

Vision That Moves Your Community

Final

**Traffic Impact Study for the Expansion of a Sikh Temple -  
Gurdwara Gur Nanak Parkash**

In San Joaquin County

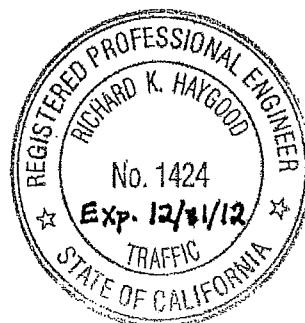
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This Traffic Impact Study has been prepared under the direction of a licensed Traffic Engineer.

Prepared by:

Richard E. Haygood

Richard K. Haygood, P.E., T.E.  
Senior Associate  
TJKM Transportation Consultants  
3875 Hopyard Road  
Suite 200  
Pleasanton, CA 94588-8526  
Tel: 925.463.0611  
Fax: 925.463.3690



[www.tjkm.com](http://www.tjkm.com)

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## Introduction and Summary

### Introduction

This report presents the results of TJKM's traffic impact analysis for the proposed expansion of a Sikh Temple – Gurdwara Gur Nanak Parkash. The project site is located at 16215 W. Grant Line Road in an unincorporated area of San Joaquin County, west of the City of Tracy. Currently, the site has a permit and capacity to hold a religious gathering of up to 170 people in the temple's assembly hall. The existing facility consists of a temple prayer hall and an administrative office on a 20-acre parcel (Assessor Parcel Number – APN: 209-190-33). The project site currently provides 90 striped parking spaces on the front side of the temple building.

TJKM understands that the project applicant is proposing to expand the current temple facility to accommodate 800 members in two phases. Phase 1 consists of construction of 19,940 square feet (sq. ft.) of assembly hall (*Gurdwara*) and expansion of the parking lot. Phase 2 consists of approximately 9,000 sq. ft. for a kitchen and a dining facility (*Langar*). At the build out of the project, 428 full-size striped parking spaces are proposed.

The vicinity of the project site is generally surrounded by agricultural land use on W. Grant Line Road. Figure 1 shows the project location and its vicinity. Figure 2 shows the proposed project site plan.

### Summary

TJKM estimated trip generation rates for the proposed project based on driveway counts conducted during a regular weekday p.m. peak period and a weekend midday peak period at the existing facility and other traffic observations made at representative study sites with facilities and attendance characteristics similar to the project.

During the weekday p.m. peak hour between 5:00 and 6:00 p.m., 12 inbound and five outbound trips were counted at the existing project driveways. During the weekend midday peak hour between 12:15 and 1:15 p.m., 66 inbound and 86 outbound trips were counted. The facility seeks to increase the maximum attendance permit from the existing 170 person limit to allow up to 800 people at the assembly hall. Applying the percentage increase in maximum attendance to the existing driveway counts, 57 inbound and 24 outbound trips are expected during a weekday p.m. peak hour and 311 inbound and 405 outbound trips are expected during a weekend midday peak hour with the project.

TJKM staff observed that the majority of the vehicles that arrived at the project site for the event carried more than two persons each.

Currently, all study intersections operate at acceptable levels of service during both the weekday and weekend peak hour conditions, except for the Byron Road/W. Grant Line Road (east leg) intersection, where the Byron Road stop-controlled approach with the worst delay operates at LOS F. This intersection currently meets the peak hour volume signal warrant, and is expected to be signalized in the near future according to County staff. With signalization, this intersection would operate at LOS C during peak hours.

The study intersections are expected to continue to operate at acceptable levels of service for Existing plus Project Conditions during both the weekday and weekend peak hours, except for the Byron Road/W. Grant Line Road (east leg) intersection, where the Byron Road stop-controlled

approach with the worst delay would operate at the same LOS F as Existing Conditions. This intersection meets the peak hour volume signal warrant, and is expected to be signalized in the near future according to County staff. With signalization, this intersection would operate at LOS C during peak hours.

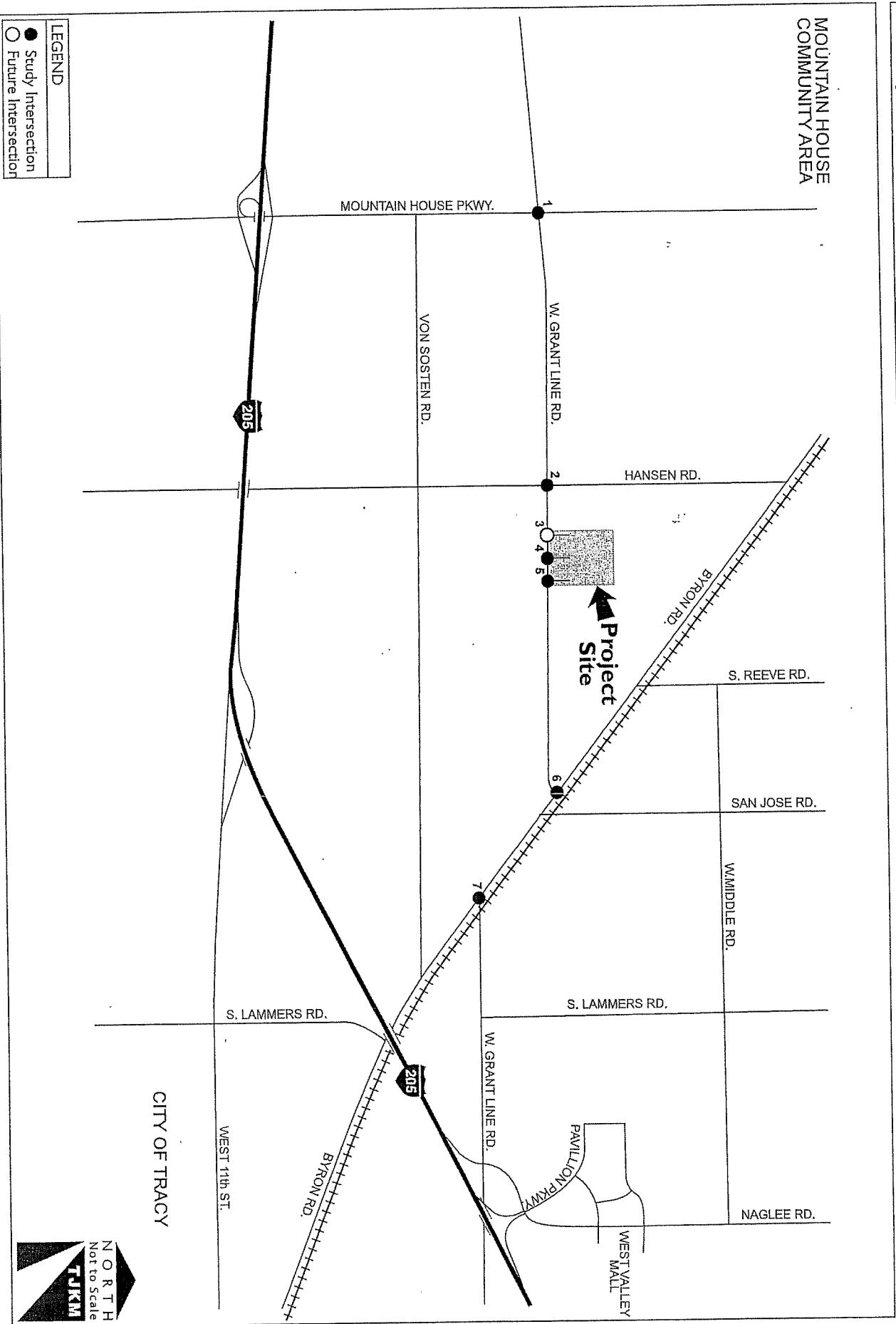
The current posted speed limit on W. Grant Line Road in the vicinity of the project site is 55 miles per hour (mph), and the 85<sup>th</sup> percentile speed is approximately 60 mph. Based on the *American Association of State Highway and Transportation Officials* (AASHTO) guidelines, a stopping sight distance of 660 feet is required for a roadway with an 85<sup>th</sup> percentile speed of 60 mph. Based on the field survey, the existing driveway at the project site has a sight distance of more than 700 feet in the east and west directions, which provides adequate line of sight for drivers exiting the site.

During all phases including build out of the proposed project, TJKM recommends that all project access driveways shall have unobstructed views of the roadway in both directions, clear of any vegetation, roadside objects, etc.

Based on the roadway segment analysis of peak hour volumes on W. Grant Line Road, there is sufficient roadway capacity to accommodate the proposed project trips.

