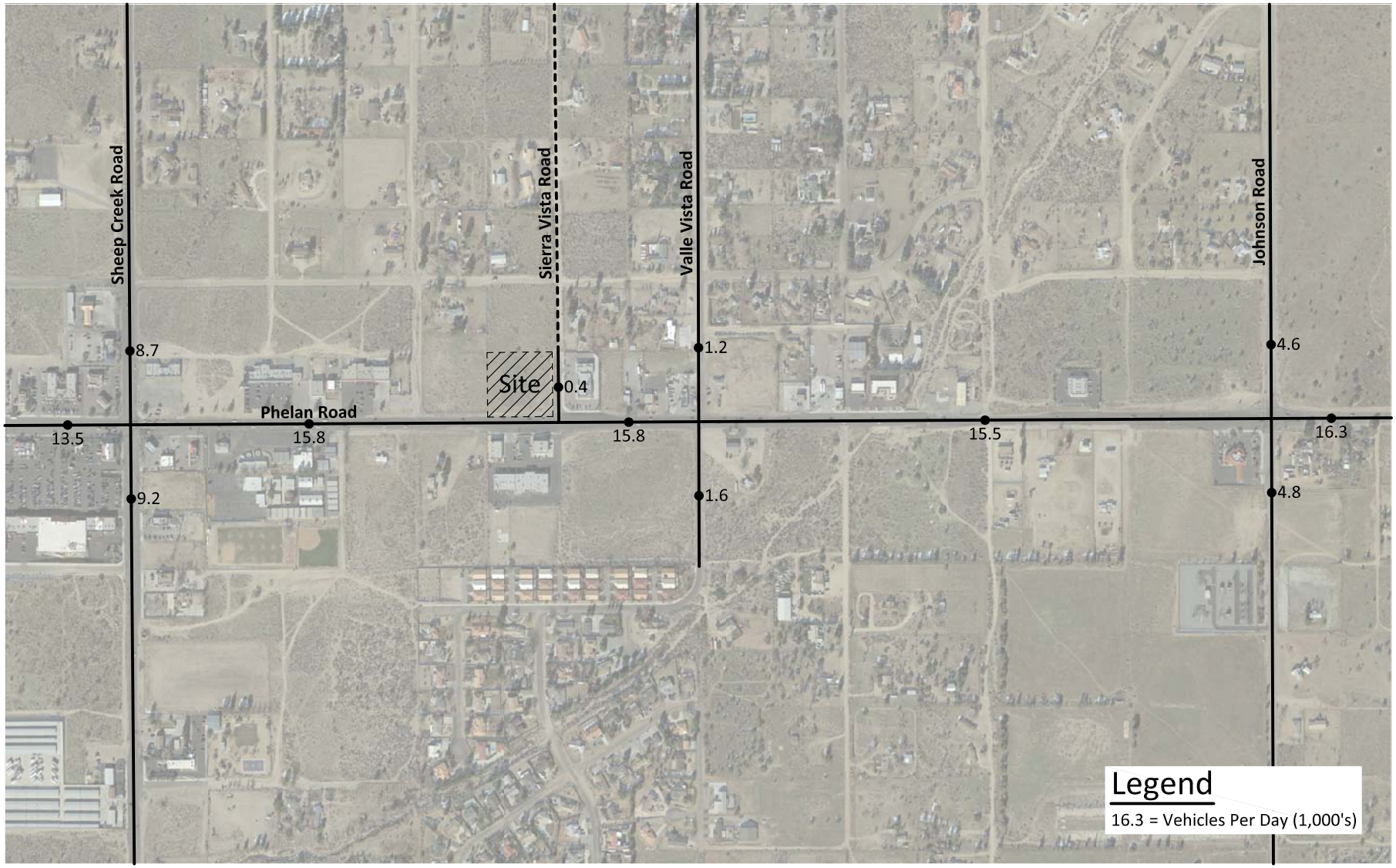
Figure 23
Opening Year (2017) Without Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

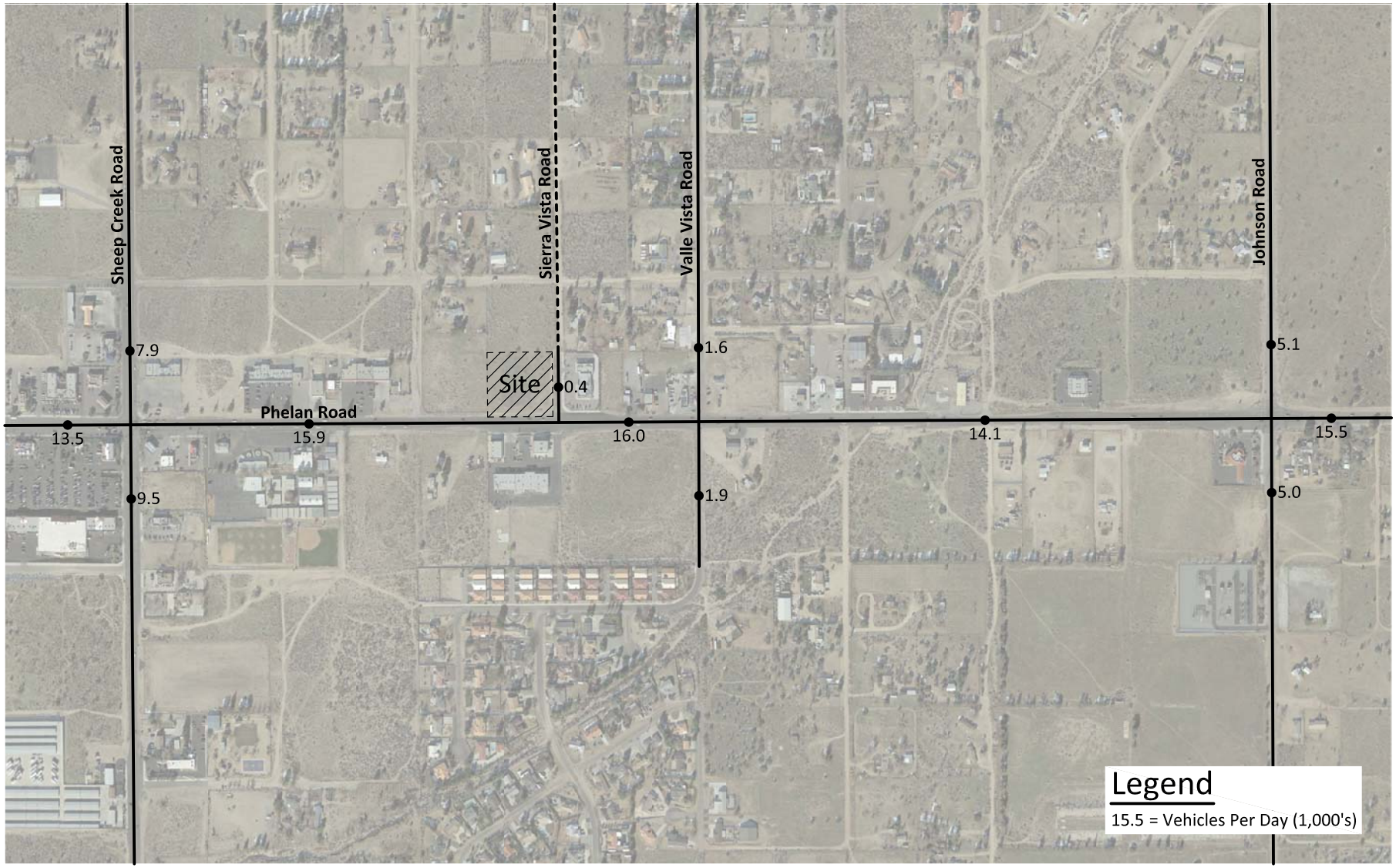
Figure 24
Opening Year (2017) With Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

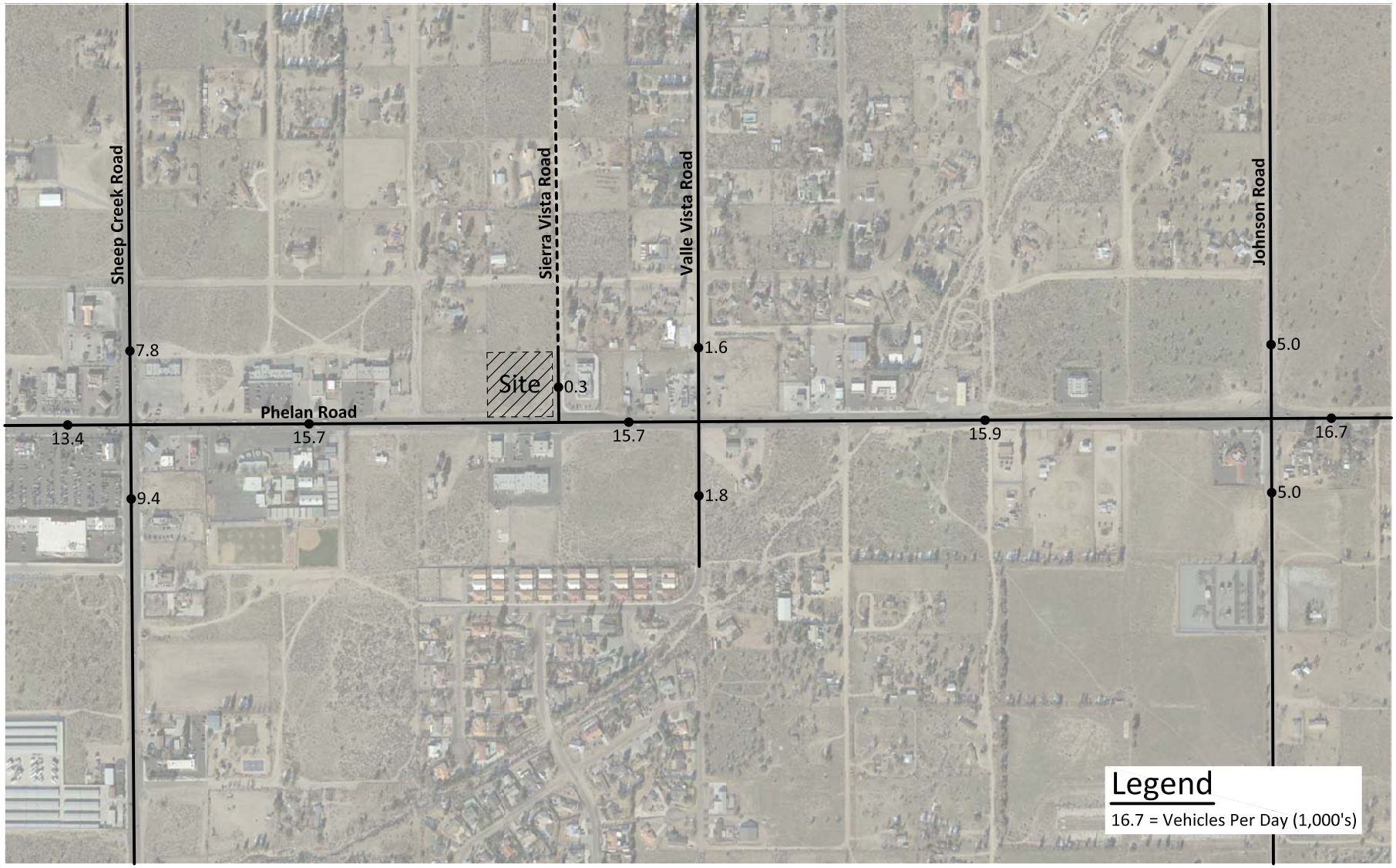
Figure 25
Year 2035 With Project (No Other Development) Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

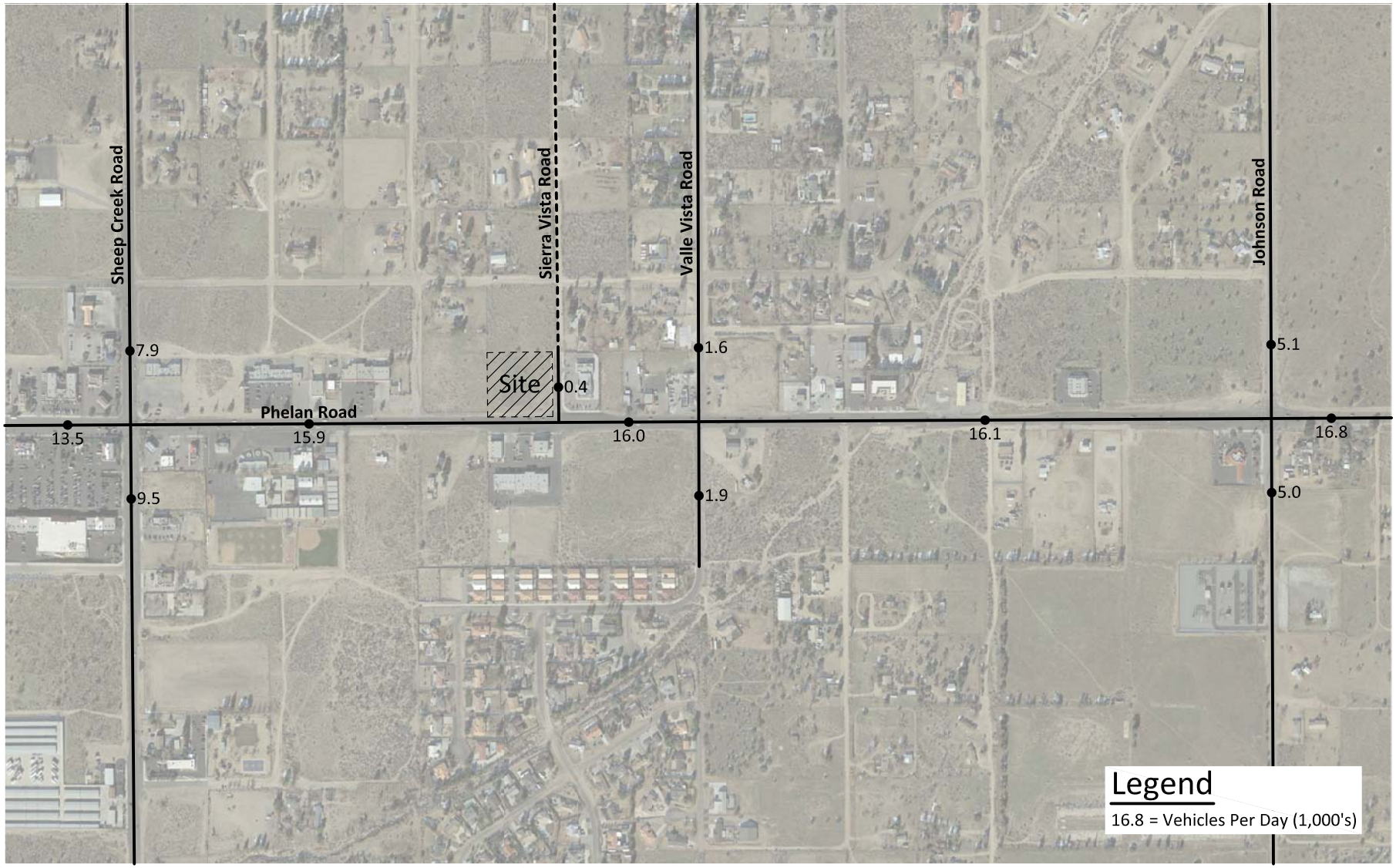
Figure 26
Year 2035 Without Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

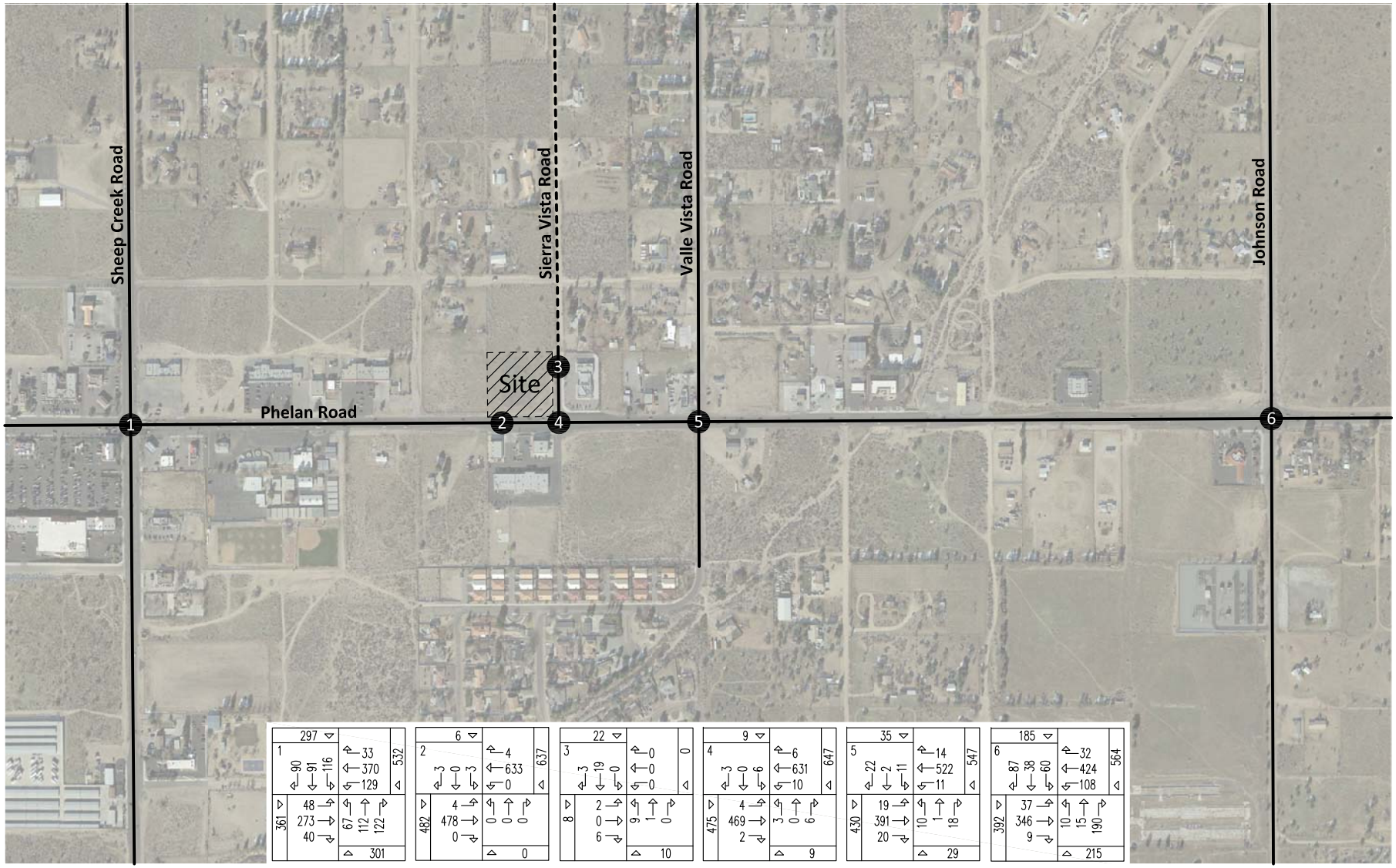
Figure 27
Year 2035 With Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

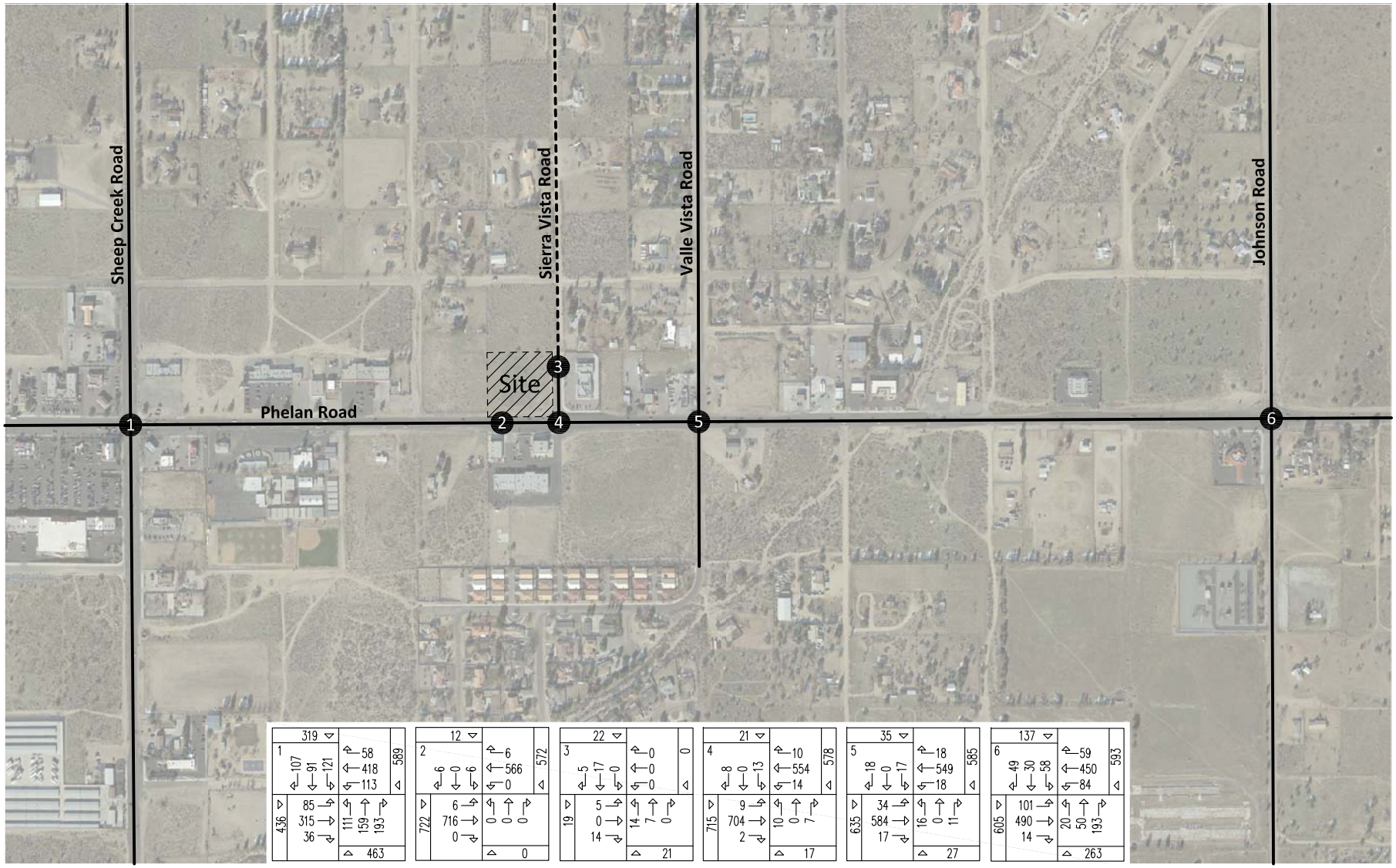
Figure 28
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

Figure 29
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes

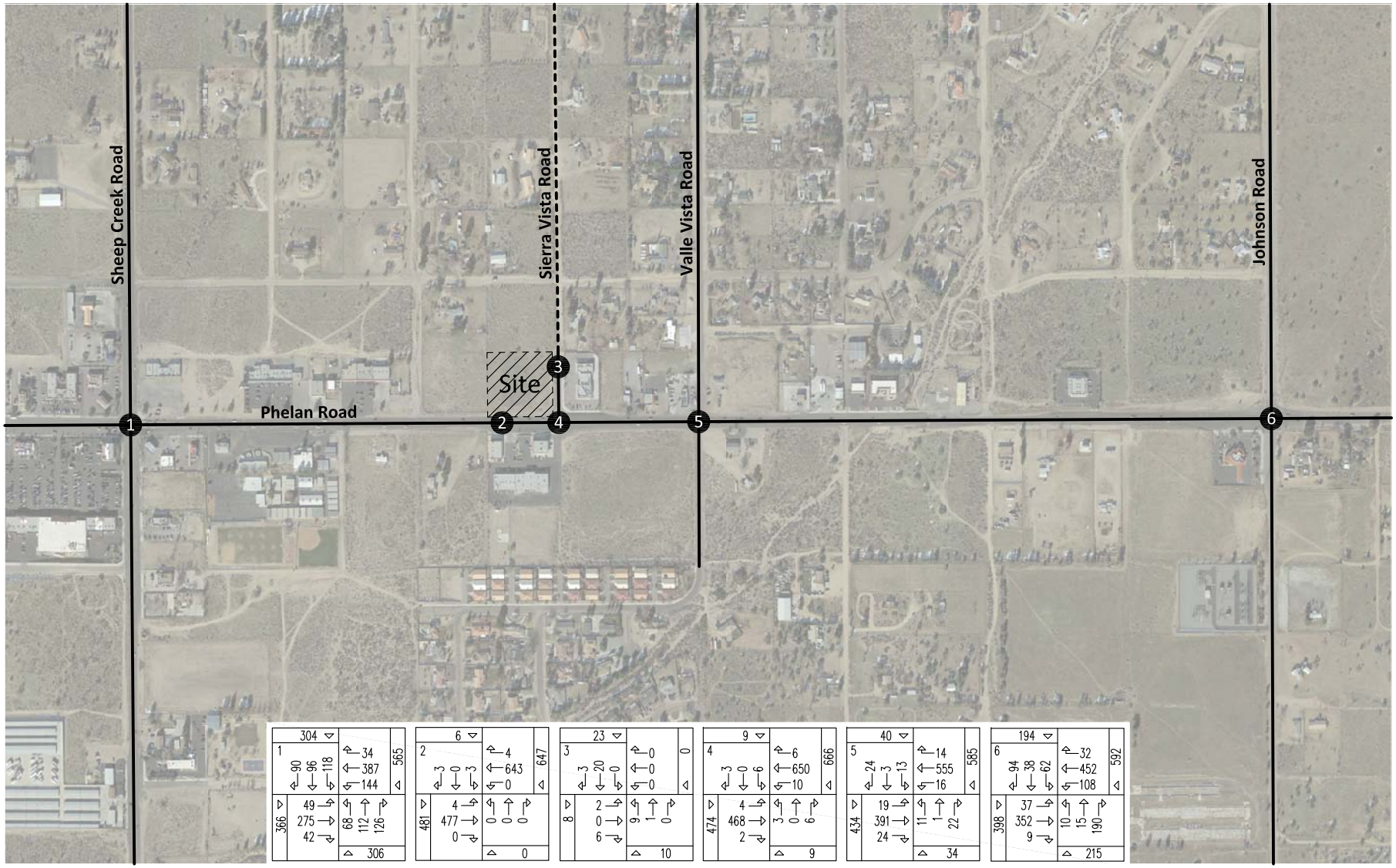


KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

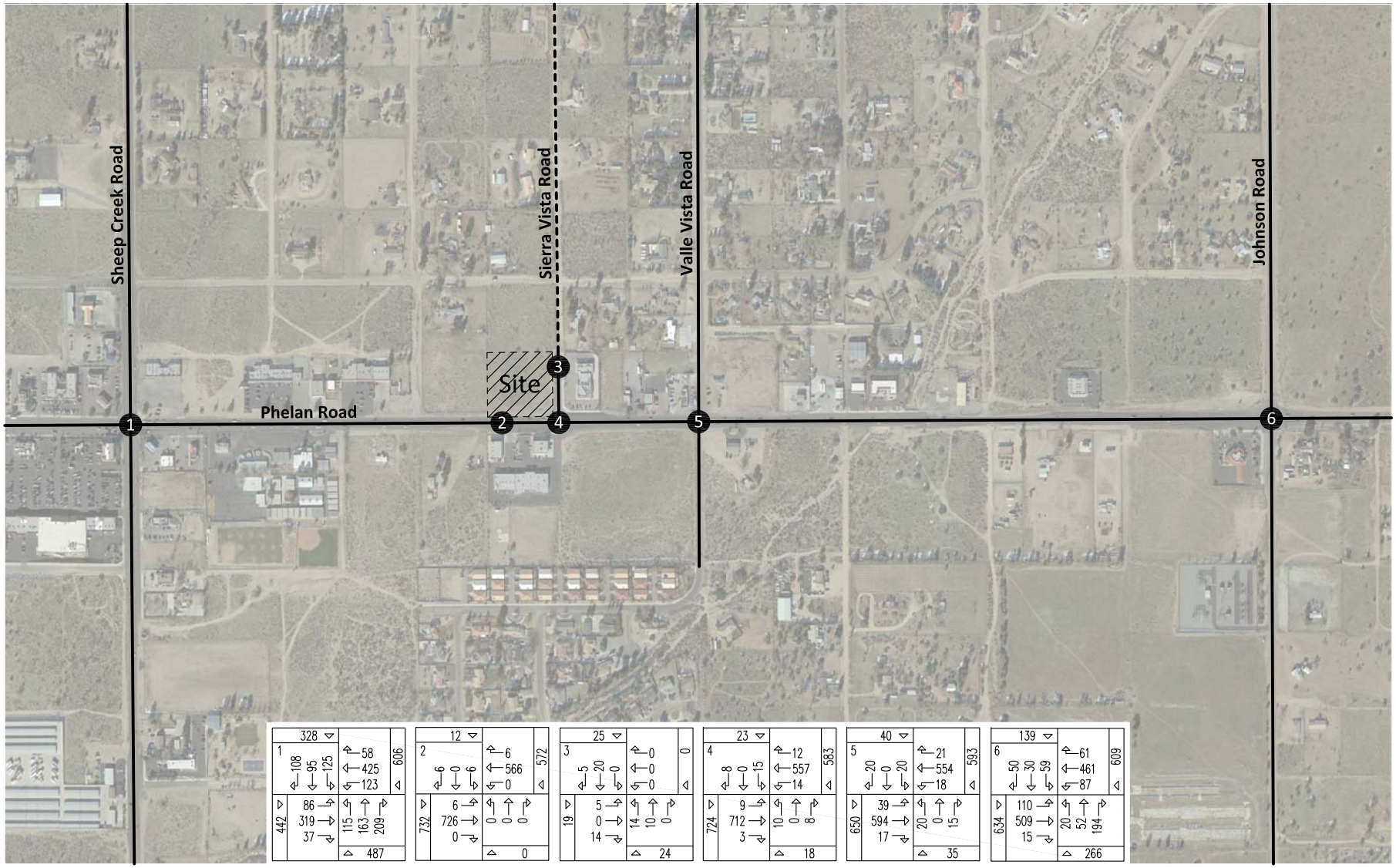
Figure 30
Opening Year (2017) With Project (No Other Development)
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

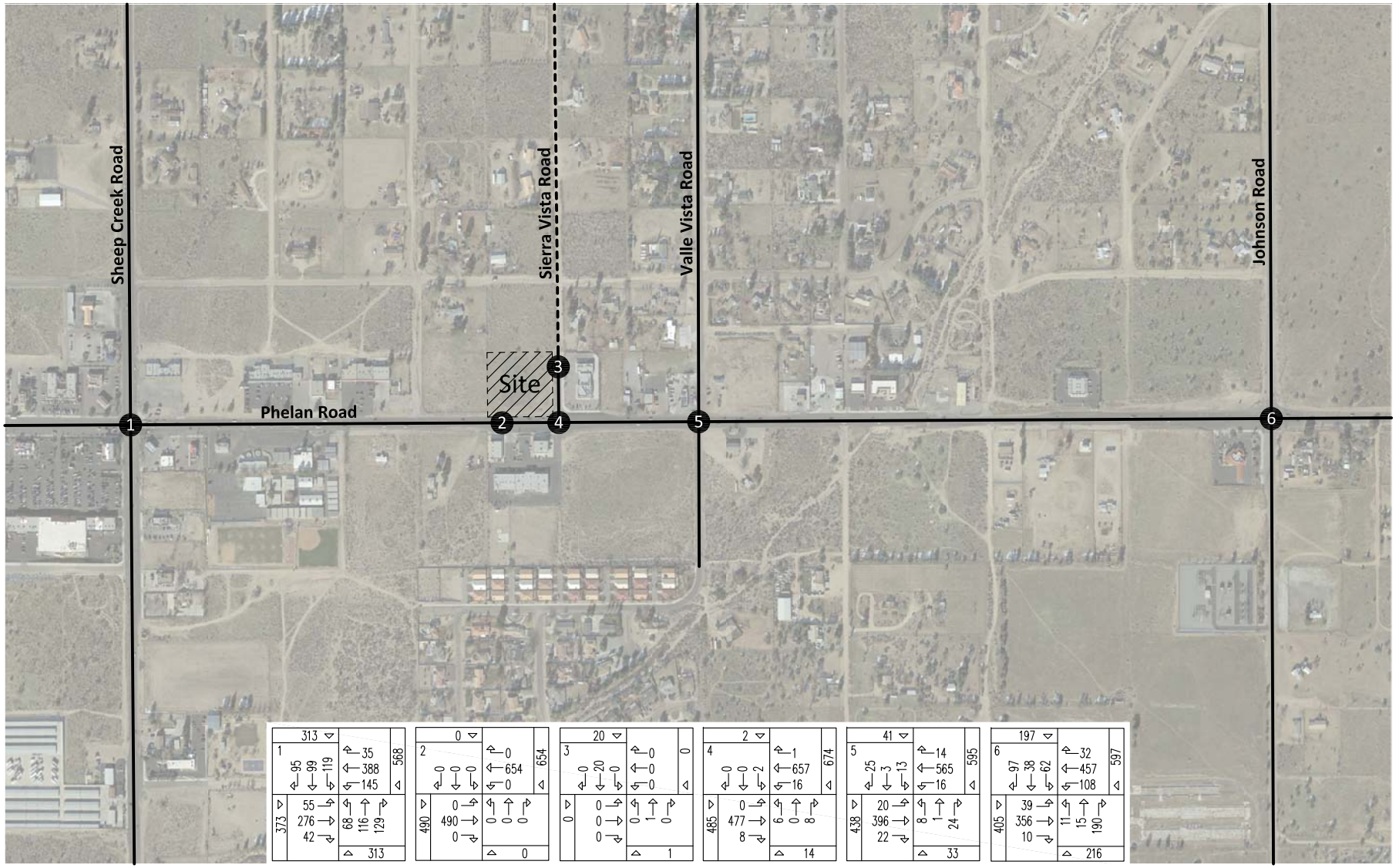
Figure 31
Opening Year (2017) With Project (No Other Development)
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

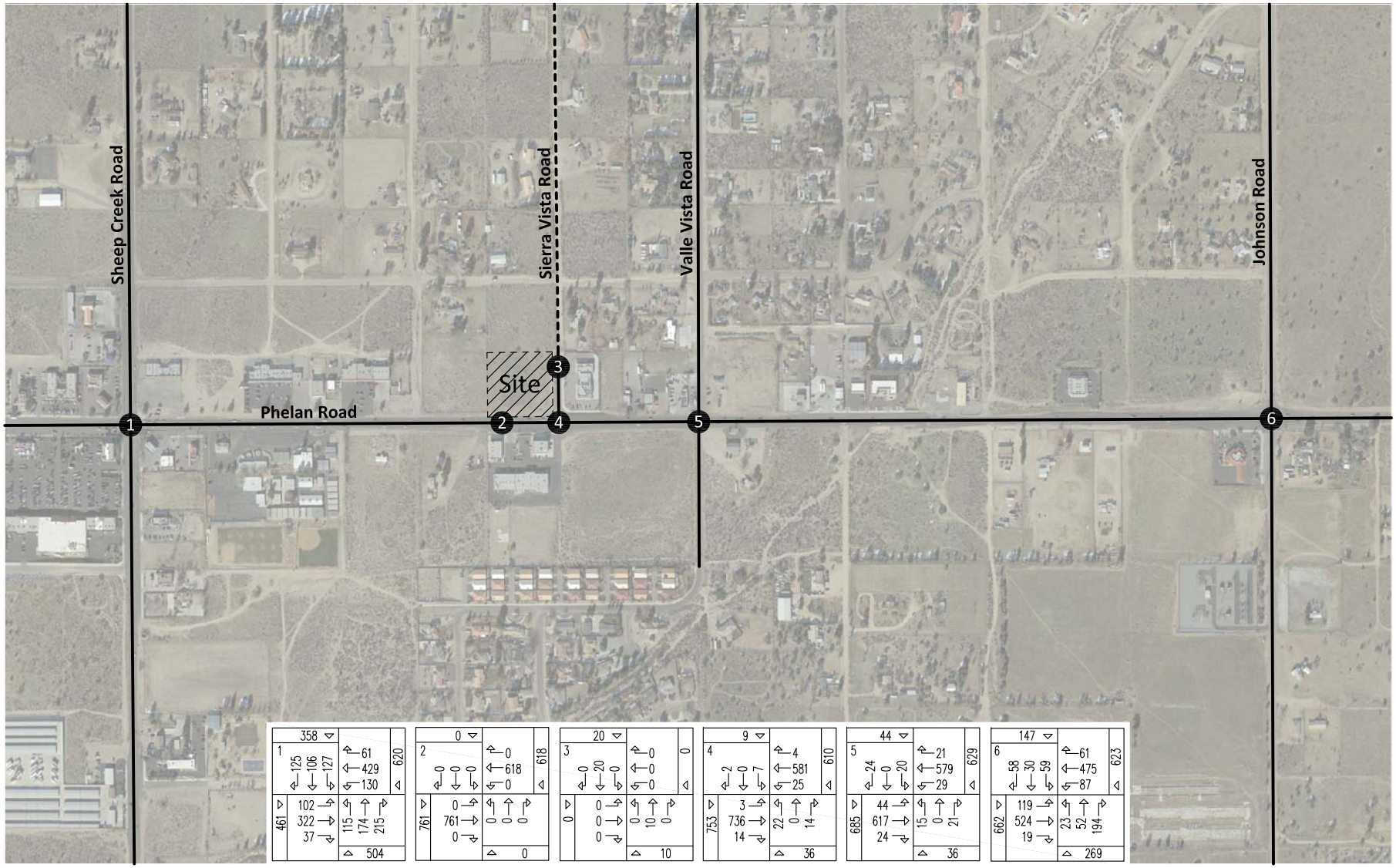
Figure 32
Opening Year (2017) Without Project
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

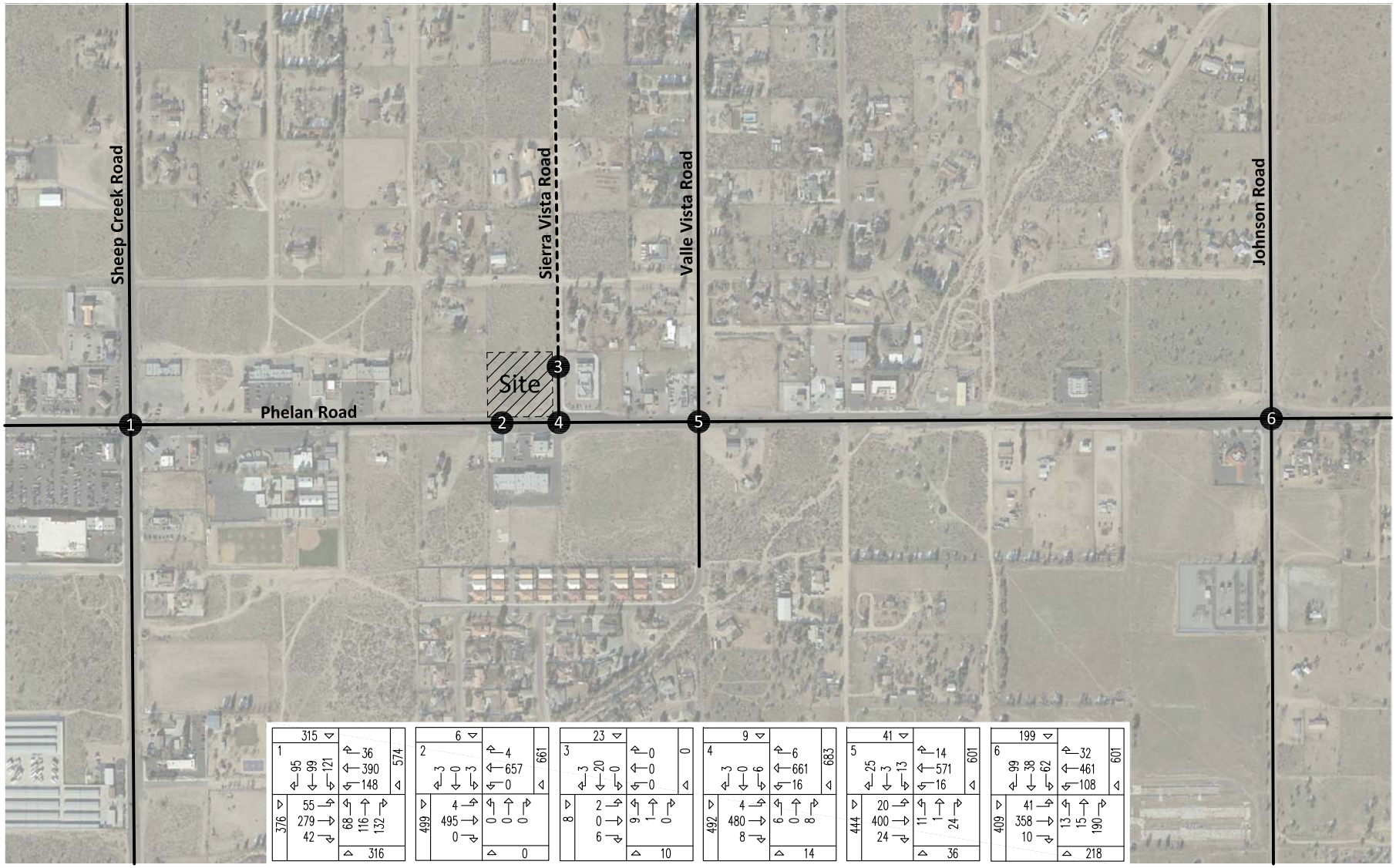
Figure 33
Opening Year (2017) Without Project
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

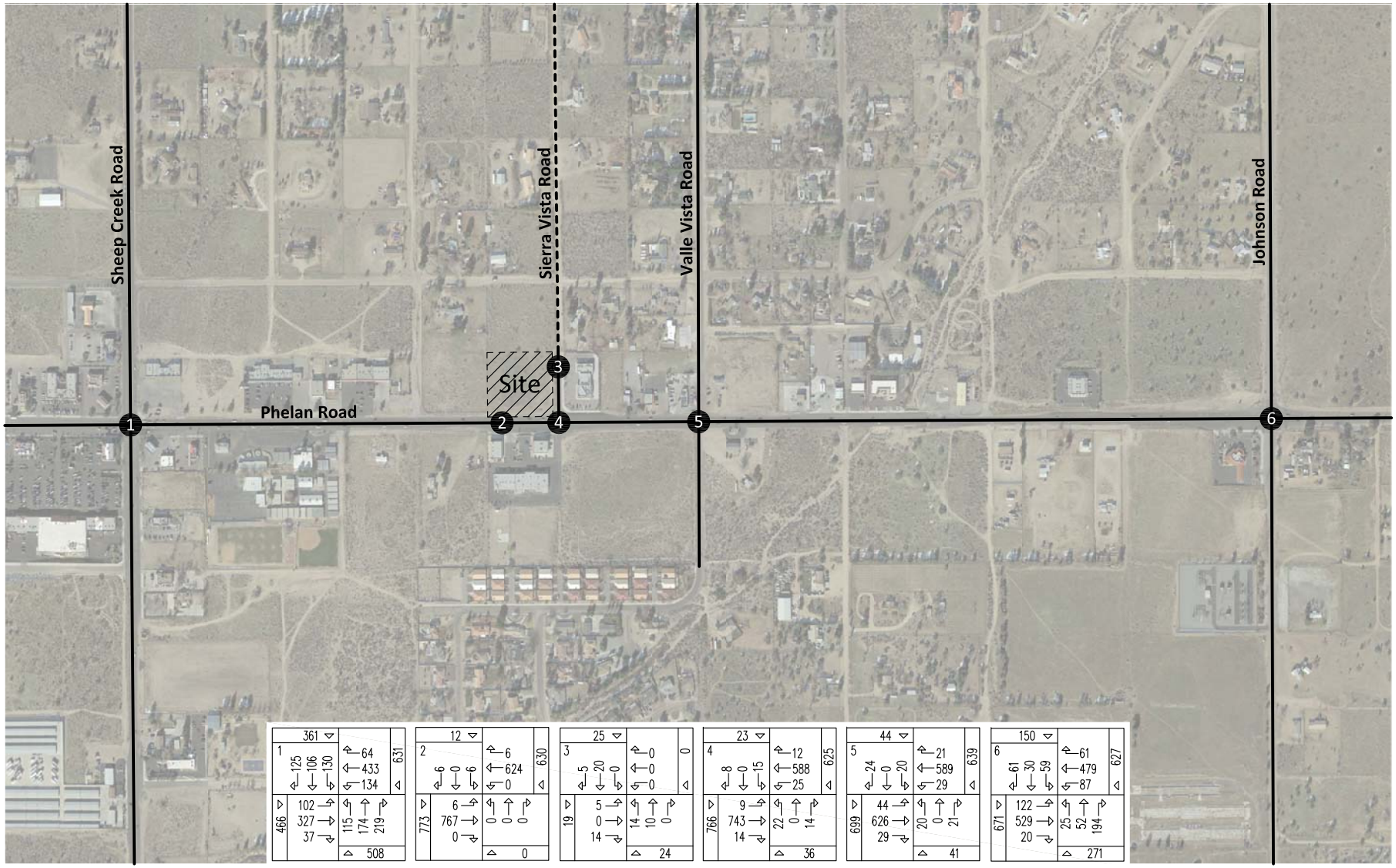
Figure 34
Opening Year (2017) With Project
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