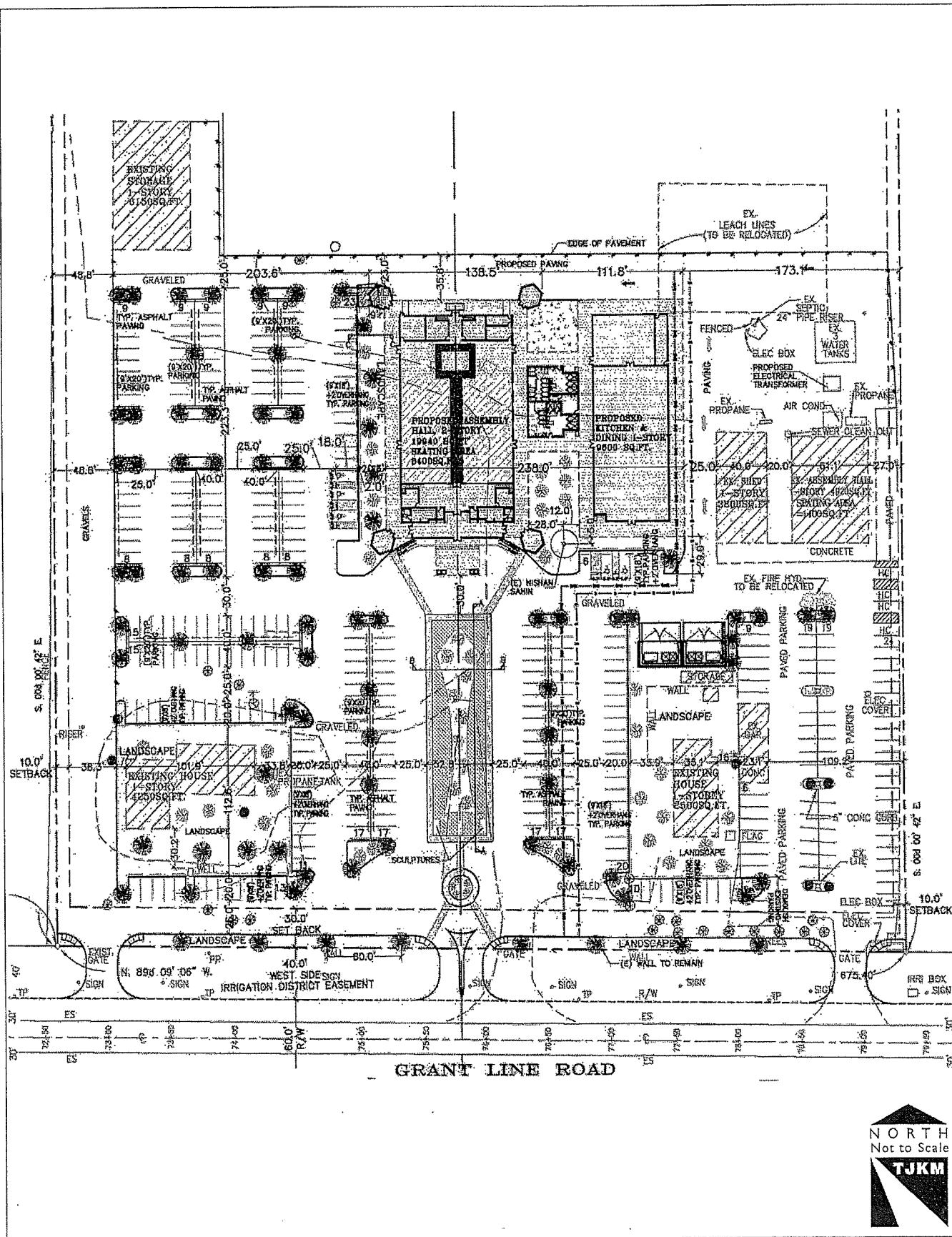
San Joaquin County - Gurdwara Gur Nanak Parkash - Sikh Temple Traffic Study  
Vicinity Map

Figure  
1



## San Joaquin County - Gurdwara Gur Nanak Parkash - Sikh Temple Traffic Study Proposed Site Plan

Figure  
2



## Intersection Analysis Methodology

Based on the information obtained from the project application for a use permit and from other available sources, the religious gatherings at the project site are expected to be held on all weekdays and on weekends. Thus, in order to evaluate traffic conditions near the site, TJKM obtained three-hour p.m. peak period turning movement counts for a weekday (Tuesday, February 15, 2011) and a weekend (Sunday, February 13, 2011) at the following study intersections:

1. W. Grant Line Road/Mountain House Parkway - Signalized
2. W. Grant Line Road/Hansen Road – Two-way Stop control
3. W. Grant Line Road/ West Project Access – One-way Stop control
4. W. Grant Line Road/East Project Access – One-way Stop Control
5. W. Grant Line Road/Byron Road – One-way Stop control
6. Byron Road/E. Grant Line Road – Two-way Stop control (Near-term Signal)

Two scenarios were addressed in this study:

1. *Existing Conditions* – Current (Year 2011) traffic volumes and roadway conditions.
2. *Existing plus Project Conditions* – Identical to the previous scenario, but with the event-related traffic added from the project site.

## Level of Service Analysis Methodology

Level of Service is a qualitative index of the performance of an element of the transportation system. Level of Service (LOS) is a rating scale ranging from A to F, with A indicating no congestion, and F indicating extreme congestion and delays.

The 2000 Highway Capacity Manual (HCM) is the standard reference published by the Transportation Research Board, and contains the specific criteria and methods to be used in assessing LOS. Several software packages have been developed to implement HCM 2000. In this study, SYNCHRO 7.0 software was used to calculate the LOS at the study intersections. A detailed description of the methodology is provided in Appendix A.

The operating conditions at all six study intersections were evaluated using the 2000 Highway Capacity Manual (HCM) methods contained in SYNCHRO 7.0 software. Peak hour conditions at signalized intersections are reported as average delay in seconds per vehicle with corresponding levels of service (LOS), using the HCM Operations Method. For all-way stop control intersections, the overall intersection average delays and LOS are reported. For intersections with stop control on only the minor street approaches (two-way and one-way stops), the worst minor street approach delay and LOS are reported.

The method of unsignalized intersection capacity analysis used in this study is from Chapter 10, "Unsignalized Intersections" of the *Highway Capacity Manual, Special report No. 209*, Transportation Research Board, updated October 2000. This method applies to two-way STOP sign or YIELD sign controlled intersections (or one-way STOP sign or YIELD sign controlled intersections at three-way intersections). At such intersections, drivers on the minor street are obliged to use

judgment when selecting gaps in the major flow through which to execute crossings or turning maneuvers. Thus, the capacity of the controlled legs of an intersection is based on three factors:

1. The distribution of gaps in the major street traffic stream.
2. Driver judgment in selecting gaps through which to execute their desired maneuvers.
3. Follow-up time required to move into the front-of-queue position.

The roadway capacity and level of service as defined by TRB's Highway Capacity Manual (HCM) 2000 was adopted for the roadway segment analysis in this traffic study. The manual recognizes that the traffic operations on two-lane, two-way highways are unique, as passing slow-moving vehicles requires use of the opposing lane based on available sight distance and vehicular gaps in the opposing traffic stream. HCM defines level of service for Class II highways in terms of percent-time-spent-following (PTSF). The base conditions for two-lane highway analysis are lane and shoulder widths, percentage of passing zones, percentage of heavy vehicle traffic (trucks, recreational buses etc.), traffic control system (signals, stop signs, etc.) and type of terrain (level vs. hilly or mountainous). TJKM used Highway Capacity Software (HCS) that utilizes HCM methodology for roadway segment analysis that reports LOS and other performance measures such as volume-to-capacity (V/C) ratio, peak hour vehicle-miles of travel, etc.

#### **Significance Criteria**

As defined in the San Joaquin County 2010 General Plan, adopted in July 1992, all County roadway segments shall operate at LOS C or better (except in a City sphere of influence where the City has adopted an LOS D standard); intersections shall operate at an overall LOS D or better on minor arterials and roadways of higher classification, and LOS C or better on all other roads; all freeways and State highways shall operate at LOS D or better. The methods contained in the "Transportation Research Board (TRB), 1997 Highway Capacity Manual" (or latest edition – HCM 2000) shall be used to determine the LOS. All County roadway segments shall be analyzed per the HCM as Class II roadways unless otherwise approved by the County.

## Existing Traffic Conditions

### Roadway Conditions

*Interstate 205 (I-205)* is an east-west freeway located to the south of the project site, and provides access to Tracy to the east and to the greater San Francisco Bay Area and the Silicon Valley job centers via I-580 to the west. It has six lanes in the vicinity of the project. The I-205/Mountain House Parkway interchange is located between interchanges at Eleventh Street to the east and I-580 to the west.

*Interstate 580 (I-580)* is a major east-west freeway extending from Interstate 5 (I-5) in San Joaquin County to State Route 101 in Marin County. In the vicinity of the project site, I-580 is a four-lane divided freeway carrying approximately 43,500 vehicles per day (vpd) near its interchange with Patterson Pass Road/Mountain House Parkway in Tracy. This freeway serves as a connector between I-5 (a principal north-south freeway for both auto and truck traffic) and the Bay Area.

*Grant Line Road, Mountain House Parkway and Byron Road* provide local access to the freeway and the immediate areas.

*Grant Line Road* is a two-lane east-west road that runs parallel to and north of I-205. It provides access to the City of Tracy and also connects to the I-580 freeway to the west of I-205 via Altamont Pass Road. In the vicinity of the study area it is generally a rural road with a posted speed limit of 55 miles per hour (mph). The existing average daily traffic (ADT) is approximately 3,970 vpd.

*Mountain House Parkway* is a four-lane north-south roadway that provides a connection between I-205 and Byron Road, with an intervening intersection at W. Grant Line Road. It is located westerly of the project site. South of I-205, Mountain House Parkway extends to I-580 and has two to four lanes. The posted speed limit on this roadway is 45 mph.

*Byron Road* is a two-lane rural road that runs parallel to the Union Pacific Railroad (UPRR) to the east and north of the project site. It provides access to downtown Tracy to the east and eastern Contra Costa County to the northwest. The existing ADT is approximately 8,000 vpd based on the historical count data.

*Hansen Road* is a two-lane north-south rural road connecting Byron Road on the north with Schulte Road on the south, with an intervening intersection at W. Grant Line Road. It is located just west of the project site.

### Level of Service Analysis

Peak hour turning movement counts at the study intersections were collected in February, 2011, on a weekday (Tuesday) between 4:00 p.m. and 7:00 p.m. and a weekend (Sunday) between 11:00 a.m. and 2:00 p.m. Vehicle classification, speed and ADT counts were also obtained during the same week as the turning movement counts. Based on the ADT data, the weekday (Tuesday) p.m. peak is generally between 5:30 p.m. and 6:30 p.m. and the weekend (Sunday) midday peak is between 11:30 a.m. and 12:30 p.m. During both of the peak periods, the percentage of heavy vehicles was approximately five- percent based on the summary of vehicle classification counts.

Raw turning movement counts and vehicle classification counts are provided in Appendix B.

Figure 3 illustrates the existing lane geometry, traffic control and the peak hour turning movement volumes at the study intersections. Table I summarizes the results of the intersection analysis under Existing Conditions. The detailed Synchro based LOS calculations are contained in Appendix C.