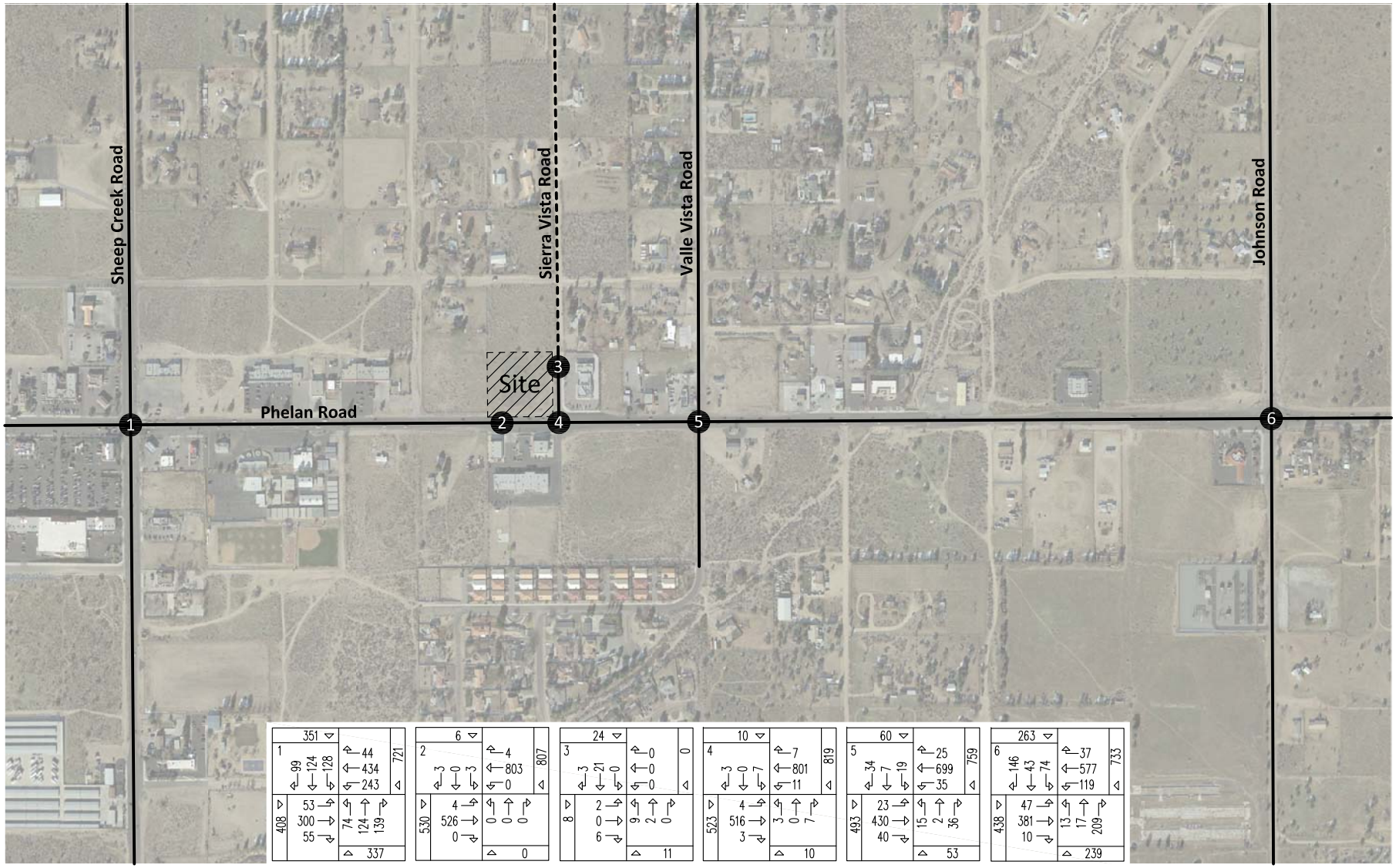
Figure 35
Opening Year (2017) With Project
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

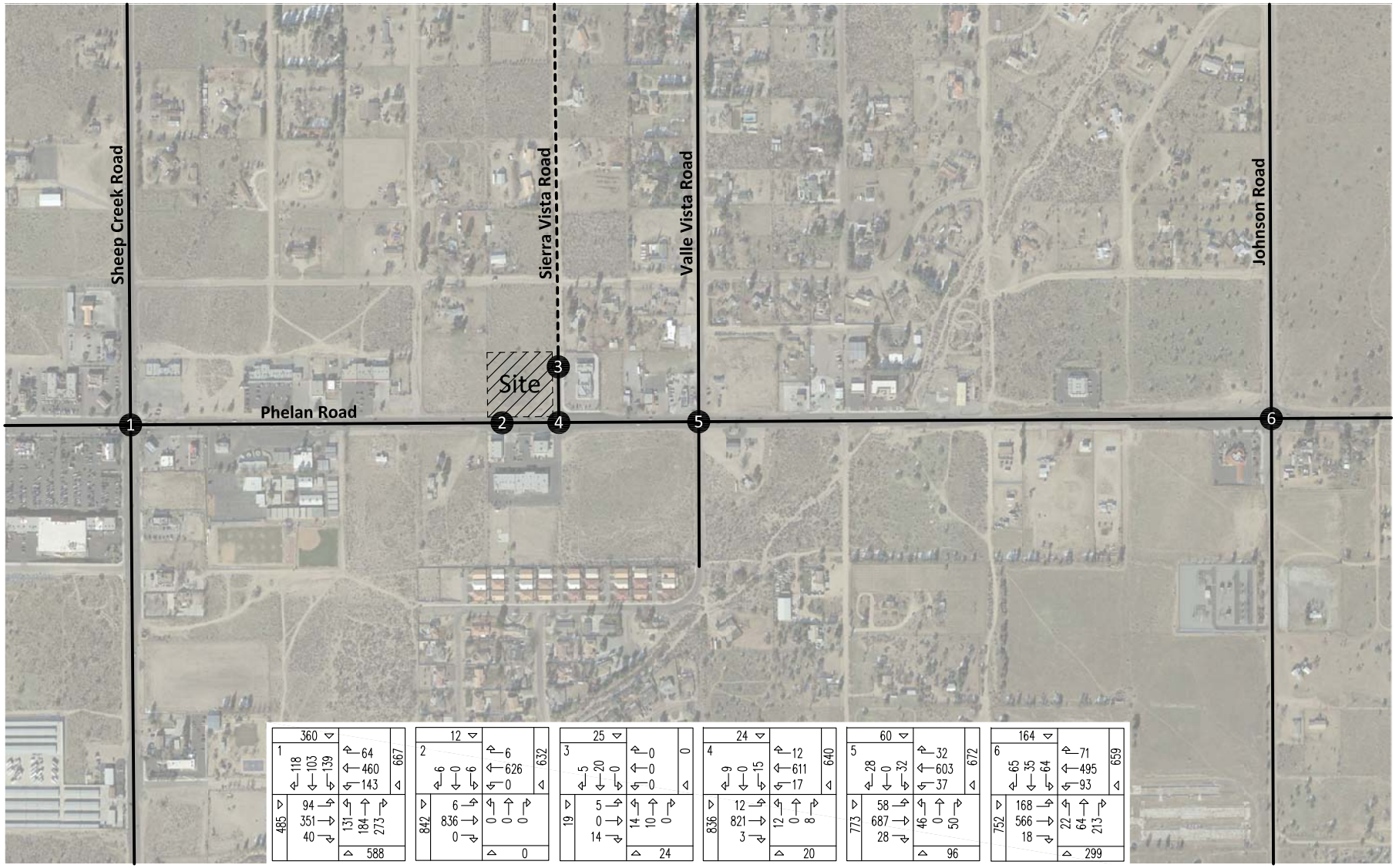
Figure 36
Year 2035 With Project (No Other Development)
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

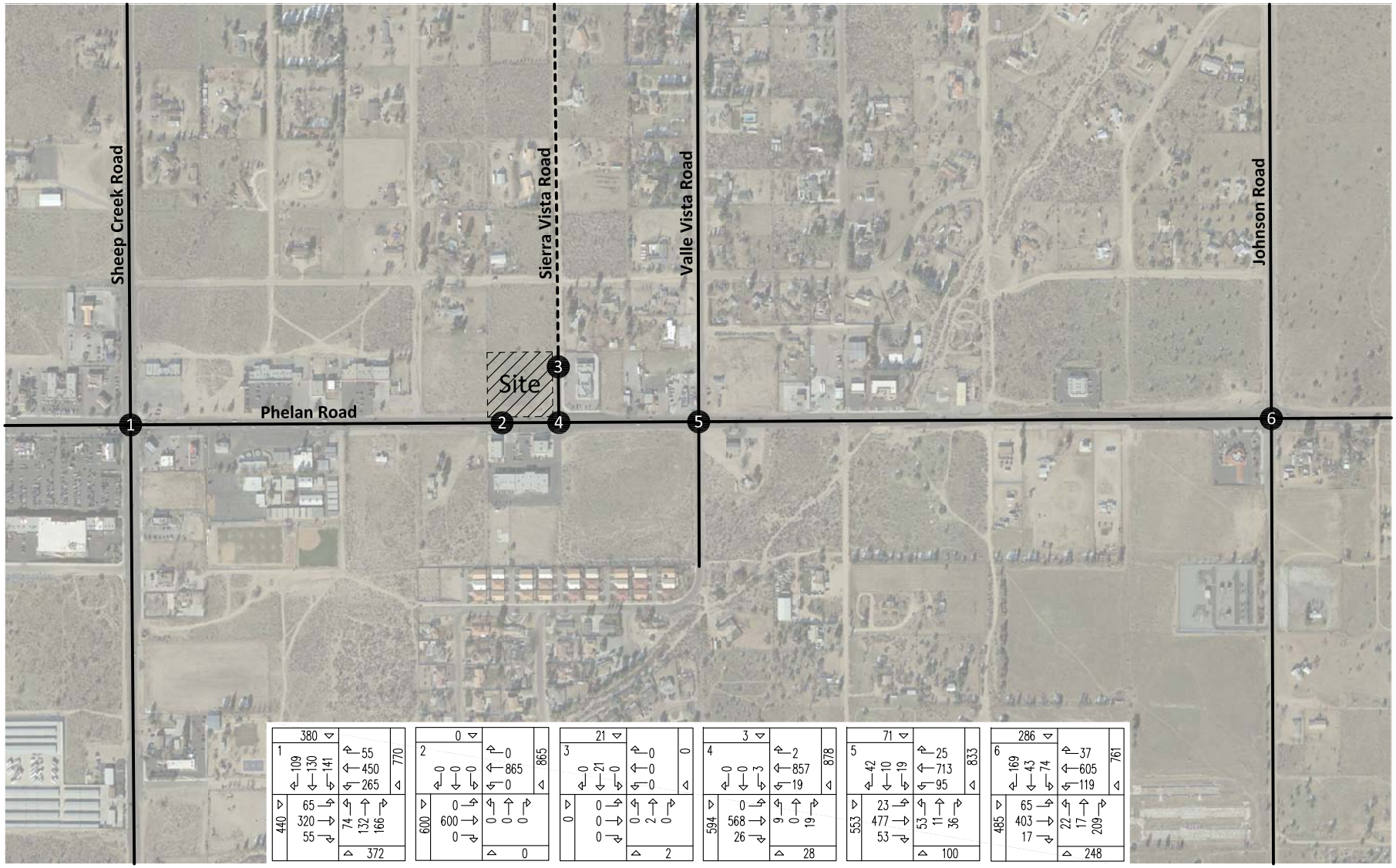
Figure 37
Year 2035 With Project (No Other Development)
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

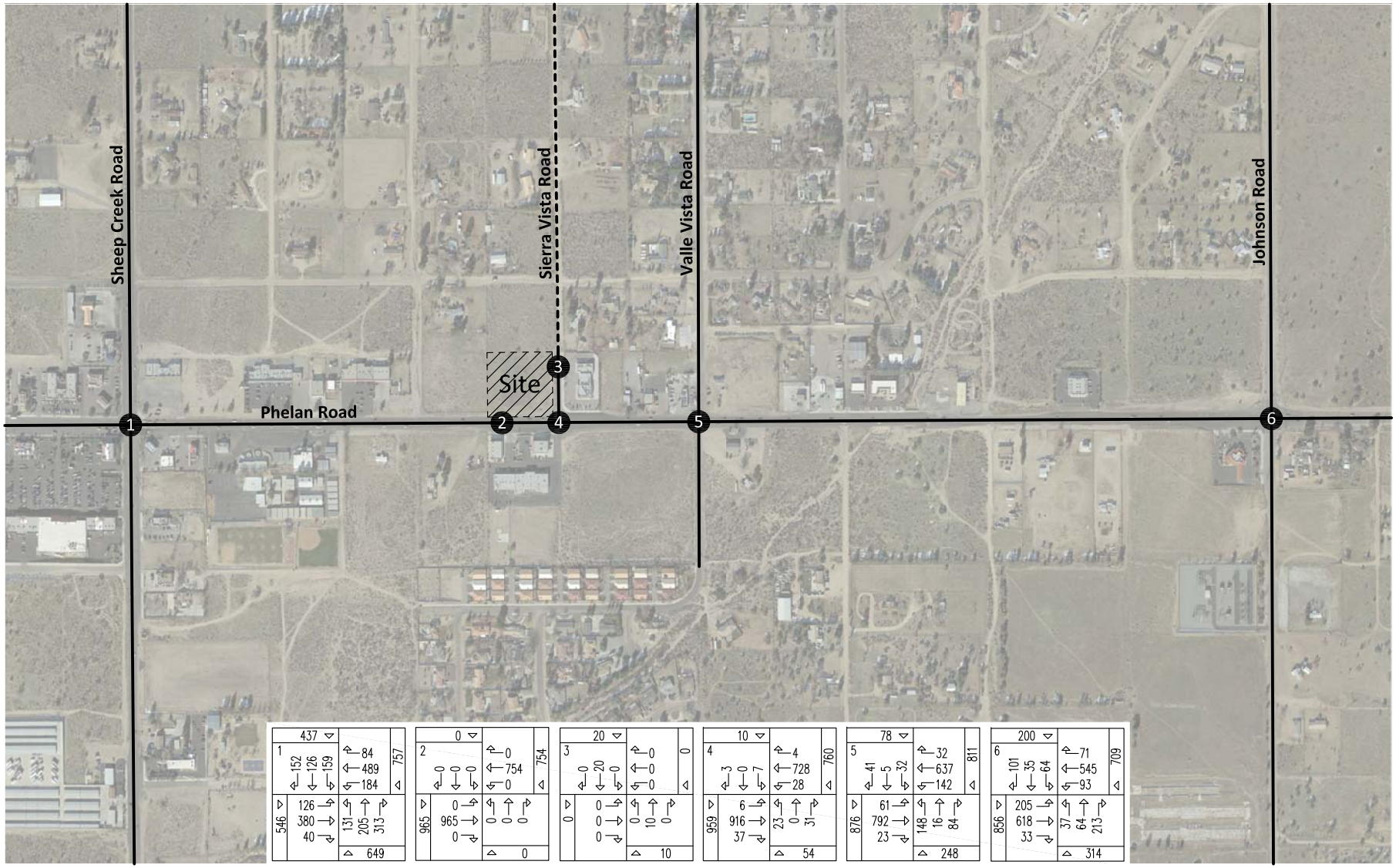
Figure 38
Year 2035 Without Project
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

Figure 39
Year 2035 Without Project
Evening Peak Hour Intersection Turning Movement Volumes

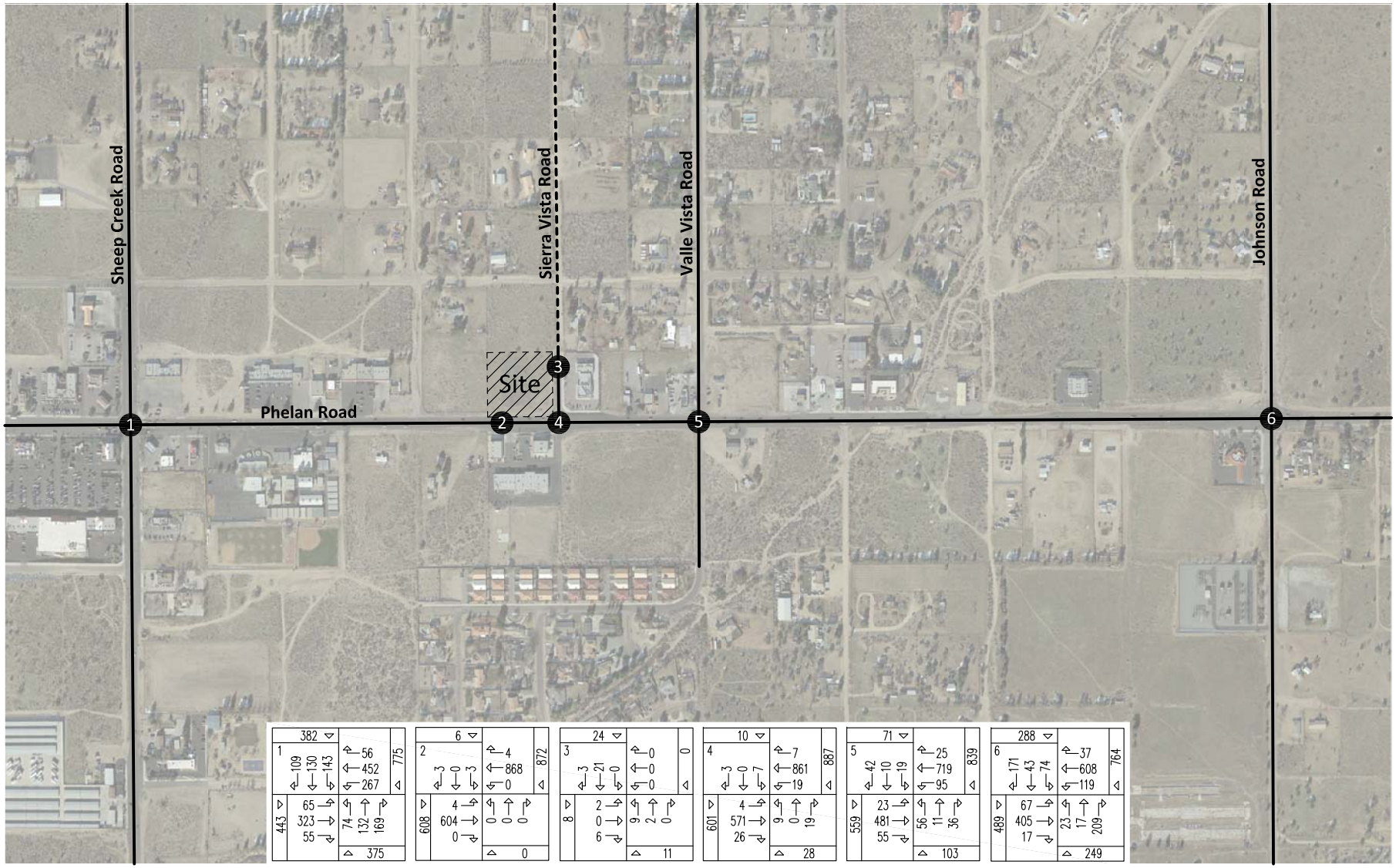


KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

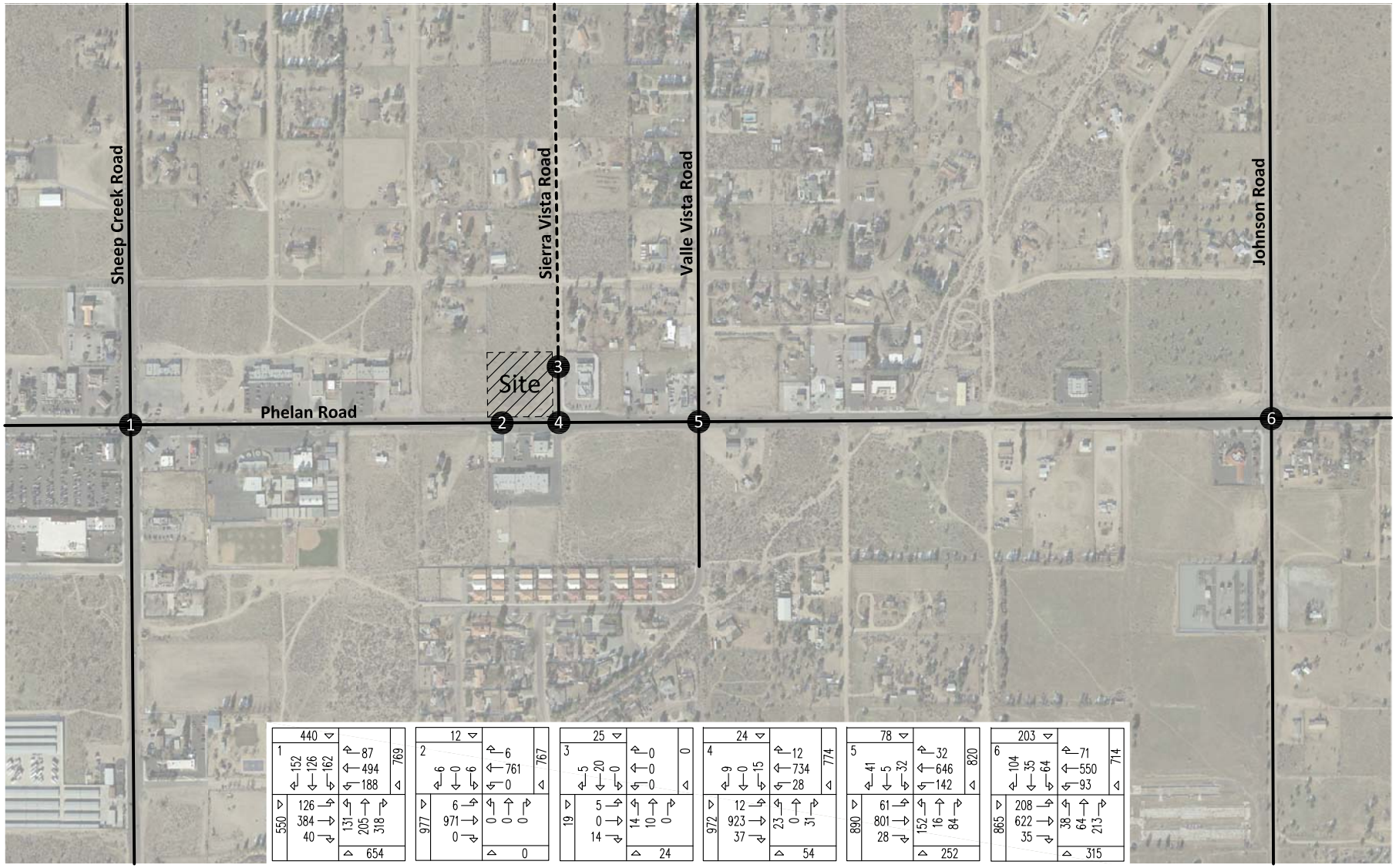
Figure 40
Year 2035 With Project
Morning Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

Figure 41
Year 2035 With Project
Evening Peak Hour Intersection Turning Movement Volumes



KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes. JN 6368

OVER 40 YEARS OF EXCELLENT SERVICE

V. OTHER TRAFFIC CONSIDERATIONS

A. Site Access Analysis

The project driveway on Phelan Road is proposed as a full access driveway with no turning restrictions. The project driveway on Sierra Vista Road is proposed as a full access driveway with no turning restrictions.

The site has two accesses located on the south and east sides of the project. This provides alternative points for emergency access to the project site.

All project driveway access driveways shall provide adequate driveway length accordance with the County of San Bernardino standards. The maximum outbound volume for any one of the project driveways is 19 vehicles per hour, and the minimum driveway length should adequately accommodate this volume per County standards.

All project access driveways with right turn inbound volumes of 20 vehicles per hour will be reviewed for a turn deceleration lane. The maximum inbound right turn volume for any one of the project driveways is 6 vehicles. The southbound traffic volume for Sierra Vista Road is below 100, therefore, no right turn deceleration lane is recommended.

All project access driveways appear to provide adequate spacing between driveways and between driveways and the curb return of the main roadway (see County of San Bernardino Driveway Spacing Figure 6-1 for further detail).

B. Left Turn Storage Lane Evaluation

In general, a left turn lane is needed for conditions with more than 100 turning vehicles per hour, and dual left turn lanes are recommended if the left turn volume exceeds 300 vehicles per hour during the peak hour. The recommended minimum acceptable design length for a turn storage length is 150 feet for arterials with speeds greater than 45 miles per hour. For local streets and driveways, smaller storage lengths are permitted when volumes permit. The recommended maximum single turn storage length shall be 300 feet; therefore, dual left hand turn lanes should be used when over 300 feet of storage is required or when necessary to provide acceptable levels of service at the intersection. For unsignalized intersections, the "rule of thumb" storage length is to be one foot for each vehicle per hour turning left during the peak hour.

Required storage lengths have been calculated based on the guidelines provided in the California Department of Transportation Highway Design Manual, Section 405.2. For unsignalized intersections, the required storage length is calculated as the number of turning vehicles likely to arrive in an average 2-minute period during the peak hour. For signalized intersections, the required storage length is calculated based on 2 times the average turning vehicles per cycle. This provides a storage length to accommodate all turn arrivals during the peak hour 95 percent of the time. A minimum of 2 passenger cars should be provided at 25 feet per vehicle (50 feet minimum storage length).

Unsignalized
[LTV (vehicles per hour) x (2 minutes) x (hour/60 min)] * 25 feet per vehicle = Length for 2 minutes

Signalized
[LTV (vehicles per hour) x (Cycle sec) x (hour/ 3600 sec)] * 25 feet per vehicle *2 = Length per cycle

Left hand turn storage lengths were analyzed at Phelan Road and Sierra Vista Road to verify the storage capacity for the proposed project. Left turn storage should be provided at a length to allow for adequate storage of turning vehicles during the peak hours for Year 2035 With Project traffic conditions.

The eastbound two-way left turn lane provides adequate storage for the 4 vehicles projected to turn left during the morning peak hour and the 12 vehicles projected to turn left during the evening peak hour at the Phelan Road and Sierra Vista Road intersection.

C. Sight Distance Analysis

Sight distance is the continuous length of roadway visible to the driver. Two types of sight distance are considered for this driveway: (1) Stopping sight distance is the minimum distance required by the driver on the major approach (or roadway) traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye, which is located 42 inches about the pavement to an object that is 6 inches above the pavement; (2) Corner sight distance is the minimum distance required by the driver of a vehicle exiting the driveway to enter the lanes of traffic without requiring the approach traffic traveling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driveway driver's eye, which is located 42 inches about the pavement to an object that is 51 inches above the pavement in the center of the approach lane (such as an on-coming vehicle).

The proposed project driveway on Phelan Road was also reviewed for sight distance as the adjacent project to the west of the proposed development will be offset from the added drop lane installed by the proposed project.

Figure 42 shows the summary for the sight distance analysis.

1. Stopping Sight Distance Analysis

The stopping sight distance minimum required distance is per Table 201.1 in the Highway Design Manual for a driver approaching on the major roadway to see a vehicle exiting from the minor roadway at the prevailing speed.

The posted speed on Phelan Road is 45 miles per hour, and using 50 miles per hour as the prevailing speed the stopping sight distance is 430 feet.

2. Corner Sight Distance Analysis

The corner sight distance minimum requirement is per Table 405.1A in the Highway Design Manual for the driver to exit from the minor approach onto the major approach which has a given speed. Corner sight distance accounts the distance needed to detect an approaching vehicle and maneuver from a stopped position into the local roadway for vehicles exiting the project.

The posted speed on Phelan Road is 45 miles per hour, and using 50 miles per hour as the prevailing speed the corner sight distance is 550 feet.

3. Restricted Use Area

The area between the line of sight and the centerline of the nearest approaching lane is defined as the limited use area. No objects within the limited use areas should exceed the maximum height of eighteen (18) inches to insure a clear line of sight. The limited use area should be kept clear of obstructions, including landscaping over 18 inches to allow better visibility.

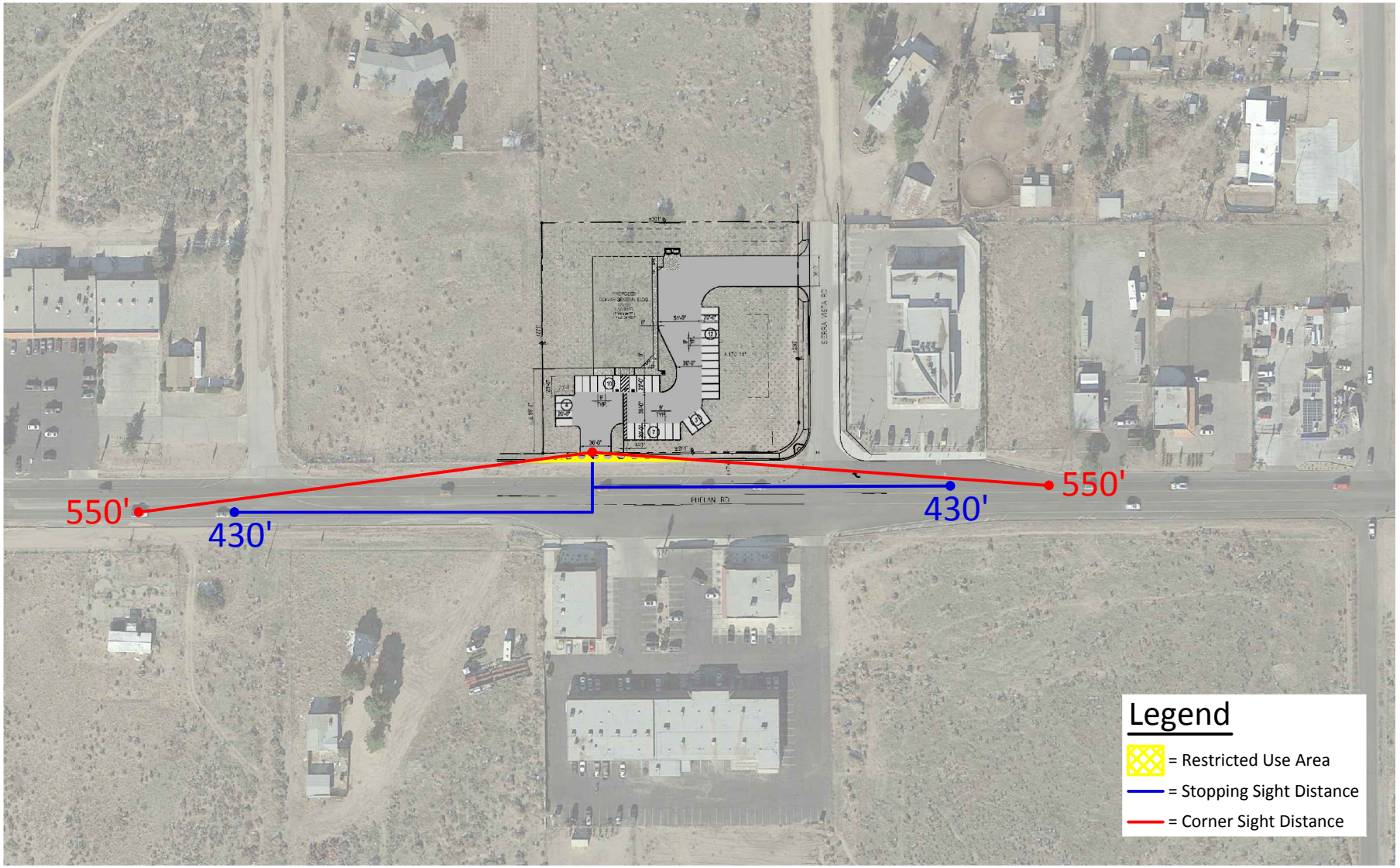
As shown on Figure 42, the project driveway on Phelan Road provides adequate stopping and corner sight distance per the sight distance analysis for the westbound direction, but does not provide adequate sight distance on the east side because of obstructions in the limited use area.

To mitigate the sight distance concern, the project driveway on Phelan Road will have a no parking restriction on the curb in the limited use area. A no-parking zone should be established on the north side of Phelan Road from 120 feet east and 85 feet west of the project driveway. No-parking signs or red curbing should be installed to help with the line of sight for vehicles approaching the driveway as well as vehicles exiting the driveway.

D. Freeway Evaluation

An analysis of Year 2035 freeway level of service is required for all freeway segments that carry 100 or more project trips in the peak hour. The project does not contribute trips greater than the freeway threshold of 100 two-way trips to the I-15 Freeway.

Figure 42
Phelan Road Driveway Sight Distance Analysis



VI. PROJECT MITIGATION

A. Required Improvements and Costs

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Existing Plus Project, Opening Year (2017), and Year 2035 traffic conditions. The improvements were determined through the operations analysis of Section IV and Other Traffic Considerations of Section V.

The approximate costs for the Year 2035 improvements have generally been estimated using cost guidelines in the Congestion Management Program Handbook (see Appendix G). A unit cost of $598,500 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 $290,000 has been assumed. For adding a turn lane, a unit cost of $50,000 has been assumed.

The needed improvements and resulting costs are summarized in Table 11 for the study area intersections for both the Project Only and Other Development Only Conditions. The exclusive and mutual improvement costs are listed at the bottom of Table 11.

The total cost of needed and unfunded intersection improvements is $778,500.

B. Project Contribution and Pro-Rata Costs

The project Pro-Rata contributions have also been calculated for Horizon Year (2035) 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 Horizon Year (2035) traffic volume.

This area of Phelan is currently included in the High Desert Local Area Transportation Facilities Plan. The high desert development funding is used for improvements specified by the plan. High Desert Local Area Transportation Plan includes widening Phelan Road to a 6 lane roadway section. Improvements for lane widening and future traffic signals within the study area are included in the Project Pro-Rata Traffic Contribution and Cost Table (12).

Table 12 presents a summary of improvement cost and project cost shares at the Horizon Year (2035) intersection improvement locations. The intersection Pro-Rata cost calculations are based on the highest of the morning or evening peak hour traffic volumes. As shown in Table 12, the project's identified pro-rata intersection costs for local improvements are $24,565.

The dollar amounts 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 through an adopted traffic impact fee program in addition to any contributions shown within the traffic study which is not covered within this fee program.

Table 11

Summary of Intersection Improvements and Costs

Intersection	Jurisdiction	Improvement	Cost Estimate[1]
Project Only Improvements With No Other Development Contributions			
Year 2035 Sierra Vista Road (NS) at: Phelan Road (EW) - #4	SB County	Add WB Right-Through Shared Lane (striping modification)	$10,000 [2]
Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	Install Traffic Signal	$598,500 [2]
Project Total			$608,500
Other Development Improvement With No Project Contributions			
VVR Commercial Project (2018) Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	Add NB Left Turn Lane[3]	$50,000
		Add SB Left Turn Lane[3]	$50,000
		Add EB Left Turn Lane (striping modification)	$10,000 [2]
		Add WB Right Turn Lane	$50,000 [2]
		Lengthen WB Left Turn Lane (striping modification)	$10,000 [2]
Subtotal			$170,000
VVR Commercial Project (2019) Valle Vista Road (NS) at: Phelan Road (EW) - #5	SB County	Install Traffic Signal	$598,500
Subtotal			$598,500
Other Development Subtotal			$768,500
Dollar General Improvements - future traffic signal see Table 12 for pro-rata cost.			-
Other Development Improvements - Opening Year (2018)[3]			$100,000
High Desert Local Transportation Plan roadway widening and future traffic signal[4]			$678,500
Total			$778,500

[1] Cost estimate based on values from the Appendix G Preliminary Construction Cost Estimates For Congestion Management Plan , San Bernardino Association of Governments (2003). Costs estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.

[2] Improvements covered by the High Desert Transportation Area Fee program are collected at a pro-rata basis shown in Table 12.

[3] Other development related improvement or lane addition. Source: VVR, LLC Commercial Project Traffic Impact Analysis (Revised), by Kunzman Associates, Inc. (February 19, 2016)/ (SWC Valle Vista Road and Phelan Road).

[4] Traffic signal is projected to be warranted in Phase 3 of the VVR Commercial Project in Year 2019, or in Year 2035 without other development (see Appendix F).

Table 12

Project Pro-Rata Intersection Traffic Contribution and Cost[1]

Intersection	Jurisdiction	Total Cost	Peak Hour	Existing Traffic	Year 2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Project Cost Share
Year 2035									
Sierra Vista Road (NS) at:									
Phelan Road (EW) - #4	SB County	$10,000	Morning	1,117	1,526	23	409	5.6%	
			Evening	1,291	1,824	40	533	7.5%	$ 750
Year 2035									
Valle Vista Road (NS) at:									
Phelan Road (EW) - #5[2]	SB County	$668,500	Morning	1,026	1,572	15	546	2.7%	
			Evening	1,254	2,040	28	786	3.6%	$ 23,814
Total		$ 678,500							$ 24,565

[1] Improvements covered by the High Desert Transportation Area Fee program are collected at a pro-rata basis.

[2] The project will contribute to the future traffic signal within the study area at a pro-rata basis.

VII. 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 County 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 full occupancy of the development in Opening Year 2017, at which time it will be generating trips at its full potential, and for the Year 2035. Table 13 summarizes the operational analysis for all scenarios.

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

- County of San Bernardino

In addition, the San Bernardino Transportation Analysis Model (SBTAM) has been obtained through discussions with the Southern California Association of Governments (SCAG) staff for purposes of this analysis for 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 (Opening Year or Horizon Year) 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 does not contribute trips greater than the freeway threshold volume of 100 two-way peak hour trips. The project does contribute trips greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the County of San Bernardino.

The average daily traffic volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model Year 2008 and Horizon Year (2035) average daily traffic volume forecasts (see Appendix D). This difference defines the growth in traffic over the 27 year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2014 and Year 2035. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2014 and Year 2035 is 21 years of the 27 year time frame, a factor of 0.78 (i.e., 21/27) was used.

The Horizon Year (2035) Without Project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model Year 2008 and Year 2035 peak hour volumes. The growth increment calculation worksheets are shown in Appendix D. 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 (2017) traffic volumes have been interpolated from the Horizon Year (2035) traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the San Bernardino Transportation Analysis Model traffic 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 SR-138 and the I-15 Freeway. Local access is provided by various roadways in the vicinity of the site. The north-south roadway which will be most affected by the project includes Sheep Creek Road, Sierra Vista Road, Valle Vista Road, and Johnson Road. The east-west roadway which will be most affected by the project includes Phelan Road.

For Existing traffic conditions, the study area intersections currently operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that currently operates at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

C. Project Trips

Trip generation rates were determined for daily trips, morning peak hour inbound and outbound trips, and evening peak hour inbound and outbound trips for the proposed land use. By multiplying the trip generation rates by the land use quantity, the traffic volumes are determined. Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012.

The proposed development is projected to generate approximately 583 daily vehicle trips, 35 which will occur during the morning peak hour and 62 of which will occur during the evening peak hour.

The San Bernardino Transportation Analysis Model has been used to evaluate the regional distribution of project trips. A select zone (trip distribution) analysis was performed using the San Bernardino Transportation Analysis Model with the assistance of Southern California Association of Governments staff. The socio-economic data inputs to the San Bernardino Transportation Analysis Model are representative of the planned project development intensity.

D. Future Conditions

Study area intersection delay and level of service values are shown based on existing geometrics (without improvement) and with improvements when the intersection level of service falls below Level of Service C, or below current Level of Service for intersections currently operating at Level of Service D or E. The Existing Plus Project traffic operations analysis is summarized in Table 4. Morning and evening peak hour traffic operations analysis are summarized in Tables 5 to 10 for Opening Year (2017), and the Year 2035 traffic conditions.

Intersection delay calculation worksheets for the various traffic conditions are provided in Appendix E.

1. Existing Plus Project

For Existing Plus Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

2. Opening Year (2017) Without Project (No Other Development)

For Opening Year (2017) Without Project (No Other Development) traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Opening Year (2017) Without Project (No Other Development) traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

3. Opening Year (2017) Without Project

For Opening Year (2017) Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Opening Year (2017) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

4. Opening Year (2017) With Project

For Opening Year (2017) Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service D during the evening peak hour, without improvements:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Opening Year (2017) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

5. Year 2035 With Project (No Other Development)

For Year 2035 With Project (No Other Development) traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service E or F during the peak hours:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 With Project (No Other Development) traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

A traffic signal is projected to be warranted at the following study area intersection for Year 2035 With Project (No Other Development) traffic conditions (see Appendix F):

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (November 2014).

6. Year 2035 Without Project

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that isprojected to operate at Level of Service F during the peak hours, without improvements:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

7. Year 2035 With Project

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at Level of Service F during the peak hours, without improvements:

Valle Vista Road (NS) at:
Phelan Road (EW) - #5

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

E. Cost Summary

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Existing Plus Project, Opening Year (2017), and Year 2035 traffic conditions. The improvements were determined through the operations analysis of Section IV and other traffic considerations of Section V.

The project's identified intersection costs is $24,565 (see Table 12). The project will provide improvement for area intersections which are impacted by an "other development" project in addition to the proposed project or to the future horizon year improvement which would be necessary with no development in the study area.

F. Recommendations

The recommendations in this section address on-site improvements, off-site improvements and the phasing of all necessary study area transportation improvements. Table 13 summarizes the operational analysis for all phases.

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 43).

Construct Sierra Vista Road from the north project boundary to Phelan Road to at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Construct Phelan Road from the west project boundary to Sierra Vista Road at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

The site should provide sufficient parking spaces to meet County of San Bernardino parking code requirements in order to service on-site parking demand.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/County of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the County and approved as consistent with this measure prior to issue of grading permits.

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

A no-parking zone should be established on the north side of Phelan Road from 120 feet east and 85 feet west of the project driveway. No-parking signs or red curbing should be installed to help with the line of sight for vehicles approaching the driveway as well as vehicles exiting the driveway.

2. Off-Site Improvements

The necessary off-site improvement recommendations were described in previous sections of this report.

As is the case for any roadway design, the County 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.

Participate in the phased construction of off-site traffic signals through payment of traffic signal mitigation fees. The traffic signals within the study area at buildout should specifically include an interconnect of the traffic signals to function in a coordinated system.