Under the Existing Conditions, all study intersections operate at acceptable service levels (LOS C or better) except for the Byron Road/W. Grant Line Road (east leg) intersection, where the Byron Road stop-controlled approach with the worst delay operates at LOS F during both peak hours. It should be noted that none of the unsignalized study intersections meet the peak hour volume signal warrants, except for the Byron Road/W. Grant Line Road (east leg) intersection. This intersection is expected to be signalized in the near future according to County staff. With signalization, this intersection would operate at LOS C during peak hours.

**Table I: Intersection LOS – Existing Conditions**

No.	Intersection	Control	Weekday P.M. Peak Hour		Weekend Midday Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1.	W. Grant Line Road/Mountain House Parkway	Signalized	18.3	B	10.0	B
2.	W. Grant Line Road/Hansen Road	Two-way Stop	12.3	B	10.5	B
3.	W. Grant Line Road/West Project Access	One-way Stop	9.4	A	10.1	B
4.	W. Grant Line Road/East Project Access	One-way Stop	10.3	B	10.7	B
5.	Byron Road/ W. Grant Line Road (west leg)	One-way Stop	11.9	B	13.2	B
6.	Byron Road/W. Grant Line Road (east leg)	Two-way Stop (Meets Signal Warrant)	>120.0		>120.0	
		Signal	17.8	B	20.9	C

Note: Delay = Overall average intersection delay in seconds for Signalized intersections, or Minor street (worst approach) delay for One-way or Two-way Stop Control intersections; LOS = Level of Service

TJKM also conducted an LOS analysis of the roadway study segment on W. Grant Line Road east of the project access using the HCS software that utilizes HCM methodology. Table II shows the results of this analysis for the weekday p.m. peak bi-directional traffic volume of approximately 341 vehicles per hour and the weekend peak bi-directional traffic volume of approximately 343 vehicles per hour for the Existing Conditions. The results show that the segment currently operates acceptably at LOS A, which meets San Joaquin County standards. The detailed LOS sheets are provided at the end of Appendix C.

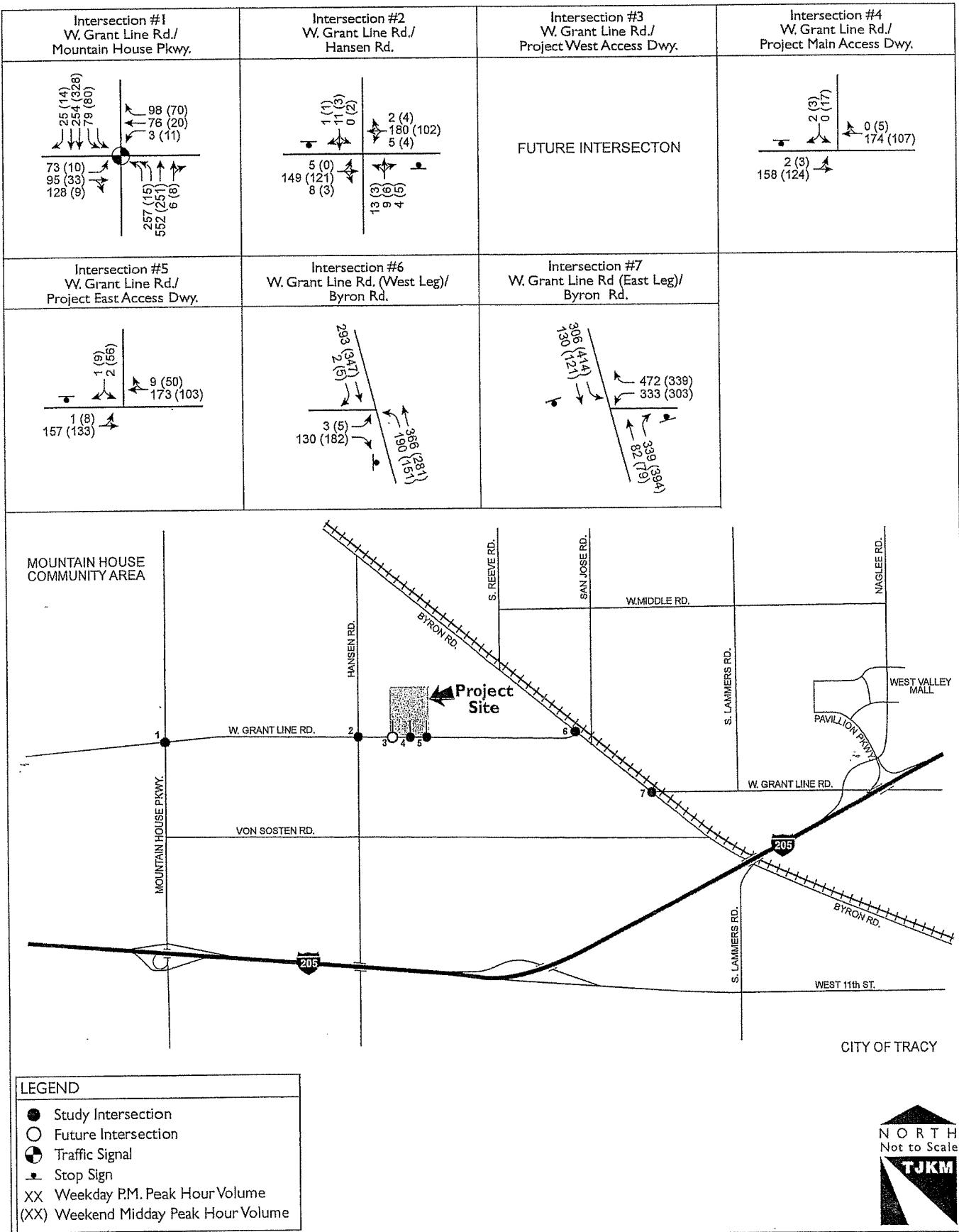
**Table II: Roadway Level of Service – Existing Conditions**

ID	Roadway	Segment	Weekday P.M. Peak Hour		Weekend Midday Peak Hour	
			Volume-to-Capacity Ratio	LOS	Volume-to-Capacity Ratio	LOS
I.	W. Grant Line Road	East of Project Access	0.13	A	0.13	A

Note: The peak hour LOS analysis is based on HCM 2000 for Class II highways for rural areas using the latest version of Highway Capacity Software (HCS)

San Joaquin County - Gurdwara Gur Nanak Parkash - Sikh Temple Traffic Study  
Existing Conditions

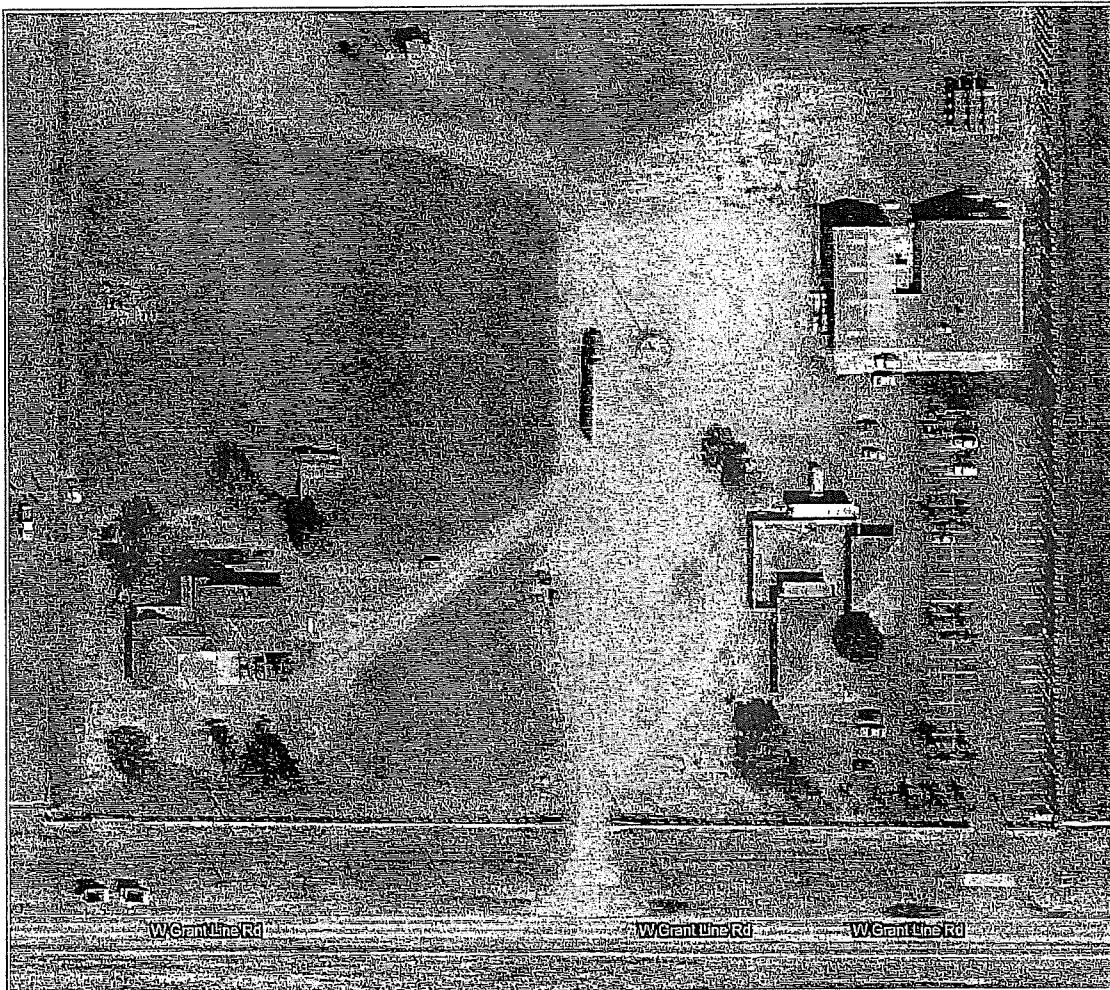
Figure  
3



## Proposed Project Description

The proposed project site is located at 16215 W. Grant Line Road in San Joaquin County. The existing facility consists of a temple prayer hall and administrative offices on a 20-acre parcel (Assessor Parcel Number – APN: 209-190-33). The project site currently provides 90 striped parking spaces on the front side of the temple building. The project site is surrounded by agricultural land use on W. Grant Line Road.