Table 13

Level of Service Summary for all Scenarios

Intersection	Jurisdiction	Peak Hour Delay - Level of Service															
		Existing				Opening Year (2017)						Year 2035					
		Without Project [1]		Plus Project [2]		With Project Only [3]		Without Project [4]		With Project [5]		With Project Only [6]		Without Project [7]		With Project [8]	
		Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening
Sheep Creek Road (NS) at:																	
Phelan Road (EW) - #1	SB County	28.0-C	27.6-C	28.9-C	28.3-C	29.3-C	28.7-C	29.3-C	29.1-C	29.5-C	29.3-C	33.1-C	31.6-C	34.1-C	33.6-C	34.2-C	33.8-C
West Driveway (NS) at:																	
Phelan Road (EW) - #2	SB County	-	-	15.7-C	14.9-B	15.9-C	14.9-B	-	-	16.2-C	15.8-C	18.7-C	16.2-C	-	-	20.5-C	18.8-C
Sierra Vista Road (NS) at:																	
North Driveway (EW) - #3	SB County	-	-	8.5-A	8.6-A	8.5-A	8.6-A	-	-	8.5-A	8.6-A	8.5-A	8.6-A	-	-	8.5-A	8.6-A
Sierra Vista Road (NS) at:																	
Phelan Road (EW) - #4	SB County																
-Without Improvements		19.5-C	17.8-C	18.3-C	18.1-C	18.6-C	18.5-C	20.7-C	20.1-C	19.2-C	19.0-C	22.7-C	21.2-C	27.6-D	26.4-D	26.0-D	27.5-D
-With Improvements[9]		-	-	-	-	-	-	-	-	-	-	-	-	23.1-C	21.1-C	22.4-C	20.3-C
Valle Vista Road (NS) at:																	
Phelan Road (EW) - #5	SB County																
-Without Improvements		18.6-C	25.6-D	18.9-C	28.8-D	21.1-C	31.0-D	21.5-C	32.8-D	21.8-C	34.8-D	38.7-E	89.0-F	99.9-F	99.9-F	99.9-F	99.9-F
-With Improvements[9]		-	-	15.2-C	20.7-C	16.7-C	21.7-C	16.9-C	21.3-C	17.1-C	23.3-C	10.4-B	15.9-B	12.8-B	18.9-B	12.9-B	18.9-B
Johnson Road (NS) at:																	
Phelan Road (EW) - #6	SB County	25.6-C	24.3-C	25.6-C	25.2-C	25.6-C	25.3-C	25.6-C	25.4-C	25.6-C	25.5-C	26.0-C	27.1-C	28.0-C	27.9-C	28.1-C	28.0-C

[1] See Table 1

[2] See Table 3

[3] See Table 5

[4] See Table 6

[5] See Table 7

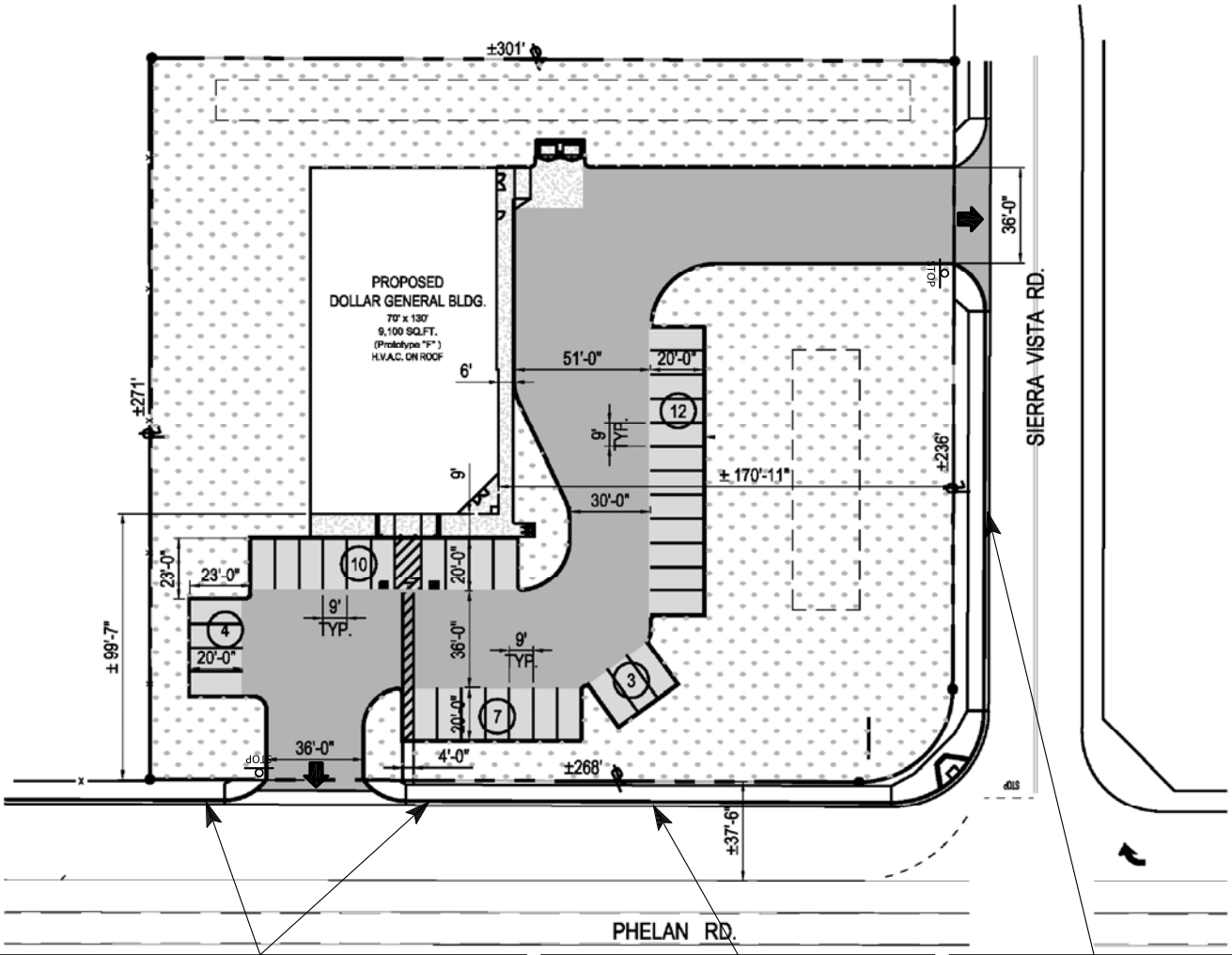
[6] See Table 8

[7] See Table 9

[8] See Table 10

[9] See Table 11 for Improvements.

Figure 43
Circulation Recommendations



A no-parking zone should be established on the north side of Phelan Road from 120 feet east to 85 feet west project driveway. No-parking signs or red curbing should be installed to help with the line of sight for vehicles approaching driveways as well as vehicles exiting the driveways.

Construct Phelan Road from the west project boundary to Sierra Vista Road at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Construct Sierra Vista Road from the north project boundary to Phelan Road to at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

The site should provide sufficient parking spaces to meet County of San Bernardino parking code requirements in order to service on-site parking demand.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/County of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the County and approved as consistent with this measure prior to issue of grading permits.

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 County 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.

Participate in the phased construction of off-site traffic signals through payment of traffic signal mitigation fees. The traffic signals within the study area at buildout should specifically include an interconnect of the traffic signals to function in a coordinated system.

Legend

STOP = Stop Sign

= Full Access Driveway

APPENDICES

Appendix A – Glossary of Transportation Terms

Appendix B – Scoping Agreement

Appendix C – Traffic Count Worksheets

Appendix D – Future Growth Increment Calculation Worksheets

Appendix E – Explanation and Calculation of Intersection Delay

Appendix F – Traffic Signal Warrant Worksheets

Appendix G – 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 quantity 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

Scoping Agreement

SCOPE FOR TRAFFIC STUDY

Project Name:	Dollar General - Phelan project

This Scope for Traffic Study acknowledges San Bernardino County Department of Public Works, Traffic Division requirements of traffic impact analysis for the project and is subject to change:

Project Address:	4382 Phelan Road		
Project Description:	9,100 square feet of Commercial Retail		
City:	County of San Bernardino / Unincorporated Phelan		
Project Buildout Year:	2017	**Ambient Growth Rate per Year:**	SBTAM
Closest Intersection (Xtn) to the Project			
Xtn N/S Street Name:	Sierra Vista Road		
Xtn E/W Street Name:	Phelan Road		
Thomas Guide Pg+Grid:	4473B6	**County Supervisorial District:**	1

	Engineer	Developer
Company:	KUNZMAN ASSOCIATES, INC.	SIMONCRE ALPHA V, LLC.
Name:	Ms. Perrie Ilercil, P.E.	Mr. Peter Krahenbuhl, PM
Address:	1111 Town and Country Road, Suite 34	5111 North Scottsdale Road, Suite 200
City, State, Zip Code:	Orange, CA 92868	Scottsdale, AZ 85250
Phone #:	714-973-8383	480-887-0644
Fax #:	714-973-8821	480.588.4150
Email:	Perrie@traffic-engineer.com	peter.krahenbuhl@simoncre.com

By: _____ **Reviewed By:** _____

Print Name: Perrie Ilercil **12.22.2015** **Print Name:** Ed Petre

Consultant/Developer's Representative **Date** **Traffic Division Representative** **Date** 1/21/16

SCOPE FOR TRAFFIC STUDY

Project Name:	Dollar General - Phelan project

1. **Traffic Distribution**: Please insert or attach Figure(s) illustrating project trip distribution in percentages and volumes at the study intersections analyzed.
   See Figures:
   - Figure 1 Project Location Map,
   - Figure 2 Site Plan
   - Figure 3 Project Trip Distribution

2. Trip Credit: Exact amount of credit subject to approval by Traffic Division.

Transportation Demand Management (TDM)	Yes/**no**	NO
Existing Active Land Use	Yes/**no**	Vacant
Previous Land Use	Yes/**no**	Vacant
Internal Trip Reduction	Yes/**no**	NO
Pass-by Trip Reduction	**Yes**/no	NO

3. Related Projects: Consultant should check with Planning in the San Bernardino County Department of Land Use Services and planning departments of adjoining Cities. Documentation of the consultation from these agencies shall be included in the traffic study. Related projects list shall be submitted to Traffic Division for our review and approval before being incorporated in the study.

4. Freeway Analysis: The potential traffic impact on the following Freeway(s) must be considered.

No

The applicant shall consult with the State of California Department of Transportation (Caltrans) to determine the California Environmental Quality Act levels of significance with regard to traffic impacts on Caltrans' freeway facilities. This consultation shall also include a determination of Caltrans requirements for the study of traffic impacts to its facilities and the mitigation of any such impacts. This analysis must follow the most current Caltrans' Guide for the Preparation of Traffic Impact Studies (December 2002) and can be obtained from http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tiguide.pdf. If Caltrans finds that the project has a significant impact on the freeway, Caltrans shall be requested to include the basis for this finding in their response. If fees are proposed to mitigate the freeway impact, Caltrans shall be requested to identify the specific project to which the fees will apply. These written comments from Caltrans shall be included with the traffic study and submitted to Public Works for review and approval. If a documented good faith effort is made to consult with Caltrans and written comments cannot be obtained from within a reasonable amount of time, an analysis of the freeway impact shall be made using HCM procedures. Appendix A of the SANBAG CMP outlines allowable modifications to these procedures. The SANBAG CMP can be viewed online at:
http://www.sanbag.ca.gov/planning/subr_congestion.html

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Project Name:	Dollar General - Phelan project

5. Trip Generation

Trip Generation Rate(s) Source: ITE Trip Generation	**I – Institute of Transportation Engineers; S – San Diego Traffic Generators; C – County; O – Other:**	**Edition:**	9th 2012

Land Use Code	**Land Use**	**Rate Based on**	**Qty**	***AVTE vs**	**ADT**	Weekday a.m. peak		Weekday p.m. peak		Weekend peak hour	
						In	Out	In	Out	In	Out
814	Variety Store	ITE	9,100		583	21	14	31	31		

* - Average Vehicle Trip Ends.
For ITE Land Uses provide number and name of Land Use. e.g. LU 814 - Variety Store

SCOPE FOR TRAFFIC STUDY

Project Name:	Dollar General - Phelan project

6. Study Intersections: At minimum, the study shall include the following intersections. The list is subject to change after related projects, trip generation and distribution are determined. Consultant should check with adjoining Cities regarding their requirements in addition to the following County/City intersections. Documentation of the consultation from these agencies shall be included in the traffic study.

Xtn #	% County	Thomas Guide Page+Grid	N/S/E/W Street Name	City	Signalized	CMP
1	100	4473A6	Sheep Creek Road (NS) at Phelan Road (EW)	Unincorp. Phelan	**YES**	**no**
2	100	4473A6	West Driveway (NS) at Phelan Road (EW)	Unincorp. Phelan	**no**	**no**
3	100	4473B6	Sierra Vista Road (NS) at North Driveway (EW)	Unincorp. Phelan	**no**	**no**
4	100	4473B6	Sierra Vista Road (NS) at Phelan Road (EW)	Unincorp. Phelan	**no**	**no**
5	100	4473B6	Valle Vista Road (NS) at Phelan Road (EW)	Unincorp. Phelan	**no**	**no**
6	100	4473C6	Johnson Road (NS) at Phelan Road (EW)	Unincorp. Phelan	**YES**	**no**
.					Yes/no	Yes/no

Cites to be consulted: _____

SCOPE FOR TRAFFIC STUDY

Project Name:	Dollar General - Phelan

7. Other:

Traffic counts may be conducted immediately per the following:
• Must be taken on Tuesdays, Wednesdays or Thursdays.
• Must exclude holidays, and the first weekdays before and after the holiday.
• Must be taken on days when local schools or colleges are in session.
• Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
• Traffic counts used for other traffic studies in the area shall **NOT** be reused again, unless 25% of the counts conducted for that particular traffic study are validated with new counts. The difference in volumes between the old and new counts at each corresponding movement should not be more than 10%.
• New traffic counts shall be checked to ensure the difference in volumes at corresponding approaches, if applicable, between two adjacent intersections is no more than 10% unless the difference can be justified.
• For all proposed mitigation measures, a conceptual plan for the improvements shall be submitted to our Traffic Studies section for review and approval prior to the approval of the Traffic Impact Analysis. All proposed improvements shall be within the right-of-way.
• For all cumulative mitigation measures, a cost estimate for the improvement shall be submitted.

This analysis must follow the most current Traffic Impact Study Guidelines for the County as stated in the County's Road Planning and Design Standards.

8. Fees

The County charges on an actual cost basis for review of traffic studies. An initial deposit of $3400 is required at the time that a land use application is filed with the Department of Land Use Services If the review costs exceed the initial deposit, the applicant will be expected to provide additional funds and the review will be suspended until the additional funds are deposited.

9. Contact Information:

Please submit a signed copy of this scope for approval by the Traffic Division. Draft scopes may be sent electronically. Final scope with signature should be submitted in person or by US Mail to:

County of San Bernardino
Dept. of Public Works, Traffic Division
825 E. 3rd Street, Rm 115
San Bernardino, CA 92415-0835

Phone: 909-387-8186
Fax: 909-387-7809
Email: epetre@dpw.sbcounty.gov (Ed Petre)

Table 1

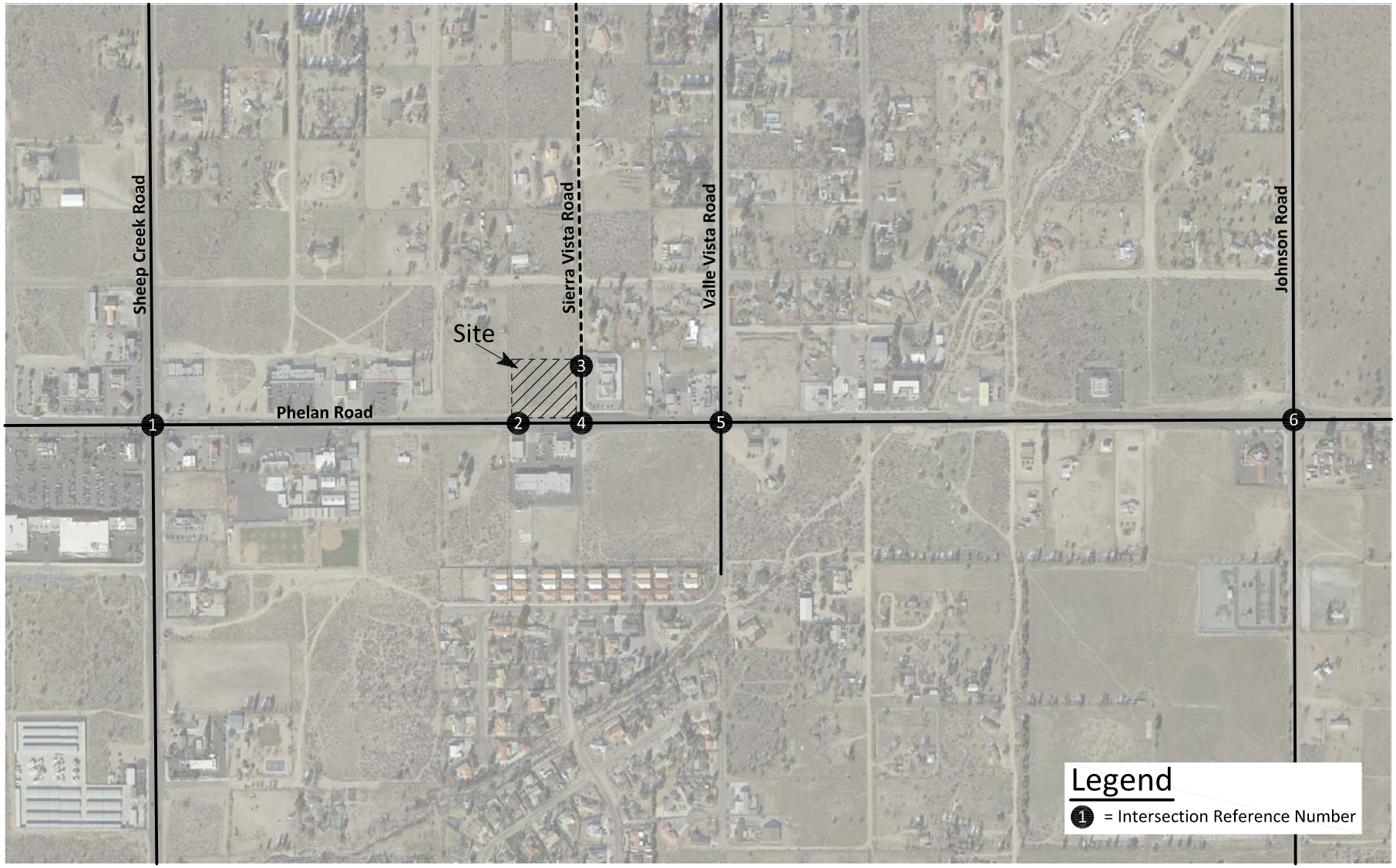
Project Trip Generation[1]

Land Use	Quantity	Units[2]	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Trip Generation									
Variety Store		TSF	2.29	1.52	3.81	3.41	3.41	6.82	64.03
Trips Generated									
Variety Store	9.100	TSF	21	14	35	31	31	62	583

1 Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Category 814. Inbound/outbound trip distribution split utilizes the morning and evening peak hour inbound/outbound ratio splits for specialty retail/strip commercial from the San Diego Association of Governments, Traffic Generators, May 2003.

2 TSF = Thousand Sqaure Feet.

Figure 1
Project Location Map



6368/1

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

Figure 2
Site Plan

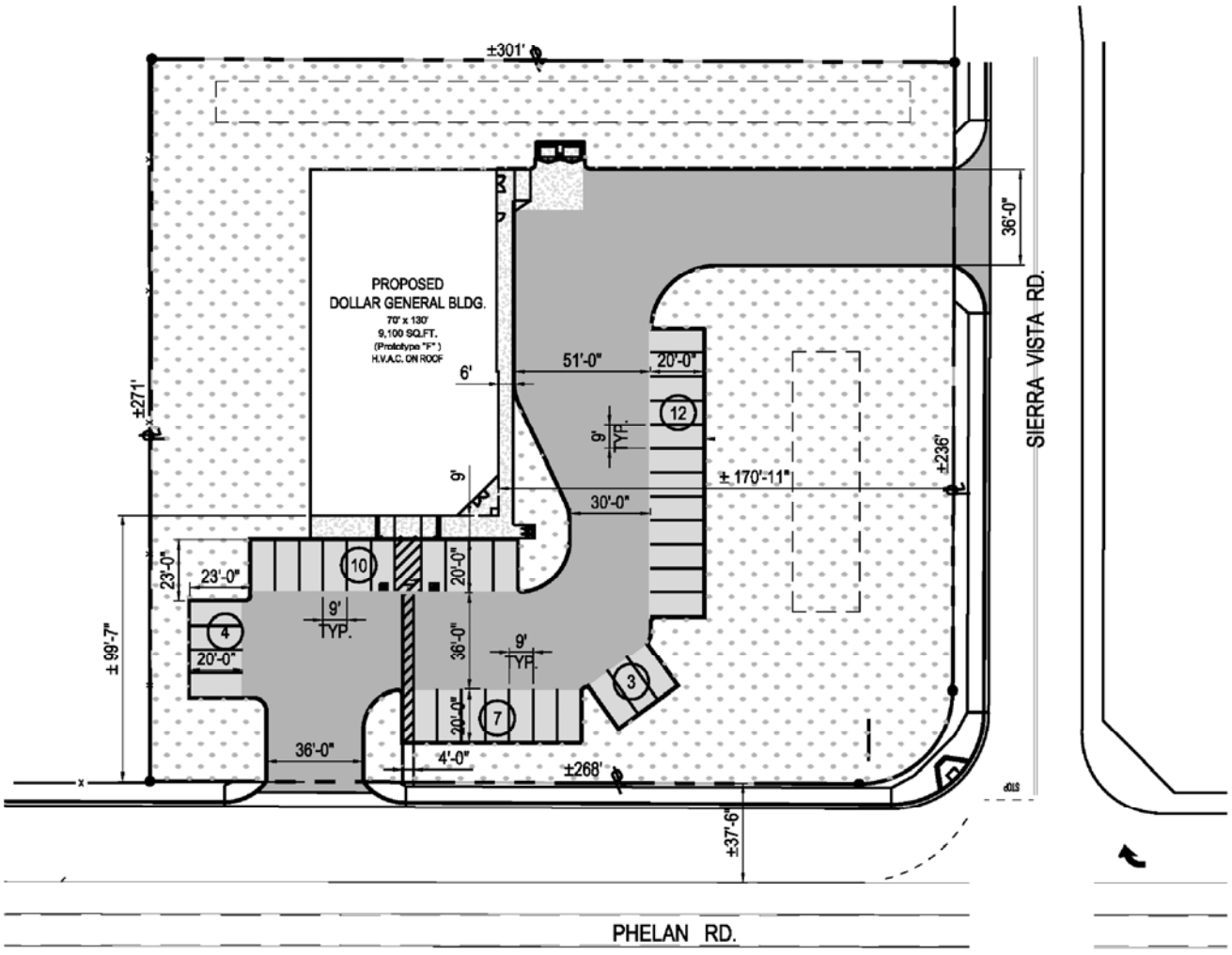
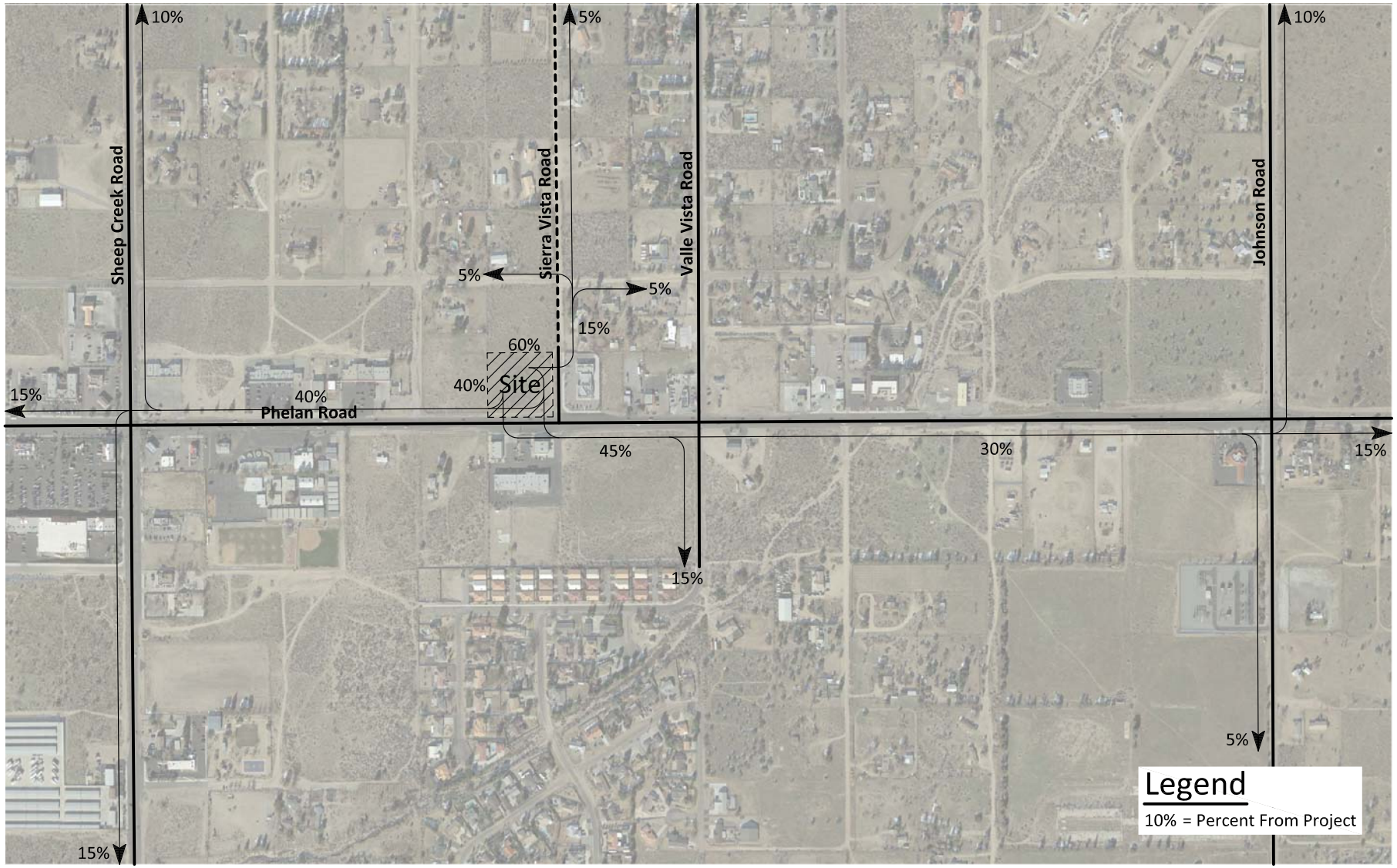


Figure 3
Project Outbound Trip Distribution

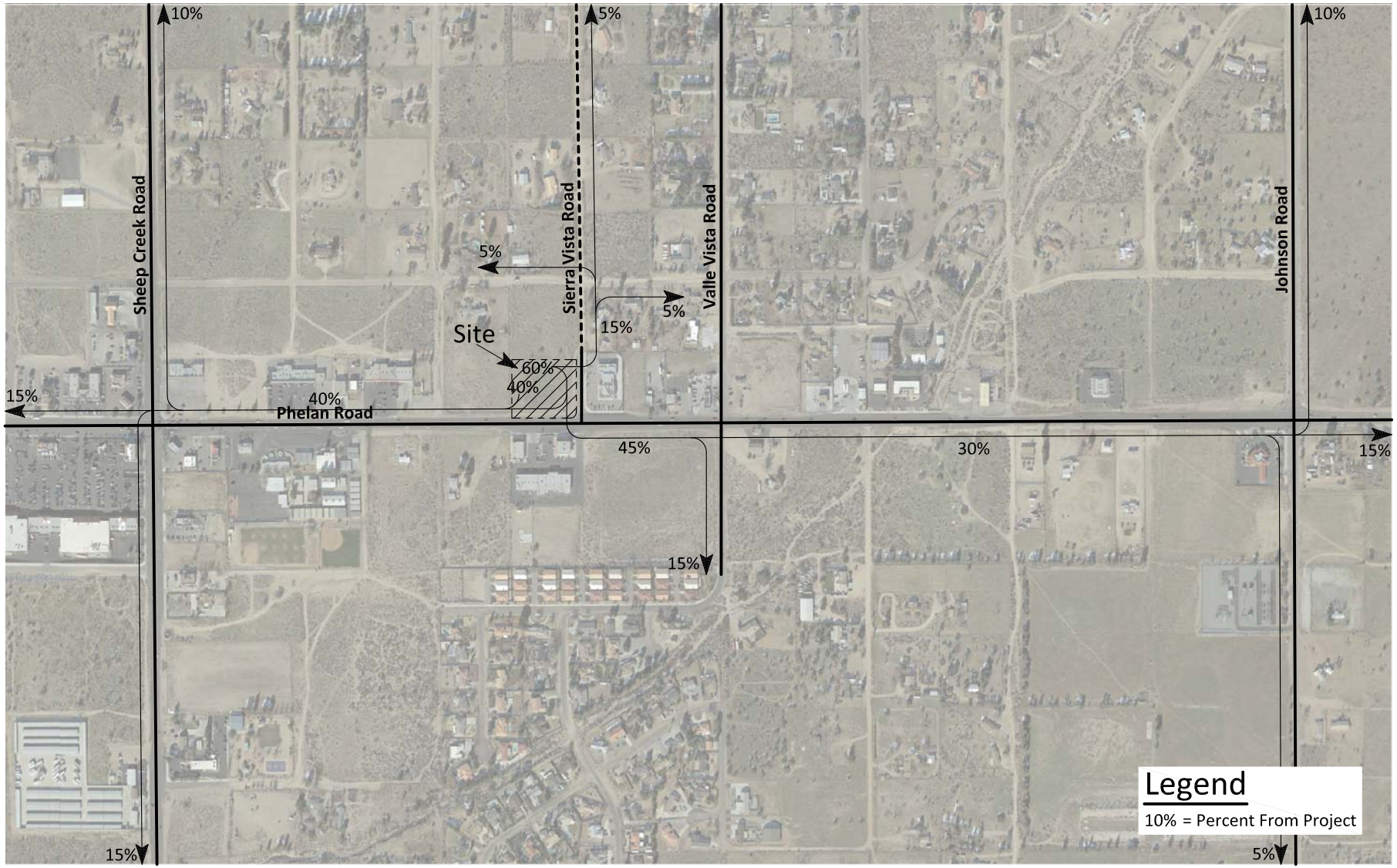


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

Figure 3
Project Outbound Trip Distribution

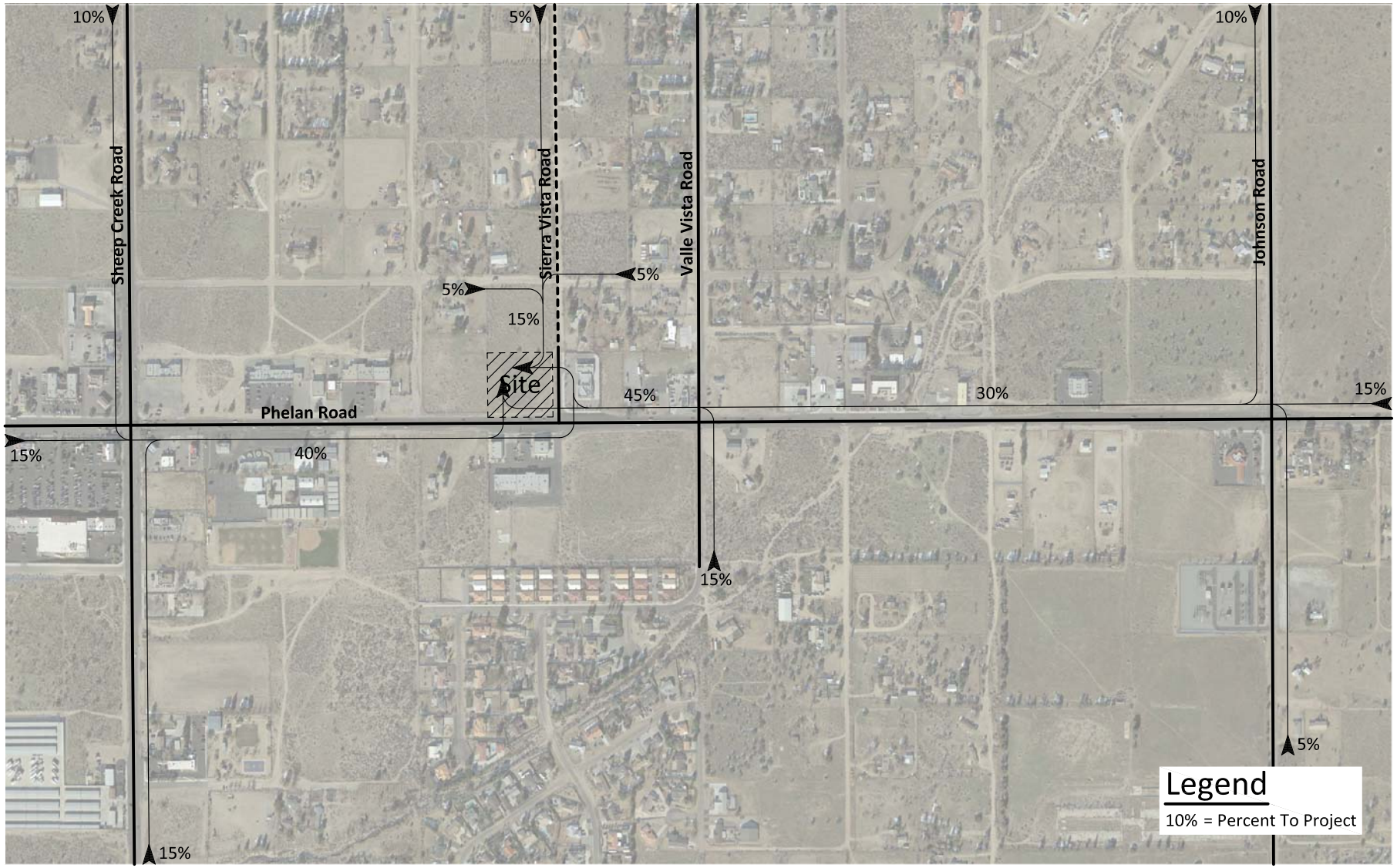


6368/1

Kunzman Associates, Inc.

Over 35 Years of Excellent Service

Figure 4
Project Inbound Trip Distribution



KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6368

APPENDIX C

Traffic Count Worksheets

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

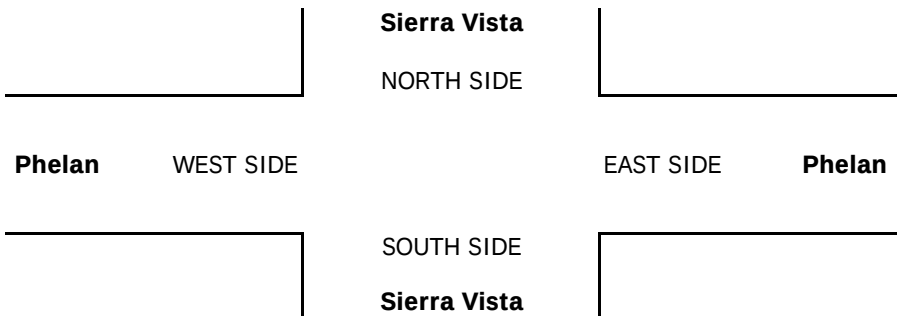
DATE:	LOCATION:	Phelan	PROJECT #:	SC1601
1/12/16	NORTH & SOUTH:	Sierra Vista	LOCATION #:	1
TUESDAY	EAST & WEST:	Phelan	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sierra Vista			SOUTHBOUND Sierra Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	63	2	0	83	0	148
	7:15 AM	0	0	0	0	0	0	0	83	3	6	90	0	182
	7:30 AM	0	0	0	1	0	0	0	90	0	5	138	0	234
	7:45 AM	0	0	1	0	0	0	0	115	1	1	196	0	314
	8:00 AM	1	0	2	1	0	0	0	107	1	2	132	1	247
	8:15 AM	2	0	3	0	0	0	0	90	0	2	109	0	206
	8:30 AM	2	0	1	0	0	1	1	92	1	6	96	3	203
	8:45 AM	1	0	1	0	0	0	0	85	0	3	91	0	181
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	6	0	8	2	0	1	1	725	8	25	935	4	1,715
	APPROACH %	43%	0%	57%	67%	0%	33%	0%	99%	1%	3%	97%	0%	
	APP/DEPART	14	/	5	3	/	33	734	/	735	964	/	942	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	3	0	6	2	0	0	0	402	2	10	575	1	1,001
	APPROACH %	33%	0%	67%	100%	0%	0%	0%	100%	0%	2%	98%	0%	
	PEAK HR FACTOR		0.450			0.500			0.871			0.744		0.797
	APP/DEPART	9	/	1	2	/	12	404	/	410	586	/	578	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	2	1	0	0	0	155	2	1	133	2	297
	4:15 PM	1	0	1	1	0	1	1	158	2	3	158	2	328
	4:30 PM	2	0	2	1	0	0	0	142	0	2	124	0	273
	4:45 PM	5	0	3	3	0	1	2	155	0	7	129	0	305
	5:00 PM	2	0	1	0	0	0	0	182	0	2	113	0	300
	5:15 PM	1	0	4	0	0	1	1	135	1	1	132	0	276
	5:30 PM	2	0	2	1	0	0	0	142	0	1	118	0	266
	5:45 PM	0	0	2	0	0	0	0	115	1	0	114	1	233
	VOLUMES	14	0	17	7	0	3	4	1,184	6	17	1,021	5	2,278
	APPROACH %	45%	0%	55%	70%	0%	30%	0%	99%	1%	2%	98%	0%	
	APP/DEPART	31	/	9	10	/	23	1,194	/	1,208	1,043	/	1,038	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	10	0	7	5	0	2	3	637	2	14	524	2	1,206
	APPROACH %	59%	0%	41%	71%	0%	29%	0%	99%	0%	3%	97%	0%	
	PEAK HR FACTOR		0.531			0.438			0.882			0.828		0.919
	APP/DEPART	17	/	5	7	/	16	642	/	649	540	/	536	0



INTERSECTION TURNING MOVEMENT COUNTS

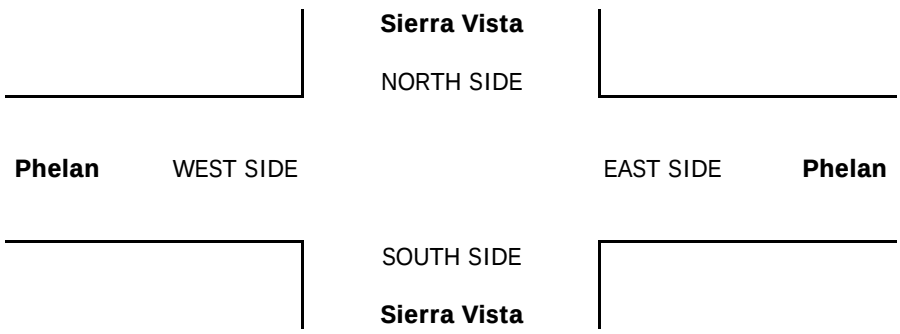
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Phelan	PROJECT #:	SC1601
1/12/16	NORTH & SOUTH:	Sierra Vista	LOCATION #:	1
TUESDAY	EAST & WEST:	Phelan	CONTROL:	STOP N/S

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sierra Vista			SOUTHBOUND Sierra Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	3	0	5
	7:15 AM	0	0	0	0	0	0	0	1	0	0	4	0	5
	7:30 AM	0	0	0	0	0	0	0	3	0	0	4	0	7
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	8:45 AM	0	0	0	0	0	0	0	5	0	0	5	0	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	16	0	0	20	0	36
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	16	/	16	20	/	20	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	0	10	0	0	9	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.450		0.475
	APP/DEPART	0	/	0	0	/	0	10	/	10	9	/	9	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	6	0	0	5	0	11
	4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	0	8	0	0	1	0	9
	5:15 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	5:30 PM	0	0	0	0	0	0	0	5	0	0	4	0	9
	5:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	2
	VOLUMES	1	0	0	0	0	0	0	28	0	0	14	0	43
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	0	28	/	28	14	/	15	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	19	0	0	8	0	27
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.594			0.400		0.614
	APP/DEPART	0	/	0	0	/	0	19	/	19	8	/	8	0



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	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:15 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	8	0	0	6	0	14
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	8	/	8	6	/	6	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	0	5	0	0	3	0	8
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.625			0.375		0.667
	APP/DEPART	0	/	0	0	/	0	5	/	5	3	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
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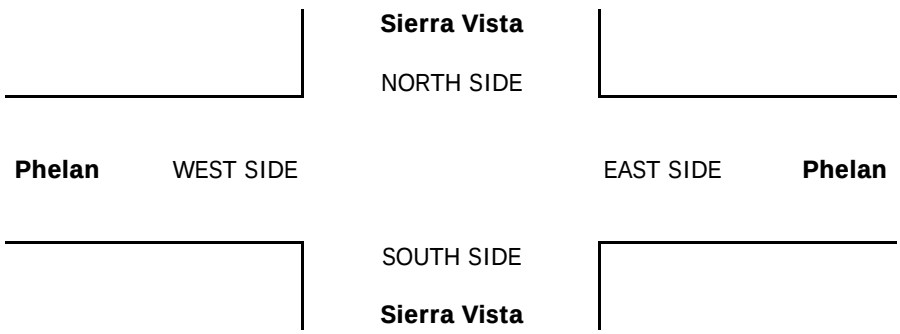
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	4	0	0	3	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	3	/	3	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	3	0	0	1	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.750			0.250		0.500
	APP/DEPART	0	/	0	0	/	0	3	/	3	1	/	1	0



INTERSECTION TURNING MOVEMENT COUNTS

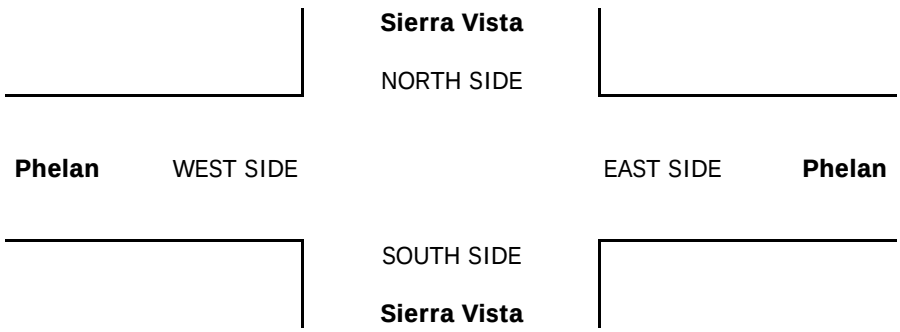
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Phelan	PROJECT #:	SC1601
1/12/16	NORTH & SOUTH:	Sierra Vista	LOCATION #:	1
TUESDAY	EAST & WEST:	Phelan	CONTROL:	STOP N/S

CLASS 4:	NOTES:
4 OR MORE AXLE TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sierra Vista			SOUTHBOUND Sierra Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
	7:30 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	7:45 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	8:00 AM	0	0	0	0	0	0	0	3	0	0	3	0	6
	8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
	8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	14	0	0	14	0	28
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	14	/	14	14	/	14	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	11	0	0	7	0	18
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.917			0.438		0.750
	APP/DEPART	0	/	0	0	/	0	11	/	11	7	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:45 PM	0	0	0	0	0	0	0	5	0	0	2	0	7
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	0	0	0	0	17	0	0	3	0	20
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	17	/	17	3	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	12	0	0	3	0	15
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.600			0.375		0.536
	APP/DEPART	0	/	0	0	/	0	12	/	12	3	/	3	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Phelan	PROJECT #:	SC1601
1/12/16	NORTH & SOUTH:	Sierra Vista	LOCATION #:	1
TUESDAY	EAST & WEST:	Phelan	CONTROL:	STOP N/S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Sierra Vista			SOUTHBOUND Sierra Vista			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Sierra Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sierra Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Phelan	PROJECT #:	SC1601
1/12/16	NORTH & SOUTH:	Sierra Vista	LOCATION #:	1
TUESDAY	EAST & WEST:	Phelan	CONTROL:	STOP N/S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Sierra Vista			SOUTHBOUND Sierra Vista			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
7:45 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
8:00 AM	0	0	0	0	0	0	0	5	0	0	2	0	7
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	12	0	0	10	0	22
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	12	/	12	10	/	10	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	10	0	0	7	0	17
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.875		0.607
APP/DEPART	0	/	0	0	/	0	10	/	10	7	/	7	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0

Sierra Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sierra Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	17	32	12	7	8	33	9	42	1	5	45	11	222
7:15 AM	2	17	17	11	15	18	6	46	3	9	56	2	202
7:30 AM	3	12	21	20	8	20	2	49	4	12	62	8	221
7:45 AM	14	22	29	38	25	24	14	75	4	23	70	7	345
8:00 AM	13	21	23	26	15	19	12	37	8	54	103	12	343
8:15 AM	14	30	25	16	25	20	6	56	13	29	78	7	319
8:30 AM	11	19	24	14	21	14	7	46	7	16	49	3	231
8:45 AM	29	38	30	11	49	21	5	39	4	30	58	8	322
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	103	191	181	143	166	169	61	390	44	178	521	58	2,205
APPROACH %	22%	40%	38%	30%	35%	35%	12%	79%	9%	24%	69%	8%	
APP/DEPART	475	/	310	478	/	388	495	/	714	757	/	793	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	52	92	101	94	86	77	39	214	32	122	300	29	1,238
APPROACH %	21%	38%	41%	37%	33%	30%	14%	75%	11%	27%	67%	6%	
PEAK HR FACTOR		0.888			0.739			0.766			0.667		0.897
APP/DEPART	245	/	160	257	/	240	285	/	409	451	/	429	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	27	34	33	30	20	26	25	51	7	28	86	15	382
4:15 PM	31	36	43	28	17	20	19	54	10	23	93	12	386
4:30 PM	25	39	51	25	27	23	15	92	11	28	92	10	438
4:45 PM	23	36	44	28	23	26	24	73	8	20	92	8	405
5:00 PM	14	33	43	23	22	21	23	71	7	23	83	11	374
5:15 PM	19	32	42	15	16	20	16	70	4	26	82	10	352
5:30 PM	14	25	39	25	24	17	19	52	4	26	71	7	323
5:45 PM	12	39	19	18	21	12	15	64	11	12	54	18	295
VOLUMES	165	274	314	192	170	165	156	527	62	186	653	91	2,955
APPROACH %	22%	36%	42%	36%	32%	31%	21%	71%	8%	20%	70%	10%	
APP/DEPART	753	/	521	527	/	418	745	/	1,033	930	/	983	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	106	145	171	111	87	95	83	270	36	99	363	45	1,611
APPROACH %	25%	34%	41%	38%	30%	32%	21%	69%	9%	20%	72%	9%	
PEAK HR FACTOR		0.917			0.951			0.824			0.975		0.920
APP/DEPART	422	/	273	293	/	222	389	/	552	507	/	564	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	1	1	1	1	4	0	2	0	0	2	0	12
	7:15 AM	0	1	3	0	2	1	0	4	0	1	8	0	20
	7:30 AM	0	1	1	1	0	2	1	6	1	2	6	1	22
	7:45 AM	1	1	1	2	0	2	2	10	1	1	4	0	25
	8:00 AM	2	0	2	0	0	2	0	4	0	0	5	1	16
	8:15 AM	2	2	2	3	1	1	1	3	1	1	5	1	23
	8:30 AM	2	2	4	1	1	0	0	2	0	1	5	0	18
	8:45 AM	0	2	2	2	1	4	1	4	0	1	7	1	25
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	10	16	10	6	16	5	35	3	7	42	4	161
	APPROACH %	21%	30%	48%	31%	19%	50%	12%	81%	7%	13%	79%	8%	
	APP/DEPART	33	/	19	32	/	16	43	/	61	53	/	65	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	5	4	6	6	1	7	4	23	3	4	20	3	86
	APPROACH %	33%	27%	40%	43%	7%	50%	13%	77%	10%	15%	74%	11%	
	PEAK HR FACTOR		0.625			0.700			0.577			0.750		0.860
	APP/DEPART	15	/	11	14	/	8	30	/	35	27	/	32	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	4	0	0	1	0	7	0	2	5	1	21
	4:15 PM	2	0	1	1	1	0	1	2	0	3	5	2	18
	4:30 PM	1	0	0	0	0	2	0	3	0	1	3	0	10
	4:45 PM	0	1	2	2	0	1	0	1	0	0	4	0	11
	5:00 PM	2	5	5	0	0	0	0	6	0	1	6	0	25
	5:15 PM	2	1	1	1	0	0	0	5	0	0	4	0	14
	5:30 PM	1	0	1	2	0	0	1	3	0	0	2	0	10
	5:45 PM	0	3	1	0	0	0	0	1	0	0	2	0	7
	VOLUMES	8	11	15	6	1	4	2	28	0	7	31	3	116
	APPROACH %	24%	32%	44%	55%	9%	36%	7%	93%	0%	17%	76%	7%	
	APP/DEPART	34	/	16	11	/	8	30	/	49	41	/	43	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	5	6	8	3	1	3	1	12	0	5	18	2	64
	APPROACH %	26%	32%	42%	43%	14%	43%	8%	92%	0%	20%	72%	8%	
	PEAK HR FACTOR		0.396			0.583			0.542			0.625		0.640
	APP/DEPART	19	/	9	7	/	6	13	/	23	25	/	26	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	0	3	0	0	0	0	0	0	5
	7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	1	1	0	1	1	4
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	1	0	0	0	1	0	0	0	1	0	4
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	1	0	1	0	0	0	0	1	0	0	2	0	5
	8:45 AM	0	0	0	0	1	0	0	1	0	0	3	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	2	2	1	1	3	1	4	1	0	7	1	25
	APPROACH %	33%	33%	33%	20%	20%	60%	17%	67%	17%	0%	88%	13%	
	APP/DEPART	6	/	4	5	/	2	6	/	7	8	/	12	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	2	0	2	0	1	0	1	3	0	0	6	0	15
	APPROACH %	50%	0%	50%	0%	100%	0%	25%	75%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.250			1.000			0.500		0.750
	APP/DEPART	4	/	1	1	/	1	4	/	5	6	/	8	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	0	0	0	2	0	0	1	1	5
	4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
	4:45 PM	0	0	1	0	0	0	0	0	0	0	4	0	5
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	1	0	0	0	0	1	0	3
	5:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
	5:45 PM	1	1	0	1	0	0	0	1	0	0	2	0	6
	VOLUMES	1	4	2	1	0	1	0	9	0	0	10	1	29
	APPROACH %	14%	57%	29%	50%	0%	50%	0%	100%	0%	0%	91%	9%	
	APP/DEPART	7	/	5	2	/	0	9	/	12	11	/	12	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	2	0	0	0	0	4	0	0	7	1	15
	APPROACH %	0%	33%	67%	0%	0%	0%	0%	100%	0%	0%	88%	13%	
	PEAK HR FACTOR		0.750			0.000			0.500			0.500		0.750
	APP/DEPART	3	/	2	0	/	0	4	/	6	8	/	7	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	7:30 AM	0	0	2	0	0	0	0	1	0	0	5	0	8
	7:45 AM	0	1	0	0	0	1	0	2	0	0	2	0	6
	8:00 AM	0	1	0	0	0	0	0	1	0	0	3	0	5
	8:15 AM	0	0	0	1	0	0	0	1	1	0	2	0	5
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	2	1	0	2	0	8	1	0	13	0	31
	APPROACH %	0%	67%	33%	33%	0%	67%	0%	89%	11%	0%	100%	0%	
	APP/DEPART	6	/	4	3	/	1	9	/	11	13	/	15	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	2	2	1	0	1	0	5	1	0	12	0	24
	APPROACH %	0%	50%	50%	50%	0%	50%	0%	83%	17%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.500			0.750			0.600		0.750
	APP/DEPART	4	/	2	2	/	1	6	/	8	12	/	13	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
	4:30 PM	0	1	0	0	0	1	0	1	0	0	1	0	4
	4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
	5:00 PM	0	1	0	0	0	0	0	1	0	0	1	0	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:30 PM	0	0	1	0	0	1	0	0	0	0	1	0	3
	5:45 PM	0	0	1	0	0	1	1	4	0	0	0	0	7
	VOLUMES	0	4	2	0	0	4	1	7	0	0	5	1	24
	APPROACH %	0%	67%	33%	0%	0%	100%	13%	88%	0%	0%	83%	17%	
	APP/DEPART	6	/	6	4	/	0	8	/	9	6	/	9	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	1	2	0	0	2	1	5	0	0	3	0	14
	APPROACH %	0%	33%	67%	0%	0%	100%	17%	83%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.750			0.500			0.300			0.750		0.500
	APP/DEPART	3	/	2	2	/	0	6	/	7	3	/	5	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		9:45 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Sheep Creek	LOCATION #:	3
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sheep Creek			SOUTHBOUND Sheep Creek			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
	7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	1	0	1	0	0	1	0	0	0	0	0	0	3
	7:45 AM	0	1	0	2	0	1	1	4	0	0	2	0	11
	8:00 AM	0	1	0	2	0	0	0	0	0	0	3	0	6
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	1	0	0	0	1	0	1	0	4
	8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	6	1	4	2	2	1	6	1	0	6	0	31
	APPROACH %	22%	67%	11%	50%	25%	25%	13%	75%	13%	0%	100%	0%	
	APP/DEPART	9	/	7	8	/	3	8	/	11	6	/	10	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	3	0	4	1	1	1	4	1	0	6	0	21
	APPROACH %	0%	100%	0%	67%	17%	17%	17%	67%	17%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.500			0.300			0.500		0.477
	APP/DEPART	3	/	4	6	/	2	6	/	8	6	/	7	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
	4:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
	5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	1	2	1	1	0	3	0	0	3	0	12
	APPROACH %	50%	0%	50%	50%	25%	25%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	2	/	0	4	/	1	3	/	6	3	/	5	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	1	1	1	0	0	3	0	0	2	0	8
	APPROACH %	0%	0%	100%	50%	50%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.500			0.750			0.250		0.667
	APP/DEPART	1	/	0	2	/	1	3	/	5	2	/	2	0

Sheep Creek

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Sheep Creek

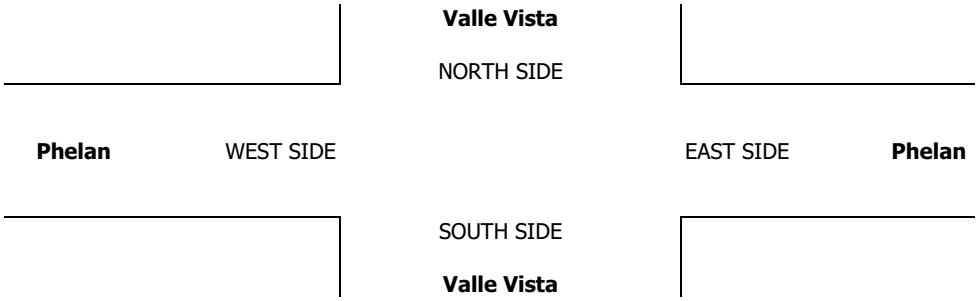
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:					
12/9/14	LOCATION:	Phelan	PROJECT #:	SC0492	
TUESDAY	NORTH & SOUTH:	Valle Vista	LOCATION #:	4	
	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S	

CLASS 1:	NOTES:	AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼
PASSENGER VEHICLES			

	NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	1	1	0	
7:00 AM	4	0	2	2	0	6	3	52	0	0	42	1	112
7:15 AM	2	0	3	3	0	4	1	63	2	0	68	2	148
7:30 AM	1	1	7	2	1	3	4	66	3	3	98	3	192
7:45 AM	1	0	5	3	1	5	8	84	5	2	111	3	228
8:00 AM	1	0	5	4	0	3	6	84	4	1	128	3	239
8:15 AM	2	0	1	0	0	3	1	90	4	5	63	2	171
8:30 AM	0	1	3	2	2	5	2	70	3	2	78	1	169
8:45 AM	0	2	1	3	0	7	3	69	1	1	93	2	182
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM VOLUMES	11	4	27	19	4	36	28	578	22	14	681	17	1,441
APPROACH %	26%	10%	64%	32%	7%	61%	4%	92%	4%	2%	96%	2%	
APP/DEPART	42	/	49	59	/	40	628	/	624	712	/	728	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	5	1	18	9	2	14	19	324	16	11	400	11	830
APPROACH %	21%	4%	75%	36%	8%	56%	5%	90%	4%	3%	95%	3%	
PEAK HR FACTOR		0.667			0.694			0.925			0.799		0.868
APP/DEPART	24	/	31	25	/	29	359	/	351	422	/	419	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	1	3	0	3	6	129	3	4	127	3	280
4:15 PM	1	0	4	2	0	4	5	116	2	2	123	2	261
4:30 PM	2	0	2	0	0	4	10	146	4	4	121	7	300
4:45 PM	2	0	2	5	0	5	5	138	3	8	117	3	288
5:00 PM	4	0	2	12	0	7	5	132	3	3	105	3	276
5:15 PM	2	1	1	2	0	3	5	144	4	2	90	4	258
5:30 PM	1	0	2	1	0	5	5	123	3	2	83	5	230
5:45 PM	0	0	1	0	1	3	3	84	1	3	79	4	179
PM VOLUMES	13	1	15	25	1	34	44	1,012	23	28	845	31	2,072
APPROACH %	45%	3%	52%	42%	2%	57%	4%	94%	2%	3%	93%	3%	
APP/DEPART	29	/	76	60	/	52	1,079	/	1,052	904	/	892	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	6	0	9	10	0	16	26	529	12	18	488	15	1,129
APPROACH %	40%	0%	60%	38%	0%	62%	5%	93%	2%	3%	94%	3%	
PEAK HR FACTOR		0.750			0.650			0.886			0.972		0.941
APP/DEPART	15	/	41	26	/	30	567	/	548	521	/	510	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Valle Vista	LOCATION #:	4
TUESDAY	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

	NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	2	0	0	17	0	19
7:15 AM	0	0	0	0	0	0	1	3	1	0	14	1	20
7:30 AM	1	0	0	0	0	0	0	8	0	0	21	0	30
7:45 AM	0	0	0	0	0	0	0	3	0	0	9	0	12
8:00 AM	0	0	0	0	0	1	0	0	1	0	5	0	7
8:15 AM	0	0	0	1	0	1	0	2	0	0	8	0	12
8:30 AM	0	0	0	0	0	1	0	5	0	0	7	0	13
8:45 AM	0	0	0	0	0	1	0	5	0	0	11	1	18
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	1	0	4	1	28	2	0	92	2	131
APPROACH %	100%	0%	0%	20%	0%	80%	3%	90%	6%	0%	98%	2%	
APP/DEPART	1	/	3	5	/	2	31	/	29	94	/	97	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	1	0	0	0	0	0	1	16	1	0	61	1	81
APPROACH %	100%	0%	0%	0%	0%	0%	6%	89%	6%	0%	98%	2%	
PEAK HR FACTOR		0.250			0.000			0.563			0.738		0.675
APP/DEPART	1	/	2	0	/	1	18	/	16	62	/	62	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	1	7	0	0	6	0	15
4:15 PM	1	0	1	2	0	1	0	4	0	0	4	2	15
4:30 PM	0	0	0	1	0	0	1	3	0	0	4	0	9
4:45 PM	0	0	0	0	0	0	2	2	0	0	7	0	11
5:00 PM	0	0	0	0	0	2	0	3	0	0	4	0	9
5:15 PM	0	0	0	1	0	0	0	0	0	0	17	0	18
5:30 PM	0	0	0	0	0	1	0	6	0	0	13	0	20
5:45 PM	0	0	0	0	0	1	1	6	0	1	13	1	23
VOLUMES	2	0	1	4	0	5	5	31	0	1	68	3	120
APPROACH %	67%	0%	33%	44%	0%	56%	14%	86%	0%	1%	94%	4%	
APP/DEPART	3	/	8	9	/	1	36	/	36	72	/	75	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	1	0	4	1	15	0	1	47	1	70
APPROACH %	0%	0%	0%	20%	0%	80%	6%	94%	0%	2%	96%	2%	
PEAK HR FACTOR		0.000			0.625			0.571			0.721		0.761
APP/DEPART	0	/	2	5	/	1	16	/	16	49	/	51	0

Valle Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Valle Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Valle Vista	LOCATION #:	4
TUESDAY	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	3	0	0	6	0	9
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:00 AM	0	0	0	0	0	1	0	3	0	0	6	0	10
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	13	0	0	17	0	31
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	13	/	13	17	/	18	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	1	0	9	0	0	12	0	22
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.250			0.750			0.500		0.550
	APP/DEPART	0	/	0	1	/	0	9	/	9	12	/	13	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	0	0	0	0	1	1	0	0	1	0	4
	4:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	0	1	0	0	5	0	6
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	VOLUMES	1	0	0	1	0	0	1	3	0	0	10	0	16
	APPROACH %	100%	0%	0%	100%	0%	0%	25%	75%	0%	0%	100%	0%	
	APP/DEPART	1	/	1	1	/	0	4	/	4	10	/	11	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	1	0	0	1	0	0	1	2	0	0	7	0	12
	APPROACH %	100%	0%	0%	100%	0%	0%	33%	67%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.250			0.375			0.350		0.500
	APP/DEPART	1	/	1	1	/	0	3	/	3	7	/	8	0

Valle Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Valle Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Valle Vista	LOCATION #:	4
TUESDAY	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	1	0	1	0	0	1	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	2	0	0	2	1	5
	8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	1	3	0	0	5	1	11
	APPROACH %	0%	0%	0%	0%	0%	100%	25%	75%	0%	0%	83%	17%	
	APP/DEPART	0	/	2	1	/	0	4	/	3	6	/	6	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	1	1	3	0	0	4	1	10
	APPROACH %	0%	0%	0%	0%	0%	100%	25%	75%	0%	0%	80%	20%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.417		0.500
	APP/DEPART	0	/	2	1	/	0	4	/	3	5	/	5	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
	VOLUMES	0	0	0	0	0	0	0	6	0	0	4	0	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	6	/	6	4	/	4	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	4	0	0	2	0	6
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.500		0.375
	APP/DEPART	0	/	0	0	/	0	4	/	4	2	/	2	0

Valle Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Valle Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Valle Vista	LOCATION #:	4
TUESDAY	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		9:45 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Valle Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Valle Vista

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Valle Vista	LOCATION #:	4
TUESDAY	EAST & WEST:	Phelan	CONTROL:	Stop 2way-N/S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Valle Vista			SOUTHBOUND Valle Vista			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:45 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
	8:00 AM	0	0	0	0	0	0	0	4	0	0	3	0	7
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	11	0	0	7	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	8%	92%	0%	0%	100%	0%	
	APP/DEPART	0	/	1	0	/	0	12	/	11	7	/	7	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	10	0	0	6	0	16
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.625			0.500		0.571
	APP/DEPART	0	/	0	0	/	0	10	/	10	6	/	6	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	4:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	7	0	0	5	0	12
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	7	/	7	5	/	5	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	6	0	0	4	0	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.750			0.500		0.625
	APP/DEPART	0	/	0	0	/	0	6	/	6	4	/	4	0

Valle Vista

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Valle Vista

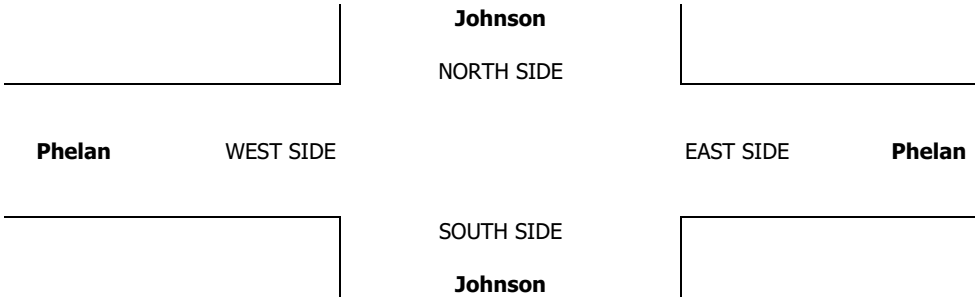
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:					
12/9/14	LOCATION:	Phelan	PROJECT #:	SC0492	
TUESDAY	NORTH & SOUTH:	Johnson	LOCATION #:	5	
	EAST & WEST:	Phelan	CONTROL:	SIGNAL	

CLASS 1:	NOTES:	AM / PM / MD / OTHER / OTHER
PASSENGER VEHICLES		▲ N ◄ W E ► S ▼

	NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	2	10	35	7	5	8	6	50	0	18	51	3	195
7:15 AM	1	2	31	8	5	3	4	54	2	16	70	6	202
7:30 AM	0	3	42	19	4	14	2	60	1	18	83	5	251
7:45 AM	4	2	50	25	16	33	9	88	2	35	87	9	360
8:00 AM	4	5	37	5	3	22	9	70	1	21	105	10	292
8:15 AM	1	3	40	9	9	8	4	67	2	19	71	6	239
8:30 AM	2	7	25	10	9	15	9	62	0	22	65	2	228
8:45 AM	6	9	29	1	15	11	7	63	1	29	85	7	263
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	20	41	289	84	66	114	50	514	9	178	617	48	2,030
APPROACH %	6%	12%	83%	32%	25%	43%	9%	90%	2%	21%	73%	6%	
APP/DEPART	350	/	139	264	/	253	573	/	887	843	/	751	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	9	13	169	58	32	77	24	285	6	93	346	30	1,142
APPROACH %	5%	7%	88%	35%	19%	46%	8%	90%	2%	20%	74%	6%	
PEAK HR FACTOR		0.853			0.564			0.795			0.862		0.793
APP/DEPART	191	/	67	167	/	131	315	/	512	469	/	432	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	4	9	45	7	10	8	18	98	3	24	94	14	334
4:15 PM	3	4	42	13	6	10	14	111	3	16	114	14	350
4:30 PM	4	12	50	11	10	16	27	101	4	18	97	12	362
4:45 PM	4	15	41	8	4	9	27	122	2	21	90	5	348
5:00 PM	1	5	25	6	4	9	19	118	2	22	98	8	317
5:15 PM	3	7	24	5	6	14	19	117	4	16	92	8	315
5:30 PM	0	3	20	8	3	12	18	103	2	13	84	13	279
5:45 PM	2	6	11	7	5	16	7	64	2	11	79	8	218
VOLUMES	21	61	258	65	48	94	149	834	22	141	748	82	2,523
APPROACH %	6%	18%	76%	31%	23%	45%	15%	83%	2%	15%	77%	8%	
APP/DEPART	340	/	292	207	/	211	1,005	/	1,157	971	/	863	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	15	40	178	39	30	43	86	432	12	79	395	45	1,394
APPROACH %	6%	17%	76%	35%	27%	38%	16%	82%	2%	15%	76%	9%	
PEAK HR FACTOR		0.883			0.757			0.877			0.901		0.963
APP/DEPART	233	/	171	112	/	121	530	/	649	519	/	453	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Johnson	LOCATION #:	5
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	1	0	1	1	1	3	0	0	1	0	8
	7:15 AM	0	0	1	0	0	0	0	1	0	1	4	0	7
	7:30 AM	0	0	3	0	0	1	1	4	0	1	5	0	15
	7:45 AM	0	1	0	0	0	2	0	2	0	1	4	0	10
	8:00 AM	0	0	0	0	0	2	1	1	1	0	3	0	8
	8:15 AM	0	0	2	0	1	0	1	2	0	1	0	0	7
	8:30 AM	0	0	0	1	0	0	1	4	0	1	5	2	14
	8:45 AM	0	0	1	1	0	3	1	4	0	0	5	0	15
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	8	2	2	9	6	21	1	5	27	2	84
	APPROACH %	0%	11%	89%	15%	15%	69%	21%	75%	4%	15%	79%	6%	
	APP/DEPART	9	/	9	13	/	8	28	/	31	34	/	36	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	3	2	1	5	4	11	1	2	13	2	44
	APPROACH %	0%	0%	100%	25%	13%	63%	25%	69%	6%	12%	76%	12%	
	PEAK HR FACTOR		0.375			0.500			0.800			0.531		0.733
	APP/DEPART	3	/	6	8	/	4	16	/	16	17	/	18	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	2	1	1	0	0	1	5	0	1	8	1	21
	4:15 PM	1	1	0	1	0	1	3	5	0	0	4	1	17
	4:30 PM	0	1	1	0	0	0	2	3	0	2	5	0	14
	4:45 PM	0	1	1	1	0	1	2	5	0	0	7	2	20
	5:00 PM	0	0	0	0	0	1	1	5	0	0	6	0	13
	5:15 PM	0	0	2	0	0	1	0	3	0	0	4	0	10
	5:30 PM	0	0	2	0	1	0	1	3	0	0	4	2	13
	5:45 PM	0	1	1	0	0	0	1	3	0	0	4	2	12
	VOLUMES	2	6	8	3	1	4	11	32	0	3	42	8	120
	APPROACH %	13%	38%	50%	38%	13%	50%	26%	74%	0%	6%	79%	15%	
	APP/DEPART	16	/	25	8	/	4	43	/	43	53	/	48	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	5	3	3	0	2	8	18	0	3	24	4	72
	APPROACH %	20%	50%	30%	60%	0%	40%	31%	69%	0%	10%	77%	13%	
	PEAK HR FACTOR		0.625			0.625			0.813			0.775		0.857
	APP/DEPART	10	/	17	5	/	3	26	/	24	31	/	28	0

Johnson

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Johnson

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Johnson	LOCATION #:	5
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	1	0	0	0	0	2	0	0	0	1	4
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	2	0	0	0	0	1	0	1	1	0	5
8:30 AM	0	0	1	0	0	0	1	0	0	0	1	0	3
8:45 AM	0	0	0	0	0	0	0	2	0	0	2	1	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	4	0	0	0	1	8	0	1	5	2	21
APPROACH %	0%	0%	100%	0%	0%	0%	11%	89%	0%	13%	63%	25%	
APP/DEPART	4	/	3	0	/	1	9	/	12	8	/	5	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	3	0	0	0	1	4	0	1	4	1	14
APPROACH %	0%	0%	100%	0%	0%	0%	20%	80%	0%	17%	67%	17%	
PEAK HR FACTOR		0.375			0.000			0.625			0.500		0.700
APP/DEPART	3	/	2	0	/	1	5	/	7	6	/	4	0
PM													
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	1	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
VOLUMES	0	0	0	1	0	0	0	8	0	0	3	3	15
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	50%	50%	
APP/DEPART	0	/	3	1	/	0	8	/	9	6	/	3	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	4	0	0	2	3	9
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	40%	60%	
PEAK HR FACTOR		0.000			0.000			1.000			0.625		0.750
APP/DEPART	0	/	3	0	/	0	4	/	4	5	/	2	0

Johnson

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Johnson

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Johnson	LOCATION #:	5
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	2	1	0	0	1	0	4
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
7:30 AM	0	0	0	0	0	0	1	3	0	0	5	0	9
7:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	1	0	0	6	0	7
8:15 AM	0	0	1	0	0	0	0	1	0	0	2	0	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	3	10	0	0	14	1	29
APPROACH %	0%	0%	100%	0%	0%	0%	23%	77%	0%	0%	93%	7%	
APP/DEPART	1	/	4	0	/	0	13	/	11	15	/	14	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	0	0	1	0	0	0	1	7	0	0	13	0	22
APPROACH %	0%	0%	100%	0%	0%	0%	13%	88%	0%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.000			0.500			0.542		0.611
APP/DEPART	1	/	1	0	/	0	8	/	8	13	/	13	0
PM													
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
4:45 PM	0	0	0	1	0	0	0	2	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
VOLUMES	0	0	0	2	0	0	0	7	0	0	5	0	14
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	2	/	0	7	/	9	5	/	5	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	0	2	0	0	0	3	0	0	5	0	10
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.500			0.375			0.625		0.833
APP/DEPART	0	/	0	2	/	0	3	/	5	5	/	5	0

Johnson

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Johnson

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Johnson	LOCATION #:	5
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		9:45 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM													
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		5:45 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Johnson

NORTH SIDE

Phelan WEST SIDE EAST SIDE **Phelan**

SOUTH SIDE

Johnson

INTERSECTION TURNING MOVEMENT COUNTS

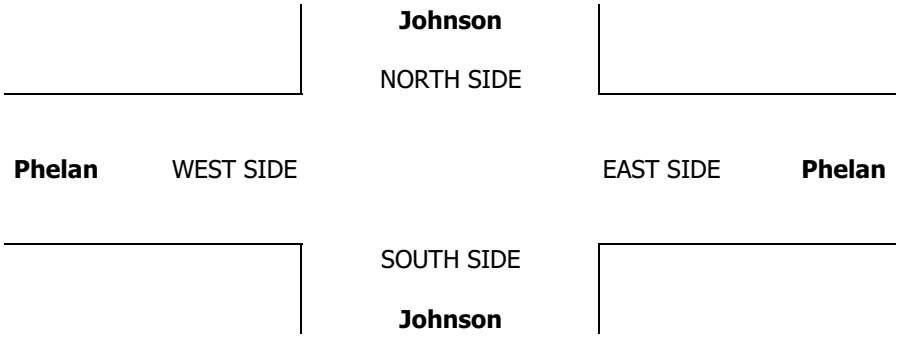
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	Phelan	PROJECT #:	SC0492
12/9/14	NORTH & SOUTH:	Johnson	LOCATION #:	5
TUESDAY	EAST & WEST:	Phelan	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Johnson			SOUTHBOUND Johnson			EASTBOUND Phelan			WESTBOUND Phelan			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	0	2	1	0	0	1	0	0	1	0	1	6
7:15 AM	0	0	2	0	0	0	0	0	0	0	0	1	3
7:30 AM	0	0	1	0	1	0	1	0	0	2	1	0	6
7:45 AM	0	0	2	0	0	0	0	3	0	1	2	0	8
8:00 AM	0	0	0	1	0	0	1	5	0	0	3	1	11
8:15 AM	0	0	0	0	1	0	0	1	0	1	1	0	4
8:30 AM	0	0	6	0	1	0	0	0	0	0	0	0	7
8:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	15	2	3	0	3	9	0	5	7	3	47
APPROACH %	0%	0%	100%	40%	60%	0%	25%	75%	0%	33%	47%	20%	
APP/DEPART	15	/	6	5	/	8	12	/	26	15	/	7	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	8	1	2	0	1	9	0	2	6	1	30
APPROACH %	0%	0%	100%	33%	67%	0%	10%	90%	0%	22%	67%	11%	
PEAK HR FACTOR		0.333			0.750			0.417			0.563		0.682
APP/DEPART	8	/	2	3	/	4	10	/	18	9	/	6	0
PM													
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	1	1	0	0	0	1	0	0	1	1	6
4:15 PM	0	0	1	2	0	0	0	2	0	0	1	0	6
4:30 PM	0	0	2	1	0	0	0	1	0	0	0	0	4
4:45 PM	0	0	1	0	0	0	0	2	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	1	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	5	4	0	0	0	7	0	0	3	2	22
APPROACH %	0%	17%	83%	100%	0%	0%	0%	100%	0%	0%	60%	40%	
APP/DEPART	6	/	3	4	/	0	7	/	16	5	/	3	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	1	5	4	0	0	0	6	0	0	2	1	19
APPROACH %	0%	17%	83%	100%	0%	0%	0%	100%	0%	0%	67%	33%	
PEAK HR FACTOR		0.750			0.500			0.750			0.375		0.792
APP/DEPART	6	/	2	4	/	0	6	/	15	3	/	2	0



APPENDIX D

Future Growth Increment Calculation Worksheets

AVERAGE DAILY TRAFFIC

INTERSECTION	LEG	MODEL **2008** ADT	EXISTING **2014** ADT	MODEL **2035** ADT	FUTURE **2035** ADT[1]	OPENING **2017** ADT
Sheep Creek Road (NS) at:	North	4,760	**7,100**	4,295	7,800	7,200
Phelan Road (EW) -#1	South	7,019	**8,000**	8,829	9,400	8,200
	East	6,550	**13,700**	9,114	15,700	14,000
	West	3,029	**12,200**	3,556	13,400	12,400
Project South Access (NS) at:	North	-	**-**	-	-	-
Phelan Road (EW) -#2	South	-	**-**	-	-	-
	East	6,550	**13,700**	9,114	15,700	14,000
	West	6,550	**13,700**	9,114	15,700	14,000
Sierra Vista Road (NS) at:	North	-	**300**	-	330	304
Project North Access (EW) -#3	South	-	**300**	-	330	304
	East	-	**-**	-	-	-
	West	-	**-**	-	-	-
Sierra Vista Road (NS) at:	North	-	**100**	-	110	101
Phelan Road (EW) -#4	South	-	**400**	-	440	406
	East	6,550	**13,700**	9,114	15,700	14,000
	West	6,550	**13,700**	9,114	15,700	14,000
Valle Vista Road (NS) at:	North	734	**1,000**	1,513	1,600	1,100
Phelan Road (EW) -#5	South	1,842	**600**	3,416	1,800	800
	East	8,343	**13,600**	11,344	15,900	13,900
	West	6,550	**13,700**	9,114	15,700	14,000
Johnson Road (NS) at:	North	1,497	**3,900**	2,952	5,000	4,100
Phelan Road (EW) -#6	South	-	**4,500**	-	5,000	4,600
	East	9,111	**15,200**	9,938	16,700	15,400
	West	8,343	**12,700**	11,344	15,000	13,000
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-
		-		-	-	-

6368

Adjusted for minimum 10% growth over existing average daily traffic volumes for year 2040.

Sheep Creek Road (NS) at: Phelan Road (EW) - #1

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

				77	86	94		
				<	v	>		
		39	^				^	29
		214	>				<	300
		32	v				v	122
				<	^	>		
				52	92	101		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

					257	160		
					v	^		
		429	<	IN =	1238	<		451
		285	>	OUT =	1238	>		409
					v	^		
					240	245		

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

				13	5	20		
				<	v	>		
		9	^				^	3
		56	>				<	68
		8	v				v	5
				<	^	>		
				15	20	18		

PCE FACTORS BY AXLE:

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

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

				90	91	114		
				<	v	>		
		48	^				^	32
		270	>				<	368
		40	v				v	127
				<	^	>		
				67	112	119		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					720	**305**		
					v	^		
		197	<	IN =	2198	<		**793**
		314	>	OUT =	2197	>		**502**
					v	^		
					1193	**371**		

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

2008

					7	**10**		
					v	^		
		8	<	IN =	41	<		**13**
		10	>	OUT =	40	>		**12**
					v	^		
					10	**11**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

					276	119		
					v	^		
		78	<	IN =	849	<		306
		123	>	OUT =	848	>		195
					v	^		
					457	145		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					674	**289**		
					v	^		
		290	<	IN =	2869	<		**1412**
		356	>	OUT =	2867	>		**586**
					v	^		
					1702	**427**		

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

2035

					11	**8**		
					v	^		
		15	<	IN =	71	<		**35**
		14	>	OUT =	69	>		**17**
					v	^		
					29	**11**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					260	112		
					v	^		
		115	<	IN =	1114	<		548
		140	>	OUT =	1112	>		228
					v	^		
					656	166		

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: **2035**

FACTOR = **1.00**

					-16	-7		
					v	^		
		38	<			<		243
		17	>			>		34
					v	^		
					200	21		

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					30	20		
					v	^		
		50	<	IN =	330	<		240
		40	>	OUT =	320	>		50
					v	^		
					200	20		

FUTURE YEAR GROWTH: 2014 TO **2017**

3 YEARS

					0	0		
					v	^		
		10	<			<		30
		0	>			>		10
					v	^		
					20	0		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

				95	87	111		
				<	v	>		
		83	^				^	45
		270	>				<	363
		36	v				v	99
				<	^	>		
				106	145	171		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

					293	273		
					v	^		
		564	<	IN =	1611	<		507
		389	>	OUT =	1611	>		552
					v	^		
					222	422		

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

				12	4	7		
				<	v	>		
		2	^				^	10
		40	>				<	50
		0	v				v	9
				<	^	>		
				5	14	17		

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

				107	91	118		
				<	v	>		
		85	^				^	55
		310	>				<	413
		36	v				v	108
				<	^	>		
				111	159	188		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					588	**830**		
					v	^		
		500	<	IN =	3381	<		**945**
		454	>	OUT =	3378	>		**1212**
					v	^		
					836	**1394**		

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

2008

					12	**10**		
					v	^		
		9	<	IN =	61	<		**18**
		20	>	OUT =	58	>		**21**
					v	^		
					18	**11**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

					168	235		
					v	^		
		142	<	IN =	962	<		269
		132	>	OUT =	960	>		345
					v	^		
					239	393		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					541	**809**		
					v	^		
		616	<	IN =	4205	<		**1204**
		524	>	OUT =	4204	>		**1782**
					v	^		
					997	**1936**		

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

2035

					12	**16**		
					v	^		
		23	<	IN =	113	<		**42**
		29	>	OUT =	110	>		**43**
					v	^		
					28	**30**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					154	231		
					v	^		
		178	<	IN =	1206	<		348
		154	>	OUT =	1205	>		510
					v	^		
					286	550		

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: 2035

FACTOR = 1.00

					-13	-4		
					v	^		
		36	<			<		79
		22	>			>		165
					v	^		
					48	157		

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					30	30		
					v	^		
		60	<	IN =	310	<		80
		40	>	OUT =	310	>		170
					v	^		
					50	160		

FUTURE YEAR GROWTH: 2014 TO 2017

3 YEARS

					0	0		
					v	^		
		10	<			<		10
		0	>			>		20
					v	^		
					10	20		

Sheep Creek Road (NS) at: Phelan Road (EW) - #1

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**67**	SOUTH LEG		NORTH	LEFT	**111**	SOUTH LEG	
BOUND	THRU	**112**	IN ...	**300**	BOUND	THRU	**159**	IN ...	**480**
	RIGHT	**119**	OUT ...	**280**		RIGHT	**188**	OUT ...	**250**
SOUTH	LEFT	**114**	NORTH LEG		SOUTH	LEFT	**118**	NORTH LEG	
BOUND	THRU	**91**	IN ...	**300**	BOUND	THRU	**91**	IN ...	**320**
	RIGHT	**90**	OUT ...	**190**		RIGHT	**107**	OUT ...	**300**
EAST	LEFT	**48**	WEST LEG		EAST	LEFT	**85**	WEST LEG	
BOUND	THRU	**270**	IN ...	**360**	BOUND	THRU	**310**	IN ...	**430**
	RIGHT	**40**	OUT ...	**540**		RIGHT	**36**	OUT ...	**640**
WEST	LEFT	**127**	EAST LEG		WEST	LEFT	**108**	EAST LEG	
BOUND	THRU	**368**	IN ...	**560**	BOUND	THRU	**413**	IN ...	**590**
	RIGHT	**32**	OUT ...	**510**		RIGHT	**55**	OUT ...	**640**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**67**	**68**	NORTH LEG	NORTH	LEFT	**111**	**115**	NORTH LEG
BOUND	THRU	**112**	**112**	RATIO **6.9%**	BOUND	THRU	**159**	**163**	RATIO **8.7%**
	RIGHT	**119**	**123**	ADT 7,200		RIGHT	**188**	**204**	ADT 7,200
SOUTH	LEFT	**114**	**116**	SOUTH LEG	SOUTH	LEFT	**118**	**122**	SOUTH LEG
BOUND	THRU	**91**	**96**	RATIO **7.1%**	BOUND	THRU	**91**	**95**	RATIO **8.9%**
	RIGHT	**90**	**90**	ADT 8,200		RIGHT	**107**	**108**	ADT 8,200
EAST	LEFT	**48**	**49**	EAST LEG	EAST	LEFT	**85**	**86**	EAST LEG
BOUND	THRU	**270**	**272**	RATIO **7.7%**	BOUND	THRU	**310**	**314**	RATIO **8.8%**
	RIGHT	**40**	**42**	ADT 14,000		RIGHT	**36**	**37**	ADT 14,000
WEST	LEFT	**127**	**142**	WEST LEG	WEST	LEFT	**108**	**118**	WEST LEG
BOUND	THRU	**368**	**385**	RATIO **7.3%**	BOUND	THRU	**413**	**420**	RATIO **8.7%**
	RIGHT	**32**	**33**	ADT 12,400		RIGHT	**55**	**55**	ADT 12,400

Sheep Creek Road (NS) at: Phelan Road (EW) - #1

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH	LEFT	**67**	SOUTH LEG		NORTH	LEFT	**111**	SOUTH LEG	
BOUND	THRU	**112**	IN ...	**320**	BOUND	THRU	**159**	IN ...	**580**
	RIGHT	**119**	OUT ...	**420**		RIGHT	**188**	OUT ...	**280**
SOUTH	LEFT	**114**	NORTH LEG		SOUTH	LEFT	**118**	NORTH LEG	
BOUND	THRU	**91**	IN ...	**320**	BOUND	THRU	**91**	IN ...	**340**
	RIGHT	**90**	OUT ...	**210**		RIGHT	**107**	OUT ...	**320**
EAST	LEFT	**48**	WEST LEG		EAST	LEFT	**85**	WEST LEG	
BOUND	THRU	**270**	IN ...	**390**	BOUND	THRU	**310**	IN ...	**460**
	RIGHT	**40**	OUT ...	**570**		RIGHT	**36**	OUT ...	**680**
WEST	LEFT	**127**	EAST LEG		WEST	LEFT	**108**	EAST LEG	
BOUND	THRU	**368**	IN ...	**720**	BOUND	THRU	**413**	IN ...	**640**
	RIGHT	**32**	OUT ...	**540**		RIGHT	**55**	OUT ...	**750**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**67**	**74**	NORTH LEG	NORTH	LEFT	**111**	**131**	NORTH LEG
BOUND	THRU	**112**	**124**	RATIO **7.3%**	BOUND	THRU	**159**	**184**	RATIO **8.9%**
	RIGHT	**119**	**136**	ADT 7,800		RIGHT	**188**	**268**	ADT 7,800
SOUTH	LEFT	**114**	**126**	SOUTH LEG	SOUTH	LEFT	**118**	**136**	SOUTH LEG
BOUND	THRU	**91**	**124**	RATIO **8.0%**	BOUND	THRU	**91**	**103**	RATIO **9.2%**
	RIGHT	**90**	**99**	ADT 9,400		RIGHT	**107**	**118**	ADT 9,400
EAST	LEFT	**48**	**53**	EAST LEG	EAST	LEFT	**85**	**94**	EAST LEG
BOUND	THRU	**270**	**297**	RATIO **8.1%**	BOUND	THRU	**310**	**346**	RATIO **8.9%**
	RIGHT	**40**	**55**	ADT 15,700		RIGHT	**36**	**40**	ADT 15,700
WEST	LEFT	**127**	**241**	WEST LEG	WEST	LEFT	**108**	**138**	WEST LEG
BOUND	THRU	**368**	**432**	RATIO **7.5%**	BOUND	THRU	**413**	**455**	RATIO **8.8%**
	RIGHT	**32**	**43**	ADT 13,400		RIGHT	**55**	**61**	ADT 13,400

Project Driveway (NS) at: Phelan Road (EW) - #2

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				0	0	0				
				<	v	>				
		0	^				^	0		
		410	>				<	578		
		0	v				v	0		
				<	^	>				
				0	0	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					0	0				
					v	^				
		578	<	IN	=	988	<	578		
		410	>	OUT	=	988	>	410		
					v	^				
					0	0				

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

				0	0	0				
				<	v	>				
		0	^				^	0		
		64	>				<	52		
		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):

2016

				0	0	0				
				<	v	>				
		0	^				^	0		
		474	>				<	630		
		0	v				v	0		
				<	^	>				
				0	0	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					0	**0**				
					v	^				
		793	<	IN	=	1295	<	**793**		
		502	>	OUT	=	1295	>	**502**		
					v	^				
					0	**0**				

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

2008

					0	**0**				
					v	^				
		13	<	IN	=	25	<	**13**		
		12	>	OUT	=	25	>	**12**		
					v	^				
					0	**0**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

					0	0				
					v	^				
		306	<	IN	=	500	<	306		
		195	>	OUT	=	500	>	195		
					v	^				
					0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					0	**0**				
					v	^				
		1412	<	IN	=	1998	<	**1412**		
		586	>	OUT	=	1998	>	**586**		
					v	^				
					0	**0**				

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

2035

					0	**0**				
					v	^				
		35	<	IN	=	52	<	**35**		
		17	>	OUT	=	52	>	**17**		
					v	^				
					0	**0**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					0	0				
					v	^				
		548	<	IN	=	777	<	548		
		228	>	OUT	=	777	>	228		
					v	^				
					0	0				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: **2035**

FACTOR = **1.00**

					0	0				
					v	^				
		243	<				<	243		
		34	>				>	34		
					v	^				
					0	0				

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					0	0				
					v	^				
		240	<	IN	=	290	<	240		
		50	>	OUT	=	290	>	50		
					v	^				
					0	0				

FUTURE YEAR GROWTH: 2016 TO **2017**

1 YEARS

					0	0				
					v	^				
		10	<				<	10		
		0	>				>	0		
					v	^				
					0	0				

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				0	0	0				
				<	v	>				
		0	^				^	0		
		649	>				<	536		
		0	v				v	0		
				<	^	>				
				0	0	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					0	0				
					v	^				
		536	<	IN	=	1185	<	536		
		649	>	OUT	=	1185	>	649		
					v	^				
					0	0				

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

				0	0	0				
				<	v	>				
		0	^				^	0		
		61	>				<	24		
		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):

2016

				0	0	0				
				<	v	>				
		0	^				^	0		
		710	>				<	560		
		0	v				v	0		
				<	^	>				
				0	0	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					0	**0**				
					v	^				
		945	<	IN	=	2157	<	**945**		
		1212	>	OUT	=	2157	>	**1212**		
					v	^				
					0	**0**				

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

2008

					0	**0**				
					v	^				
		18	<	IN	=	39	<	**18**		
		21	>	OUT	=	39	>	**21**		
					v	^				
					0	**0**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

					0	0				
					v	^				
		269	<	IN	=	614	<	269		
		345	>	OUT	=	614	>	345		
					v	^				
					0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					0	**0**				
					v	^				
		1204	<	IN	=	2986	<	**1204**		
		1782	>	OUT	=	2986	>	**1782**		
					v	^				
					0	**0**				

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

2035

					0	**0**				
					v	^				
		42	<	IN	=	85	<	**42**		
		43	>	OUT	=	85	>	**43**		
					v	^				
					0	**0**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					0	0				
					v	^				
		348	<	IN	=	857	<	348		
		510	>	OUT	=	857	>	510		
					v	^				
					0	0				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: 2035

FACTOR = 1.00

					0	0				
					v	^				
		79	<				<	79		
		165	>				>	165		
					v	^				
					0	0				

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					0	0				
					v	^				
		80	<	IN	=	250	<	80		
		170	>	OUT	=	250	>	170		
					v	^				
					0	0				