Based on the information provided by the County, the current Sikh Temple is permitted for a religious gathering at the assembly hall of up to 170 people. The project applicant is proposing to expand the current temple to accommodate 800 people. The temple expansion is expected to happen in two phases. Phase 1 consists of construction of an additional 19,940 sq. ft. of assembly hall (*Gurdwara*) and expansion of the parking lot. Phase 2 consists of approximately 9,000 sq. ft. for a kitchen along with dining area (*Langar*). At the build out of the project, 428 full-size striped parking spaces are proposed to accommodate the peak parking demand.



**Aerial Photo Showing the Existing Facility**

Currently, the main access to the project site is via a driveway located on the east side of the project frontage at 16215 W. Grant Line Road. This main access serves both ingress and egress to the site. In addition, there is a secondary access near the center of the project frontage. Both of the access driveways are expected to operate as one-way stop controlled intersections.

Three entrances are shown on the site plan (Figure 2 on page 4). The main entrance to the proposed project site is centrally located along the project frontage and the other two entrances are located to the far west and east sides of the project site.

The current posted speed in the project vicinity along W. Grant Line Road is 55 mph and the 85<sup>th</sup> percentile speed is approximately 60 mph. Based on *American Association of State Highway and Transportation Officials (AASHTO)* guidelines, a stopping sight distance of 660 feet is required for a roadway with an 85<sup>th</sup> percentile speed of 60 mph. Based on the field survey, the existing driveway has a sight distance of more than 700 feet, which provides adequate line of sight for drivers exiting the site in both the eastbound and the westbound directions. However, during all phases of the project, including build out, TJKM recommends requiring that all project access driveways shall have unobstructed views of the roadway, clear of any vegetation, landscaping and roadside objects, including project entry signage, in both directions.

### **Weekday and Weekend Trip Generation with Temple Expansion**

TJKM estimated trip generation rates for the proposed project based on driveway counts conducted during regular weekday (p.m.) and weekend (midday) peak hours with typical attendance at the existing facility, in addition to traffic observations at two representative Sikh Temple sites with facilities and attendance characteristics similar to the project.

During the weekday p.m. peak hour between 5:00 and 6:00 p.m., 12 inbound and five outbound trips were counted at the existing project driveways. During the weekend midday peak hour between 12:15 and 1:15 p.m., 66 inbound and 86 outbound trips were counted. Table III summarizes the proposed project projected trip generation numbers for the weekday p.m. and weekend midday peak hours.

**Table III: Summary of Proposed Project Trip Generation**

Land Use	Weekday PM Peak Hour (5:30 to 6:30 p.m.)				Weekend Midday Peak Hour (12:15 to 1:15 p.m.)			
	In : Out (%)	In	Out	Total	In : Out (%)	In	Out	Total
Existing Sikh Temple Driveway Counts (Typical attendance; capacity = 170 people)	71:29	12	5	17	44:56	66	86	152
Estimated Project Trips (Typical attendance; capacity = 800 people)	71:29	57	24	81	44:56	311	405	716
<b>Net New Project Trips</b>		<b>45</b>	<b>19</b>	<b>64</b>		<b>245</b>	<b>319</b>	<b>564</b>

Notes:

- Estimated trips are based on the driveway counts at the existing Temple with typical attendance on a weekday (Tuesday) and a weekend (Sunday) during the month of February 2011.
- The existing Sikh Temple accommodates a maximum attendance of 170 people during a regular or special event.
- The proposed Sikh Temple expansion is expected to accommodate a maximum attendance of 800 people during a regular or special event.
- The expansion of Temple facilities to accommodate 800 people equates to an increase in project trips by a factor of 4.7 times (=800/170).

The facility seeks to increase the maximum attendance permit from the existing 170 person limit to allow up to 800 people at the assembly hall. Applying the resulting factor of a 4.7 times increase in maximum attendance to the driveway counts, 57 inbound and 24 outbound trips are expected during a weekday p.m. peak hour and 311 inbound and 405 outbound trips are expected during a weekend midday peak hour. The staff and volunteer trips to and from the temple are expected to occur outside the peak hours. The estimated increase in trips with the Temple expansion project, shown in Table III as "Net New Project Trips," is the difference between the total "Estimated Project Trips" and the "Existing Sikh Temple Driveway Counts."

TJKM staff also made weekend midday peak observations at Sikh Temples in Fremont and San Jose. TJKM staff observed that the majority of the vehicles that arrived at these sites carried more than two persons in each car, which is very similar to the observations made at the project site. Both the Fremont and San Jose Sikh Temples have an attendance capacity of approximately 1,200 people at their assembly halls.

At the Fremont Sikh Temple during a regular weekend midday peak period, approximately 251 inbound and 262 outbound trips were counted, a total of 512 trips. TJKM staff also made a head count of the number people present at the various venues of the temple such as assembly hall, dining area, and general sitting area. Approximately 640 people were present within the temple premises. Very similar traffic observations were made at San Jose Sikh Temple during a weekend midday peak period. The proposed maximum attendance of 800 people at the San Joaquin County project site would be 25 percent higher than the 640 people observed in attendance at the Fremont Sikh Temple. Increasing the observed weekend peak hour trips at the Fremont Sikh Temple by 25 percent would result in approximately 314 inbound and 328 outbound trips, a total of 642 trips. Each of these trip numbers, which were extrapolated to estimate the peak hour traffic volumes expected with attendance of 800 people, is either less than or approximately equal to the "Estimated Project Trips" in Table III for the weekend peak hour: 311 inbound and 405 outbound, a total of 716 trips.

The parking lot of the Fremont Sikh Temple has approximately 318 parking stalls and the occupancy during the peak study period was nearly one hundred percent. It was observed that some of the overflow parking during the weekend midday peak period occupied most of the on-street parking on Gurdwara Road in the City of Fremont.

Based on the traffic observations made by TJKM staff at the Fremont/San Jose Sikh Temples and our general knowledge of such religious facilities, the estimated project trips for the temple expansion are reasonable for traffic analytical purposes.

### **Project Trip Distribution and Assignment**

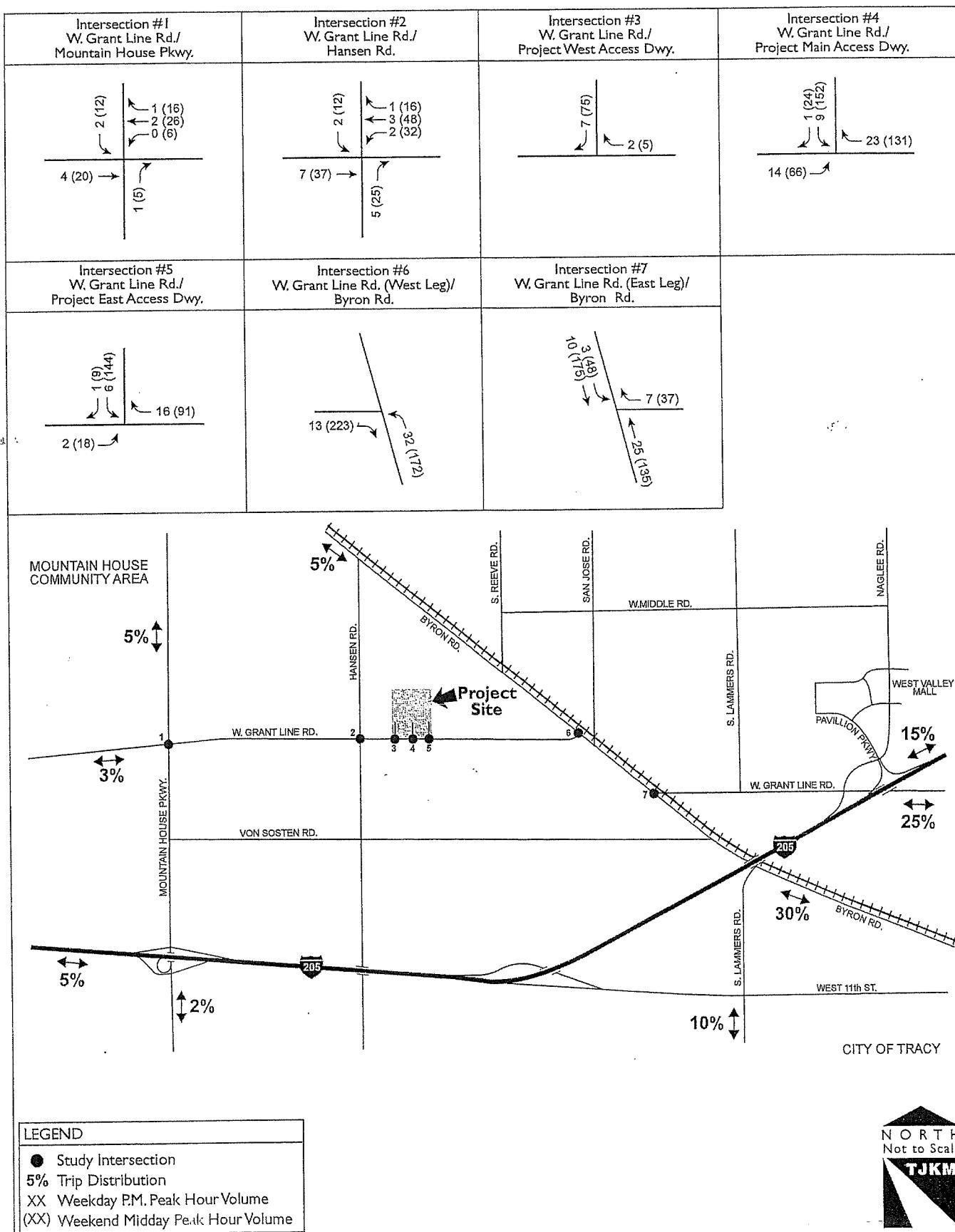
Trip distribution assumptions for the proposed project were developed based on existing travel patterns, knowledge of the study area and input from County staff. Traffic from the proposed project is expected to travel to and from the site according to the distribution assumptions shown on Figure 4 and described below:

- 5 percent will travel to/from the west via I-205
- 15 percent will travel to/from the east via I-205
- 2 percent will travel to/from the south via I-580 and Mountain House parkway
- 13 percent will travel to/from the west via W. Grant Line Road (originating from Mountain House Community and others to the northwest via Byron Road)
- 65 percent will travel to/from the east via W. Grant Line Road and Byron Road (City of Tracy)

The "Net New Project Trips" shown in Table III were assigned as shown on Figure 4 for each of the study intersections based on the above-mentioned assumptions. (At the west and east project access driveways, restricted traffic movements are assumed as described in the subsequent section on "Recommended Project Entrance Improvements.") Based on the trip distribution and the assignment assumptions, it is estimated that approximately 30 percent of the total project trips from the City of Tracy area are expected to use Byron Road to reach the project site. Similarly, about 10 percent of the total project trips are expected use S. Lammers Road.