FUTURE YEAR GROWTH: 2016 TO 2017

1 YEARS

					0	0				
					v	^				
		0	<				<	0		
		10	>				>	10		
					v	^				
					0	0				

Project Driveway (NS) at: Phelan Road (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**474**	IN ...	**470**	BOUND	THRU	**710**	IN ...	**720**
	RIGHT	**0**	OUT ...	**640**		RIGHT	**0**	OUT ...	**560**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**630**	IN ...	**640**	BOUND	THRU	**560**	IN ...	**560**
	RIGHT	**0**	OUT ...	**470**		RIGHT	**0**	OUT ...	**720**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**474**	**473**	RATIO **8.0%**	BOUND	THRU	**710**	**720**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 14,000		RIGHT	**0**	**0**	ADT 14,000
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**630**	**640**	RATIO **8.0%**	BOUND	THRU	**560**	**560**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 14,000		RIGHT	**0**	**0**	ADT 14,000

Project Driveway (NS) at: Phelan Road (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**474**	IN ...	**510**	BOUND	THRU	**710**	IN ...	**830**
	RIGHT	**0**	OUT ...	**800**		RIGHT	**0**	OUT ...	**620**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**630**	IN ...	**800**	BOUND	THRU	**560**	IN ...	**620**
	RIGHT	**0**	OUT ...	**510**		RIGHT	**0**	OUT ...	**830**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**474**	**522**	RATIO **8.4%**	BOUND	THRU	**710**	**830**	RATIO **9.2%**
	RIGHT	**0**	**0**	ADT 15,700		RIGHT	**0**	**0**	ADT 15,700
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**630**	**800**	RATIO **8.4%**	BOUND	THRU	**560**	**620**	RATIO **9.2%**
	RIGHT	**0**	**0**	ADT 15,700		RIGHT	**0**	**0**	ADT 15,700

Sierra Vista Road (NS) at: Project Driveway (EW) - #3

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				0	19	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			0	v				v	0	
				<	^	>				
				0	1	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					19	1				
					v	^				
			0	<	IN =	20	<	0		
			0	>	OUT =	20	>	0		
					v	^				
					19	1				

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

				0	0	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			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):

2016

				0	19	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			0	v				v	0	
				<	^	>				
				0	1	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

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

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

2008

					0	**0**				
					v	^				
				<	IN =	0	<			
				>	OUT =	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):

2035

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

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

2035

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

FUTURE 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				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: **2035**

FACTOR = **1.00**

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

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

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

FUTURE YEAR GROWTH: 2016 TO **2017**

1 YEARS

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

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				0	17	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			0	v				v	0	
				<	^	>				
				0	7	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					17	7				
					v	^				
			0	<	IN =	24	<	0		
			0	>	OUT =	24	>	0		
					v	^				
					17	7				

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

				0	0	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			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):

2016

				0	17	0				
				<	v	>				
			0	^				^	0	
			0	>				<	0	
			0	v				v	0	
				<	^	>				
				0	7	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

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

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

2008

					0	**0**				
					v	^				
				<	IN =	0	<			
				>	OUT =	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):

2035

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

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

2035

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

FUTURE 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				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: 2035

FACTOR = 1.00

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

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

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

FUTURE YEAR GROWTH: 2016 TO 2017

1 YEARS

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

Sierra Vista Road (NS) at: Project Driveway (EW) - #3

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**0**	BOUND	THRU	**7**	IN ...	**10**
	RIGHT	**0**	OUT ...	**20**		RIGHT	**0**	OUT ...	**20**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**19**	IN ...	**20**	BOUND	THRU	**17**	IN ...	**20**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**10**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	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 ...	**0**		RIGHT	**0**	OUT ...	**0**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**1**	**1**	RATIO **6.9%**	BOUND	THRU	**7**	**10**	RATIO **9.9%**
	RIGHT	**0**	**0**	ADT 304		RIGHT	**0**	**0**	ADT 304
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**19**	**20**	RATIO **6.9%**	BOUND	THRU	**17**	**20**	RATIO **9.9%**
	RIGHT	**0**	**0**	ADT 304		RIGHT	**0**	**0**	ADT 304
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO -	BOUND	THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0

Sierra Vista Road (NS) at: Project Driveway (EW) - #3

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH BOUND	LEFT	**0**	SOUTH LEG		NORTH BOUND	LEFT	**0**	SOUTH LEG	
	THRU	**1**	IN ...	**0**		THRU	**7**	IN ...	**10**
	RIGHT	**0**	OUT ...	**20**		RIGHT	**0**	OUT ...	**20**
SOUTH BOUND	LEFT	**0**	NORTH LEG		SOUTH BOUND	LEFT	**0**	NORTH LEG	
	THRU	**19**	IN ...	**20**		THRU	**17**	IN ...	**20**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**10**
EAST BOUND	LEFT	**0**	WEST LEG		EAST BOUND	LEFT	**0**	WEST LEG	
	THRU	**0**	IN ...	**0**		THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	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 ...	**0**		RIGHT	**0**	OUT ...	**0**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	**0**	**0**	NORTH LEG	NORTH BOUND	LEFT	**0**	**0**	NORTH LEG
	THRU	**1**	**2**	RATIO **7.0%**		THRU	**7**	**10**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 330		RIGHT	**0**	**0**	ADT 330
SOUTH BOUND	LEFT	**0**	**0**	SOUTH LEG	SOUTH BOUND	LEFT	**0**	**0**	SOUTH LEG
	THRU	**19**	**21**	RATIO **7.0%**		THRU	**17**	**20**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 330		RIGHT	**0**	**0**	ADT 330
EAST BOUND	LEFT	**0**	**0**	EAST LEG	EAST BOUND	LEFT	**0**	**0**	EAST LEG
	THRU	**0**	**0**	RATIO -		THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
WEST BOUND	LEFT	**0**	**0**	WEST LEG	WEST BOUND	LEFT	**0**	**0**	WEST LEG
	THRU	**0**	**0**	RATIO -		THRU	**0**	**0**	RATIO -
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0

Sierra Vista Road (NS) at: Phelan Road (EW) - #4

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				0	0	2				
				<	v	>				
			0	^			^	1		
			402	>			<	575		
			2	v			v	10		
				<	^	>				
				3	0	6				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					2	1				
					v	^				
			578	<	IN	=	1001	<	586	
			404	>	OUT	=	1001	>	410	
					v	^				
					12	9				

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

				0	0	0				
				<	v	>				
			0	^			^	0		
			64	>			<	52		
			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):

2016

				0	0	2				
				<	v	>				
			0	^			^	1		
			466	>			<	627		
			2	v			v	10		
				<	^	>				
				3	0	6				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					0	**0**				
					v	^				
			793	<	IN	=	1295	<	**793**	
			502	>	OUT	=	1295	>	**502**	
					v	^				
					0	**0**				

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

2008

					0	**0**				
					v	^				
			13	<	IN	=	25	<	**13**	
			12	>	OUT	=	25	>	**12**	
					v	^				
					0	**0**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

					0	0				
					v	^				
			306	<	IN	=	500	<	306	
			195	>	OUT	=	500	>	195	
					v	^				
					0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					0	**0**				
					v	^				
			1412	<	IN	=	1998	<	**1412**	
			586	>	OUT	=	1998	>	**586**	
					v	^				
					0	**0**				

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

2035

					0	**0**				
					v	^				
			35	<	IN	=	52	<	**35**	
			17	>	OUT	=	52	>	**17**	
					v	^				
					0	**0**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					0	0				
					v	^				
			548	<	IN	=	777	<	548	
			228	>	OUT	=	777	>	228	
					v	^				
					0	0				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: **2035**

FACTOR = **1.00**

					0	0				
					v	^				
			243	<			<	243		
			34	>			>	34		
					v	^				
					0	0				

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					0	0				
					v	^				
			240	<	IN	=	290	<	240	
			50	>	OUT	=	290	>	50	
					v	^				
					0	0				

FUTURE YEAR GROWTH: 2016 TO **2017**

1 YEARS

					0	0				
					v	^				
			10	<			<	10		
			0	>			>	0		
					v	^				
					0	0				

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2016

				2	0	5				
				<	v	>				
			3	^			^	2		
			637	>			<	524		
			2	v			v	14		
				<	^	>				
				10	0	7				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2016

					7	5				
					v	^				
			536	<	IN	=	1206	<	540	
			642	>	OUT	=	1206	>	649	
					v	^				
					16	17				

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

				0	0	0				
				<	v	>				
			0	^			^	0		
			61	>			<	24		
			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):

2016

				2	0	5				
				<	v	>				
			3	^			^	2		
			698	>			<	548		
			2	v			v	14		
				<	^	>				
				10	0	7				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					0	**0**				
					v	^				
			945	<	IN	=	2157	<	**945**	
			1212	>	OUT	=	2157	>	**1212**	
					v	^				
					0	**0**				

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

2008

					0	**0**				
					v	^				
			18	<	IN	=	39	<	**18**	
			21	>	OUT	=	39	>	**21**	
					v	^				
					0	**0**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

					0	0				
					v	^				
			269	<	IN	=	614	<	269	
			345	>	OUT	=	614	>	345	
					v	^				
					0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					0	**0**				
					v	^				
			1204	<	IN	=	2986	<	**1204**	
			1782	>	OUT	=	2986	>	**1782**	
					v	^				
					0	**0**				

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

2035

					0	**0**				
					v	^				
			42	<	IN	=	85	<	**42**	
			43	>	OUT	=	85	>	**43**	
					v	^				
					0	**0**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					0	0				
					v	^				
			348	<	IN	=	857	<	348	
			510	>	OUT	=	857	>	510	
					v	^				
					0	0				

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: 2035

FACTOR = 1.00

					0	0				
					v	^				
			79	<			<	79		
			165	>			>	165		
					v	^				
					0	0				

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

					0	0				
					v	^				
			80	<	IN	=	250	<	80	
			170	>	OUT	=	250	>	170	
					v	^				
					0	0				

FUTURE YEAR GROWTH: 2016 TO 2017

1 YEARS

					0	0				
					v	^				
			0	<			<	0		
			10	>			>	10		
					v	^				
					0	0				

Sierra Vista Road (NS) at: Phelan Road (EW) - #4

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**3**	SOUTH LEG		NORTH	LEFT	**10**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**10**	BOUND	THRU	**0**	IN ...	**20**
	RIGHT	**6**	OUT ...	**10**		RIGHT	**7**	OUT ...	**20**
SOUTH	LEFT	**2**	NORTH LEG		SOUTH	LEFT	**5**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**10**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**2**	OUT ...	**10**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**3**	WEST LEG	
BOUND	THRU	**466**	IN ...	**470**	BOUND	THRU	**698**	IN ...	**720**
	RIGHT	**2**	OUT ...	**650**		RIGHT	**2**	OUT ...	**560**
WEST	LEFT	**10**	EAST LEG		WEST	LEFT	**14**	EAST LEG	
BOUND	THRU	**627**	IN ...	**650**	BOUND	THRU	**548**	IN ...	**560**
	RIGHT	**1**	OUT ...	**470**		RIGHT	**2**	OUT ...	**720**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**3**	**3**	NORTH LEG	NORTH	LEFT	**10**	**10**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **3.0%**	BOUND	THRU	**0**	**0**	RATIO **15.8%**
	RIGHT	**6**	**6**	ADT 101		RIGHT	**7**	**8**	ADT 101
SOUTH	LEFT	**2**	**2**	SOUTH LEG	SOUTH	LEFT	**5**	**7**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **5.2%**	BOUND	THRU	**0**	**0**	RATIO **8.6%**
	RIGHT	**0**	**0**	ADT 406		RIGHT	**2**	**2**	ADT 406
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**3**	**3**	EAST LEG
BOUND	THRU	**466**	**465**	RATIO **8.1%**	BOUND	THRU	**698**	**706**	RATIO **9.2%**
	RIGHT	**2**	**2**	ADT 14,000		RIGHT	**2**	**3**	ADT 14,000
WEST	LEFT	**10**	**10**	WEST LEG	WEST	LEFT	**14**	**14**	WEST LEG
BOUND	THRU	**627**	**646**	RATIO **8.0%**	BOUND	THRU	**548**	**551**	RATIO **9.1%**
	RIGHT	**1**	**1**	ADT 14,000		RIGHT	**2**	**4**	ADT 14,000

Sierra Vista Road (NS) at: Phelan Road (EW) - #4

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH	LEFT	**3**	SOUTH LEG		NORTH	LEFT	**10**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**10**	BOUND	THRU	**0**	IN ...	**20**
	RIGHT	**6**	OUT ...	**10**		RIGHT	**7**	OUT ...	**20**
SOUTH	LEFT	**2**	NORTH LEG		SOUTH	LEFT	**5**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**10**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**2**	OUT ...	**10**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**3**	WEST LEG	
BOUND	THRU	**466**	IN ...	**510**	BOUND	THRU	**698**	IN ...	**820**
	RIGHT	**2**	OUT ...	**800**		RIGHT	**2**	OUT ...	**620**
WEST	LEFT	**10**	EAST LEG		WEST	LEFT	**14**	EAST LEG	
BOUND	THRU	**627**	IN ...	**810**	BOUND	THRU	**548**	IN ...	**620**
	RIGHT	**1**	OUT ...	**510**		RIGHT	**2**	OUT ...	**830**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**3**	**3**	NORTH LEG	NORTH	LEFT	**10**	**12**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **4.5%**	BOUND	THRU	**0**	**0**	RATIO **18.2%**
	RIGHT	**6**	**7**	ADT 110		RIGHT	**7**	**8**	ADT 110
SOUTH	LEFT	**2**	**3**	SOUTH LEG	SOUTH	LEFT	**5**	**7**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **5.5%**	BOUND	THRU	**0**	**0**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 440		RIGHT	**2**	**3**	ADT 440
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**3**	**6**	EAST LEG
BOUND	THRU	**466**	**513**	RATIO **8.5%**	BOUND	THRU	**698**	**815**	RATIO **9.3%**
	RIGHT	**2**	**3**	ADT 15,700		RIGHT	**2**	**3**	ADT 15,700
WEST	LEFT	**10**	**11**	WEST LEG	WEST	LEFT	**14**	**17**	WEST LEG
BOUND	THRU	**627**	**797**	RATIO **8.4%**	BOUND	THRU	**548**	**605**	RATIO **9.2%**
	RIGHT	**1**	**2**	ADT 15,700		RIGHT	**2**	**4**	ADT 15,700

Valle Vista Road (NS) at: Phelan Road (EW) - #5

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

					14	2	9			
					<	v	>			
		19	^					^		11
		324	>					<		400
		16	v					v		11
					<	^	>			
					5	1	18			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

						25	31			
						v	^			
		419	<		IN	=	830	<		422
		359	>		OUT	=	830	>		351
						v	^			
						29	24			

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

					8	0	2			
					<	v	>			
		0	^					^		3
		63	>					<		116
		2	v					v		0
					<	^	>			
					2	0	0			

PCE FACTORS BY AXLE:

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

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

					22	2	11			
					<	v	>			
		19	^					^		14
		387	>					<		516
		18	v					v		11
					<	^	>			
					7	1	18			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

						53	**81**			
						v	^			
		793	<		IN	=	1721	<		**983**
		502	>		OUT	=	1720	>		**669**
						v	^			
						177	**183**			

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

2008

						0	**0**			
						v	^			
		13	<		IN	=	28	<		**14**
		12	>		OUT	=	28	>		**13**
						v	^			
						2	**2**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

						20	31			
						v	^			
		306	<		IN	=	663	<		378
		195	>		OUT	=	663	>		259
						v	^			
						68	70			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

						141	**129**			
						v	^			
		1412	<		IN	=	2632	<		**1678**
		586	>		OUT	=	2632	>		**735**
						v	^			
						356	**227**			

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

2035

						1	**1**			
						v	^			
		35	<		IN	=	60	<		**38**
		17	>		OUT	=	60	>		**20**
						v	^			
						4	**4**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

						54	49			
						v	^			
		548	<		IN	=	1020	<		650
		228	>		OUT	=	1020	>		286
						v	^			
						137	88			

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: **2035**

FACTOR = **1.00**

						34	19			
						v	^			
		243	<					<		272
		34	>					>		27
						v	^			
						69	17			

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

						30	20			
						v	^			
		240	<		IN	=	360	<		270
		40	>		OUT	=	370	>		40
						v	^			
						70	20			

FUTURE YEAR GROWTH: 2014 TO **2017**

3 YEARS

						0	0			
						v	^			
		30	<					<		30
		0	>					>		0
						v	^			
						10	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

					16	0	10			
					<	v	>			
		26	^					^		15
		529	>					<		488
		12	v					v		18
					<	^	>			
					6	0	9			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

						26	41			
						v	^			
		510	<		IN	=	1129	<		521
		567	>		OUT	=	1129	>		548
						v	^			
						30	15			

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

					2	0	7			
					<	v	>			
		8	^					^		3
		46	>					<		52
		0	v					v		0
					<	^	>			
					5	0	2			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

					18	0	17			
					<	v	>			
		34	^					^		18
		575	>					<		540
		12	v					v		18
					<	^	>			
					11	0	11			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

						125	**83**			
						v	^			
		945	<		IN	=	2793	<		**1206**
		1212	>		OUT	=	2793	>		**1471**
						v	^			
						294	**250**			

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

2008

						0	**0**			
						v	^			
		18	<		IN	=	43	<		**20**
		21	>		OUT	=	44	>		**24**
						v	^			
						2	**2**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

						35	23			
						v	^			
		269	<		IN	=	793	<		343
		345	>		OUT	=	793	>		418
						v	^			
						83	71			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

						232	**246**			
						v	^			
		1204	<		IN	=	4038	<		**1441**
		1782	>		OUT	=	4038	>		**2154**
						v	^			
						434	**583**			

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

2035

						2	**2**			
						v	^			
		42	<		IN	=	97	<		**46**
		43	>		OUT	=	98	>		**48**
						v	^			
						6	**6**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

						65	69			
						v	^			
		348	<		IN	=	1155	<		415
		510	>		OUT	=	1155	>		615
						v	^			
						123	165			

RAW GROWTH (PCE'S): 2008 TO 2035

CONVERSION OF TRUCKS TO: 2035

FACTOR = 1.00

						30	46			
						v	^			
		79	<					<		72
		165	>					>		197
						v	^			
						40	94			

ADJUSTED GROWTH (PCE'S): 2008 TO 2035

10 MINIMUM GROWTH %

						30	50			
						v	^			
		80	<		IN	=	360	<		70
		170	>		OUT	=	370	>		200
						v	^			
						40	90			

FUTURE YEAR GROWTH: 2014 TO 2017

3 YEARS

						0	10			
						v	^			
		10	<					<		10
		20	>					>		20
						v	^			
						0	10			

Valle Vista Road (NS) at: Phelan Road (EW) - #5

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**7**	SOUTH LEG		NORTH	LEFT	**11**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**30**	BOUND	THRU	**0**	IN ...	**30**
	RIGHT	**18**	OUT ...	**40**		RIGHT	**11**	OUT ...	**30**
SOUTH	LEFT	**11**	NORTH LEG		SOUTH	LEFT	**17**	NORTH LEG	
BOUND	THRU	**2**	IN ...	**40**	BOUND	THRU	**0**	IN ...	**40**
	RIGHT	**22**	OUT ...	**30**		RIGHT	**18**	OUT ...	**60**
EAST	LEFT	**19**	WEST LEG		EAST	LEFT	**34**	WEST LEG	
BOUND	THRU	**387**	IN ...	**420**	BOUND	THRU	**575**	IN ...	**640**
	RIGHT	**18**	OUT ...	**580**		RIGHT	**12**	OUT ...	**580**
WEST	LEFT	**11**	EAST LEG		WEST	LEFT	**18**	EAST LEG	
BOUND	THRU	**516**	IN ...	**580**	BOUND	THRU	**540**	IN ...	**590**
	RIGHT	**14**	OUT ...	**420**		RIGHT	**18**	OUT ...	**620**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**7**	**8**	NORTH LEG	NORTH	LEFT	**11**	**15**	NORTH LEG
BOUND	THRU	**1**	**1**	RATIO **6.7%**	BOUND	THRU	**0**	**0**	RATIO **9.1%**
	RIGHT	**18**	**22**	ADT 1,100		RIGHT	**11**	**15**	ADT 1,100
SOUTH	LEFT	**11**	**13**	SOUTH LEG	SOUTH	LEFT	**17**	**20**	SOUTH LEG
BOUND	THRU	**2**	**3**	RATIO **9.0%**	BOUND	THRU	**0**	**0**	RATIO **7.5%**
	RIGHT	**22**	**24**	ADT 800		RIGHT	**18**	**20**	ADT 800
EAST	LEFT	**19**	**19**	EAST LEG	EAST	LEFT	**34**	**39**	EAST LEG
BOUND	THRU	**387**	**387**	RATIO **7.2%**	BOUND	THRU	**575**	**585**	RATIO **8.7%**
	RIGHT	**18**	**22**	ADT 13,900		RIGHT	**12**	**12**	ADT 13,900
WEST	LEFT	**11**	**16**	WEST LEG	WEST	LEFT	**18**	**18**	WEST LEG
BOUND	THRU	**516**	**549**	RATIO **7.2%**	BOUND	THRU	**540**	**545**	RATIO **8.7%**
	RIGHT	**14**	**14**	ADT 14,000		RIGHT	**18**	**21**	ADT 14,000

Valle Vista Road (NS) at: Phelan Road (EW) - #5

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH	LEFT	**7**	SOUTH LEG		NORTH	LEFT	**11**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**50**	BOUND	THRU	**0**	IN ...	**90**
	RIGHT	**18**	OUT ...	**80**		RIGHT	**11**	OUT ...	**60**
SOUTH	LEFT	**11**	NORTH LEG		SOUTH	LEFT	**17**	NORTH LEG	
BOUND	THRU	**2**	IN ...	**60**	BOUND	THRU	**0**	IN ...	**60**
	RIGHT	**22**	OUT ...	**50**		RIGHT	**18**	OUT ...	**90**
EAST	LEFT	**19**	WEST LEG		EAST	LEFT	**34**	WEST LEG	
BOUND	THRU	**387**	IN ...	**450**	BOUND	THRU	**575**	IN ...	**750**
	RIGHT	**18**	OUT ...	**740**		RIGHT	**12**	OUT ...	**630**
WEST	LEFT	**11**	EAST LEG		WEST	LEFT	**18**	EAST LEG	
BOUND	THRU	**516**	IN ...	**750**	BOUND	THRU	**540**	IN ...	**630**
	RIGHT	**14**	OUT ...	**450**		RIGHT	**18**	OUT ...	**760**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**7**	**12**	NORTH LEG	NORTH	LEFT	**11**	**41**	NORTH LEG
BOUND	THRU	**1**	**2**	RATIO **6.9%**	BOUND	THRU	**0**	**0**	RATIO **9.4%**
	RIGHT	**18**	**36**	ADT 1,600		RIGHT	**11**	**50**	ADT 1,600
SOUTH	LEFT	**11**	**19**	SOUTH LEG	SOUTH	LEFT	**17**	**32**	SOUTH LEG
BOUND	THRU	**2**	**7**	RATIO **7.3%**	BOUND	THRU	**0**	**0**	RATIO **8.4%**
	RIGHT	**22**	**34**	ADT 1,800		RIGHT	**18**	**28**	ADT 1,800
EAST	LEFT	**19**	**23**	EAST LEG	EAST	LEFT	**34**	**58**	EAST LEG
BOUND	THRU	**387**	**426**	RATIO **7.8%**	BOUND	THRU	**575**	**678**	RATIO **9.0%**
	RIGHT	**18**	**38**	ADT 15,900		RIGHT	**12**	**23**	ADT 15,900
WEST	LEFT	**11**	**35**	WEST LEG	WEST	LEFT	**18**	**37**	WEST LEG
BOUND	THRU	**516**	**693**	RATIO **7.8%**	BOUND	THRU	**540**	**594**	RATIO **9.1%**
	RIGHT	**14**	**25**	ADT 15,700		RIGHT	**18**	**32**	ADT 15,700

Johnson Road (NS) at: Phelan Road (EW) - #6

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

				77	32	58			
				<	v	>			
		24	^				^		30
		285	>				<		346
		6	v				v		93
				<	^	>			
				9	13	169			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

					167	67			
					v	^			
		432	<	IN	=	1142	<		469
		315	>	OUT	=	1142	>		512
					v	^			
					131	191			

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

				8	6	2			
				<	v	>			
		12	^				^		2
		59	>				<		75
		2	v				v		15
PCE FACTORS BY AXLE:				<	^	>			
2: **1.5** 3: **2.0** 4+: **3.0**				0	2	21			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

				85	38	60			
				<	v	>			
		36	^				^		32
		344	>				<		421
		8	v				v		108
				<	^	>			
				9	15	190			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					178	**91**			
					v	^			
		983	<	IN	=	1844	<		**997**
		669	>	OUT	=	1845	>		**771**
					v	^			
					0	**0**			

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

2008

					1	**1**			
					v	^			
		14	<	IN	=	28	<		**14**
		13	>	OUT	=	29	>		**14**
					v	^			
					0	**0**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

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

					68	35			
					v	^			
		378	<	IN	=	710	<		384
		259	>	OUT	=	711	>		298
					v	^			
					0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					419	**171**			
					v	^			
		1678	<	IN	=	2562	<		**1408**
		735	>	OUT	=	2562	>		**713**
					v	^			
					0	**0**			

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

2035

					9	**4**			
					v	^			
		38	<	IN	=	60	<		**31**
		20	>	OUT	=	59	>		**17**
					v	^			
					0	**0**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					162	66			
					v	^			
		650	<	IN	=	994	<		545
		286	>	OUT	=	993	>		277
					v	^			
					0	0			

RAW GROWTH (PCE'S): 2008 TO 2035
CONVERSION OF TRUCKS TO: **2035**
FACTOR = **1.00**

					94	31			
					v	^			
		272	<			<			162
		27	>			>			-21
					v	^			
					0	0			

ADJUSTED GROWTH (PCE'S): 2008 TO 2035
10 MINIMUM GROWTH %

					90	30			
					v	^			
		270	<	IN	=	290	<		160
		40	>	OUT	=	360	>		60
					v	^			
					0	0			

FUTURE YEAR GROWTH: 2014 TO **2017**
3 YEARS

					10	0			
					v	^			
		30	<			<			20
		0	>			>			10
					v	^			
					0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2014

				43	30	39			
				<	v	>			
		86	^				^		45
		432	>				<		395
		12	v				v		79
				<	^	>			
				15	40	178			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2014

					112	171			
					v	^			
		453	<	IN	=	1394	<		519
		530	>	OUT	=	1394	>		649
					v	^			
					121	233			

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

				3	0	19			
				<	v	>			
		12	^				^		14
		53	>				<		50
		0	v				v		5
PCE FACTORS BY AXLE:				<	^	>			
2: 1.5 3: 2 4+: 3.0				3	10	15			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2014

				46	30	58			
				<	v	>			
		98	^				^		59
		485	>				<		445
		12	v				v		84
				<	^	>			
				18	50	193			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008

					184	**232**			
					v	^			
		1206	<	IN	=	2988	<		**1333**
		1471	>	OUT	=	2989	>		**1551**
					v	^			
					0	**0**			

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

2008

					2	**2**			
					v	^			
		20	<	IN	=	47	<		**21**
		24	>	OUT	=	47	>		**25**
					v	^			
					0	**0**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

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

					52	65			
					v	^			
		343	<	IN	=	848	<		378
		418	>	OUT	=	849	>		441
					v	^			
					0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2035

					334	**618**			
					v	^			
		1441	<	IN	=	3818	<		**1330**
		2154	>	OUT	=	3817	>		**1758**
					v	^			
					0	**0**			

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

2035

					7	**8**			
					v	^			
		46	<	IN	=	96	<		**41**
		48	>	OUT	=	95	>		**41**
					v	^			
					0	**0**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					95	175			
					v	^			
		415	<	IN	=	1093	<		383
		615	>	OUT	=	1093	>		502
					v	^			
					0	0			

RAW GROWTH (PCE'S): 2008 TO 2035
CONVERSION OF TRUCKS TO: 2035
FACTOR = 1.00

					43	110			
					v	^			
		72	<			<			4
		197	>			>			62
					v	^			
					0	0			

ADJUSTED GROWTH (PCE'S): 2008 TO 2035
10 MINIMUM GROWTH %

					40	110			
					v	^			
		70	<	IN	=	300	<		60
		200	>	OUT	=	250	>		70
					v	^			
					0	0			

FUTURE YEAR GROWTH: 2014 TO 2017
3 YEARS

					0	10			
					v	^			
		10	<			<			10
		20	>			>			10
					v	^			
					0	0			

Johnson Road (NS) at: Phelan Road (EW) - #6

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2017) 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	**9**	SOUTH LEG		NORTH	LEFT	**18**	SOUTH LEG	
BOUND	THRU	**15**	IN ...	**210**	BOUND	THRU	**50**	IN ...	**260**
	RIGHT	**190**	OUT ...	**150**		RIGHT	**193**	OUT ...	**130**
SOUTH	LEFT	**60**	NORTH LEG		SOUTH	LEFT	**58**	NORTH LEG	
BOUND	THRU	**38**	IN ...	**190**	BOUND	THRU	**30**	IN ...	**130**
	RIGHT	**85**	OUT ...	**80**		RIGHT	**46**	OUT ...	**220**
EAST	LEFT	**36**	WEST LEG		EAST	LEFT	**98**	WEST LEG	
BOUND	THRU	**344**	IN ...	**390**	BOUND	THRU	**485**	IN ...	**620**
	RIGHT	**8**	OUT ...	**550**		RIGHT	**12**	OUT ...	**520**
WEST	LEFT	**108**	EAST LEG		WEST	LEFT	**84**	EAST LEG	
BOUND	THRU	**421**	IN ...	**580**	BOUND	THRU	**445**	IN ...	**600**
	RIGHT	**32**	OUT ...	**600**		RIGHT	**59**	OUT ...	**750**

OPENING YEAR (2017) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					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	**9**	**9**	NORTH LEG	NORTH	LEFT	**18**	**18**	NORTH LEG
BOUND	THRU	**15**	**15**	RATIO **6.7%**	BOUND	THRU	**50**	**52**	RATIO **8.7%**
	RIGHT	**190**	**190**	ADT 4,100		RIGHT	**193**	**194**	ADT 4,100
SOUTH	LEFT	**60**	**62**	SOUTH LEG	SOUTH	LEFT	**58**	**59**	SOUTH LEG
BOUND	THRU	**38**	**38**	RATIO **8.0%**	BOUND	THRU	**30**	**30**	RATIO **8.6%**
	RIGHT	**85**	**92**	ADT 4,600		RIGHT	**46**	**47**	ADT 4,600
EAST	LEFT	**36**	**36**	EAST LEG	EAST	LEFT	**98**	**107**	EAST LEG
BOUND	THRU	**344**	**350**	RATIO **7.7%**	BOUND	THRU	**485**	**504**	RATIO **8.8%**
	RIGHT	**8**	**8**	ADT 15,400		RIGHT	**12**	**13**	ADT 15,400
WEST	LEFT	**108**	**108**	WEST LEG	WEST	LEFT	**84**	**87**	WEST LEG
BOUND	THRU	**421**	**449**	RATIO **7.3%**	BOUND	THRU	**445**	**456**	RATIO **8.8%**
	RIGHT	**32**	**32**	ADT 13,000		RIGHT	**59**	**61**	ADT 13,000

Johnson Road (NS) at: Phelan Road (EW) - #6

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	FUTURE YEAR TOTAL
NORTH	LEFT	**9**	SOUTH LEG		NORTH	LEFT	**18**	SOUTH LEG	
BOUND	THRU	**15**	IN ...	**210**	BOUND	THRU	**50**	IN ...	**260**
	RIGHT	**190**	OUT ...	**150**		RIGHT	**193**	OUT ...	**130**
SOUTH	LEFT	**60**	NORTH LEG		SOUTH	LEFT	**58**	NORTH LEG	
BOUND	THRU	**38**	IN ...	**250**	BOUND	THRU	**30**	IN ...	**160**
	RIGHT	**85**	OUT ...	**100**		RIGHT	**46**	OUT ...	**300**
EAST	LEFT	**36**	WEST LEG		EAST	LEFT	**98**	WEST LEG	
BOUND	THRU	**344**	IN ...	**420**	BOUND	THRU	**485**	IN ...	**760**
	RIGHT	**8**	OUT ...	**730**		RIGHT	**12**	OUT ...	**560**
WEST	LEFT	**108**	EAST LEG		WEST	LEFT	**84**	EAST LEG	
BOUND	THRU	**421**	IN ...	**680**	BOUND	THRU	**445**	IN ...	**640**
	RIGHT	**32**	OUT ...	**640**		RIGHT	**59**	OUT ...	**790**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	FUTURE YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**9**	**12**	NORTH LEG	NORTH	LEFT	**18**	**20**	NORTH LEG
BOUND	THRU	**15**	**17**	RATIO **7.2%**	BOUND	THRU	**50**	**64**	RATIO **9.2%**
	RIGHT	**190**	**209**	ADT 5,000		RIGHT	**193**	**213**	ADT 5,000
SOUTH	LEFT	**60**	**74**	SOUTH LEG	SOUTH	LEFT	**58**	**64**	SOUTH LEG
BOUND	THRU	**38**	**43**	RATIO **8.2%**	BOUND	THRU	**30**	**35**	RATIO **8.8%**
	RIGHT	**85**	**144**	ADT 5,000		RIGHT	**46**	**62**	ADT 5,000
EAST	LEFT	**36**	**46**	EAST LEG	EAST	LEFT	**98**	**165**	EAST LEG
BOUND	THRU	**344**	**379**	RATIO **8.3%**	BOUND	THRU	**485**	**561**	RATIO **8.9%**
	RIGHT	**8**	**9**	ADT 16,700		RIGHT	**12**	**16**	ADT 16,700
WEST	LEFT	**108**	**119**	WEST LEG	WEST	LEFT	**84**	**93**	WEST LEG
BOUND	THRU	**421**	**574**	RATIO **7.8%**	BOUND	THRU	**445**	**490**	RATIO **8.8%**
	RIGHT	**32**	**37**	ADT 15,000		RIGHT	**59**	**71**	ADT 15,000

APPENDIX E

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 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 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 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 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

Dollar General Phelan
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.350
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	28.0
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	67	112	119	114	91	90	48	270	40	127	368	32
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:	67	112	119	114	91	90	48	270	40	127	368	32
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	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	76	127	135	129	103	102	54	306	45	144	416	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	127	135	129	103	102	54	306	45	144	416	36
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:	76	127	135	129	103	102	54	306	45	144	416	36
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	1.84	0.16
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3312	288
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.07	0.08	0.03	0.06	0.03	0.08	0.03	0.08	0.13	0.13
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.34	0.34	0.11	0.34	0.34	0.11	0.34	0.34	0.13	0.35	0.35
Volume/Cap:	0.41	0.10	0.22	0.66	0.08	0.17	0.28	0.25	0.07	0.66	0.36	0.36
Delay/Veh:	40.8	21.7	22.8	48.6	21.2	22.0	39.4	22.9	21.5	47.0	23.0	23.0
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:	40.8	21.7	22.8	48.6	21.2	22.0	39.4	22.9	21.5	47.0	23.0	23.0
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	3	1	3	5	1	2	2	3	1	6	5	5

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	90	Critical Vol./Cap.(X):	0.380
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	27.6
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	111	159	188	118	91	107	85	310	36	108	413	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:	111	159	188	118	91	107	85	310	36	108	413	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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	119	171	202	127	98	115	91	333	39	116	443	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	171	202	127	98	115	91	333	39	116	443	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:	119	171	202	127	98	115	91	333	39	116	443	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:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.76	0.24
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3177	423
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.11	0.07	0.03	0.06	0.05	0.09	0.02	0.07	0.14	0.14
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.35	0.35	0.11	0.35	0.35	0.11	0.35	0.35	0.11	0.35	0.35
Volume/Cap:	0.63	0.14	0.32	0.69	0.08	0.18	0.48	0.27	0.06	0.63	0.40	0.40
Delay/Veh:	45.7	20.6	22.3	49.7	20.3	21.2	40.3	21.7	20.0	45.9	23.1	23.1
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:	45.7	20.6	22.3	49.7	20.3	21.2	40.3	21.7	20.0	45.9	23.1	23.1
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	2	4	5	1	2	3	3	1	4	6	6

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[19.5]

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:	0	0	1! 0	0		1	0	0	0	0	1	0	1	0	1	1	0	1	0	1
Volume Module:																				
Base Vol:	3	0	6	2	0	0	0	466	2		10	627	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:	3	0	6	2	0	0	0	466	2		10	627	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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82		0.82	0.82	0.82							
PHF Volume:	4	0	7	2	0	0	0	570	2		12	767	1							
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0							
FinalVolume:	4	0	7	2	0	0	0	570	2		12	767	1							
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2	7.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx							
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	1362	1363	570	1366	xxxx	xxxxx	xxxx	xxxx	xxxxx		572	xxxx	xxxxx							
Potent Cap.:	126	149	525	126	xxxx	xxxxx	xxxx	xxxx	xxxxx		1010	xxxx	xxxxx							
Move Cap.:	125	147	525	123	xxxx	xxxxx	xxxx	xxxx	xxxxx		1010	xxxx	xxxxx							
Total Cap:	254	270	xxxxx	250	268	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
Volume/Cap:	0.01	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx		0.01	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx							
Control Del:	xxxxx	xxxx	xxxxx	19.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx		8.6	xxxx	xxxxx							
LOS by Move:	*	*	*	C	*	*	*	*	*		A	*	*							
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		388	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx		0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx		14.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
Shared LOS:	*		B	*	*	*	*	*	*	*	*	*	*							
ApproachDel:	14.6			19.5			xxxxxx				xxxxxx									
ApproachLOS:	B			C			*				*									

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[17.8]

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:	0 0 1!	0	0	0 0 1!	0	0	1 0	1	0	1	1 0	1	0	1
Volume Module:														
Base Vol:	10	0	7	5	0	2	3	698	2		14	548	2	
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	1.00	1.00	
Initial Bse:	10	0	7	5	0	2	3	698	2		14	548	2	
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	1.00	1.00	
PHF Adj:	0.94 0.94	0.94	0.94	0.94 0.94	0.94	0.94	0.94	0.94	0.94		0.94	0.94	0.94	
PHF Volume:	11	0	7	5	0	2	3	745	2		15	585	2	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	11	0	7	5	0	2	3	745	2		15	585	2	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1368	1368	745	1371	1368	585	587	xxxx	xxxxx		747	xxxx	xxxxx	
Potent Cap.:	125	148	417	125	148	515	998	xxxx	xxxxx		870	xxxx	xxxxx	
Move Cap.:	123	145	417	121	145	515	998	xxxx	xxxxx		870	xxxx	xxxxx	
Total Cap:	254	269	xxxxx	247	265	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.04 0.00	0.02		0.02 0.00	0.00		0.00	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx		9.2	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	302	xxxxx	xxxx	290	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	17.7	xxxxx	xxxxx	17.8	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	17.7			17.8			xxxxxx				xxxxxx			
ApproachLOS:	C			C			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[18.6]

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:	0	0 1! 0	0	0	0 1! 0	0	1	0 1	0 1				1	0	0 1	0		
Volume Module:																		
Base Vol:	7	1	18	11	2	22	19	387	18				11	516	14			
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:	7	1	18	11	2	22	19	387	18				11	516	14			
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	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89			
PHF Volume:	8	1	20	12	2	25	21	436	20				12	582	16			
Reduct Vol:	0	0	0	0	0	0	0	0	0				0	0	0			
FinalVolume:	8	1	20	12	2	25	21	436	20				12	582	16			
Critical Gap Module:																		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																		
Cnflict Vol:	1107	1101	436	1114	1113	589	597	xxxx	xxxxx				456	xxxx	xxxxx			
Potent Cap.:	189	214	624	187	210	512	989	xxxx	xxxxx				1115	xxxx	xxxxx			
Move Cap.:	174	207	624	176	203	512	989	xxxx	xxxxx				1115	xxxx	xxxxx			
Volume/Cap:	0.05	0.01	0.03	0.07	0.01	0.05	0.02	xxxx	xxxx				0.01	xxxx	xxxx			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx				0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx				8.3	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*				A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT			
Shared Cap.:	xxxx	352	xxxxx	xxxx	303	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	16.2	xxxxx	xxxxx	18.6	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	C	*	*	C	*	*	*	*				*	*	*			
ApproachDel:	16.2			18.6			xxxxxx						xxxxxx					
ApproachLOS:	C			C			*						*					

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: D[25.6]

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:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 0	1		1 0	0	1	0	
Volume Module:															
Base Vol:	11	0	11	17	0	18	34	575	12		18	540	18		
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:	11	0	11	17	0	18	34	575	12		18	540	18		
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:	12	0	12	18	0	19	36	605	13		19	568	19		
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0		
FinalVolume:	12	0	12	18	0	19	36	605	13		19	568	19		
Critical Gap Module:															
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		
Capacity Module:															
Cnflict Vol:	1302	1302	605	1304	1305	578	587	xxxx	xxxxx		618	xxxx	xxxxx		
Potent Cap.:	139	162	501	139	162	519	998	xxxx	xxxxx		972	xxxx	xxxxx		
Move Cap.:	128	153	501	130	153	519	998	xxxx	xxxxx		972	xxxx	xxxxx		
Volume/Cap:	0.09	0.00	0.02	0.14	0.00	0.04	0.04	xxxx	xxxx		0.02	xxxx	xxxx		
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx		0.1	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx		8.8	xxxx	xxxxx		
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*		
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT		
Shared Cap.:	xxxx	205	xxxxx	xxxx	211	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	24.8	xxxxx	xxxxx	25.6	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
Shared LOS:	*	C	*	*	D	*	*	*	*		*	*	*		
ApproachDel:	24.8			25.6			xxxxxx				xxxxxx				
ApproachLOS:	C			D			*				*				

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.399
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	9		15		190		60		38		85		36		344		8		108		421		32	
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:	9		15		190		60		38		85		36		344		8		108		421		32	
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:	0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82	
PHF Volume:	11		18		233		73		47		104		44		421		10		132		516		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	11		18		233		73		47		104		44		421		10		132		516		39	
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:	11		18		233		73		47		104		44		421		10		132		516		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1700		1800		1800		1700		1800		1800		1700		3600		1800		1700		3600		1800	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.13		0.04		0.03		0.06		0.03		0.12		0.01		0.08		0.14		0.02	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.10		0.28		0.28		0.10		0.28		0.28		0.11		0.40		0.40		0.14		0.43		0.43	
Volume/Cap:	0.06		0.04		0.46		0.43		0.09		0.21		0.24		0.29		0.01		0.56		0.33		0.05	
Delay/Veh:	40.9		26.2		30.4		44.1		26.7		27.7		41.5		20.5		18.1		43.0		19.0		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:	40.9		26.2		30.4		44.1		26.7		27.7		41.5		20.5		18.1		43.0		19.0		16.5	
LOS by Move:	D		C		C		D		C		C		D		C		B		D		B		B	
HCM2kAvgQ:	0		0		6		3		1		2		1		4		0		5		5		1	

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.361
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	24.3
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:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	40	40	10	40	40
Lanes:	1 0 1	0	1	1 0 1	0	1	1 0 2	0	1	1 0 2	0	1
Volume Module:												
Base Vol:	18	50	193	58	30	46	98	485	12	84	445	59
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:	18	50	193	58	30	46	98	485	12	84	445	59
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:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	18	51	198	60	31	47	101	498	12	86	457	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	51	198	60	31	47	101	498	12	86	457	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:	18	51	198	60	31	47	101	498	12	86	457	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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.11	0.04	0.02	0.03	0.06	0.14	0.01	0.05	0.13	0.03
Crit Moves:			****	****			****				****	
Green/Cycle:	0.10	0.29	0.29	0.10	0.29	0.29	0.10	0.42	0.42	0.10	0.42	0.42
Volume/Cap:	0.10	0.10	0.38	0.34	0.06	0.09	0.57	0.33	0.02	0.49	0.30	0.08
Delay/Veh:	39.2	24.9	27.5	41.0	24.5	24.8	45.3	19.1	16.5	42.7	18.8	16.9
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:	39.2	24.9	27.5	41.0	24.5	24.8	45.3	19.1	16.5	42.7	18.8	16.9
LOS by Move:	D	C	C	D	C	C	D	B	B	D	B	B
HCM2kAvgQ:	1	1	5	2	1	1	4	5	0	3	5	1

Note: Queue reported is the number of cars per lane.