San Joaquin County - Gurdwara Gur Nanak Parkash - Sikh Temple Traffic Study  
Proposed Project Trip Distribution and Assignment Assumptions

Figure  
4



## Existing plus Project Conditions

This Scenario is identical to the Existing Conditions, but with the addition of the “Net New Project Trips” to peak hour traffic volumes at the study intersections.

### Level of Service Analysis

Figure 5 illustrates the Existing plus Project turning movement volumes. At the west project access driveway, restricted traffic movements are assumed as described in the subsequent section on “Recommended Project Entrance Improvements.” The results of the LOS analysis are summarized in Table IV and detailed calculations are provided in Appendix D. With the addition of project trips, all of the study intersections are expected to continue to operate at acceptable levels of service (LOS D or better) except for Byron Road/W. Grant Line Road (east leg), where the Byron Road stop-controlled approach with the worst delay would operate at the same LOS F as Existing Conditions. Similar to Existing Conditions, the study intersection Byron Road/W. Grant Line Road (east leg) meets the peak hour volume signal warrant. It should be noted that this intersection meets the signal warrant in the baseline conditions and is expected to have signal installation in the near future based on the information provided by County staff. With signalization, this intersection would operate at LOS D or better during both the peak hours.

**Table IV: Intersection LOS – Existing plus Project Conditions**

No.	Intersection	Control	Weekday P.M. Peak Hour		Weekend Midday Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1.	W. Grant Line Road/Mountain House Parkway	Signalized	18.4	B	11.1	B
2.	W. Grant Line Road/Hansen Road	Two-way Stop	12.5	B	13.6	B
3.	W. Grant Line Road/West Project Access	One-way Stop	9.5	A	9.5	A
4.	W. Grant Line Road/Main Project Access	One-way Stop	11.4	B	14.8	B
5.	W. Grant Line Road/East Project Access	One-way Stop	10.8	B	16.7	C
6.	Byron Road/ W. Grant Line Road (west leg)	One-way Stop	12.2	B	22.5	C
7.	Byron Road/W. Grant Line Road (east leg)	Two-way Stop (Meets Signal Warrant)	>120.0	F	>120.0	F
		Signal	20.7	C	47.4	D

Note: Delay = Overall average intersection delay in seconds for Signalized intersections, or Minor street (worst approach) delay for One-way or Two-way Stop Control intersections; LOS = Level of Service

Based on the Synchro LOS result sheets, the southbound queues at the exit driveways – west access, main access, and east access - are approximately 20 feet, 50 feet, and 45 feet, respectively, during the weekend midday peak hour. The proposed site plan shows that there is adequate stacking distance at all three the access driveways. It should be noted that the main access driveway southbound left- and right-turn exit movements were assumed to have separate turn lanes and the LOS results reflect such lanes. However, even with a shared left- and right-turn exit lane at the main access, which might be necessitated with the limited driveway width shown on the site plan, the queue is not expected to exceed two car lengths, i.e., 50 feet, for the southbound movement, and the average delay would be approximately one second longer than shown in Table IV.

Table V shows the results of this analysis for the weekday p.m. peak bi-directional traffic volume of approximately 385 vehicles per hour and the weekend peak bi-directional traffic volume of approximately 738 vehicles per hour for the Existing plus Project Conditions. The results show that the segment would still operate acceptably at LOS B or better, which meets San Joaquin County standards. The detailed LOS sheets are provided at the end of Appendix D.

**Table V: Roadway Level of Service – Existing plus Project Conditions**

ID	Roadway	Segment	Existing				Existing + Project			
			Weekday P.M. Peak Hour		Weekend P.M. Peak Hour		Weekday P.M. Peak Hour		Weekend P.M. Peak Hour	
			V/C Ratio	LOS						
I.	W. Grant Line Road	East of Project Access	0.13	A	0.10	A	0.14	A	0.27	B

Note: The peak hour LOS analysis is based on HCM 2000 for Class II highways for rural areas using the latest version of Highway Capacity Software (HCS); V/C = Volume-to-Capacity

### **On-site Parking, Pedestrian, Bicycle and Transit Accessibility**

Based on the Parking Generation Manual (an ITE publication) rates for a religious facility (such as a church), an average peak period parking demand of 0.45 vehicles per attendee is expected. Thus, for an 800 member maximum people attendance, ITE Parking Generation manual expects a peak parking demand of 360 vehicle spaces. It should be noted that the manual does not have parking survey data for a Sikh temple or a Hindu temple.

Based on the *San Joaquin County Parking and Loading Manual*, a religious assembly land use requires 0.33 parking spaces per seat. Thus, for an 800 member attendance, the County requires the project applicant to provide a minimum of 264 parking spaces. In addition, per County requirements, a minimum of 8 accessible spaces should be provided for a parking lot with spaces in the range of 301 to 400 spaces.

The proposed project site plan shows 428 stalls in a parking lot that includes nine accessible parking spaces. Thus, the proposed site plan parking inventory appears to meet the minimum parking requirements.

In addition, based on the parking observations at the Fremont and the San Jose Sikh Temples and other religious land use sites, TJKM recommends that the project developer/applicant provide an overflow parking lot (which could be an unpaved dirt lot) to meet occasional high parking demand during its busiest season (such as important Sikh religious festivals etc).

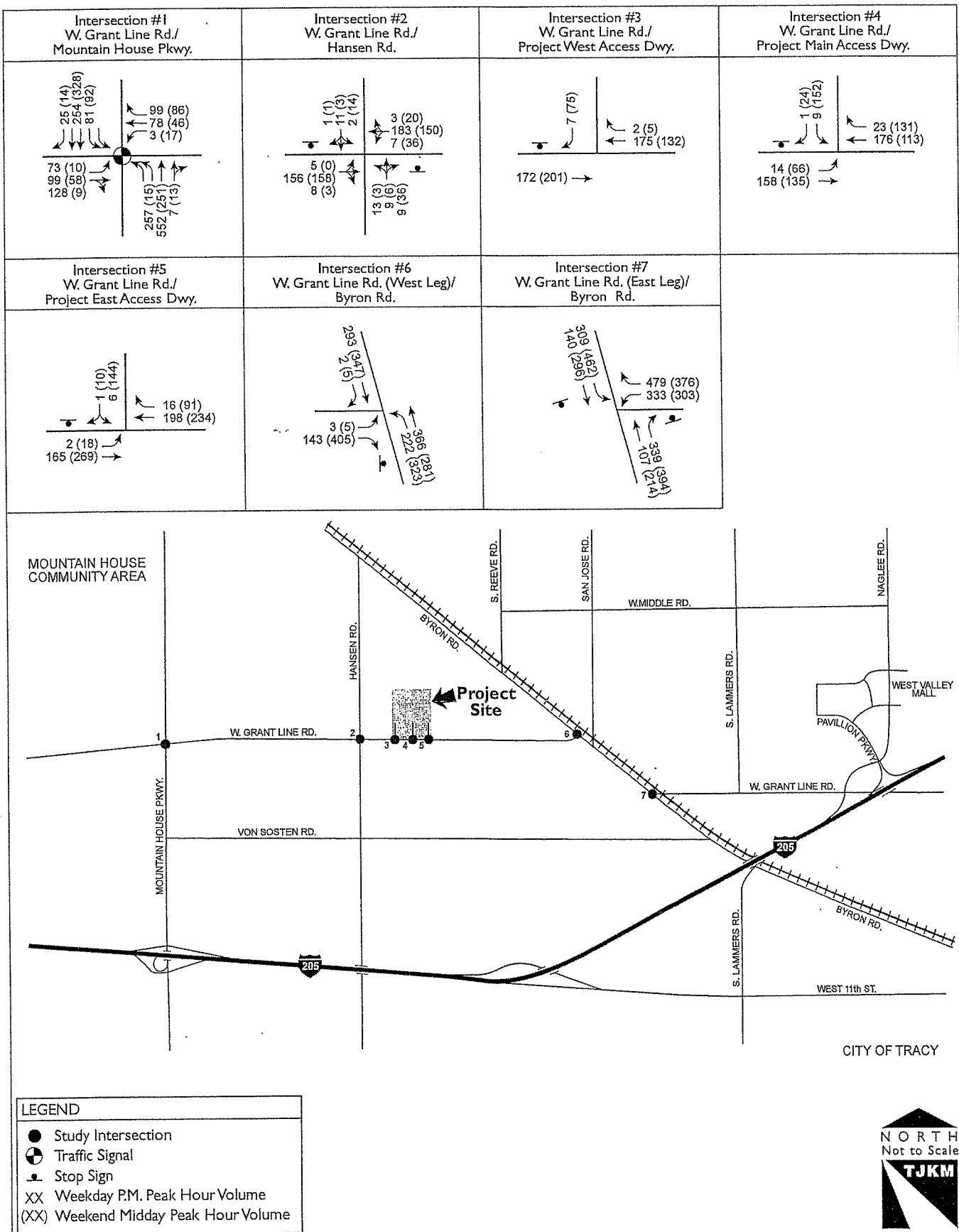
Currently, there are no sidewalks and bike lanes along W. Grant Line Road in the project vicinity. During the site visit, TJKM staff did not observe any pedestrian and bicycle activity near the project site. In addition, the roadways adjacent to the project site, such as W. Grant Line Road and Byron Road, are not currently served by any regularly scheduled public transit service.