Existing Plus Project

Dollar General Phelan
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.354
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 28.9
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:	Include						Include						Include						Include					
Min. Green:	10		32		32		10		31		31		10		32		32		10		31		31	
Lanes:	1	0	2	0	1		1	0	2	0	1		1	0	2	0	1		1	0	1	1	0	
Volume Module:																								
Base Vol:	67		112		119		114		91		90		48		270		40		127		368		32	
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:	67		112		119		114		91		90		48		270		40		127		368		32	
Added Vol:	0		0		3		2		0		0		0		3		0		2		2		1	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	67		112		122		116		91		90		48		273		40		129		370		33	
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		0.88		0.88		0.88		0.88		0.88		0.88		0.88		0.88		0.88	
PHF Volume:	76		127		138		131		103		102		54		309		45		146		419		37	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	76		127		138		131		103		102		54		309		45		146		419		37	
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:	76		127		138		131		103		102		54		309		45		146		419		37	
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		1.84		0.16	
Final Sat.:	1700		3600		1800		1700		3600		1800		1700		3600		1800		1700		3305		295	
Capacity Analysis Module:																								
Vol/Sat:	0.04		0.04		0.08		0.08		0.03		0.06		0.03		0.09		0.03		0.09		0.13		0.13	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.11		0.32		0.32		0.13		0.34		0.34		0.11		0.32		0.32		0.15		0.35		0.35	
Volume/Cap:	0.40		0.11		0.24		0.58		0.08		0.17		0.28		0.27		0.08		0.58		0.36		0.36	
Delay/Veh:	42.8		24.0		25.3		44.6		22.3		23.1		41.3		25.4		23.8		43.2		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:	42.8		24.0		25.3		44.6		22.3		23.1		41.3		25.4		23.8		43.2		24.1		24.1	
LOS by Move:	D		C		C		D		C		C		D		C		C		D		C		C	
HCM2kAvgQ:	3		1		3		5		1		2		2		4		1		5		5		5	

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 95 Critical Vol./Cap.(X): 0.389
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 28.3
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	111	159	188	118	91	107	85	310	36	108	413	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:	111	159	188	118	91	107	85	310	36	108	413	55
Added Vol:	0	0	5	3	0	0	0	5	0	5	5	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	111	159	193	121	91	107	85	315	36	113	418	58
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	119	171	207	130	98	115	91	338	39	121	448	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	171	207	130	98	115	91	338	39	121	448	62
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:	119	171	207	130	98	115	91	338	39	121	448	62
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	1.76	0.24
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3161	439
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.12	0.08	0.03	0.06	0.05	0.09	0.02	0.07	0.14	0.14
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.34	0.34	0.13	0.35	0.35	0.11	0.34	0.34	0.12	0.34	0.34
Volume/Cap:	0.62	0.14	0.34	0.61	0.08	0.18	0.48	0.28	0.06	0.61	0.41	0.41
Delay/Veh:	46.4	22.0	23.9	44.4	20.7	21.6	41.7	23.2	21.4	45.3	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:	46.4	22.0	23.9	44.4	20.7	21.6	41.7	23.2	21.4	45.3	24.1	24.1
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	2	5	5	1	2	3	4	1	5	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[15.7]

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:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	1	0	1
Volume Module:																		
Base Vol:	0	0	0	0	0	0	0	474	0	0	630	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	0	0	0	0	0	0	474	0	0	630	0						
Added Vol:	0	0	0	3	0	3	4	4	0	0	3	4						
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0						
Initial Fut:	0	0	0	3	0	3	4	478	0	0	633	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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81						
PHF Volume:	0	0	0	4	0	4	5	588	0	0	779	5						
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0						
FinalVolume:	0	0	0	4	0	4	5	588	0	0	779	5						
Critical Gap Module:																		
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																		
Cnflict Vol:	xxxx	xxxx	xxxxx	1377	1377	779	784	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	xxxx	xxxx	xxxxx	161	146	399	843	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	xxxx	xxxx	xxxxx	161	145	399	843	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Total Cap:	250	267	xxxxx	300	269	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	xxxx	xxxx	xxxx	0.01	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	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	342	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*						
ApproachDel:	xxxxxx			15.7			xxxxxx			xxxxxx								
ApproachLOS:	*			C			*			*								

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[14.9]

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:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	1 0	1
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	710	0	0	560	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	0	0	0	0	0	0	710	0	0	560	0
Added Vol:	0	0	0	6	0	6	6	6	0	0	6	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	6	716	0	0	566	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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	6	0	6	6	759	0	0	600	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	6	759	0	0	600	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1371	1371	600	606	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	163	147	505	982	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	162	147	505	982	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	251	268	xxxxx	301	270	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	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	377	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[8.5]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	1	0	0			19	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				
Initial Bse:	0	1	0	0			19	0	0				0	0					0	0				
Added Vol:	9	0	0	0			0	3	2				0	6					0	0				
PasserByVol:	0	0	0	0			0	0	0				0	0					0	0				
Initial Fut:	9	1	0	0			19	3	2				0	6					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				
PHF Adj:	0.92	0.92	0.92	0.92			0.92	0.92	0.92				0.92	0.92					0.92	0.92				
PHF Volume:	10	1	0	0			21	3	2				0	7					0	0				
Reduct Vol:	0	0	0	0			0	0	0				0	0					0	0				
FinalVolume:	10	1	0	0			21	3	2				0	7					0	0				
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5					6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0					3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																								
Cnflict Vol:	24	xxxx	xxxxx	xxxx	xxxx	xxxxx							43	43					22	xxxx	xxxx	xxxxx		
Potent Cap.:	1604	xxxx	xxxxx	xxxx	xxxx	xxxxx							973	853					1061	xxxx	xxxx	xxxxx		
Move Cap.:	1604	xxxx	xxxxx	xxxx	xxxx	xxxxx							968	848					1061	xxxx	xxxx	xxxxx		
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.00	0.00					0.01	xxxx	xxxx	xxxx		
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx															
Control Del:	7.3	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	1036	xxxxx															
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx															
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx															
Shared LOS:	A	*	*	*	*	*	*	A	*															
ApproachDel:	xxxxxx			xxxxxx				8.5					xxxxxx											
ApproachLOS:	*			*				A					*											

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing Plus Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: A[8.6]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	7	0				0	17	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	7	0				0	17	0				0	0	0				0	0	0			
Added Vol:	14	0	0				0	0	5				5	0	14				0	0	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	14	7	0				0	17	5				5	0	14				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				0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92			
PHF Volume:	15	8	0				0	18	5				5	0	15				0	0	0			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	15	8	0				0	18	5				5	0	15				0	0	0			
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5	6.2	xxxxx	xxxx	xxxxx						
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0	3.3	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	24	xxxx	xxxxx	xxxx	xxxx	xxxxx							59	59	21	xxxx	xxxx	xxxxx						
Potent Cap.:	1604	xxxx	xxxxx	xxxx	xxxx	xxxxx							953	836	1062	xxxx	xxxx	xxxxx						
Move Cap.:	1604	xxxx	xxxxx	xxxx	xxxx	xxxxx							946	828	1062	xxxx	xxxx	xxxxx						
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.01	0.00	0.01	xxxx	xxxx	xxxx						
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	7.3	xxxx	xxxxx	xxxxx	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	1029	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*												
ApproachDel:	xxxxxx			xxxxxx				8.6			xxxxxx													
ApproachLOS:	*			*				A			*													

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Existing Plus Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[18.3]

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:	0 0 1!	0	0	0 0 1!	0	0	1 0	1	0	1	1 0	1	0	1
Volume Module:														
Base Vol:	3	0	6	2	0	0	0	466	2		10	627	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:	3	0	6	2	0	0	0	466	2		10	627	1	
Added Vol:	0	0	0	4	0	3	4	3	0		0	4	5	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	3	0	6	6	0	3	4	469	2		10	631	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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82		0.82	0.82	0.82	
PHF Volume:	4	0	7	7	0	4	5	574	2		12	772	7	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	4	0	7	7	0	4	5	574	2		12	772	7	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1385	1387	574	1385	1382	772	779	xxxx	xxxxx		576	xxxx	xxxxx	
Potent Cap.:	122	144	522	122	145	403	847	xxxx	xxxxx		1007	xxxx	xxxxx	
Move Cap.:	119	142	522	119	143	403	847	xxxx	xxxxx		1007	xxxx	xxxxx	
Total Cap:	246	263	xxxxx	246	263	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.01	0.00	0.01	0.03	0.00	0.01	0.01	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx		8.6	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	380	xxxxx	xxxx	282	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	14.8	xxxxx	xxxxx	18.3	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	14.8			18.3			xxxxxx				xxxxxx			
ApproachLOS:	B			C			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[18.1]

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:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 0 1				1 0 1 0 1			
Volume Module:														
Base Vol:	10	0	7	5	0	2	3	698	2		14	548	2	
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:	10	0	7	5	0	2	3	698	2		14	548	2	
Added Vol:	0	0	0	8	0	6	6	6	0		0	6	8	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	10	0	7	13	0	8	9	704	2		14	554	10	
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		0.94	0.94	0.94	
PHF Volume:	11	0	7	14	0	9	10	751	2		15	591	11	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	11	0	7	14	0	9	10	751	2		15	591	11	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1401	1402	751	1397	1394	591	602	xxxx	xxxxx		754	xxxx	xxxxx	
Potent Cap.:	119	141	414	120	143	510	985	xxxx	xxxxx		866	xxxx	xxxxx	
Move Cap.:	114	137	414	115	139	510	985	xxxx	xxxxx		866	xxxx	xxxxx	
Total Cap:	243	260	xxxxx	240	259	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.04	0.00	0.02	0.06	0.00	0.02	0.01	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx		9.2	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	292	xxxxx	xxxx	300	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	18.1	xxxxx	xxxxx	17.9	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	18.1			17.9			xxxxxx				xxxxxx			
ApproachLOS:	C			C			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[18.9]

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:	0	0 1! 0	0	0	0 1! 0	0	1	0	1	0	1		1	0	0	1	0	
Volume Module:																		
Base Vol:	7	1	18	11	2	22	19	387	18		11	516	14					
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:	7	1	18	11	2	22	19	387	18		11	516	14					
Added Vol:	3	0	0	0	0	0	0	4	2		0	6	0					
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0					
Initial Fut:	10	1	18	11	2	22	19	391	20		11	522	14					
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	0.89	0.89	0.89	0.89	0.89	0.89		0.89	0.89	0.89					
PHF Volume:	11	1	20	12	2	25	21	441	23		12	588	16					
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0					
FinalVolume:	11	1	20	12	2	25	21	441	23		12	588	16					
Critical Gap Module:																		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx					
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx					
Capacity Module:																		
Cnflict Vol:	1118	1112	441	1126	1127	596	604	xxxx	xxxxx		463	xxxx	xxxxx					
Potent Cap.:	186	210	621	184	206	507	984	xxxx	xxxxx		1109	xxxx	xxxxx					
Move Cap.:	171	204	621	172	200	507	984	xxxx	xxxxx		1109	xxxx	xxxxx					
Volume/Cap:	0.07	0.01	0.03	0.07	0.01	0.05	0.02	xxxx	xxxx		0.01	xxxx	xxxx					
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx					
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx		8.3	xxxx	xxxxx					
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*					
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT					
Shared Cap.:	xxxx	314	xxxxx	xxxx	299	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx					
Shrd ConDel:	xxxxx	17.8	xxxxx	xxxxx	18.9	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx					
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*					
ApproachDel:	17.8			18.9			xxxxxx				xxxxxx							
ApproachLOS:	C			C			*				*							

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: D[28.8]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	11	0	11				17	0	18				34	575	12				18	540	18			
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:	11	0	11				17	0	18				34	575	12				18	540	18			
Added Vol:	5	0	0				0	0	0				0	9	5				0	9	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	16	0	11				17	0	18				34	584	17				18	549	18			
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:	17	0	12				18	0	19				36	615	18				19	578	19			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	17	0	12				18	0	19				36	615	18				19	578	19			
Critical Gap Module:																								
Critical Gp:	7.1	6.5	6.2				7.1	6.5	6.2				4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3				3.5	4.0	3.3				2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1321	1321	615				1326	1329	587				597	xxxx	xxxxx				632	xxxx	xxxxx			
Potent Cap.:	135	158	495				134	156	513				990	xxxx	xxxxx				960	xxxx	xxxxx			
Move Cap.:	125	149	495				125	148	513				990	xxxx	xxxxx				960	xxxx	xxxxx			
Volume/Cap:	0.14	0.00	0.02				0.14	0.00	0.04				0.04	xxxx	xxxx				0.02	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.1	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				8.8	xxxx	xxxxx				8.8	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		179	xxxxx			xxxx		205	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.5	xxxxx			xxxxx		0.6	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		28.8	xxxxx			xxxxx		26.4	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		D	*			*		D	*			*	*	*				*	*	*			
ApproachDel:	28.8						26.4						xxxxxx						xxxxxx					
ApproachLOS:	D						D						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.400
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	9		15		190		60		38		85		36		344		8		108		421		32	
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:	9		15		190		60		38		85		36		344		8		108		421		32	
Added Vol:	1		0		0		0		0		2		1		2		1		0		3		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	10		15		190		60		38		87		37		346		9		108		424		32	
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:	0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82	
PHF Volume:	12		18		233		73		47		107		45		424		11		132		519		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	12		18		233		73		47		107		45		424		11		132		519		39	
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:	12		18		233		73		47		107		45		424		11		132		519		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1700		1800		1800		1700		1800		1800		1700		3600		1800		1700		3600		1800	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.13		0.04		0.03		0.06		0.03		0.12		0.01		0.08		0.14		0.02	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.10		0.28		0.28		0.10		0.28		0.28		0.11		0.40		0.40		0.14		0.43		0.43	
Volume/Cap:	0.07		0.04		0.46		0.43		0.09		0.21		0.25		0.29		0.02		0.56		0.33		0.05	
Delay/Veh:	41.0		26.2		30.4		44.1		26.7		27.8		41.6		20.5		18.1		43.0		19.0		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:	41.0		26.2		30.4		44.1		26.7		27.8		41.6		20.5		18.1		43.0		19.0		16.5	
LOS by Move:	D		C		C		D		C		C		D		C		B		D		B		B	
HCM2kAvgQ:	0		0		6		3		1		3		2		4		0		5		5		1	

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.364
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.2
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:	Include				Include				Include				Include			
Min. Green:	10	28		28	10	28		28	10	40		40	10	40		40
Lanes:	1 0	1	0	1	1 0	1	0	1	1 0	2	0	1	1 0	2	0	1
Volume Module:																
Base Vol:	18	50		193	58	30		46	98	485		12	84	445		59
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:	18	50		193	58	30		46	98	485		12	84	445		59
Added Vol:	2	0		0	0	0		3	3	5		2	0	5		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	20	50		193	58	30		49	101	490		14	84	450		59
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:	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97		0.97
PHF Volume:	21	51		198	60	31		50	104	503		14	86	462		61
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	21	51		198	60	31		50	104	503		14	86	462		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:	21	51		198	60	31		50	104	503		14	86	462		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:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00
Final Sat.:	1700	1800		1800	1700	1800		1800	1700	3600		1800	1700	3600		1800
Capacity Analysis Module:																
Vol/Sat:	0.01	0.03		0.11	0.04	0.02		0.03	0.06	0.14		0.01	0.05	0.13		0.03
Crit Moves:				****	****				****					****		
Green/Cycle:	0.10	0.28		0.28	0.10	0.28		0.28	0.14	0.43		0.43	0.11	0.40		0.40
Volume/Cap:	0.12	0.10		0.39	0.35	0.06		0.10	0.44	0.32		0.02	0.47	0.32		0.08
Delay/Veh:	41.3	26.8		29.6	43.2	26.4		26.8	40.7	18.9		16.3	43.8	20.8		18.7
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:	41.3	26.8		29.6	43.2	26.4		26.8	40.7	18.9		16.3	43.8	20.8		18.7
LOS by Move:	D	C		C	D	C		C	D	B		B	D	C		B
HCM2kAvgQ:	1	1		5	2	1		1	4	5		0	3	5		1

Note: Queue reported is the number of cars per lane.

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Opening Year (2017) With Project (No Other Development)

Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.370
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 29.3
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:	Include						Include						Include						Include					
Min. Green:	10		32		32		10		31		31		10		32		32		10		31		31	
Lanes:	1	0	2	0	1		1	0	2	0	1		1	0	2	0	1		1	0	1	1	0	
Volume Module:																								
Base Vol:	68		112		123		116		96		90		49		272		42		142		385		33	
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:	68		112		123		116		96		90		49		272		42		142		385		33	
Added Vol:	0		0		3		2		0		0		0		3		0		2		2		1	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	68		112		126		118		96		90		49		275		42		144		387		34	
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		0.88		0.88		0.88		0.88		0.88		0.88		0.88		0.88		0.88	
PHF Volume:	77		127		143		134		109		102		55		311		48		163		438		38	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	77		127		143		134		109		102		55		311		48		163		438		38	
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:	77		127		143		134		109		102		55		311		48		163		438		38	
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		1.84		0.16	
Final Sat.:	1700		3600		1800		1700		3600		1800		1700		3600		1800		1700		3309		291	
Capacity Analysis Module:																								
Vol/Sat:	0.05		0.04		0.08		0.08		0.03		0.06		0.03		0.09		0.03		0.10		0.13		0.13	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.11		0.32		0.32		0.13		0.34		0.34		0.12		0.32		0.32		0.15		0.36		0.36	
Volume/Cap:	0.42		0.11		0.25		0.62		0.09		0.17		0.28		0.27		0.08		0.62		0.37		0.37	
Delay/Veh:	43.1		24.0		25.3		47.0		22.7		23.4		41.2		25.4		23.8		44.2		23.9		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:	43.1		24.0		25.3		47.0		22.7		23.4		41.2		25.4		23.8		44.2		23.9		23.9	
LOS by Move:	D		C		C		D		C		C		D		C		C		D		C		C	
HCM2kAvgQ:	3		1		3		5		1		2		2		4		1		6		5		5	

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.411
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	28.7
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:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	115	163	204	122	95	108	86	314	37	118	420	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:	115	163	204	122	95	108	86	314	37	118	420	55
Added Vol:	0	0	5	3	0	0	0	5	0	5	5	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	163	209	125	95	108	86	319	37	123	425	58
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	123	175	224	134	102	116	92	342	40	132	456	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	175	224	134	102	116	92	342	40	132	456	62
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:	123	175	224	134	102	116	92	342	40	132	456	62
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	1.76	0.24
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3168	432
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.12	0.08	0.03	0.06	0.05	0.10	0.02	0.08	0.14	0.14
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.34	0.34	0.12	0.35	0.35	0.11	0.34	0.34	0.12	0.35	0.35
Volume/Cap:	0.65	0.14	0.37	0.65	0.08	0.19	0.49	0.28	0.07	0.65	0.42	0.42
Delay/Veh:	48.0	22.0	24.2	46.7	20.9	21.8	41.6	23.2	21.4	46.9	24.0	24.0
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:	48.0	22.0	24.2	46.7	20.9	21.8	41.6	23.2	21.4	46.9	24.0	24.0
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	2	5	5	1	2	3	4	1	5	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[15.9]

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:	0 0 0	0 0		0 0	1! 0 0		1 0	1 0	1	0 0	1 0	1
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	473	0	0	640	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	0	0	0	0	0	0	473	0	0	640	0
Added Vol:	0	0	0	3	0	3	4	4	0	0	3	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	3	4	477	0	0	643	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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	0	0	0	4	0	4	5	587	0	0	791	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	4	0	4	5	587	0	0	791	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1388	1388	791	796	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	159	144	393	834	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	158	143	393	834	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	247	264	xxxxx	297	267	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.01	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	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	338	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.9			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[14.9]

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:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	720	0	0	560	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	0	0	0	0	0	0	720	0	0	560	0
Added Vol:	0	0	0	6	0	6	6	6	0	0	6	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	6	726	0	0	566	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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	6	0	6	6	769	0	0	600	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	6	769	0	0	600	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1382	1382	600	606	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	160	145	505	982	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	160	144	505	982	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	249	266	xxxxx	298	268	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	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	375	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[8.5]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	1	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	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	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	1	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	9	0	0	0	0	3	2	0	6	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1	0	0	20	3	2	0	6	0	0	0	0	0	0	0	0	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	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	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	1	0	0	22	3	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	1	0	0	22	3	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	xxxxx	xxxx	xxxxx					
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	xxxxx	xxxx	xxxxx					
Capacity Module:																								
Cnflict Vol:	25	xxxx	xxxxx	xxxx	xxxx	xxxxx							44	44		23	xxxx	xxxx	xxxxx					
Potent Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx							972	852		1059	xxxx	xxxx	xxxxx					
Move Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx							967	847		1059	xxxx	xxxx	xxxxx					
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.00	0.00		0.01	xxxx	xxxx	xxxx					
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	7.3	xxxx	xxxxx	xxxxx	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	1035	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*												
ApproachDel:	xxxxxx			xxxxxx				8.5			xxxxxx													
ApproachLOS:	*			*				A			*													

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[8.6]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	10	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	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	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	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	14	0	0	0	0	5	5	0	14	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	10	0	0	20	5	5	0	14	0	0	0	0	0	0	0	0	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	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	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	15	11	0	0	22	5	5	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	11	0	0	22	5	5	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	xxxxx	xxxx	xxxxx					
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	xxxxx	xxxx	xxxxx					
Capacity Module:																								
Cnflict Vol:	27	xxxx	xxxxx		xxxx	xxxx	xxxxx						66	66		24		xxxx	xxxx	xxxxx				
Potent Cap.:	1600	xxxx	xxxxx		xxxx	xxxx	xxxxx						945	829		1058		xxxx	xxxx	xxxxx				
Move Cap.:	1600	xxxx	xxxxx		xxxx	xxxx	xxxxx						938	821		1058		xxxx	xxxx	xxxxx				
Volume/Cap:	0.01	xxxx	xxxx		xxxx	xxxx	xxxx						0.01	0.00		0.01		xxxx	xxxx	xxxx				
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx						xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	7.3	xxxx	xxxxx		xxxxx	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	1023	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	0.0	xxxx	xxxxx		xxxxx	xxxx	xxxxx						xxxxx	0.1	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	7.3	xxxx	xxxxx		xxxxx	xxxx	xxxxx						xxxxx	8.6	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	A	*	*		*	*	*						*	A	*				*	*	*			
ApproachDel:	xxxxxx				xxxxxx								8.6						xxxxxx					
ApproachLOS:	*				*								A						*					

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[18.6]

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:	0	0 1! 0	0	0	0 1! 0	0	1	0 1	0 1				1	0 1	0 1			
Volume Module:																		
Base Vol:	3	0	6	2	0	0	0	465	2				10	646	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:	3	0	6	2	0	0	0	465	2				10	646	1			
Added Vol:	0	0	0	4	0	3	4	3	0				0	4	5			
PasserByVol:	0	0	0	0	0	0	0	0	0				0	0	0			
Initial Fut:	3	0	6	6	0	3	4	468	2				10	650	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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82				0.82	0.82	0.82			
PHF Volume:	4	0	7	7	0	4	5	572	2				12	795	7			
Reduct Vol:	0	0	0	0	0	0	0	0	0				0	0	0			
FinalVolume:	4	0	7	7	0	4	5	572	2				12	795	7			
Critical Gap Module:																		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																		
Cnflict Vol:	1407	1409	572	1407	1404	795	802	xxxx	xxxxx				575	xxxx	xxxxx			
Potent Cap.:	118	140	523	118	141	391	830	xxxx	xxxxx				1008	xxxx	xxxxx			
Move Cap.:	115	137	523	115	138	391	830	xxxx	xxxxx				1008	xxxx	xxxxx			
Total Cap:	240	258	xxxxx	241	259	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Volume/Cap:	0.02	0.00	0.01	0.03	0.00	0.01	0.01	xxxx	xxxx				0.01	xxxx	xxxx			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx				0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx				8.6	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*				A	*	*			
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT				LT	- LTR	- RT			
Shared Cap.:	xxxx	376	xxxxx	xxxx	276	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	14.9	xxxxx	xxxxx	18.6	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	B	*	*	C	*	*	*	*				*	*	*			
ApproachDel:		14.9			18.6			xxxxxx						xxxxxx				
ApproachLOS:		B			C			*						*				

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[18.5]

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:	0 0 1!	0 0		0 0 1!	0 0		1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	10	0	8	7	0	2	3	706	3	14	551	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:	10	0	8	7	0	2	3	706	3	14	551	4
Added Vol:	0	0	0	8	0	6	6	6	0	0	6	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	0	8	15	0	8	9	712	3	14	557	12
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	11	0	9	16	0	9	10	760	3	15	595	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	0	9	16	0	9	10	760	3	15	595	13
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1414	1416	760	1409	1407	595	607	xxxx	xxxxx	763	xxxx	xxxxx
Potent Cap.:	116	138	409	117	140	508	981	xxxx	xxxxx	859	xxxx	xxxxx
Move Cap.:	112	135	409	112	137	508	981	xxxx	xxxxx	859	xxxx	xxxxx
Total Cap:	240	257	xxxxx	237	256	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	0.00	0.02	0.07	0.00	0.02	0.01	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	294	xxxxx	xxxx	291	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.1	xxxxx	xxxxx	18.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	18.1			18.5			xxxxx			xxxxx		
ApproachLOS:	C			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[21.1]

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:	0 0 1!	0	0		0 0 1!	0	0		1 0 1	0	1		1 0 0	1	0	
Volume Module:																
Base Vol:	8	1	22		13	3	24		19	387	22		16	549	14	
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:	8	1	22		13	3	24		19	387	22		16	549	14	
Added Vol:	3	0	0		0	0	0		0	4	2		0	6	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	11	1	22		13	3	24		19	391	24		16	555	14	
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		0.89	0.89	0.89		0.89	0.89	0.89		0.89	0.89	0.89	
PHF Volume:	12	1	25		15	3	27		21	441	27		18	625	16	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	12	1	25		15	3	27		21	441	27		18	625	16	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	1168	1161	441		1179	1180	633		641	xxxx	xxxxx		468	xxxx	xxxxx	
Potent Cap.:	172	197	621		169	192	483		953	xxxx	xxxxx		1104	xxxx	xxxxx	
Move Cap.:	155	189	621		157	184	483		953	xxxx	xxxxx		1104	xxxx	xxxxx	
Volume/Cap:	0.08	0.01	0.04		0.09	0.02	0.06		0.02	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.9	xxxx	xxxxx		8.3	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT	LTR	RT		LT	LTR	RT		LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	305	xxxxx		xxxx	269	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.4	xxxxx		xxxxx	0.6	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	18.5	xxxxx		xxxxx	21.1	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*		*	C	*		*	*	*		*	*	*	
ApproachDel:	18.5				21.1				xxxxxx				xxxxxx			
ApproachLOS:	C				C				*				*			

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: D[31.0]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	15	0	15				20	0	20				39	585	12				18	545	21			
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:	15	0	15				20	0	20				39	585	12				18	545	21			
Added Vol:	5	0	0				0	0	0				0	9	5				0	9	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	20	0	15				20	0	20				39	594	17				18	554	21			
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:	21	0	16				21	0	21				41	625	18				19	583	22			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	21	0	16				21	0	21				41	625	18				19	583	22			
Critical Gap Module:																								
Critical Gp:	7.1	6.5	6.2				7.1	6.5	6.2				4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3				3.5	4.0	3.3				2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1350	1350	625				1356	1357	594				605	xxxx	xxxxx				643	xxxx	xxxxx			
Potent Cap.:	129	152	488				128	150	509				983	xxxx	xxxxx				951	xxxx	xxxxx			
Move Cap.:	118	143	488				118	141	509				983	xxxx	xxxxx				951	xxxx	xxxxx			
Volume/Cap:	0.18	0.00	0.03				0.18	0.00	0.04				0.04	xxxx	xxxx				0.02	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.1	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				8.8	xxxx	xxxxx				8.9	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		175	xxxxx			xxxx		191	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.8	xxxxx			xxxxx		0.8	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		31.0	xxxxx			xxxxx		29.1	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		D	*			*		D	*			*	*	*				*	*	*			
ApproachDel:			31.0						29.1					xxxxxx						xxxxxx				
ApproachLOS:			D						D					*						*				

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.404
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	9		15		190		62		38		92		36		350		8		108		449		32	
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:	9		15		190		62		38		92		36		350		8		108		449		32	
Added Vol:	1		0		0		0		0		2		1		2		1		0		3		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	10		15		190		62		38		94		37		352		9		108		452		32	
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:	0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82		0.82	
PHF Volume:	12		18		233		76		47		115		45		431		11		132		554		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	12		18		233		76		47		115		45		431		11		132		554		39	
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:	12		18		233		76		47		115		45		431		11		132		554		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1700		1800		1800		1700		1800		1800		1700		3600		1800		1700		3600		1800	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.13		0.04		0.03		0.06		0.03		0.12		0.01		0.08		0.15		0.02	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.10		0.28		0.28		0.10		0.28		0.28		0.11		0.40		0.40		0.14		0.43		0.43	
Volume/Cap:	0.07		0.04		0.46		0.45		0.09		0.23		0.25		0.30		0.02		0.56		0.36		0.05	
Delay/Veh:	41.0		26.2		30.4		44.3		26.7		27.9		41.6		20.6		18.1		43.0		19.2		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:	41.0		26.2		30.4		44.3		26.7		27.9		41.6		20.6		18.1		43.0		19.2		16.5	
LOS by Move:	D		C		C		D		C		C		D		C		B		D		B		B	
HCM2kAvgQ:	0		0		6		3		1		3		2		5		0		5		6		1	

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.374
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.3
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:	Include						Include						Include						Include					
Min. Green:	10	28	28				10	28	28				10	40	40				10	40	40			
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	18	52	194				59	30	47				107	504	13				87	456	61			
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:	18	52	194				59	30	47				107	504	13				87	456	61			
Added Vol:	2	0	0				0	0	3				3	5	2				0	5	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	20	52	194				59	30	50				110	509	15				87	461	61			
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:	0.97	0.97	0.97				0.97	0.97	0.97				0.97	0.97	0.97				0.97	0.97	0.97			
PHF Volume:	21	53	199				61	31	51				113	523	15				89	473	63			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Reduced Vol:	21	53	199				61	31	51				113	523	15				89	473	63			
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:	21	53	199				61	31	51				113	523	15				89	473	63			
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	1.00	1.00				1.00	1.00	1.00				1.00	2.00	1.00				1.00	2.00	1.00			
Final Sat.:	1700	1800	1800				1700	1800	1800				1700	3600	1800				1700	3600	1800			
Capacity Analysis Module:																								
Vol/Sat:	0.01	0.03	0.11				0.04	0.02	0.03				0.07	0.15	0.01				0.05	0.13	0.03			
Crit Moves:			****				****						****							****				
Green/Cycle:	0.10	0.28	0.28				0.10	0.28	0.28				0.14	0.43	0.43				0.11	0.40	0.40			
Volume/Cap:	0.12	0.11	0.40				0.36	0.06	0.10				0.47	0.34	0.02				0.49	0.33	0.09			
Delay/Veh:	41.3	26.8	29.7				43.3	26.4	26.8				41.1	19.0	16.3				44.0	20.9	18.7			
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:	41.3	26.8	29.7				43.3	26.4	26.8				41.1	19.0	16.3				44.0	20.9	18.7			
LOS by Move:	D		C		C		D		C		C		D		B		B		D		C		B	
HCM2kAvgQ:	1		1		5		2		1		1		4		5		0		3		5		1	

Note: Queue reported is the number of cars per lane.

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Opening Year (2017) Without Project

Dollar General Phelan
Opening Year (2017) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.373
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 29.3
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	68	112	123	116	96	90	49	272	42	142	385	33
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:	68	112	123	116	96	90	49	272	42	142	385	33
Added Vol:	0	4	6	3	3	5	6	4	0	3	3	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	116	129	119	99	95	55	276	42	145	388	35
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	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	77	131	146	135	112	108	62	312	48	164	439	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	131	146	135	112	108	62	312	48	164	439	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:	77	131	146	135	112	108	62	312	48	164	439	40
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	1.83	0.17
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3302	298
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.08	0.08	0.03	0.06	0.04	0.09	0.03	0.10	0.13	0.13
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.32	0.32	0.13	0.34	0.34	0.12	0.32	0.32	0.15	0.36	0.36
Volume/Cap:	0.42	0.11	0.25	0.63	0.09	0.18	0.32	0.27	0.08	0.63	0.37	0.37
Delay/Veh:	43.1	24.0	25.4	47.3	22.7	23.5	41.5	25.4	23.8	44.4	23.9	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:	43.1	24.0	25.4	47.3	22.7	23.5	41.5	25.4	23.8	44.4	23.9	23.9
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	3	1	3	5	1	2	2	4	1	6	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.422
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	29.1
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	115	163	204	122	95	108	86	314	37	118	420	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:	115	163	204	122	95	108	86	314	37	118	420	55
Added Vol:	0	11	11	5	11	17	16	8	0	12	9	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	174	215	127	106	125	102	322	37	130	429	61
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	123	187	231	136	114	134	109	345	40	139	460	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	187	231	136	114	134	109	345	40	139	460	65
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:	123	187	231	136	114	134	109	345	40	139	460	65
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	1.75	0.25
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3152	448
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.13	0.08	0.03	0.07	0.06	0.10	0.02	0.08	0.15	0.15
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.34	0.34	0.12	0.35	0.35	0.11	0.34	0.34	0.12	0.35	0.35
Volume/Cap:	0.65	0.15	0.38	0.67	0.09	0.22	0.57	0.28	0.07	0.67	0.42	0.42
Delay/Veh:	48.3	22.1	24.4	48.4	21.1	22.2	44.3	23.2	21.4	48.0	23.9	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:	48.3	22.1	24.4	48.4	21.1	22.2	44.3	23.2	21.4	48.0	23.9	23.9
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	2	5	5	1	3	4	4	1	5	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[20.7]

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:	0	0	1!	0	0	1	0	0	0	0	1	0	1	0	1	1	0	1	0	1
Volume Module:																				
Base Vol:	3	0	6			2	0	0			0	465	2			10	646	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:	3	0	6			2	0	0			0	465	2			10	646	1		
Added Vol:	3	0	2			0	0	0			0	12	6			6	11	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	6	0	8			2	0	0			0	477	8			16	657	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:	0.82	0.82	0.82			0.82	0.82	0.82			0.82	0.82	0.82			0.82	0.82	0.82		
PHF Volume:	7	0	10			2	0	0			0	583	10			20	804	1		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	7	0	10			2	0	0			0	583	10			20	804	1		
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2			7.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3			3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx					2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1427	1428	583			1436	xxxx	xxxxx	xxxx	xxxx	xxxxx					593	xxxx	xxxxx		
Potent Cap.:	114	136	516			112	xxxx	xxxxx	xxxx	xxxx	xxxxx					993	xxxx	xxxxx		
Move Cap.:	112	134	516			109	xxxx	xxxxx	xxxx	xxxx	xxxxx					993	xxxx	xxxxx		
Total Cap:	239	255	xxxxx			232	251	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx		
Volume/Cap:	0.03	0.00	0.02			0.01	xxxx	xxxx	xxxx	xxxx	xxxx					0.02	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx					0.1	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			20.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx					8.7	xxxx	xxxxx		
LOS by Move:	*	*	*			C	*	*	*	*	*					A	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	344	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	0.2	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	16.0	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	C	*			*	*	*			*	*	*			*	*	*		
ApproachDel:	16.0					20.7					xxxxxx					xxxxxx				
ApproachLOS:	C					C					*					*				

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[20.1]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	1	0	1	
Volume Module:																								
Base Vol:	10	0	8				7	0	2				3	706	3				14	551	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:	10	0	8				7	0	2				3	706	3				14	551	4			
Added Vol:	12	0	6				0	0	0				0	30	11				11	30	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	22	0	14				7	0	2				3	736	14				25	581	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:	0.94	0.94	0.94				0.94	0.94	0.94				0.94	0.94	0.94				0.94	0.94	0.94			
PHF Volume:	23	0	15				7	0	2				3	786	15				27	620	4			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	23	0	15				7	0	2				3	786	15				27	620	4			
Critical Gap Module:																								
Critical Gp:	7.1	6.5	6.2				7.1	6.5	6.2				4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3				3.5	4.0	3.3				2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1469	1470	786				1480	1480	620				624	xxxx	xxxxx				801	xxxx	xxxxx			
Potent Cap.:	107	129	396				105	127	492				967	xxxx	xxxxx				831	xxxx	xxxxx			
Move Cap.:	103	124	396				98	122	492				967	xxxx	xxxxx				831	xxxx	xxxxx			
Total Cap:	231	248	xxxxx				217	239	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Volume/Cap:	0.10	0.00	0.04				0.03	0.00	0.00				0.00	xxxx	xxxx				0.03	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.0	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				8.7	xxxx	xxxxx				9.5	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		276	xxxxx			xxxx		247	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.5	xxxxx			xxxxx		0.1	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		20.1	xxxxx			xxxxx		20.1	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		C	*			*		C	*			*	*	*				*	*	*			
ApproachDel:	20.1						20.1						xxxxxx						xxxxxx					
ApproachLOS:	C						C						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[21.5]

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:	0 0 1!	0	0	0 0 1!	0	0	1 0	1	0	1	1 0	0	1	0
Volume Module:														
Base Vol:	8	1	22	13	3	24	19	387	22		16	549	14	
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:	8	1	22	13	3	24	19	387	22		16	549	14	
Added Vol:	0	0	2	0	0	1	1	9	0		0	16	0	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	8	1	24	13	3	25	20	396	22		16	565	14	
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	0.89	0.89	0.89	0.89	0.89	0.89		0.89	0.89	0.89	
PHF Volume:	9	1	27	15	3	28	23	446	25		18	637	16	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	9	1	27	15	3	28	23	446	25		18	637	16	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1188	1180	446	1199	1197	645	653	xxxx	xxxxx		471	xxxx	xxxxx	
Potent Cap.:	167	192	616	164	187	476	944	xxxx	xxxxx		1101	xxxx	xxxxx	
Move Cap.:	150	184	616	151	180	476	944	xxxx	xxxxx		1101	xxxx	xxxxx	
Volume/Cap:	0.06	0.01	0.04	0.10	0.02	0.06	0.02	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx		8.3	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	338	xxxxx	xxxx	264	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	17.0	xxxxx	xxxxx	21.5	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:		17.0			21.5			xxxxxx				xxxxxx		
ApproachLOS:		C			C			*				*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: D[32.8]

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:	0 0 1!	0 0		0 0 1!	0 0		1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	15	0	15	20	0	20	39	585	12	18	545	21
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:	15	0	15	20	0	20	39	585	12	18	545	21
Added Vol:	0	0	6	0	0	3	3	32	0	0	34	0
PasserByVol:	0	0	0	0	0	1	2	0	12	11	0	0
Initial Fut:	15	0	21	20	0	24	44	617	24	29	579	21
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:	16	0	22	21	0	25	46	649	25	31	609	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	0	22	21	0	25	46	649	25	31	609	22
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1436	1434	649	1447	1449	620	631	xxxx	xxxxx	675	xxxx	xxxxx
Potent Cap.:	112	135	473	110	132	491	961	xxxx	xxxxx	926	xxxx	xxxxx
Move Cap.:	100	124	473	99	122	491	961	xxxx	xxxxx	926	xxxx	xxxxx
Volume/Cap:	0.16	0.00	0.05	0.21	0.00	0.05	0.05	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	185	xxxxx	xxxx	175	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	29.3	xxxxx	xxxxx	32.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	D	*	*	*	*	*	*	*
ApproachDel:		29.3			32.8			xxxxx			xxxxx	
ApproachLOS:		D			D			*			*	

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.405
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
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:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	40	40	10	40	40
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	9	15	190	62	38	92	36	350	8	108	449	32
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:	9	15	190	62	38	92	36	350	8	108	449	32
Added Vol:	2	0	0	0	0	5	3	6	2	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	15	190	62	38	97	39	356	10	108	457	32
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
PHF Volume:	13	18	233	76	47	119	48	436	12	132	560	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	18	233	76	47	119	48	436	12	132	560	39
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:	13	18	233	76	47	119	48	436	12	132	560	39
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	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.13	0.04	0.03	0.07	0.03	0.12	0.01	0.08	0.16	0.02
Crit Moves:			****	****				****		****		
Green/Cycle:	0.10	0.28	0.28	0.10	0.28	0.28	0.11	0.40	0.40	0.14	0.43	0.43
Volume/Cap:	0.08	0.04	0.46	0.45	0.09	0.24	0.26	0.30	0.02	0.56	0.36	0.05
Delay/Veh:	41.0	26.2	30.4	44.3	26.7	28.0	41.7	20.6	18.1	43.0	19.2	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:	41.0	26.2	30.4	44.3	26.7	28.0	41.7	20.6	18.1	43.0	19.2	16.5
LOS by Move:	D	C	C	D	C	C	D	C	B	D	B	B
HCM2kAvgQ:	0	0	6	3	1	3	2	5	0	5	6	1

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.384
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	18		52		194		59		30		47		107		504		13		87		456		61	
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:	18		52		194		59		30		47		107		504		13		87		456		61	
Added Vol:	5		0		0		0		0		11		12		20		6		0		19		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	23		52		194		59		30		58		119		524		19		87		475		61	
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:	0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97	
PHF Volume:	24		53		199		61		31		60		122		538		20		89		488		63	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	24		53		199		61		31		60		122		538		20		89		488		63	
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:	24		53		199		61		31		60		122		538		20		89		488		63	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1700		1800		1800		1700		1800		1800		1700		3600		1800		1700		3600		1800	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.03		0.11		0.04		0.02		0.03		0.07		0.15		0.01		0.05		0.14		0.03	
Crit Moves:					****		****						****								****			
Green/Cycle:	0.10		0.28		0.28		0.10		0.28		0.28		0.14		0.43		0.43		0.11		0.40		0.40	
Volume/Cap:	0.14		0.11		0.40		0.36		0.06		0.12		0.51		0.35		0.03		0.49		0.34		0.09	
Delay/Veh:	41.4		26.8		29.7		43.3		26.4		26.9		41.8		19.1		16.3		44.0		21.0		18.7	
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:	41.4		26.8		29.7		43.3		26.4		26.9		41.8		19.1		16.3		44.0		21.0		18.7	
LOS by Move:	D		C		C		D		C		C		D		B		B		D		C		B	
HCM2kAvgQ:	1		1		5		2		1		1		4		6		0		3		5		1	

Note: Queue reported is the number of cars per lane.