### **Recommended Project Entrance Improvements**

Based on TJKM's field measurements, a driver exiting the Project Main Access that is centrally located has at least 700 feet of corner sight distance to the left and to the right. The posted speed limit on W. Grant Line Road is 55 miles per hour (mph) while the 85<sup>th</sup> percentile speed is approximately 60 miles per hour.

San Joaquin County - Gurdwara Gur Nanak Parkash - Sikh Temple Traffic Study  
Existing plus Project Conditions

Figure  
5

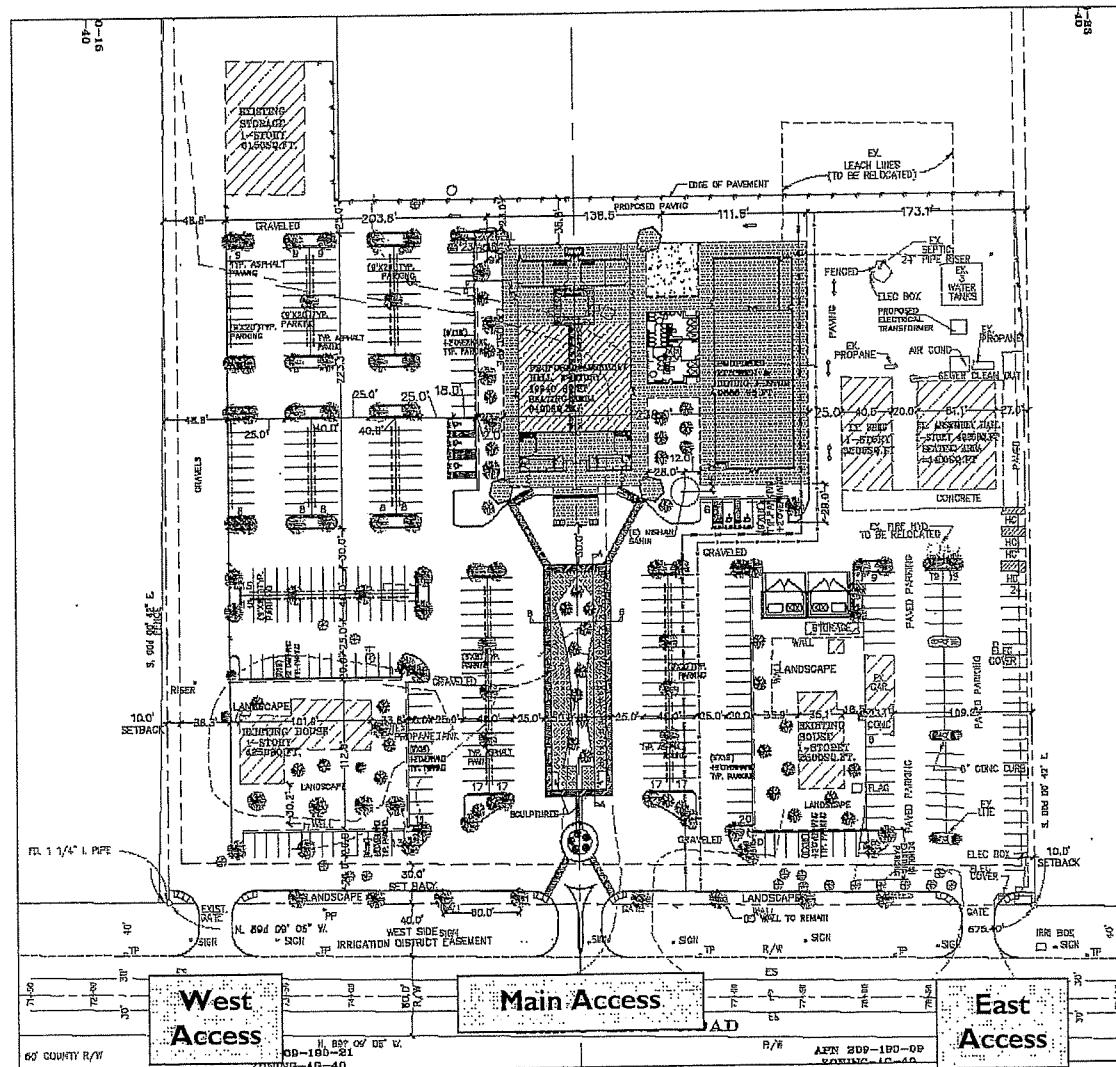


#### Corner sight distance standard:

Based on the Caltrans Highway Design Manual guidelines (Section 405.1), a minimum corner sight distance of 660 feet is required to accommodate drivers traveling on W. Grant Line Road at the 85<sup>th</sup>-percentile speed of 60 mph. This intersection corner sight distance value establishes one leg of the sight triangle. The leg of the stop-controlled road is determined by the assumed location of the driver's eye. This should be established 10 feet behind the nearest edge of pavement or curb line. The project driveways appear to have adequate sight distance greater than 660 feet to the east and west on W. Grant Line Road.

#### Left-turn and right-turn lanes and driveway access restrictions:

The posted speed limit on W. Grant Line Road in the vicinity of the project is 55 miles per hour (mph). TJKM conducted 24-hour machine counts on W. Grant Line Road near project site that measured volume, speed, and vehicle classification data, and the 85<sup>th</sup> percentile speed is 60 mph. The prevailing travel speed of the vehicles on the study roadway conforms to two-lane highway safety standards. The percentage of vehicles that are trucks on this segment of W. Grant Line Road is approximately 4.5 percent. The rural area around the project site is characterized by very sparse traffic-generating land use and low-volume driveways, a setting in which drivers may not expect the exception of the project's driveway turning movement volumes.



Based on these observed conditions, vehicles would frequently be slowing to low speed or stopping before turning at the project driveway while other vehicles (including trucks) approach the intersection at highway speeds. To prevent the potentially hazardous condition that would occur with the existing two-lane configuration, TJKM recommends the installation of separate left- and right-turn lanes and a two-way left-turn lane (TWLTL) as described below along the project access points on W. Grant Line Road:

- Eastbound left-turn lane on W. Grant Line Road approaching the project main access driveway entrance.
- A two-way left-turn lane (TWLTL) on W. Grant Line Road extending easterly from the project's main entrance and continuing easterly past the east entrance, to serve eastbound left turns approaching the east entrance, as well as to facilitate vehicles making southbound left-turns exiting the project driveways and merging into eastbound through traffic. Vehicles could utilize this TWLTL as a refuge lane to wait for gaps in the eastbound traffic to safely merge onto W. Grant Line Road.
- Westbound right-turn lanes are recommended along the entire project frontage between the east entrance and the project main entrance, and between the main entrance and the west entrance. Additionally, a westbound right-turn lane should be provided for at least 100 feet approaching the east entrance.
- To eliminate the potential vehicular conflicts between left-turn movements at the project west access and the eastbound left-turn movement at the project main access, the project west access is recommended to operate as right-in and right-out only access.

Figure 6 shows a not-to-scale illustration of conceptual project entrance recommendations.

#### Deceleration lane, acceleration lane, left-turn storage lane and bay taper lane lengths:

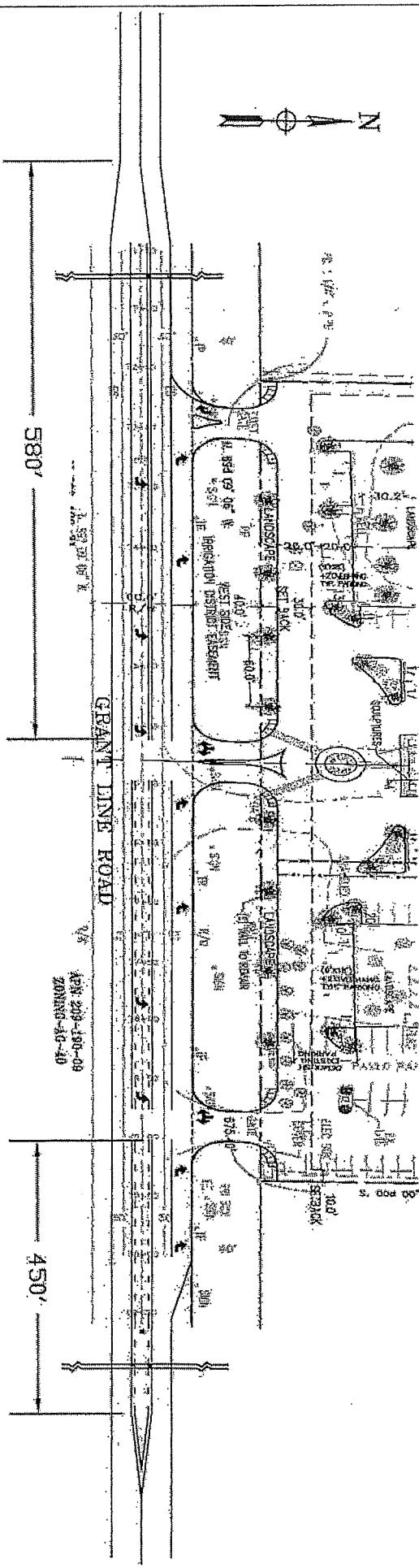
To conform with two-lane highway safety standards, TJKM used the Caltrans Highway Design Manual (Section 405.2) to determine the recommended deceleration lane for an eastbound left turn at a design speed of 60 mph. In addition, TJKM also referred to a TRR 1500 (*Transportation Research Record*) publication – **Lengths of Left-turn lanes at Unsignalized Intersections**. Based on an assumed critical gap value of 6.0 seconds and with the plus project traffic volumes, the adequate left-turn queue storage lane length at the project main entrance should be at least a two-vehicle length (50 feet). This lane length requirement is in addition to the required deceleration lane length.

The Caltrans standards for a left-turn lane with 60 mph through traffic speeds on a roadway like W. Grant Line Road are 530 feet of deceleration length and 120 feet of bay taper length, for a subtotal of 650 feet. However, under certain conditions, the deceleration length of 530 feet could be inclusive of the bay taper length. In addition to this subtotal, the queue storage length for turning vehicles must be accommodated. An eastbound left-turn lane length of 580 feet on W. Grant Line Road approaching the main project entry is recommended. Per Caltrans standards, the turn-lane length is based on the required deceleration and bay taper length subtotal (530 feet) plus the length of storage required for number of turning vehicles likely to arrive in an average two-minute period during the peak hour. During the weekend midday peak hour, approximately two vehicles are expected to make the eastbound left-turn in an average two-minute period, which equates to approximately 50 feet of queue storage length.

Additionally, the recommended two-way left-turn lane (TWLTL) on W. Grant Line Road should extend approximately 450 feet easterly of the east access driveway to facilitate vehicles making southbound left-turns exiting the project driveways and merging into eastbound through traffic.

San Joaquin County - Gurdwara Gur Nanak Parkash -Sikh Temple Traffic Study  
Conceptual Project Entrance Recommendations

Figure  
6



Notes:

\*Not to scale

\*FOR REVIEW PURPOSES ONLY - NOT FOR CONSTRUCTION

## Conclusions

TJKM has reached the following conclusions regarding the proposed expansion of Gurdwara Gur Nanak Parkash in the San Joaquin County:

- TJKM estimated trip generation rates for the proposed project based on driveway counts conducted during a regular weekday p.m. peak period and a weekend midday peak period at the existing facility and other traffic observations made at representative study sites.
- The facility seeks to increase the maximum attendance permit from the existing 170 person limit to allow for up to 800 people at the assembly hall. Applying the percentage increase in maximum attendance to the driveway counts, 57 inbound and 24 outbound trips are expected during a weekday p.m. peak hour and 311 inbound and 405 outbound trips are expected during a weekend midday peak hour with the project.
- TJKM staff observed that the majority of the vehicles that arrived at the project site for the event carried more than two persons each.
- Currently, all study intersections operate at acceptable levels of service during both the weekday and weekend peak hour conditions, except for the Byron Road/W. Grant Line Road (east leg) intersection, where the Byron Road stop-controlled approach with the worst delay operates at LOS F. This intersection currently meets the peak hour volume signal warrant, and is expected to be signalized in the near future based on the information provided by County staff. With signalization, this intersection would operate at LOS C during peak hours.
- The study intersections are expected to continue to operate at acceptable levels of service for Existing plus Project Conditions during both the weekday and weekend peak hours, except for the Byron Road/W. Grant Line Road (east leg) intersection, where the Byron Road stop-controlled approach with the worst delay would operate at the same LOS F as Existing Conditions. Similar to Existing Conditions, this study intersection meets the peak hour volume signal warrant. This intersection is expected to have a signal installed in the near future based on the information provided by County staff. With signalization, this intersection would operate at LOS C during peak hours.
- Based on the roadway segment analysis of peak hour volumes on W. Grant Line Road, there is sufficient roadway capacity to accommodate the proposed project trips.

## Recommendations

TJKM has reached the following recommendations regarding the proposed expansion of the Sikh Temple in the San Joaquin County:

- An eastbound left-turn lane length of 580 feet on W. Grant Line Road approaching the main project entry is recommended. Per Caltrans standards, the turn-lane length is based on the required deceleration and bay taper length subtotal (530 feet) plus the length of storage required for number of turning vehicles likely to arrive in an average two-minute period during the peak hour. During the weekend midday peak hour, approximately two vehicles are expected to make the eastbound left-turn in an average two-minute period, which equates to approximately 50 feet of queue storage length.
- A two-way left-turn lane (TWLTL) on W. Grant Line Road extending easterly from the project's main entrance and continuing 450 feet easterly from the east entrance is recommended to serve eastbound left turns approaching the east entrance, as well as to facilitate vehicles making southbound left-turns exiting the project driveways and merging into eastbound through traffic. Vehicles could utilize this TWLTL as a refuge lane to wait

for gaps in the eastbound traffic to safely merge onto W. Grant Line Road. Westbound right-turn lanes are recommended along the entire project frontage between the east entrance and the project main entrance, and between the main entrance and the west entrance. Additionally, a westbound right-turn lane should be provided for at least 100 feet approaching the east entrance.

- To eliminate the potential vehicular conflicts between left-turn movements at the project west access and the eastbound left-turn movement at the project main access, the project west access is recommended to operate as right-in and right-out only access.
- TJKM recommends that the project developer provide an overflow parking lot (which could be an unpaved dirt lot) to meet occasional high parking demand during its busiest season (such as important Sikh religious festivals etc).

## Study Participants and References

### TJKM Personnel

Rich Haygood, P.E., T.E.  
Vishnu Gndluru  
Dan Harrison  
Cindy DeRouchey

Project Manager  
Project Engineer  
Graphic Designer  
Word Processor

### Others

Jeffrey Levers  
Firoz Vohra  
Megan Aguirre

San Joaquin County  
San Joaquin County  
San Joaquin County

### References

- *ITE Trip Generation Manual, 8<sup>th</sup> Edition, 2008*
- *San Joaquin County Traffic Impact Study Guidelines – November 2008*
- *California Manual of Uniform Traffic Control Devices (MUTCD) for Streets and Highways (FHWA's MUTCD 2003 edition as amended for use in California)*
- *Geometric Design of Highways and Street (Green Book) – 2004 edition by American Association of State Highways and Transportation Officials (AASHTO)*

## Appendix A – Level of Service Analysis Methodology

## **DESCRIPTION OF SIGNALIZED INTERSECTION CAPACITY ANALYSIS**

**Updated 2000 HCM METHOD**

### **Background**

The operations method of intersection capacity analysis found in Chapter 16, "Signalized Intersections," of the *Highway Capacity Manual 2000*, Transportation Research Board, was used for this study. This method is used in most analyses of existing conditions or of future situations in which traffic, geometric, and control parameters were well established by projections and trial designs.

This method addresses the capacity and level of service of intersection approaches, and the level of service of the intersection as a whole. In this method, capacity and level of service are evaluated separately, and are not related to each other in a simple one-to-one fashion. Capacity is evaluated in terms of the ratio of demand flow rate to capacity (volume-to-capacity ratio), while level of service is evaluated on the basis of control delay per vehicle (sec/veh).

The capacity of the intersection as a whole is not addressed by this method; the design and signalization of intersections focuses on the accommodation of the major movements and approaches comprising the intersection. Capacity is, therefore, only meaningful as applied to these major movements and approaches. Capacity analysis results in the computation of volume-to-capacity ratios for individual movements and a composite volume-to-capacity ratio for the sum of critical movements or lane groups within the intersection. The volume-to-capacity ratio is the actual or projected rate of flow on an approach or designated group of lanes during a peak 15-minute interval divided by the capacity of the approach or designated group of lanes.

### **Level of Service**

Level of service is based on the control delay per vehicle for various movements within the intersection. While volume-to-capacity affects delay, there are other parameters that more strongly affect it, such as the quality of progression, length of green phases, cycle lengths, and others. Thus for any given volume-to-capacity ratio, a range of delay values may result, and vice-versa. See the table "Level of Service Criteria for Signalized Intersections" for the relationship between the level of service and stopped delay per vehicle.

Because delay is a complex measure, its relationship to capacity is also complex. It is possible, for example, to have delays in the range of Level of Service F while the volume-to-capacity ratios is below 1.00, perhaps as slow as 0.75-0.85. Very high delays can occur at such volume-to-capacity ratios when some combination of the following conditions exists: the cycle length is long; the lane group in question has a long red time; and/or the signal progression for the subject movement is poor.

The reverse is also possible. A saturated approach or lane group with a volume-to-capacity equal to 1.00 may have low delays if the cycle length is short, and/or the signal progression is favorable for the subject movement. Acceptable delay levels do not automatically ensure that capacity is sufficient. The analysis must consider the results of the capacity analysis module and the level of service module to obtain a complete picture of existing or projected intersection operations.

**Table A-1: Level of Service Criteria for Signalized Intersections**

Level of Service	Type of Flow	Delay	Maneuverability	Control Delay/ Vehicle (s/veh)
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase and not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	$\leq 10.0$
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	$> 10-20$
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	$> 20-35$
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result in 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.	Maneuverability is severely limited during short periods due to temporary back ups.	$> 35-55$
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	$> 55-80$
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with oversaturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	$> 80$

References:      *Highway Capacity Manual, Special Report No. 209*, Transportation Research Board, 2000.  
*Highway Capacity Manual, Special Report No. 87*, Highway Research Board, 1965.  
TJKM.

1. Right turns from the minor street
2. Left turns from the major street
3. Through movements from the minor street
4. Left turns from the minor street

For example, if a left-turning vehicle on the major street and a through vehicle from the minor street are waiting to cross the major traffic stream, the first available gap of acceptable size would be taken by the left-turning vehicle. The minor street through vehicle must wait for the second available gap. In aggregate terms, a large number of such left-turning vehicles could use up so many of the available gaps that minor street through vehicles are severely impeded or unable to make safe crossing movements.

#### **Level of Service**

See the following table "Level of Service Criteria for Unsignalized Intersections" for the relationship between delay and level of service.

**LEVEL OF SERVICE CRITERIA  
FOR UNSIGNALIZED INTERSECTIONS**

<b>Control Delay (s/veh)</b>	<b>Level of Service</b>	<b>Delays</b>
0-10	A	Little or no delay
> 10-15 s/veh	B	Short traffic delays
> 15-25 s/veh	C	Average traffic delays
> 25-35 s/veh	D	Long traffic delays
>35-50 s/veh	E	Very long traffic delays
> 50 s/veh	F	Extreme traffic delay

The level of service criteria for Two-Way STOP controlled intersections is somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this is the difference that drivers expect a signalized intersection to carry higher traffic volumes than unsignalized intersections. Additionally, several driver behavior conditions combine to make delays at signalized intersections less onerous than at unsignalized intersections.