Traffix 7.9.0215 (c) 2008 Dowling Assoc. Licensed to KUNZMAN ASSOC, ORANGE CA

Opening Year (2017) With Project

Dollar General Phelan
Opening Year (2017) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.380
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	68	112	123	116	96	90	49	272	42	142	385	33
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:	68	112	123	116	96	90	49	272	42	142	385	33
Added Vol:	0	4	9	5	3	5	6	7	0	6	5	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	116	132	121	99	95	55	279	42	148	390	36
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	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	77	131	149	137	112	108	62	316	48	167	441	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	131	149	137	112	108	62	316	48	167	441	41
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:	77	131	149	137	112	108	62	316	48	167	441	41
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	1.83	0.17
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3296	304
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.08	0.08	0.03	0.06	0.04	0.09	0.03	0.10	0.13	0.13
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.32	0.32	0.13	0.34	0.34	0.12	0.32	0.32	0.15	0.36	0.36
Volume/Cap:	0.42	0.11	0.26	0.64	0.09	0.18	0.32	0.27	0.08	0.64	0.37	0.37
Delay/Veh:	43.1	24.0	25.5	47.9	22.7	23.5	41.5	25.5	23.8	44.9	23.9	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:	43.1	24.0	25.5	47.9	22.7	23.5	41.5	25.5	23.8	44.9	23.9	23.9
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	3	1	3	5	1	2	2	4	1	6	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 95 Critical Vol./Cap.(X): 0.431
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 29.3
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	115	163	204	122	95	108	86	314	37	118	420	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:	115	163	204	122	95	108	86	314	37	118	420	55
Added Vol:	0	11	15	8	11	17	16	13	0	16	13	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	174	219	130	106	125	102	327	37	134	433	64
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	123	187	235	139	114	134	109	351	40	144	464	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	187	235	139	114	134	109	351	40	144	464	69
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:	123	187	235	139	114	134	109	351	40	144	464	69
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	1.74	0.26
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3136	464
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.13	0.08	0.03	0.07	0.06	0.10	0.02	0.08	0.15	0.15
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.34	0.34	0.12	0.34	0.34	0.11	0.34	0.34	0.12	0.35	0.35
Volume/Cap:	0.65	0.15	0.39	0.69	0.09	0.22	0.57	0.29	0.07	0.69	0.43	0.43
Delay/Veh:	48.3	22.1	24.4	49.7	21.1	22.2	44.2	23.3	21.4	49.2	24.0	24.0
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:	48.3	22.1	24.4	49.7	21.1	22.2	44.2	23.3	21.4	49.2	24.0	24.0
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	2	5	6	1	3	4	4	1	6	6	6

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[16.2]

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:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	1	0	1
Volume Module:																		
Base Vol:	0	0	0	0	0	0	0	473	0	0	640	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	0	0	0	0	0	0	473	0	0	640	0						
Added Vol:	0	0	0	3	0	3	4	22	0	0	17	4						
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0						
Initial Fut:	0	0	0	3	0	3	4	495	0	0	657	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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81						
PHF Volume:	0	0	0	4	0	4	5	609	0	0	809	5						
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0						
FinalVolume:	0	0	0	4	0	4	5	609	0	0	809	5						
Critical Gap Module:																		
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																		
Cnflict Vol:	xxxx	xxxx	xxxxx	1428	1428	809	814	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	xxxx	xxxx	xxxxx	150	136	384	822	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	xxxx	xxxx	xxxxx	150	136	384	822	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Total Cap:	239	257	xxxxx	289	259	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	xxxx	xxxx	xxxx	0.01	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	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	329	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*						
ApproachDel:	xxxxxx			16.2			xxxxxx			xxxxxx								
ApproachLOS:	*			C			*			*								

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[15.8]

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:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	1	0 0	1 0	1
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	720	0	0	576	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	0	0	0	0	0	0	720	0	0	576	0
Added Vol:	0	0	0	6	0	6	6	47	0	0	48	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	6	767	0	0	624	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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	6	0	6	6	813	0	0	661	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	6	813	0	0	661	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1487	1487	661	668	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	138	126	466	932	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	138	125	466	932	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	228	246	xxxxx	277	249	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	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	347	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[8.5]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	1	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	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	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	1	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	9	0	0	0	0	3	2	0	6	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1	0	0	20	3	2	0	6	0	0	0	0	0	0	0	0	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	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	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	1	0	0	22	3	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	1	0	0	22	3	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	xxxxx	xxxx	xxxxx					
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	xxxxx	xxxx	xxxxx					
Capacity Module:																								
Cnflict Vol:	25	xxxx	xxxxx	xxxx	xxxx	xxxxx							44	44		23	xxxx	xxxx	xxxxx					
Potent Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx							972	852		1059	xxxx	xxxx	xxxxx					
Move Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx							967	847		1059	xxxx	xxxx	xxxxx					
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.00	0.00		0.01	xxxx	xxxx	xxxx					
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	7.3	xxxx	xxxxx	xxxxx	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	1035	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*												
ApproachDel:	xxxxxx			xxxxxx				8.5			xxxxxx													
ApproachLOS:	*			*				A			*													

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Opening Year (2017) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[8.6]

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 1	0	0	0	0	0	0	1	0	0	0	1! 0	0	0	0	0	0
Volume Module:																
Base Vol:	0	10	0		0	20	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		1.00 1.00	1.00	1.00	
Initial Bse:	0	10	0		0	20	0		0	0	0		0	0	0	
Added Vol:	14	0	0		0	0	5		5	0	14		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	14	10	0		0	20	5		5	0	14		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		1.00 1.00	1.00	1.00	
PHF Adj:	0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92	
PHF Volume:	15	11	0		0	22	5		5	0	15		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	15	11	0		0	22	5		5	0	15		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1 xxxx	xxxxx	xxxxx		xxxx	xxxxx			6.4	6.5	6.2		xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2 xxxx	xxxxx	xxxxx		xxxx	xxxxx			3.5	4.0	3.3		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	27 xxxx	xxxxx		xxxx	xxxx	xxxxx			66	66	24		xxxx	xxxx	xxxxx	
Potent Cap.:	1600 xxxx	xxxxx		xxxx	xxxx	xxxxx			945	829	1058		xxxx	xxxx	xxxxx	
Move Cap.:	1600 xxxx	xxxxx		xxxx	xxxx	xxxxx			938	821	1058		xxxx	xxxx	xxxxx	
Volume/Cap:	0.01 xxxx	xxxx		xxxx	xxxx	xxxx			0.01	0.00	0.01		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.0 xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	7.3 xxxx	xxxxx		xxxxx	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	1023	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	0.0 xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	0.1	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	7.3 xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	8.6	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	A	*		*	*	*			*	A	*		*	*	*	
ApproachDel:	xxxxxx			xxxxxx					8.6		xxxxxx					
ApproachLOS:	*			*					A		*					

Note: Queue reported is the number of cars per lane.

Dollar General Phelan
Opening Year (2017) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[19.2]

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:	0 0 1!	0	0	0 0 1!	0	0	1 0	1	0	1	1 0	1	0	1
Volume Module:														
Base Vol:	3	0	6	2	0	0	0	465	2		10	646	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:	3	0	6	2	0	0	0	465	2		10	646	1	
Added Vol:	3	0	2	4	0	3	4	15	6		6	15	5	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	6	0	8	6	0	3	4	480	8		16	661	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:	0.82 0.82	0.82		0.82 0.82	0.82		0.82 0.82	0.82			0.82 0.82	0.82		
PHF Volume:	7	0	10	7	0	4	5	587	10		20	809	7	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	7	0	10	7	0	4	5	587	10		20	809	7	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1450	1452	587	1454	1454	809	816	xxxx	xxxxx		597	xxxx	xxxxx	
Potent Cap.:	110	132	513	109	131	384	821	xxxx	xxxxx		990	xxxx	xxxxx	
Move Cap.:	107	128	513	105	128	384	821	xxxx	xxxxx		990	xxxx	xxxxx	
Total Cap:	230	248	xxxxx	228	247	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.03 0.00	0.02		0.03 0.00	0.01		0.01	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx		8.7	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	336	xxxxx	xxxx	264	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	16.3	xxxxx	xxxxx	19.2	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	16.3			19.2			xxxxxx				xxxxxx			
ApproachLOS:	C			C			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[19.0]

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:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0	1
Volume Module:																				
Base Vol:	10	0	8			7	0	2			3	706	3			14	551	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:	10	0	8			7	0	2			3	706	3			14	551	4		
Added Vol:	12	0	6			8	0	6			6	37	11			11	37	8		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	22	0	14			15	0	8			9	743	14			25	588	12		
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:	0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94		
PHF Volume:	23	0	15			16	0	9			10	793	15			27	628	13		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	23	0	15			16	0	9			10	793	15			27	628	13		
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2			7.1	6.5	6.2			4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3			3.5	4.0	3.3			2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1511	1514	404			1097	1508	628			640	xxxx	xxxxx			808	xxxx	xxxxx		
Potent Cap.:	100	121	651			192	122	487			954	xxxx	xxxxx			826	xxxx	xxxxx		
Move Cap.:	95	116	651			182	117	487			954	xxxx	xxxxx			826	xxxx	xxxxx		
Total Cap:	219	238	xxxxx			304	233	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	0.11	0.00	0.02			0.05	0.00	0.02			0.01	xxxx	xxxx			0.03	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.0	xxxx	xxxxx			0.1	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			8.8	xxxx	xxxxx			9.5	xxxx	xxxxx		
LOS by Move:	*	*	*			*	*	*			A	*	*			A	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		296	xxxxx		xxxx		350	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx		0.4	xxxxx		xxxxx		0.2	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx		19.0	xxxxx		xxxxx		16.1	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*		C	*		*		C	*		*	*	*			*	*	*		
ApproachDel:	19.0					16.1					xxxxxx					xxxxxx				
ApproachLOS:	C					C					*					*				

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: C[21.8]

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:	0	0 1! 0	0	0	0 1! 0	0	1	0	1	0	1		1	0	0	1	0	
Volume Module:																		
Base Vol:	8	1	22	13	3	24	19	387	22				16	549	14			
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:	8	1	22	13	3	24	19	387	22				16	549	14			
Added Vol:	3	0	2	0	0	1	1	13	2				0	22	0			
PasserByVol:	0	0	0	0	0	0	0	0	0				0	0	0			
Initial Fut:	11	1	24	13	3	25	20	400	24				16	571	14			
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	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89			
PHF Volume:	12	1	27	15	3	28	23	451	27				18	644	16			
Reduct Vol:	0	0	0	0	0	0	0	0	0				0	0	0			
FinalVolume:	12	1	27	15	3	28	23	451	27				18	644	16			
Critical Gap Module:																		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																		
Cnflict Vol:	1199	1191	451	1211	1210	651	659	xxxx	xxxxx				478	xxxx	xxxxx			
Potent Cap.:	164	189	613	161	184	472	938	xxxx	xxxxx				1095	xxxx	xxxxx			
Move Cap.:	147	181	613	148	177	472	938	xxxx	xxxxx				1095	xxxx	xxxxx			
Volume/Cap:	0.08	0.01	0.04	0.10	0.02	0.06	0.02	xxxx	xxxx				0.02	xxxx	xxxx			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx				8.3	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*				A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT			
Shared Cap.:	xxxx	301	xxxxx	xxxx	260	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	18.8	xxxxx	xxxxx	21.8	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	C	*	*	C	*	*	*	*				*	*	*			
ApproachDel:	18.8			21.8			xxxxxx						xxxxxx					
ApproachLOS:	C			C			*						*					

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: D[34.8]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	15	0	15				20	0	20				39	585	12				18	545	21			
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:	15	0	15				20	0	20				39	585	12				18	545	21			
Added Vol:	5	0	6				0	0	3				3	41	5				0	44	0			
PasserByVol:	0	0	0				0	0	1				2	0	12				11	0	0			
Initial Fut:	20	0	21				20	0	24				44	626	29				29	589	21			
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:	21	0	22				21	0	25				46	659	31				31	620	22			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	21	0	22				21	0	25				46	659	31				31	620	22			
Critical Gap Module:																								
Critical Gp:	7.1	6.5	6.2				7.1	6.5	6.2				4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3				3.5	4.0	3.3				2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1456	1454	659				1470	1474	631				642	xxxx	xxxxx				689	xxxx	xxxxx			
Potent Cap.:	109	131	467				106	128	485				952	xxxx	xxxxx				915	xxxx	xxxxx			
Move Cap.:	97	121	467				95	118	485				952	xxxx	xxxxx				915	xxxx	xxxxx			
Volume/Cap:	0.22	0.00	0.05				0.22	0.00	0.05				0.05	xxxx	xxxx				0.03	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.2	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				9.0	xxxx	xxxxx				9.1	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		163	xxxxx			xxxx		170	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		1.0	xxxxx			xxxxx		1.1	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		34.8	xxxxx			xxxxx		34.0	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		D	*			*		D	*			*	*	*				*	*	*			
ApproachDel:	34.8						34.0						xxxxxx						xxxxxx					
ApproachLOS:	D						D						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.406
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
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:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	40	40	10	40	40
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	9	15	190	62	38	92	36	350	8	108	449	32
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:	9	15	190	62	38	92	36	350	8	108	449	32
Added Vol:	4	0	0	0	0	7	5	8	2	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	15	190	62	38	99	41	358	10	108	461	32
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
PHF Volume:	16	18	233	76	47	121	50	439	12	132	565	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	18	233	76	47	121	50	439	12	132	565	39
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:	16	18	233	76	47	121	50	439	12	132	565	39
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	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.13	0.04	0.03	0.07	0.03	0.12	0.01	0.08	0.16	0.02
Crit Moves:			****	****				****		****		
Green/Cycle:	0.10	0.28	0.28	0.10	0.28	0.28	0.11	0.40	0.40	0.14	0.43	0.43
Volume/Cap:	0.09	0.04	0.46	0.45	0.09	0.24	0.27	0.30	0.02	0.56	0.36	0.05
Delay/Veh:	41.1	26.2	30.4	44.3	26.7	28.0	41.8	20.6	18.1	43.0	19.3	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:	41.1	26.2	30.4	44.3	26.7	28.0	41.8	20.6	18.1	43.0	19.3	16.5
LOS by Move:	D	C	C	D	C	C	D	C	B	D	B	B
HCM2kAvgQ:	1	0	6	3	1	3	2	5	0	5	6	1

Note: Queue reported is the number of cars per lane.

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Dollar General Phelan
Opening Year (2017) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.388
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 25.5
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	18		52		194		59		30		47		107		504		13		87		456		61	
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:	18		52		194		59		30		47		107		504		13		87		456		61	
Added Vol:	7		0		0		0		0		14		15		25		7		0		23		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	25		52		194		59		30		61		122		529		20		87		479		61	
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:	0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97		0.97	
PHF Volume:	26		53		199		61		31		63		125		543		21		89		492		63	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	26		53		199		61		31		63		125		543		21		89		492		63	
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:	26		53		199		61		31		63		125		543		21		89		492		63	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1700		1800		1800		1700		1800		1800		1700		3600		1800		1700		3600		1800	
Capacity Analysis Module:																								
Vol/Sat:	0.02		0.03		0.11		0.04		0.02		0.03		0.07		0.15		0.01		0.05		0.14		0.03	
Crit Moves:					****		****						****								****			
Green/Cycle:	0.10		0.28		0.28		0.10		0.28		0.28		0.14		0.43		0.43		0.11		0.40		0.40	
Volume/Cap:	0.15		0.11		0.40		0.36		0.06		0.12		0.53		0.35		0.03		0.49		0.34		0.09	
Delay/Veh:	41.5		26.8		29.7		43.3		26.4		27.0		42.1		19.1		16.3		44.0		21.0		18.7	
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:	41.5		26.8		29.7		43.3		26.4		27.0		42.1		19.1		16.3		44.0		21.0		18.7	
LOS by Move:	D		C		C		D		C		C		D		B		B		D		C		B	
HCM2kAvgQ:	1		1		5		2		1		1		4		6		0		3		5		1	

Note: Queue reported is the number of cars per lane.

Year 2035 With Project (No Other Development)

Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.407
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 33.1
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:	Include						Include						Include						Include					
Min. Green:	10		32		32		10		31		31		10		32		32		10		31		31	
Lanes:	1	0	2	0	1		1	0	2	0	1		1	0	2	0	1		1	0	1	1	0	
Volume Module:																								
Base Vol:	74		124		136		126		124		99		53		297		55		241		432		43	
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:	74		124		136		126		124		99		53		297		55		241		432		43	
Added Vol:	0		0		3		2		0		0		0		3		0		2		2		1	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	74		124		139		128		124		99		53		300		55		243		434		44	
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:	78		131		146		135		131		104		56		316		58		256		457		46	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	78		131		146		135		131		104		56		316		58		256		457		46	
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:	78		131		146		135		131		104		56		316		58		256		457		46	
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		1.82		0.18	
Final Sat.:	1800		3800		1900		1800		3800		1900		1800		3800		1900		1800		3450		350	
Capacity Analysis Module:																								
Vol/Sat:	0.04		0.03		0.08		0.07		0.03		0.05		0.03		0.08		0.03		0.14		0.13		0.13	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.10		0.29		0.29		0.12		0.31		0.31		0.13		0.29		0.29		0.23		0.39		0.39	
Volume/Cap:	0.43		0.12		0.26		0.63		0.11		0.18		0.25		0.29		0.10		0.63		0.34		0.34	
Delay/Veh:	54.0		28.6		30.9		59.3		26.7		27.7		45.9		30.6		28.7		45.5		21.9		21.9	
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:	54.0		28.6		30.9		59.3		26.7		27.7		45.9		30.6		28.7		45.5		21.9		21.9	
LOS by Move:	D		C		C		E		C		C		D		C		C		D		C		C	
HCM2kAvgQ:	3		1		3		6		1		2		2		4		1		9		5		5	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	8 (Y+R=4.0 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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	131	184	268	136	103	118	94	346	40	138	455	61
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:	131	184	268	136	103	118	94	346	40	138	455	61
Added Vol:	0	0	5	3	0	0	0	5	0	5	5	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	184	273	139	103	118	94	351	40	143	460	64
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:	138	194	287	146	108	124	99	369	42	151	484	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	194	287	146	108	124	99	369	42	151	484	67
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:	138	194	287	146	108	124	99	369	42	151	484	67
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	1.76	0.24
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3336	464
Capacity Analysis Module:												
Vol/Sat:	0.08	0.05	0.15	0.08	0.03	0.07	0.05	0.10	0.02	0.08	0.15	0.15
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.32	0.32	0.14	0.35	0.35	0.11	0.32	0.32	0.14	0.35	0.35
Volume/Cap:	0.69	0.16	0.47	0.59	0.08	0.19	0.49	0.30	0.07	0.59	0.42	0.42
Delay/Veh:	60.1	23.9	29.0	50.3	20.9	22.3	49.8	25.5	23.1	49.8	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:	60.1	23.9	29.0	50.3	20.9	22.3	49.8	25.5	23.1	49.8	24.3	24.3
LOS by Move:	E	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	6	2	7	5	1	2	4	4	1	5	6	6

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[18.7]

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:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 1			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	522	0	0	800	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	0	0	0	0	0	0	522	0	0	800	0
Added Vol:	0	0	0	3	0	3	4	4	0	0	3	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	3	4	526	0	0	803	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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	0	0	0	4	0	4	5	647	0	0	988	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	4	0	4	5	647	0	0	988	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1646	1646	988	993	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	111	100	302	704	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	110	100	302	704	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	195	216	xxxxx	243	219	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	269	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	18.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.7			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
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Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[16.2]

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:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 1			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	830	0	0	620	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	0	0	0	0	0	0	830	0	0	620	0
Added Vol:	0	0	0	6	0	6	6	6	0	0	6	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	6	836	0	0	626	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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	6	0	6	6	886	0	0	663	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	6	886	0	0	663	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1562	1562	663	670	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	125	113	465	930	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	124	112	465	930	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	213	232	xxxxx	260	234	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	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	334	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.2			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: A[8.5]

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 1 0	0 0		0 0 0 1	0		0 0 1!	0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0 2 0	0		0 21	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	1.00	
Initial Bse:	0 2 0	0		0 21	0		0 0	0		0 0	0	
Added Vol:	9 0 0	0		0 0	3		2 0	6		0 0	0	
PasserByVol:	0 0 0	0		0 0	0		0 0	0		0 0	0	
Initial Fut:	9 2 0	0		0 21	3		2 0	6		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	1.00	
PHF Adj:	0.92 0.92 0.92	0.92		0.92 0.92	0.92		0.92 0.92	0.92		0.92 0.92	0.92	
PHF Volume:	10 2 0	0		0 23	3		2 0	7		0 0	0	
Reduct Vol:	0 0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	10 2 0	0		0 23	3		2 0	7		0 0	0	
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		6.4 6.5	6.2		xxxxx xxxx	xxxxx	
FollowUpTim:	2.2 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		3.5 4.0	3.3		xxxxx xxxx	xxxxx	
Capacity Module:												
Cnflict Vol:	26 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		46 46	24		xxxx xxxx	xxxxx	
Potent Cap.:	1601 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		969 849	1058		xxxx xxxx	xxxxx	
Move Cap.:	1601 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		964 844	1058		xxxx xxxx	xxxxx	
Volume/Cap:	0.01 xxxx xxxx	xxxx		xxxx xxxx	xxxx		0.00 0.00	0.01		xxxx xxxx	xxxx	
Level Of Service Module:												
2Way95thQ:	0.0 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx	
Control Del:	7.3 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxx	xxxxx		xxxx 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 1033 xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		0.0 xxxxx	xxxxx		xxxx xxxxx	xxxxx	
Shrd ConDel:	7.3 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		8.5 xxxxx	xxxxx		xxxx xxxxx	xxxxx	
Shared LOS:	A *	*		* *	*		* A	*		* *	*	
ApproachDel:	xxxxxx			xxxxxx			8.5			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Dollar Store - Phelan
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Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[8.6]

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 1 0	0	0		0 0 0	1	0		0 0 1!	0	0		0 0 0	0	0	
Volume Module:																
Base Vol:	0 10	0	0		0 20	0	0		0 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		1.00 1.00	1.00	1.00	
Initial Bse:	0 10	0	0		0 20	0	0		0 0	0	0		0 0	0	0	
Added Vol:	14 0	0	0		0 0	5	5		0 14	0	0		0 0	0	0	
PasserByVol:	0 0	0	0		0 0	0	0		0 0	0	0		0 0	0	0	
Initial Fut:	14 10	0	0		0 20	5	5		0 14	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		1.00 1.00	1.00	1.00	
PHF Adj:	0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92		0.92 0.92	0.92	0.92	
PHF Volume:	15 11	0	0		0 22	5	5		0 15	0	0		0 0	0	0	
Reduct Vol:	0 0	0	0		0 0	0	0		0 0	0	0		0 0	0	0	
FinalVolume:	15 11	0	0		0 22	5	5		0 15	0	0		0 0	0	0	
Critical Gap Module:																
Critical Gp:	4.1 xxxx	xxxxx	xxxxx		xxxx xxxxx		6.4	6.5	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2 xxxx	xxxxx	xxxxx		xxxx xxxxx		3.5	4.0	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	27 xxxx	xxxxx	xxxx		xxxx xxxxx		66	66	24	xxxx	xxxx	xxxxx				
Potent Cap.:	1600 xxxx	xxxxx	xxxx		xxxx xxxxx		945	829	1058	xxxx	xxxx	xxxxx				
Move Cap.:	1600 xxxx	xxxxx	xxxx		xxxx xxxxx		938	821	1058	xxxx	xxxx	xxxxx				
Volume/Cap:	0.01 xxxx	xxxx	xxxx		xxxx xxxx	xxxx	0.01	0.00	0.01	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.0 xxxx	xxxxx	xxxx		xxxx xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	7.3 xxxx	xxxxx	xxxxx		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	1023	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0 xxxx	xxxxx	xxxxx		xxxx xxxxx		xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	7.3 xxxx	xxxxx	xxxxx		xxxx xxxxx		xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*		*	*	*		A	*	*	*	*			
ApproachDel:	xxxxxx				xxxxxx			8.6			xxxxxx					
ApproachLOS:	*				*			A			*					

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 #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[22.7]

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:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 0 1				1 0 1 0 1			
Volume Module:														
Base Vol:	3	0	7	3	0	0	0	513	3		11	797	2	
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:	3	0	7	3	0	0	0	513	3		11	797	2	
Added Vol:	0	0	0	4	0	3	4	3	0		0	4	5	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	3	0	7	7	0	3	4	516	3		11	801	7	
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82		0.82	0.82	0.82	
PHF Volume:	4	0	9	9	0	4	5	631	4		13	980	9	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	4	0	9	9	0	4	5	631	4		13	980	9	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1654	1656	631	1654	1651	980	988	xxxx	xxxxx		635	xxxx	xxxxx	
Potent Cap.:	79	99	484	79	100	306	707	xxxx	xxxxx		958	xxxx	xxxxx	
Move Cap.:	77	97	484	77	98	306	707	xxxx	xxxxx		958	xxxx	xxxxx	
Total Cap:	191	212	xxxxx	192	213	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.02	0.00	0.02	0.04	0.00	0.01	0.01	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx		8.8	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	332	xxxxx	xxxx	216	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	16.3	xxxxx	xxxxx	22.7	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	16.3			22.7			xxxxxx				xxxxxx			
ApproachLOS:	C			C			*				*			

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 #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[21.2]

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:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 0 1				1 0 1 0 1			
Volume Module:														
Base Vol:	12	0	8	7	0	3	6	815	3		17	605	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:	12	0	8	7	0	3	6	815	3		17	605	4	
Added Vol:	0	0	0	8	0	6	6	6	0		0	6	8	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	12	0	8	15	0	9	12	821	3		17	611	12	
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		0.94	0.94	0.94	
PHF Volume:	13	0	9	16	0	10	13	876	3		18	652	13	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	13	0	9	16	0	10	13	876	3		18	652	13	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1602	1603	876	1596	1594	652	665	xxxx	xxxxx		879	xxxx	xxxxx	
Potent Cap.:	86	107	351	87	108	471	934	xxxx	xxxxx		777	xxxx	xxxxx	
Move Cap.:	82	103	351	82	104	471	934	xxxx	xxxxx		777	xxxx	xxxxx	
Total Cap:	202	222	xxxxx	198	220	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.06	0.00	0.02	0.08	0.00	0.02	0.01	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx		9.7	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		A	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	244	xxxxx	xxxx	253	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	21.2	xxxxx	xxxxx	20.8	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	C	*	*	*	*		*	*	*	
ApproachDel:	21.2			20.8			xxxxxx				xxxxxx			
ApproachLOS:	C			C			*				*			

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 #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: E[38.7]

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:	0 0 1! 0	0		0 0 1! 0	0		1 0	1	0	1	1 0	0	1	0
Volume Module:														
Base Vol:	12	2	36	19	7	34	23	426	38		35	693	25	
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	1.00		
Initial Bse:	12	2	36	19	7	34	23	426	38		35	693	25	
Added Vol:	3	0	0	0	0	0	0	4	2		0	6	0	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	15	2	36	19	7	34	23	430	40		35	699	25	
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	1.00		
PHF Adj:	0.89 0.89	0.89		0.89 0.89	0.89		0.89 0.89	0.89	0.89		0.89 0.89	0.89		
PHF Volume:	17	2	41	21	8	38	26	485	45		39	788	28	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	17	2	41	21	8	38	26	485	45		39	788	28	
Critical Gap Module:														
Critical Gp:	7.1 6.5	6.2		7.1 6.5	6.2		4.1 xxxx	xxxxx			4.1 xxxx	xxxxx		
FollowUpTim:	3.5 4.0	3.3		3.5 4.0	3.3		2.2 xxxx	xxxxx			2.2 xxxx	xxxxx		
Capacity Module:														
Cnflict Vol:	1440 1431	485		1461 1462	802		816 xxxx	xxxxx			530 xxxx	xxxxx		
Potent Cap.:	112 136	586		108 130	387		821 xxxx	xxxxx			1048 xxxx	xxxxx		
Move Cap.:	91 126	586		94 121	387		821 xxxx	xxxxx			1048 xxxx	xxxxx		
Volume/Cap:	0.19 0.02	0.07		0.23 0.07	0.10		0.03 xxxx	xxxx			0.04 xxxx	xxxx		
Level Of Service Module:														
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		0.1 xxxx	xxxxx			0.1 xxxx	xxxxx		
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		9.5 xxxx	xxxxx			8.6 xxxx	xxxxx		
LOS by Move:	* *	*		* *	*		A	*	*		A	*	*	
Movement:	LT - LTR	- RT		LT - LTR	- RT		LT - LTR	- RT			LT - LTR	- RT		
Shared Cap.:	xxxx 218	xxxxx		xxxx 173	xxxxx		xxxx xxxx	xxxxx			xxxx xxxx	xxxxx		
SharedQueue:	xxxxx 1.1	xxxxx		xxxxx 1.7	xxxxx		xxxxx xxxx	xxxxx			xxxxx xxxx	xxxxx		
Shrd ConDel:	xxxxx 27.6	xxxxx		xxxxx 38.7	xxxxx		xxxxx xxxx	xxxxx			xxxxx xxxx	xxxxx		
Shared LOS:	* D	*		* E	*		* *	*			* *	*		
ApproachDel:	27.6			38.7			xxxxxx				xxxxxx			
ApproachLOS:	D			E			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Morning Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	0.503
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
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			Include			Include			Include		
Min. Green:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	12	2	36	19	7	34	23	426	38	35	693	25
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:	12	2	36	19	7	34	23	426	38	35	693	25
Added Vol:	3	0	0	0	0	0	0	4	2	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	2	36	19	7	34	23	430	40	35	699	25
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	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	17	2	41	21	8	38	26	485	45	39	788	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	2	41	21	8	38	26	485	45	39	788	28
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:	17	2	41	21	8	38	26	485	45	39	788	28
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:	0.29	0.04	0.67	0.33	0.11	0.56	1.00	1.00	1.00	1.00	0.97	0.03
Final Sat.:	529	71	1271	591	218	1058	1800	1900	1900	1800	1834	66
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.04	0.04	0.04	0.01	0.26	0.02	0.02	0.43	0.43
Crit Moves:					****		****				****	
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.08	0.62	0.62	0.19	0.73	0.73
Volume/Cap:	0.22	0.22	0.22	0.25	0.25	0.25	0.19	0.41	0.04	0.12	0.59	0.59
Delay/Veh:	50.8	50.8	50.8	51.3	51.3	51.3	59.2	7.6	5.1	44.6	2.7	2.7
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:	50.8	50.8	50.8	51.3	51.3	51.3	59.2	7.6	5.1	44.6	2.7	2.7
LOS by Move:	D	D	D	D	D	D	E	A	A	D	A	A
HCM2kAvgQ:	2	2	2	2	2	2	1	5	0	1	3	3

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 8.6 Worst Case Level Of Service: F[89.0]

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:	0 0 1!	0 0		0 0 1!	0 0		1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	41	0	50	32	0	28	58	678	23	37	594	32
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:	41	0	50	32	0	28	58	678	23	37	594	32
Added Vol:	5	0	0	0	0	0	0	9	5	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	0	50	32	0	28	58	687	28	37	603	32
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	0	53	34	0	29	61	723	29	39	635	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	48	0	53	34	0	29	61	723	29	39	635	34
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1589	1591	723	1615	1604	651	668	xxxx	xxxxx	752	xxxx	xxxxx
Potent Cap.:	88	108	430	84	107	472	931	xxxx	xxxxx	866	xxxx	xxxxx
Move Cap.:	76	97	430	68	95	472	931	xxxx	xxxxx	866	xxxx	xxxxx
Volume/Cap:	0.64	0.00	0.12	0.50	0.00	0.06	0.07	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	9.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	133	xxxxx	xxxx	113	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.5	xxxxx	xxxxx	2.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	89.0	xxxxx	xxxxx	71.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	89.0			71.2			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Evening Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.483
Loss Time (sec):	6 (Y+R=4.0 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:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	41	0	50	32	0	28	58	678	23	37	594	32
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:	41	0	50	32	0	28	58	678	23	37	594	32
Added Vol:	5	0	0	0	0	0	0	9	5	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	0	50	32	0	28	58	687	28	37	603	32
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	0	53	34	0	29	61	723	29	39	635	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	0	53	34	0	29	61	723	29	39	635	34
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	0	53	34	0	29	61	723	29	39	635	34
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:	0.49	0.00	0.51	0.55	0.00	0.45	1.00	1.00	1.00	1.00	0.95	0.05
Final Sat.:	887	0	964	984	0	861	1800	1900	1900	1800	1804	96
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.03	0.00	0.03	0.03	0.38	0.02	0.02	0.35	0.35
Crit Moves:	****							****		****		
Green/Cycle:	0.17	0.00	0.17	0.17	0.00	0.17	0.16	0.68	0.68	0.09	0.61	0.61
Volume/Cap:	0.32	0.00	0.32	0.20	0.00	0.20	0.21	0.56	0.02	0.24	0.57	0.57
Delay/Veh:	40.4	0.0	40.4	39.3	0.0	39.3	40.7	9.5	5.7	47.2	13.3	13.3
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:	40.4	0.0	40.4	39.3	0.0	39.3	40.7	9.5	5.7	47.2	13.3	13.3
LOS by Move:	D	A	D	D	A	D	D	A	A	D	B	B
HCM2kAvgQ:	3	0	3	2	0	2	2	5	0	1	8	8

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.377
Loss Time (sec): 8 (Y+R=4.0 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						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	12		17		209		74		43		144		46		379		9		119		574		37	
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:	12		17		209		74		43		144		46		379		9		119		574		37	
Added Vol:	1		0		0		0		0		2		1		2		1		0		3		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	13		17		209		74		43		146		47		381		10		119		577		37	
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:	14		18		220		78		45		154		49		401		11		125		607		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	14		18		220		78		45		154		49		401		11		125		607		39	
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:	14		18		220		78		45		154		49		401		11		125		607		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1800		1900		1900		1800		1900		1900		1800		3800		1900		1800		3800		1900	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.12		0.04		0.02		0.08		0.03		0.11		0.01		0.07		0.16		0.02	
Crit Moves:					****		****						****								****			
Green/Cycle:	0.11		0.30		0.30		0.11		0.30		0.30		0.10		0.41		0.41		0.10		0.41		0.41	
Volume/Cap:	0.07		0.03		0.39		0.39		0.08		0.27		0.27		0.26		0.01		0.68		0.39		0.05	
Delay/Veh:	40.8		24.7		29.5		46.9		24.9		27.3		45.4		17.7		15.6		61.8		19.0		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:	40.8		24.7		29.5		46.9		24.9		27.3		45.4		17.7		15.6		61.8		19.0		15.8	
LOS by Move:	D		C		C		D		C		C		D		B		B		E		B		B	
HCM2kAvgQ:	0		0		5		3		1		3		2		3		0		5		5		1	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project Only (No Other Development)
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.423
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 27.1
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:	Include						Include						Include						Include					
Min. Green:	10	28	28				10	28	28				10	40	40				10	40	40			
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	20	64	213				64	35	62				165	561	16				93	490	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:	20	64	213				64	35	62				165	561	16				93	490	71			
Added Vol:	2	0	0				0	0	3				3	5	2				0	5	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	22	64	213				64	35	65				168	566	18				93	495	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:	23	67	224				67	37	68				177	596	19				98	521	75			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Reduced Vol:	23	67	224				67	37	68				177	596	19				98	521	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:	23	67	224				67	37	68				177	596	19				98	521	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	1.00	1.00				1.00	1.00	1.00				1.00	2.00	1.00				1.00	2.00	1.00			
Final Sat.:	1800	1900	1900				1800	1900	1900				1800	3800	1900				1800	3800	1900			
Capacity Analysis Module:																								
Vol/Sat:	0.01	0.04	0.12				0.04	0.02	0.04				0.10	0.16	0.01				0.05	0.14	0.04			
Crit Moves:			****				****						****							****				
Green/Cycle:	0.10	0.27	0.27				0.10	0.27	0.27				0.18	0.45	0.45				0.11	0.38	0.38			
Volume/Cap:	0.14	0.13	0.44				0.39	0.07	0.14				0.54	0.35	0.02				0.48	0.36	0.10			
Delay/Veh:	45.2	29.8	34.8				51.3	29.1	29.8				45.4	16.4	13.5				51.8	22.0	19.4			
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	29.8	34.8				51.3	29.1	29.8				45.4	16.4	13.5				51.8	22.0	19.4			
LOS by Move:	D		C		C		D		C		C		D		B		B		D		C		B	
HCM2kAvgQ:	1		1		6		3		1		2		6		5		0		4		5		1	

Note: Queue reported is the number of cars per lane.

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Year 2035 Without Project

Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.451
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 34.1
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:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1		1 0 1	1 0	
Volume Module:												
Base Vol:	74	124	136	126	124	99	53	297	55	241	432	43
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:	74	124	136	126	124	99	53	297	55	241	432	43
Added Vol:	0	8	30	15	6	10	12	23	0	24	18	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	132	166	141	130	109	65	320	55	265	450	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:	78	139	175	148	137	115	68	337	58	279	474	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	139	175	148	137	115	68	337	58	279	474	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:	78	139	175	148	137	115	68	337	58	279	474	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	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.78	0.22
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3386	414
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.09	0.08	0.04	0.06	0.04	0.09	0.03	0.15	0.14	0.14
Crit Moves:			****	****				****		****		
Green/Cycle:	0.10	0.29	0.29	0.12	0.31	0.31	0.13	0.29	0.29	0.23	0.39	0.39
Volume/Cap:	0.43	0.13	0.32	0.69	0.12	0.19	0.30	0.30	0.10	0.69	0.36	0.36
Delay/Veh:	53.9	28.7	31.7	62.8	26.7	27.9	47.1	30.8	28.7	48.2	22.2	22.2
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:	53.9	28.7	31.7	62.8	26.7	27.9	47.1	30.8	28.7	48.2	22.2	22.2
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	3	2	4	6	1	2	2	4	1	10	5	5

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.521
Loss Time (sec): 8 (Y+R=4.0 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:	Include				Include				Include				Include			
Min. Green:	10	32	32		10	31	31		10	32	32		10	31	31	
Lanes:	1 0	2	0	1	1 0	2	0	1	1 0	2	0	1	1 0	1	1	0
Volume Module:																
Base Vol:	131	184	268		136	103	118		94	346	40		138	455	61	
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:	131	184	268		136	103	118		94	346	40		138	455	61	
Added Vol:	0	21	45		23	23	34		32	34	0		46	34	23	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	131	205	313		159	126	152		126	380	40		184	489	84	
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:	138	216	329		167	133	160		133	400	42		194	515	88	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	138	216	329		167	133	160		133	400	42		194	515	88	
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:	138	216	329		167	133	160		133	400	42		194	515	88	
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	1.71	0.29	
Final Sat.:	1800	3800	1900		1800	3800	1900		1800	3800	1900		1800	3243	557	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.06	0.17		0.09	0.03	0.08		0.07	0.11	0.02		0.11	0.16	0.16	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.11	0.32	0.32		0.13	0.34	0.34		0.11	0.32	0.32		0.15	0.36	0.36	
Volume/Cap:	0.70	0.18	0.54		0.72	0.10	0.25		0.64	0.33	0.07		0.72	0.45	0.45	
Delay/Veh:	61.5	24.1	30.6		58.9	21.6	23.6		56.7	25.8	23.1		55.5	24.2	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:	61.5	24.1	30.6		58.9	21.6	23.6		56.7	25.8	23.1		55.5	24.2	24.2	
LOS by Move:	E	C	C		E	C	C		E	C	C		E	C	C	
HCM2kAvgQ:	6	2	8		7	1	3		5	4	1		7	6	6	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: D[27.6]

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:	0	0 1! 0	0	1	0	0 0 0	1	0	1	0	1		1	0	1	0	1	
Volume Module:																		
Base Vol:	3	0	7	3	0	0	0	513	3				11	797	2			
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:	3	0	7	3	0	0	0	513	3				11	797	2			
Added Vol:	6	0	12	0	0	0	0	55	23				8	60	0			
PasserByVol:	0	0	0	0	0	0	0	0	0				0	0	0			
Initial Fut:	9	0	19	3	0	0	0	568	26				19	857	2			
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82				0.82	0.82	0.82			
PHF Volume:	11	0	23	4	0	0	0	695	32				23	1048	2			
Reduct Vol:	0	0	0	0	0	0	0	0	0				0	0	0			
FinalVolume:	11	0	23	4	0	0	0	695	32				23	1048	2			
Critical Gap Module:																		
Critical Gp:	7.1	6.5	6.2	7.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																		
Cnflict Vol:	1791	1792	695	1817	xxxx	xxxxx	xxxx	xxxx	xxxxx				727	xxxx	xxxxx			
Potent Cap.:	64	82	446	61	xxxx	xxxxx	xxxx	xxxx	xxxxx				886	xxxx	xxxxx			
Move Cap.:	62	79	446	57	xxxx	xxxxx	xxxx	xxxx	xxxxx				886	xxxx	xxxxx			
Total Cap:	173	192	xxxxx	163	186	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Volume/Cap:	0.06	0.00	0.05	0.02	xxxx	xxxx	xxxx	xxxx	xxxx				0.03	xxxx	xxxx			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx				0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	27.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx				9.2	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	*	*	*	*				A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT			
Shared Cap.:	xxxx	295	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	18.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	C	*	*	*	*	*	*	*				*	*	*			
ApproachDel:	18.8			27.6			xxxxxx						xxxxxx					
ApproachLOS:	C			D			*						*					

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[23.1]

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:	0 0 1!	0	0	1 0	0	0 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	3	0	7	3	0	0	0	513	3	11	797	2
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:	3	0	7	3	0	0	0	513	3	11	797	2
Added Vol:	6	0	12	0	0	0	0	55	23	8	60	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	19	3	0	0	0	568	26	19	857	2
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
PHF Volume:	11	0	23	4	0	0	0	695	32	23	1048	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	0	23	4	0	0	0	695	32	23	1048	2
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1807	1808	363	1442	xxxx	xxxxx	xxxx	xxxx	xxxxx	727	xxxx	xxxxx
Potent Cap.:	62	80	686	111	xxxx	xxxxx	xxxx	xxxx	xxxxx	886	xxxx	xxxxx
Move Cap.:	61	78	686	105	xxxx	xxxxx	xxxx	xxxx	xxxxx	886	xxxx	xxxxx
Total Cap:	171	191	xxxxx	202	186	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.06	0.00	0.03	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	23.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	349	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	16.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	*	*	*
ApproachDel:	16.5			23.1			xxxxxx			xxxxxx		
ApproachLOS:	C			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
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Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[26.4]

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:	0 0 1! 0	0		0 0 1! 0	0		1 0	1	0	1	1 0	1	0	1
Volume Module:														
Base Vol:	12	0	8	7	0	3	6	815	3		17	605	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	1.00		
Initial Bse:	12	0	8	7	0	3	6	815	3		17	605	4	
Added Vol:	11	0	23	0	0	0	0	101	34		11	123	0	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	23	0	31	7	0	3	6	916	37		28	728	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	1.00		
PHF Adj:	0.94 0.94	0.94		0.94 0.94	0.94		0.94 0.94	0.94	0.94		0.94 0.94	0.94		
PHF Volume:	25	0	33	7	0	3	6	978	39		30	777	4	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	25	0	33	7	0	3	6	978	39		30	777	4	
Critical Gap Module:														
Critical Gp:	7.1 6.5	6.2		7.1 6.5	6.2		4.1 xxxx	xxxxx			4.1 xxxx	xxxxx		
FollowUpTim:	3.5 4.0	3.3		3.5 4.0	3.3		2.2 xxxx	xxxxx			2.2 xxxx	xxxxx		
Capacity Module:														
Cnflict Vol:	1831 1832	978		1864 1867	777		781 xxxx	xxxxx			1017 xxxx	xxxxx		
Potent Cap.:	60 77	307		56 73	400		845 xxxx	xxxxx			690 xxxx	xxxxx		
Move Cap.:	57 73	307		48 70	400		845 xxxx	xxxxx			690 xxxx	xxxxx		
Total Cap:	170 189	xxxxx		145 177	xxxxx		xxxx xxxx	xxxxx			xxxx xxxx	xxxxx		
Volume/Cap:	0.14 0.00	0.11		0.05 0.00	0.01		0.01 xxxx	xxxx			0.04 xxxx	xxxx		
Level Of Service Module:														
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		0.0 xxxx	xxxxx			0.1 xxxx	xxxxx		
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		9.3 xxxx	xxxxx			10.5 xxxx	xxxxx		
LOS by Move:	* *	*		* *	*		A	*	*		B	*	*	
Movement:	LT - LTR	- RT		LT - LTR	- RT		LT - LTR	- RT			LT - LTR	- RT		
Shared Cap.:	xxxx 228	xxxxx		xxxx 179	xxxxx		xxxx xxxx	xxxxx			xxxx xxxx	xxxxx		
SharedQueue:	xxxxx 1.0	xxxxx		xxxxx 0.2	xxxxx		xxxxx xxxx	xxxxx			xxxxx xxxx	xxxxx		
Shrd ConDel:	xxxxx 26.0	xxxxx		xxxxx 26.4	xxxxx		xxxxx xxxx	xxxxx			xxxxx xxxx	xxxxx		
Shared LOS:	* D	*		* D	*		* *	*			* *	*		
ApproachDel:	26.0			26.4			xxxxxx				xxxxxx			
ApproachLOS:	D			D			*				*			

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
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Evening Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[21.1]

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:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0	1
Volume Module:																				
Base Vol:	12	0	8			7	0	3			6	815	3			17	605	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:	12	0	8			7	0	3			6	815	3			17	605	4		
Added Vol:	11	0	23			0	0	0			0	101	34			11	123	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	23	0	31			7	0	3			6	916	37			28	728	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:	0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94		
PHF Volume:	25	0	33			7	0	3			6	978	39			30	777	4		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	25	0	33			7	0	3			6	978	39			30	777	4		
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2			7.1	6.5	6.2			4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3			3.5	4.0	3.3			2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1851	1851	509			1338	1867	777			781	xxxx	xxxxx			1017	xxxx	xxxxx		
Potent Cap.:	58	75	568			131	73	400			845	xxxx	xxxxx			690	xxxx	xxxxx		
Move Cap.:	55	71	568			119	70	400			845	xxxx	xxxxx			690	xxxx	xxxxx		
Total Cap:	167	186	xxxxx			238	177	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	0.15	0.00	0.06			0.03	0.00	0.01			0.01	xxxx	xxxx			0.04	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.0	xxxx	xxxxx			0.1	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			9.3	xxxx	xxxxx			10.5	xxxx	xxxxx		
LOS by Move:	*	*	*			*	*	*			A	*	*			B	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		281	xxxxx		xxxx		271	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx		0.8	xxxxx		xxxxx		0.1	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx		21.1	xxxxx		xxxxx		18.8	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*		C	*		*		C	*		*	*	*			*	*	*		
ApproachDel:	21.1					18.8					xxxxxx					xxxxxx				
ApproachLOS:	C					C					*					*				

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 21.8 Worst Case Level Of Service: F[275.3]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	12		2		36		19		7		34		23	426		38			35	693			25	
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	1.00	1.00			1.00	
Initial Bse:	12		2		36		19		7		34		23	426		38			35	693			25	
Added Vol:	41		6		0		0		0		8		0	51		0			45	20			0	
PasserByVol:	0		3		0		0		3		0		0	0		15			15	0			0	
Initial Fut:	53		11		36		19		10		42		23	477		53			95	713			25	
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	1.00	1.00			1.00	
PHF Adj:	0.89	0.89		0.89		0.89	0.89	0.89		0.89		0.89	0.89	0.89		0.89		0.89	0.89	0.89			0.89	
PHF Volume:	60		12		41		21		11		47		26	538		60			107	804			28	
Reduct Vol:	0		0		0		0		0		0		0	0		0			0	0			0	
FinalVolume:	60		12		41		21		11		47		26	538		60			107	804			28	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1	xxxx		xxxxx			4.1	xxxx			xxxxx	
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2	xxxx		xxxxx			2.2	xxxx			xxxxx	
Capacity Module:																								
Cnflict Vol:	1651		1635		538		1678		1681		818		832	xxxx		xxxxx			597	xxxx			xxxxx	
Potent Cap.:	80		102		547		76		96		379		809	xxxx		xxxxx			989	xxxx			xxxxx	
Move Cap.:	56		88		547		57		82		379		809	xxxx		xxxxx			989	xxxx			xxxxx	
Volume/Cap:	1.07		0.14		0.07		0.38		0.14		0.12		0.03	xxxx		xxxx			0.11	xxxx			xxxx	
Level Of Service Module:																								
2Way95thQ:	xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx		0.1	xxxx		xxxxx			0.4	xxxx			xxxxx	
Control Del:	xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx		9.6	xxxx		xxxxx			9.1	xxxx			xxxxx	
LOS by Move:	*		*		*		*		*		*		A	*		*			A	*			*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		88	xxxxx			xxxx		125	xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx		8.2	xxxxx			xxxxx		3.3	xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd ConDel:	xxxxx		275	xxxxx			xxxxx		74.7	xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*		F	*			*		F	*			*	*		*			*	*		*		
ApproachDel:	275.3						74.7						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.459
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.8
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:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	12	2	36	19	7	34	23	426	38	35	693	25
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:	12	2	36	19	7	34	23	426	38	35	693	25
Added Vol:	41	6	0	0	0	8	0	51	0	45	20	0
PasserByVol:	0	3	0	0	3	0	0	0	15	15	0	0
Initial Fut:	53	11	36	19	10	42	23	477	53	95	713	25
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	12	38	20	11	44	24	502	56	100	751	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	12	38	20	11	44	24	502	56	100	751	26
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	12	38	20	11	44	24	502	56	100	751	26
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	0.23	0.77	1.00	0.19	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	445	1455	1800	365	1535	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.01	0.03	0.03	0.01	0.26	0.03	0.06	0.40	0.01
Crit Moves:					****		****				****	
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.08	0.61	0.61	0.19	0.72	0.72
Volume/Cap:	0.20	0.17	0.17	0.07	0.19	0.19	0.17	0.43	0.05	0.30	0.55	0.02
Delay/Veh:	48.1	47.4	47.4	46.0	47.7	47.7	56.1	8.0	5.3	46.1	2.9	0.8
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:	48.1	47.4	47.4	46.0	47.7	47.7	56.1	8.0	5.3	46.1	2.9	0.8
LOS by Move:	D	D	D	D	D	D	E	A	A	D	A	A
HCM2kAvgQ:	2	2	2	1	2	2	1	6	0	3	3	0

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 294.3 Worst Case Level Of Service: F[2187.0]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	41	0	50				32	0	28				58	678	23				37	594	32			
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:	41	0	50				32	0	28				58	678	23				37	594	32			
Added Vol:	80	11	0				0	0	11				0	114	0				68	43	0			
PasserByVol:	27	5	34				0	5	2				3	0	0				37	0	0			
Initial Fut:	148	16	84				32	5	41				61	792	23				142	637	32			
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:	156	17	88				34	5	43				64	834	24				149	670	34			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	156	17	88				34	5	43				64	834	24				149	670	34			
Critical Gap Module:																								
Critical Gp:	7.1	6.5	6.2				7.1	6.5	6.2				4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3				3.5	4.0	3.3				2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1972	1965	834				2013	1972	687				704	xxxx	xxxxx				858	xxxx	xxxxx			
Potent Cap.:	47	64	371				44	63	450				903	xxxx	xxxxx				792	xxxx	xxxxx			
Move Cap.:	32	48	371				20	48	450				903	xxxx	xxxxx				792	xxxx	xxxxx			
Volume/Cap:	4.90	0.35	0.24				1.67	0.11	0.10				0.07	xxxx	xxxx				0.19	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.2	xxxx	xxxxx				0.7	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				9.3	xxxx	xxxxx				10.6	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				B	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		48	xxxxx			xxxx		44	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		29.9	xxxxx			xxxxx		8.4	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		2187	xxxxx			xxxxx		614	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		F	*			*		F	*			*	*	*				*	*	*			
ApproachDel:	2187.0						614.3						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Evening Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.643
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.9
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:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	41	0	50	32	0	28	58	678	23	37	594	32
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:	41	0	50	32	0	28	58	678	23	37	594	32
Added Vol:	80	11	0	0	0	11	0	114	0	68	43	0
PasserByVol:	27	5	34	0	5	2	3	0	0	37	0	0
Initial Fut:	148	16	84	32	5	41	61	792	23	142	637	32
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:	156	17	88	34	5	43	64	834	24	149	671	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	17	88	34	5	43	64	834	24	149	671	34
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:	156	17	88	34	5	43	64	834	24	149	671	34
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	0.16	0.84	1.00	0.11	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	304	1596	1800	207	1693	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.06	0.06	0.02	0.03	0.03	0.04	0.44	0.01	0.08	0.35	0.02
Crit Moves:	****							****		****		
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.65	0.65	0.12	0.61	0.61
Volume/Cap:	0.50	0.32	0.32	0.11	0.15	0.15	0.23	0.68	0.02	0.68	0.57	0.03
Delay/Veh:	46.9	42.4	42.4	39.1	39.6	39.6	42.2	8.2	3.0	61.4	8.9	4.5
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:	46.9	42.4	42.4	39.1	39.6	39.6	42.2	8.2	3.0	61.4	8.9	4.5
LOS by Move:	D	D	D	D	D	D	D	A	A	E	A	A
HCM2kAvgQ:	5	3	3	1	1	1	2	10	0	6	8	0

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.393
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.0
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	12		17		209		74		43		144		46		379		9		119		574		37	
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:	12		17		209		74		43		144		46		379		9		119		574		37	
Added Vol:	10		0		0		0		0		25		19		24		8		0		31		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	22		17		209		74		43		169		65		403		17		119		605		37	
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:	23		18		220		78		45		178		68		424		18		125		637		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	23		18		220		78		45		178		68		424		18		125		637		39	
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:	23		18		220		78		45		178		68		424		18		125		637		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1800		1900		1900		1800		1900		1900		1800		3800		1900		1800		3800		1900	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.12		0.04		0.02		0.09		0.04		0.11		0.01		0.07		0.17		0.02	
Crit Moves:					****		****						****								****			
Green/Cycle:	0.11		0.29		0.29		0.11		0.30		0.30		0.10		0.42		0.42		0.10		0.43		0.43	
Volume/Cap:	0.12		0.03		0.39		0.39		0.08		0.31		0.39		0.27		0.02		0.67		0.39		0.05	
Delay/Veh:	45.8		27.5		32.7		51.3		27.7		31.0		53.2		18.7		16.5		64.5		19.5		16.1	
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		27.5		32.7		51.3		27.7		31.0		53.2		18.7		16.5		64.5		19.5		16.1	
LOS by Move:	D		C		C		D		C		C		D		B		B		E		B		B	
HCM2kAvgQ:	1		0		5		3		1		4		3		4		0		5		6		1	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.461
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 27.9
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:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	40	40	10	40	40
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	20	64	213	64	35	62	165	561	16	93	490	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:	20	64	213	64	35	62	165	561	16	93	490	71
Added Vol:	17	0	0	0	0	39	40	57	17	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	64	213	64	35	101	205	618	33	93	545	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:	39	67	224	67	37	106	216	651	35	98	574	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	67	224	67	37	106	216	651	35	98	574	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:	39	67	224	67	37	106	216	651	35	98	574	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	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.12	0.04	0.02	0.06	0.12	0.17	0.02	0.05	0.15	0.04
Crit Moves:			****	****			****				****	
Green/Cycle:	0.10	0.27	0.27	0.10	0.27	0.27	0.18	0.45	0.45	0.11	0.38	0.38
Volume/Cap:	0.23	0.13	0.44	0.39	0.07	0.21	0.66	0.38	0.04	0.48	0.40	0.10
Delay/Veh:	47.0	29.8	34.8	51.3	29.1	30.8	50.2	16.7	13.7	51.8	22.5	19.4
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:	47.0	29.8	34.8	51.3	29.1	30.8	50.2	16.7	13.7	51.8	22.5	19.4
LOS by Move:	D	C	C	D	C	C	D	B	B	D	C	B
HCM2kAvgQ:	1	1	6	3	1	2	8	6	0	4	6	1

Note: Queue reported is the number of cars per lane.

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Year 2035 With Project

Dollar Store - Phelan
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.456
Loss Time (sec): 8 (Y+R=4.0 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:	Include						Include						Include						Include					
Min. Green:	10		32		32		10		31		31		10		32		32		10		31		31	
Lanes:	1	0	2	0	1		1	0	2	0	1		1	0	2	0	1		1	0	1	1	0	
Volume Module:																								
Base Vol:	74		124		136		126		124		99		53		297		55		241		432		43	
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:	74		124		136		126		124		99		53		297		55		241		432		43	
Added Vol:	0		8		33		17		6		10		12		26		0		26		20		13	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	74		132		169		143		130		109		65		323		55		267		452		56	
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:	78		139		178		151		137		115		68		340		58		281		476		59	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	78		139		178		151		137		115		68		340		58		281		476		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:	78		139		178		151		137		115		68		340		58		281		476		59	
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		1.78		0.22	
Final Sat.:	1800		3800		1900		1800		3800		1900		1800		3800		1900		1800		3381		419	
Capacity Analysis Module:																								
Vol/Sat:	0.04		0.04		0.09		0.08		0.04		0.06		0.04		0.09		0.03		0.16		0.14		0.14	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.10		0.29		0.29		0.12		0.31		0.31		0.13		0.29		0.29		0.22		0.39		0.39	
Volume/Cap:	0.43		0.13		0.32		0.69		0.12		0.19		0.30		0.31		0.10		0.69		0.36		0.36	
Delay/Veh:	53.9		28.7		31.8		63.2		26.7		27.9		47.1		30.9		28.7		48.6		22.2		22.2	
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:	53.9		28.7		31.8		63.2		26.7		27.9		47.1		30.9		28.7		48.6		22.2		22.2	
LOS by Move:	D		C		C		E		C		C		D		C		C		D		C		C	
HCM2kAvgQ:	3		2		4		6		1		2		2		4		1		10		5		5	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Sheep Creek Road (NS) at Phelan Road (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.530
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	33.8
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			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	32	32	10	31	31	10	32	32	10	31	31
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	131	184	268	136	103	118	94	346	40	138	455	61
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:	131	184	268	136	103	118	94	346	40	138	455	61
Added Vol:	0	21	50	26	23	34	32	38	0	50	39	26
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	205	318	162	126	152	126	384	40	188	494	87
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:	138	216	335	171	133	160	133	404	42	198	520	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	216	335	171	133	160	133	404	42	198	520	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:	138	216	335	171	133	160	133	404	42	198	520	92
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	1.70	0.30
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3231	569
Capacity Analysis Module:												
Vol/Sat:	0.08	0.06	0.18	0.09	0.03	0.08	0.07	0.11	0.02	0.11	0.16	0.16
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.32	0.32	0.13	0.34	0.34	0.11	0.32	0.32	0.15	0.36	0.36
Volume/Cap:	0.70	0.18	0.55	0.73	0.10	0.25	0.64	0.33	0.07	0.73	0.45	0.45
Delay/Veh:	61.5	24.1	30.8	60.1	21.7	23.6	56.7	25.8	23.1	56.5	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:	61.5	24.1	30.8	60.1	21.7	23.6	56.7	25.8	23.1	56.5	24.3	24.3
LOS by Move:	E	C	C	E	C	C	E	C	C	E	C	C
HCM2kAvgQ:	6	2	8	7	1	3	5	4	1	8	6	6

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[20.5]

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:	0 0 0	0 0		0 0 1!	0 0		1 0 1	0 1		0 0 1	0 1	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	522	0	0	800	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	0	0	0	0	0	0	522	0	0	800	0
Added Vol:	0	0	0	3	0	3	4	82	0	0	68	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	3	4	604	0	0	868	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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	0	0	0	4	0	4	5	743	0	0	1068	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	4	0	4	5	743	0	0	1068	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1822	1822	1068	1073	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	86	78	272	657	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	86	78	272	657	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	170	191	xxxxx	215	194	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	240	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	20.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			20.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Project Driveway (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[18.8]

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:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	1	0 0	1 0	1
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	830	0	0	620	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	0	0	0	0	0	0	830	0	0	620	0
Added Vol:	0	0	0	6	0	6	6	141	0	0	141	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	6	971	0	0	761	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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	6	0	6	6	1029	0	0	806	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	6	1029	0	0	806	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1848	1848	806	813	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	83	75	385	823	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	82	75	385	823	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	169	190	xxxxx	212	192	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.03	0.00	0.02	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	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	274	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	18.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: A[8.5]

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	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	0	2	0				0	21	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	2	0				0	21	0				0	0	0				0	0	0			
Added Vol:	9	0	0				0	0	3				2	0	6				0	0	0			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	9	2	0				0	21	3				2	0	6				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				0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92			
PHF Volume:	10	2	0				0	23	3				2	0	7				0	0	0			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	10	2	0				0	23	3				2	0	7				0	0	0			
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	xxxxx	xxxx	xxxxx					
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	xxxxx	xxxx	xxxxx					
Capacity Module:																								
Cnflict Vol:	26	xxxx	xxxxx	xxxx	xxxx	xxxxx							46	46		24	xxxx	xxxx	xxxxx					
Potent Cap.:	1601	xxxx	xxxxx	xxxx	xxxx	xxxxx							969	849		1058	xxxx	xxxx	xxxxx					
Move Cap.:	1601	xxxx	xxxxx	xxxx	xxxx	xxxxx							964	844		1058	xxxx	xxxx	xxxxx					
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.00	0.00		0.01	xxxx	xxxx	xxxx					
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	7.3	xxxx	xxxxx	xxxxx	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	1033	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*												
ApproachDel:	xxxxxx			xxxxxx			8.5			xxxxxx														
ApproachLOS:	*			*			A			*														

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Sierra Vista Road (NS) at Project Driveway (EW)

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[8.6]

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 1	0	0	0	0	0	0	1	0	0	0	1! 0	0	0	0	0	0
Volume Module:																
Base Vol:	0	10	0		0	20	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	1.00	
Initial Bse:	0	10	0		0	20	0		0	0	0		0	0	0	
Added Vol:	14	0	0		0	0	5		5	0	14		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	14	10	0		0	20	5		5	0	14		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	1.00	
PHF Adj:	0.92 0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	15	11	0		0	22	5		5	0	15		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	15	11	0		0	22	5		5	0	15		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1 xxxx	xxxxx	xxxxx		xxxx	xxxxx			6.4	6.5	6.2		xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2 xxxx	xxxxx	xxxxx		xxxx	xxxxx			3.5	4.0	3.3		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	27 xxxx	xxxxx		xxxx	xxxx	xxxxx			66	66	24		xxxx	xxxx	xxxxx	
Potent Cap.:	1600 xxxx	xxxxx		xxxx	xxxx	xxxxx			945	829	1058		xxxx	xxxx	xxxxx	
Move Cap.:	1600 xxxx	xxxxx		xxxx	xxxx	xxxxx			938	821	1058		xxxx	xxxx	xxxxx	
Volume/Cap:	0.01 xxxx	xxxx		xxxx	xxxx	xxxx			0.01	0.00	0.01		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.0 xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	7.3 xxxx	xxxxx		xxxxx	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	1023	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	0.0 xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	0.1	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	7.3 xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	8.6	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	A	*		*	*	*			*	A	*		*	*	*	
ApproachDel:	xxxxxx			xxxxxx					8.6		xxxxxx					
ApproachLOS:	*			*					A		*					

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: D[26.0]

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:	0 0 1!	0	0	0 0 1!	0	0	1 0	1	0	1	1 0	1	0	1
Volume Module:														
Base Vol:	3	0	7	3	0	0	0	513	3		11	797	2	
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:	3	0	7	3	0	0	0	513	3		11	797	2	
Added Vol:	6	0	12	4	0	3	4	58	23		8	64	5	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	9	0	19	7	0	3	4	571	26		19	861	7	
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:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82		0.82	0.82	0.82	
PHF Volume:	11	0	23	9	0	4	5	698	32		23	1053	9	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	11	0	23	9	0	4	5	698	32		23	1053	9	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1814	1817	698	1835	1840	1053	1062	xxxx	xxxxx		730	xxxx	xxxxx	
Potent Cap.:	61	79	444	59	76	277	664	xxxx	xxxxx		883	xxxx	xxxxx	
Move Cap.:	59	76	444	55	74	277	664	xxxx	xxxxx		883	xxxx	xxxxx	
Total Cap:	165	187	xxxxx	160	184	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.07	0.00	0.05	0.05	0.00	0.01	0.01	xxxx	xxxx		0.03	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx		9.2	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*		A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	288	xxxxx	xxxx	184	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	19.2	xxxxx	xxxxx	26.0	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*	*	D	*	*	*	*		*	*	*	
ApproachDel:	19.2			26.0			xxxxxx				xxxxxx			
ApproachLOS:	C			D			*				*			

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 #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[22.4]

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:	0	0 1! 0		0	0	0 1! 0		0	1	0 1	1	0	1	0 1	1	0
Volume Module:																
Base Vol:	3	0	7		3	0	0		0	513	3		11	797	2	
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:	3	0	7		3	0	0		0	513	3		11	797	2	
Added Vol:	6	0	12		4	0	3		4	58	23		8	64	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	9	0	19		7	0	3		4	571	26		19	861	7	
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:	0.82	0.82	0.82		0.82	0.82	0.82		0.82	0.82	0.82		0.82	0.82	0.82	
PHF Volume:	11	0	23		9	0	4		5	698	32		23	1053	9	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	11	0	23		9	0	4		5	698	32		23	1053	9	
Critical Gap Module:																
Critical Gp:	7.5	6.5	6.9		7.5	6.5	6.9		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	1297	1832	365		1463	1844	531		1062	xxxx	xxxxx		730	xxxx	xxxxx	
Potent Cap.:	121	77	638		91	76	498		664	xxxx	xxxxx		883	xxxx	xxxxx	
Move Cap.:	117	74	638		86	73	498		664	xxxx	xxxxx		883	xxxx	xxxxx	
Total Cap:	243	185	xxxxx		176	183	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.05	0.00	0.04		0.05	0.00	0.01		0.01	xxxx	xxxx		0.03	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		10.5	xxxx	xxxxx		9.2	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		B	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	419	xxxxx		xxxx	219	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx		xxxxx	0.2	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	14.3	xxxxx		xxxxx	22.4	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*		*	C	*		*	*	*		*	*	*	
ApproachDel:	14.3				22.4				xxxxx				xxxxx			
ApproachLOS:	B				C				*				*			

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 #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: D[27.5]

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:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	0	1	1	0	1	0	1
Volume Module:																				
Base Vol:	12	0	8			7	0	3			6	815	3			17	605	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:	12	0	8			7	0	3			6	815	3			17	605	4		
Added Vol:	11	0	23			8	0	6			6	108	34			11	129	8		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	23	0	31			15	0	9			12	923	37			28	734	12		
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:	0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94			0.94	0.94	0.94		
PHF Volume:	25	0	33			16	0	10			13	985	39			30	783	13		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	25	0	33			16	0	10			13	985	39			30	783	13		
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2			7.1	6.5	6.2			4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3			3.5	4.0	3.3			2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1865	1867	985			1890	1893	783			796	xxxx	xxxxx			1025	xxxx	xxxxx		
Potent Cap.:	56	73	304			54	71	397			835	xxxx	xxxxx			685	xxxx	xxxxx		
Move Cap.:	52	69	304			46	67	397			835	xxxx	xxxxx			685	xxxx	xxxxx		
Total Cap:	162	182	xxxxx			140	172	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	0.15	0.00	0.11			0.11	0.00	0.02			0.02	xxxx	xxxx			0.04	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.0	xxxx	xxxxx			0.1	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			9.4	xxxx	xxxxx			10.5	xxxx	xxxxx		
LOS by Move:	*	*	*			*	*	*			A	*	*			B	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		221	xxxxx		xxxx		185	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx		1.0	xxxxx		xxxxx		0.5	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx		26.9	xxxxx		xxxxx		27.5	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*		D	*		*		D	*		*	*	*			*	*	*		
ApproachDel:	26.9					27.5					xxxxxx					xxxxxx				
ApproachLOS:	D					D					*					*				

Note: Queue reported is the number of cars per lane.

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Sierra Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: C[20.3]

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:	0	0 1! 0	0		0	0 1! 0	0		1	0 1	1	0	1	0 1	1	0
Volume Module:																
Base Vol:	12	0	8		7	0	3		6	815	3		17	605	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:	12	0	8		7	0	3		6	815	3		17	605	4	
Added Vol:	11	0	23		8	0	6		6	108	34		11	129	8	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	23	0	31		15	0	9		12	923	37		28	734	12	
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:	0.94	0.94	0.94		0.94	0.94	0.94		0.94	0.94	0.94		0.94	0.94	0.94	
PHF Volume:	25	0	33		16	0	10		13	985	39		30	783	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	25	0	33		16	0	10		13	985	39		30	783	13	
Critical Gap Module:																
Critical Gp:	7.5	6.5	6.9		7.5	6.5	6.9		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	1482	1887	512		1368	1900	398		796	xxxx	xxxxx		1025	xxxx	xxxxx	
Potent Cap.:	89	71	512		108	70	607		835	xxxx	xxxxx		685	xxxx	xxxxx	
Move Cap.:	83	67	512		96	66	607		835	xxxx	xxxxx		685	xxxx	xxxxx	
Total Cap:	186	180	xxxxx		209	171	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	0.13	0.00	0.06		0.08	0.00	0.02		0.02	xxxx	xxxx		0.04	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		9.4	xxxx	xxxxx		10.5	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		B	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	293	xxxxx		xxxx	277	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.7	xxxxx		xxxxx	0.3	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	20.3	xxxxx		xxxxx	19.3	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*		*	C	*		*	*	*		*	*	*	
ApproachDel:	20.3				19.3				xxxxx				xxxxx			
ApproachLOS:	C				C				*				*			

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 #5 Valle Vista Road (NS) at Phelan Road (EW)

Average Delay (sec/veh): 24.7 Worst Case Level Of Service: F[312.7]

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:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	0	1		1	0	0	1	0	
Volume Module:																								
Base Vol:	12		2		36		19		7		34		23	426		38			35	693			25	
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:	12		2		36		19		7		34		23	426		38			35	693			25	
Added Vol:	44		6		0		0		0		8		0	55		2			45	26			0	
PasserByVol:	0		3		0		0		3		0		0	0		15			15	0			0	
Initial Fut:	56		11		36		19		10		42		23	481		55			95	719			25	
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			0.89	0.89		0.89			0.89	0.89		0.89			0.89	0.89			0.89	
PHF Volume:	63		12		41		21		11		47		26	542		62			107	810			28	
Reduct Vol:	0		0		0		0		0		0		0	0		0			0	0			0	
FinalVolume:	63		12		41		21		11		47		26	542		62			107	810			28	
Critical Gap Module:																								
Critical Gp:	7.1	6.5		6.2			7.1	6.5		6.2			4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0		3.3			3.5	4.0		3.3			2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1662	1647		542			1690	1694		824			838	xxxx	xxxxx				604	xxxx	xxxxx			
Potent Cap.:	78	100		544			75	94		376			805	xxxx	xxxxx				984	xxxx	xxxxx			
Move Cap.:	55	87		544			55	81		376			805	xxxx	xxxxx				984	xxxx	xxxxx			
Volume/Cap:	1.15	0.14		0.07			0.39	0.14		0.13			0.03	xxxx	xxxx				0.11	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				0.1	xxxx	xxxxx				0.4	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				9.6	xxxx	xxxxx				9.1	xxxx	xxxxx			
LOS by Move:	*	*	*				*	*	*				A	*	*				A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		85	xxxxx			xxxx		123	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		8.8	xxxxx			xxxxx		3.4	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx		313	xxxxx			xxxxx		77.6	xxxxx			xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*		F	*			*		F	*			*	*	*				*	*	*			
ApproachDel:	312.7						77.6						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Morning Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.463
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.9
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:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	12	2	36	19	7	34	23	426	38	35	693	25
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:	12	2	36	19	7	34	23	426	38	35	693	25
Added Vol:	44	6	0	0	0	8	0	55	2	45	26	0
PasserByVol:	0	3	0	0	3	0	0	0	15	15	0	0
Initial Fut:	56	11	36	19	10	42	23	481	55	95	719	25
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:	59	12	38	20	11	44	24	506	58	100	757	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	12	38	20	11	44	24	506	58	100	757	26
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:	59	12	38	20	11	44	24	506	58	100	757	26
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	0.23	0.77	1.00	0.19	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	445	1455	1800	365	1535	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.01	0.03	0.03	0.01	0.27	0.03	0.06	0.40	0.01
Crit Moves:					****		****				****	
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.08	0.62	0.62	0.18	0.72	0.72
Volume/Cap:	0.22	0.17	0.17	0.07	0.19	0.19	0.17	0.43	0.05	0.30	0.55	0.02
Delay/Veh:	48.3	47.4	47.4	46.0	47.7	47.7	56.1	7.9	5.2	46.3	3.0	0.8
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	47.4	47.4	46.0	47.7	47.7	56.1	7.9	5.2	46.3	3.0	0.8
LOS by Move:	D	D	D	D	D	D	E	A	A	D	A	A
HCM2kAvgQ:	2	2	2	1	2	2	1	6	0	3	3	0

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

****

Average Delay (sec/veh): 316.4 Worst Case Level Of Service: F[2347.7]

****

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:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 0 1				1 0 0 1 0			
Volume Module:														
Base Vol:	41	0	50	32	0	28	58	678	23		37	594	32	
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:	41	0	50	32	0	28	58	678	23		37	594	32	
Added Vol:	84	11	0	0	0	11	0	123	5		68	52	0	
PasserByVol:	27	5	34	0	5	2	3	0	0		37	0	0	
Initial Fut:	152	16	84	32	5	41	61	801	28		142	646	32	
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:	160	17	88	34	5	43	64	843	29		149	680	34	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	160	17	88	34	5	43	64	843	29		149	680	34	
Critical Gap Module:														
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1991	1984	843	2034	1996	697	714	xxxx	xxxxx		872	xxxx	xxxxx	
Potent Cap.:	46	62	367	43	61	445	896	xxxx	xxxxx		782	xxxx	xxxxx	
Move Cap.:	31	47	367	19	46	445	896	xxxx	xxxxx		782	xxxx	xxxxx	
Volume/Cap:	5.22	0.36	0.24	1.76	0.12	0.10	0.07	xxxx	xxxx		0.19	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx		0.7	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx		10.7	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		B	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	46	xxxxx	xxxx	42	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	30.7	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	2348	xxxxx	xxxxx	664	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	F	*	*	F	*	*	*	*		*	*	*	
ApproachDel:	2347.7			664.5			xxxxxx				xxxxxx			
ApproachLOS:	F			F			*				*			

****

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Evening Peak Hour With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Valle Vista Road (NS) at Phelan Road (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.651
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.9
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:	19	19	19	19	19	19	10	32	32	10	32	32
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	41	0	50	32	0	28	58	678	23	37	594	32
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:	41	0	50	32	0	28	58	678	23	37	594	32
Added Vol:	84	11	0	0	0	11	0	123	5	68	52	0
PasserByVol:	27	5	34	0	5	2	3	0	0	37	0	0
Initial Fut:	152	16	84	32	5	41	61	801	28	142	646	32
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:	160	17	88	34	5	43	64	843	29	149	680	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	17	88	34	5	43	64	843	29	149	680	34
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:	160	17	88	34	5	43	64	843	29	149	680	34
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	0.16	0.84	1.00	0.11	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	304	1596	1800	207	1693	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.06	0.06	0.02	0.03	0.03	0.04	0.44	0.02	0.08	0.36	0.02
Crit Moves:	****							****		****		
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.65	0.65	0.12	0.62	0.62
Volume/Cap:	0.51	0.32	0.32	0.11	0.15	0.15	0.23	0.68	0.02	0.68	0.58	0.03
Delay/Veh:	47.3	42.4	42.4	39.1	39.6	39.6	42.5	8.3	3.0	62.1	8.9	4.5
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:	47.3	42.4	42.4	39.1	39.6	39.6	42.5	8.3	3.0	62.1	8.9	4.5
LOS by Move:	D	D	D	D	D	D	D	A	A	E	A	A
HCM2kAvgQ:	6	3	3	1	1	1	2	10	0	6	8	0

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.395
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.1
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:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		40		40		10		40		40	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	2	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	12		17		209		74		43		144		46		379		9		119		574		37	
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:	12		17		209		74		43		144		46		379		9		119		574		37	
Added Vol:	11		0		0		0		0		27		21		26		8		0		34		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	23		17		209		74		43		171		67		405		17		119		608		37	
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:	24		18		220		78		45		180		71		426		18		125		640		39	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	24		18		220		78		45		180		71		426		18		125		640		39	
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:	24		18		220		78		45		180		71		426		18		125		640		39	
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		1.00		1.00		1.00		1.00		1.00		1.00		2.00		1.00		1.00		2.00		1.00	
Final Sat.:	1800		1900		1900		1800		1900		1900		1800		3800		1900		1800		3800		1900	
Capacity Analysis Module:																								
Vol/Sat:	0.01		0.01		0.12		0.04		0.02		0.09		0.04		0.11		0.01		0.07		0.17		0.02	
Crit Moves:					****		****						****								****			
Green/Cycle:	0.11		0.29		0.29		0.11		0.30		0.30		0.10		0.42		0.42		0.11		0.43		0.43	
Volume/Cap:	0.13		0.03		0.40		0.40		0.08		0.32		0.40		0.27		0.02		0.66		0.40		0.05	
Delay/Veh:	45.9		27.6		32.9		51.4		27.9		31.2		52.9		18.6		16.3		64.2		19.6		16.1	
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:	45.9		27.6		32.9		51.4		27.9		31.2		52.9		18.6		16.3		64.2		19.6		16.1	
LOS by Move:	D		C		C		D		C		C		D		B		B		E		B		B	
HCM2kAvgQ:	1		0		5		3		1		4		3		4		0		5		6		1	

Note: Queue reported is the number of cars per lane.

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Dollar Store - Phelan
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Johnson Road (NS) at Phelan Road (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.465
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.0
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:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	40	40	10	40	40
Lanes:	1 0 1	0	1	1 0 1	0	1	1 0 2	0	1	1 0 2	0	1
Volume Module:												
Base Vol:	20	64	213	64	35	62	165	561	16	93	490	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:	20	64	213	64	35	62	165	561	16	93	490	71
Added Vol:	18	0	0	0	0	42	43	61	19	0	60	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	64	213	64	35	104	208	622	35	93	550	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:	40	67	224	67	37	109	219	655	37	98	579	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	67	224	67	37	109	219	655	37	98	579	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:	40	67	224	67	37	109	219	655	37	98	579	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	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.12	0.04	0.02	0.06	0.12	0.17	0.02	0.05	0.15	0.04
Crit Moves:			****	****			****				****	
Green/Cycle:	0.10	0.27	0.27	0.10	0.27	0.27	0.18	0.45	0.45	0.11	0.38	0.38
Volume/Cap:	0.23	0.13	0.44	0.39	0.07	0.22	0.67	0.38	0.04	0.48	0.40	0.10
Delay/Veh:	47.1	29.8	34.8	51.3	29.1	30.9	50.7	16.7	13.7	51.8	22.5	19.4
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:	47.1	29.8	34.8	51.3	29.1	30.9	50.7	16.7	13.7	51.8	22.5	19.4
LOS by Move:	D	C	C	D	C	C	D	B	B	D	C	B
HCM2kAvgQ:	1	1	6	3	1	3	8	6	0	4	6	1

Note: Queue reported is the number of cars per lane.

Traffix 7.9.0215 (c) 2008 Dowling Assoc. Licensed to KUNZMAN ASSOC, ORANGE CA

APPENDIX F

Traffic Signal Warrant Worksheets

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing

Major Street Name = **Phelan Road**

Total of Both Approaches (VPH) = **919**

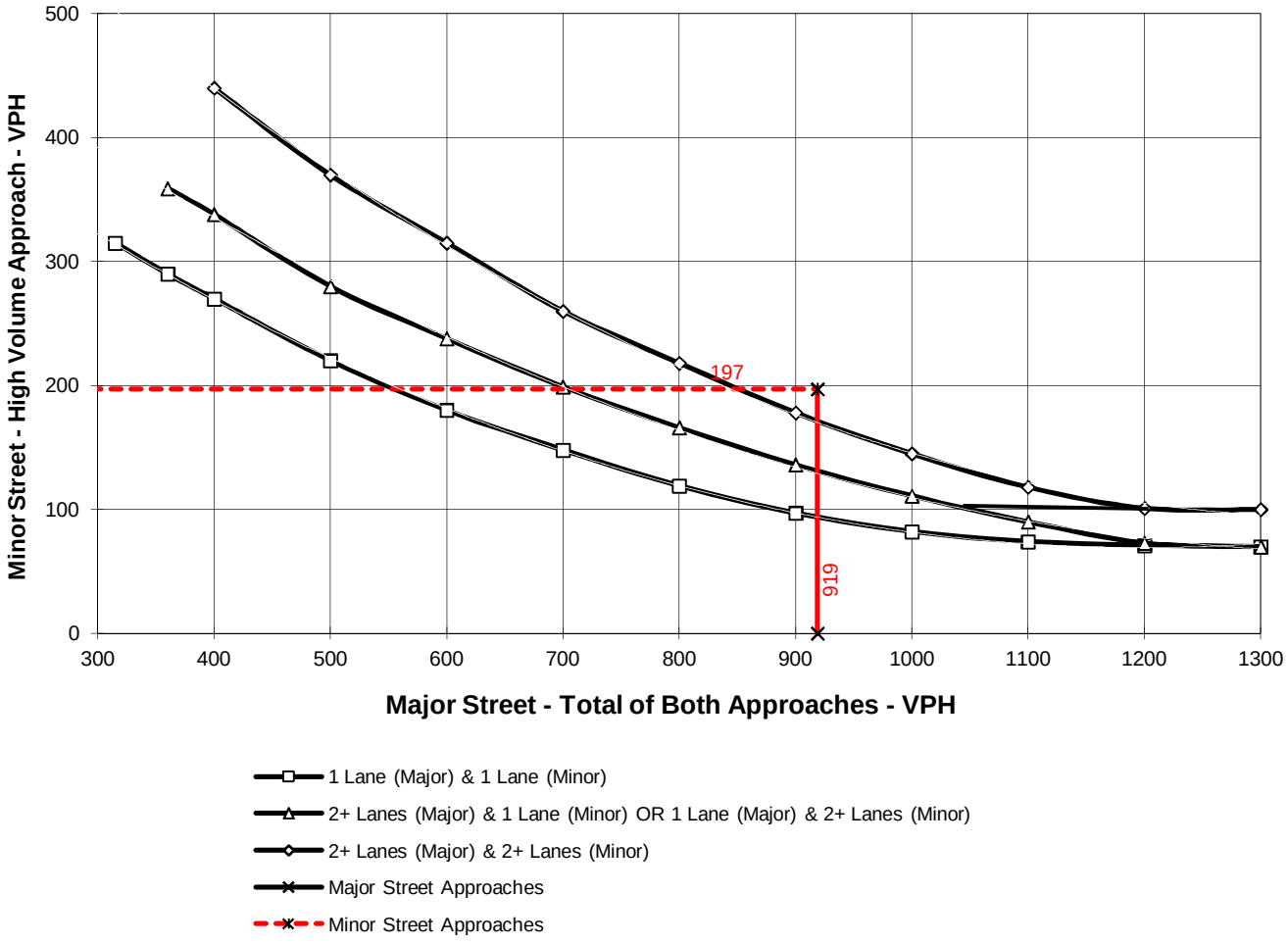
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Clovis Road**

High Volume Approach (VPH) = **197**

Number of Approach Lanes Minor Street = **1**

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)

Opening Year (2019) With Project

Major Street Name = **Phelan Road**

Total of Both Approaches (VPH) = **1458**

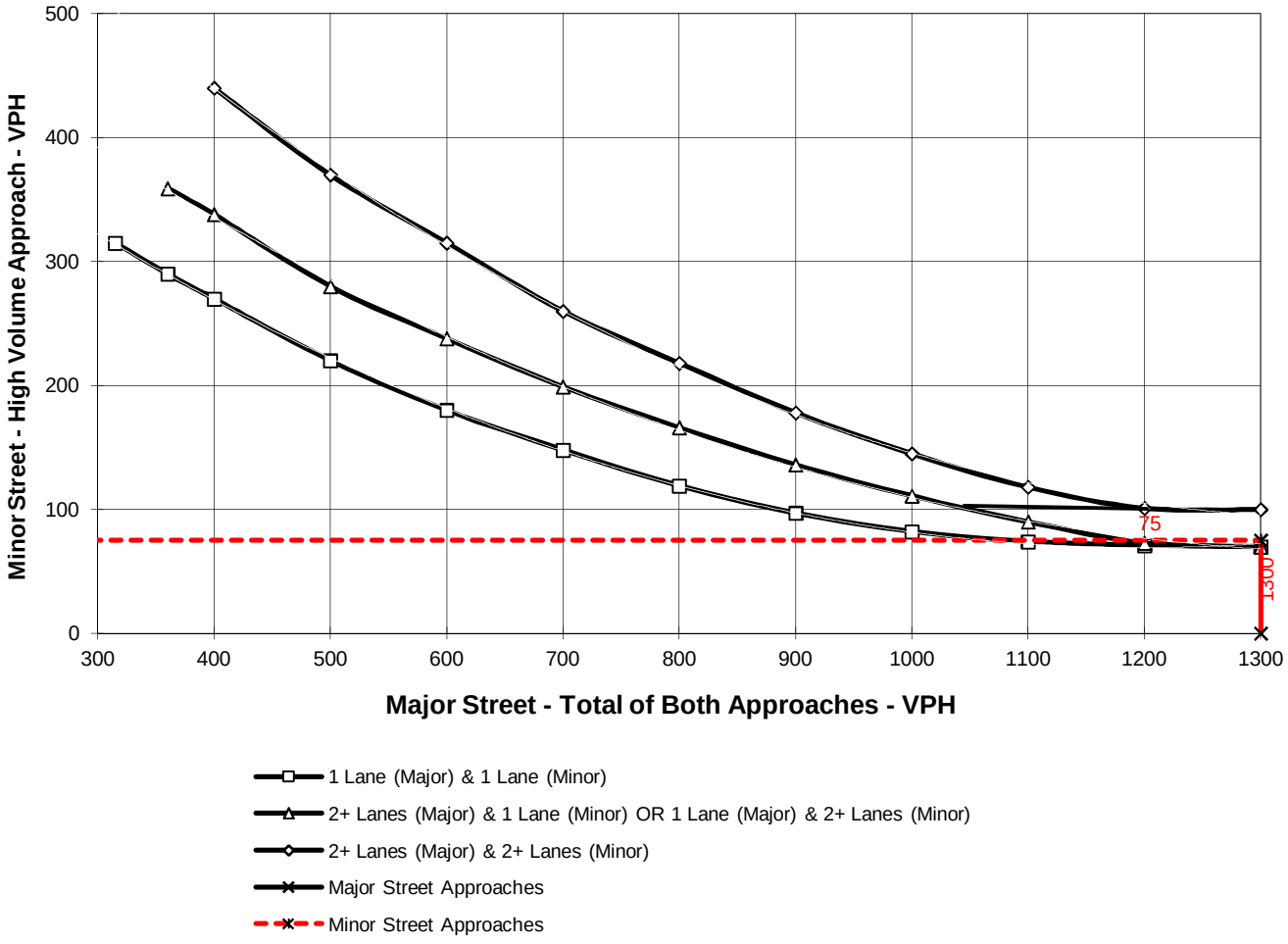
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Valle Vista Road**

High Volume Approach (VPH) = **75**

Number of Approach Lanes Minor Street = **1**

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 2035 Without Project

Major Street Name = **Phelan Road**

Total of Both Approaches (VPH) = **1394**

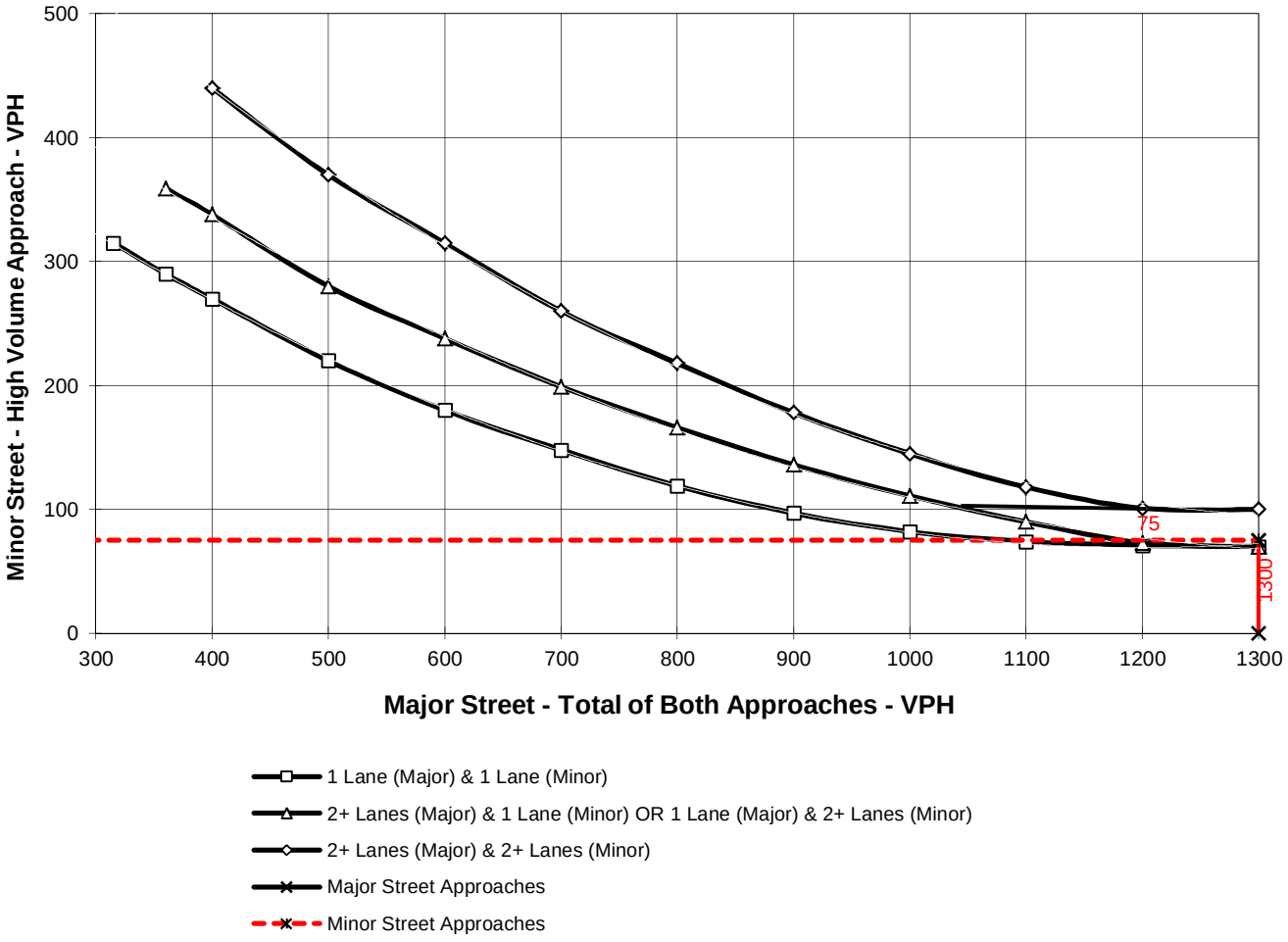
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Eaby Road**

High Volume Approach (VPH) = **75**

Number of Approach Lanes Minor Street = **1**

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.

APPENDIX G

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.**

Kunzman Associates, Inc.

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