Reference: *Highway Capacity Manual, Special Report 209*, Transportation Research Board, Update October 2000.

## Appendix B – Raw Traffic Data

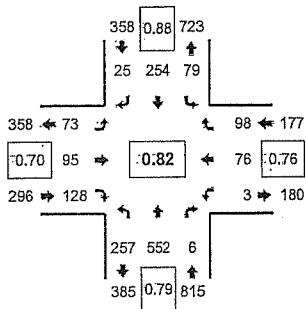


Type of peak hour being reported: Intersection Peak

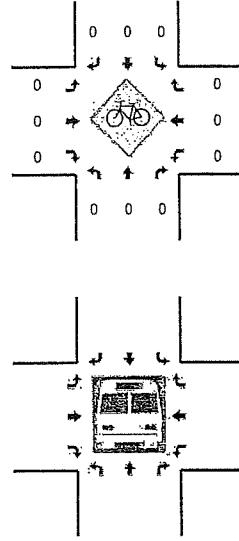
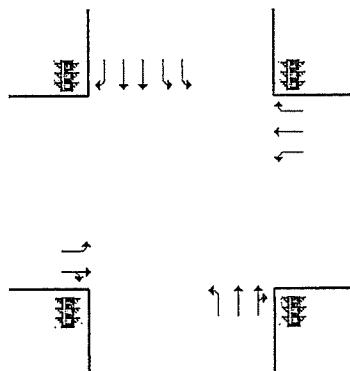
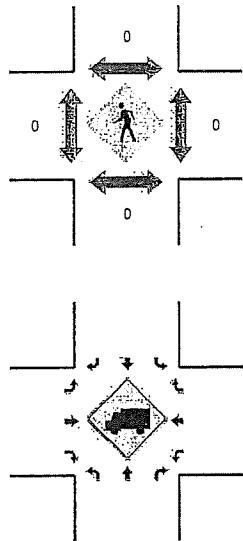
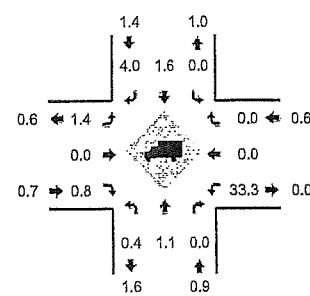
Method for determining peak hour: Total Entering Volume

**LOCATION:** Mountain House Pkwy -- W Grant Line Rd  
**CITY/STATE:** Tracy, CA

QC JOB #: 10581801  
DATE: 2/15/2011



**Peak-Hour: 5:40 PM -- 6:40 PM**  
**Peak 15-Min: 6:10 PM -- 6:25 PM**



5-Min Count Period Beginning At	Mountain House Pkwy (Northbound)				Mountain House Pkwy (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
5:00 PM	9	23	1	0	6	18	0	0	12	11	3	0	0	4	6	0	93	1140
5:05 PM	3	40	1	0	2	15	0	0	4	12	2	0	0	3	6	0	88	1145
5:10 PM	10	43	0	0	6	16	0	0	4	2	6	0	2	3	6	0	98	1148
5:15 PM	15	47	0	0	8	24	0	0	2	4	2	0	1	3	5	0	111	1171
5:20 PM	7	49	1	0	4	25	2	0	8	7	4	0	1	2	5	0	115	1211
5:25 PM	10	45	2	0	4	25	0	0	11	6	6	0	0	7	9	0	125	1257
5:30 PM	9	38	0	0	5	21	1	0	5	10	4	0	0	5	10	0	108	1261
5:35 PM	7	51	1	0	2	25	2	0	6	8	3	0	1	6	7	0	119	1280
5:40 PM	8	47	0	0	4	32	3	0	3	3	2	0	0	4	7	0	113	1284
5:45 PM	15	51	1	0	10	17	1	0	7	5	7	0	1	7	7	0	129	1292
5:50 PM	16	43	2	0	9	29	1	0	5	3	4	0	1	4	8	0	125	1331
5:55 PM	17	38	1	0	4	20	1	0	9	11	1	0	1	10	12	0	125	1349
6:00 PM	28	36	0	0	9	16	3	0	8	3	4	0	0	7	8	0	122	1378
6:05 PM	21	50	1	0	2	26	2	0	7	3	5	0	0	6	11	0	134	1424
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6:15 PM	44	48	0	0	7	22	3	0	1	7	10	0	0	13	8	0	163	1553
6:20 PM	41	48	0	0	4	20	2	0	3	14	25	0	0	4	5	0	166	1604
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6:45 PM	0	43	1	0	6	19	0	0	1	5	9	0	0	1	7	0	92	1591
6:50 PM	2	50	0	0	2	19	0	0	1	11	16	0	0	2	6	0	109	1575
6:55 PM	5	47	0	0	4	12	2	0	4	12	13	0	0	2	6	0	107	1557
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	468	572	4	0	80	252	44	0	52	124	196	0	0	116	108	0	2016	
Heavy Trucks	0	8	0	0	0	4	0	0	4	0	0	0	0	0	0	0	16	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:55 AM

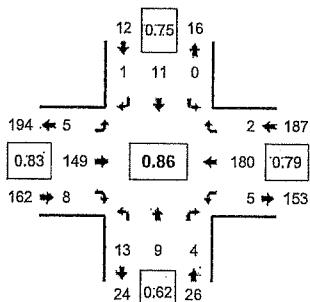
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Type of peak hour being reported: Intersection Peak

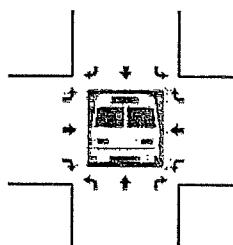
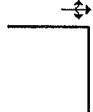
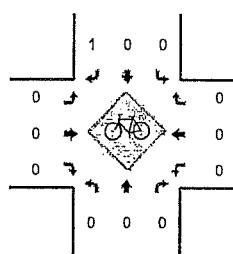
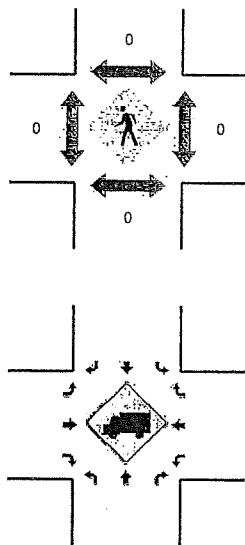
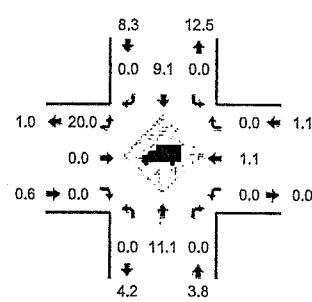
Method for determining peak hour: Total Entering Volume

**LOCATION:** Hansen Rd -- W Grant Line Rd  
**CITY/STATE:** Tracy, CA

QC JOB #: 10581803  
DATE: 2/15/2011



**Peak-Hour: 5:25 PM -- 6:25 PM**  
**Peak 15-Min: 6:05 PM -- 6:20 PM**



5-Min Count Period Beginning At	Hansen Rd (Northbound)				Hansen Rd (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:55 PM	0	1	1	0	0	0	0	0	0	21	2	0	1	1	0	0	27	325
5:00 PM	0	2	0	0	0	0	0	0	0	16	2	0	0	11	0	0	31	330
5:05 PM	0	0	0	0	0	0	2	1	0	11	0	0	0	8	0	0	23	329
5:10 PM	0	1	0	0	0	0	0	2	0	8	2	0	0	11	0	0	26	334
5:15 PM	1	2	0	0	0	1	0	0	0	8	0	0	0	7	0	0	19	330
5:20 PM	0	0	0	0	0	1	1	0	0	11	1	0	2	7	0	0	23	327
5:25 PM	1	0	1	0	0	4	0	0	2	9	0	0	2	15	1	0	35	340
5:30 PM	0	0	0	0	0	0	0	0	0	15	2	0	0	15	0	0	32	343
5:35 PM	0	3	0	0	0	1	1	0	0	10	1	0	1	15	0	0	32	344
5:40 PM	1	2	0	0	0	2	0	0	0	7	2	0	1	10	0	0	25	337
5:45 PM	1.	2	1	0	0	1	0	0	1	8	0	0	0	12	0	0	26	329
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6:00 PM	2	0	0	0	0	0	0	0	0	11	0	0	0	19	0	0	26	341
6:05 PM	1	0	1	0	0	1	0	0	0	9	0	0	0	18	0	0	30	348
6:10 PM	2	0	0	0	0	0	0	0	0	16	0	0	0	22	0	0	40	362
6:15 PM	3	0	0	0	0	1	0	0	0	18	0	0	0	20	0	0	42	385
6:20 PM	0	1	0	0	0	1	0	0	1	14	2	0	0	6	0	0	25	387
6:25 PM	2	0	0	0	0	0	0	0	0	23	1	0	0	7	0	0	33	385
6:30 PM	0	0	0	0	0	1	0	0	0	18	0	0	0	7	0	0	26	379
6:35 PM	0	1	0	0	0	1	0	0	0	13	1	0	1	12	1	0	30	377
6:40 PM	1	0	0	0	0	0	0	0	0	7	1	0	0	5	0	0	14	366
6:45 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	8	0	0	19	359
6:50 PM	0	0	0	0	0	1	0	0	0	14	2	0	0	7	0	0	24	346
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	0	4	0	0	8	0	0	0	172	0	0	0	240	0	0	448	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

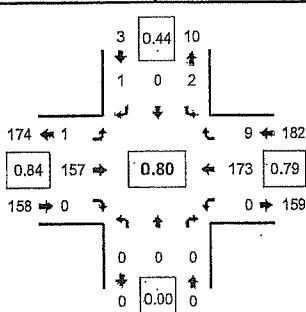
Comments:

Type of peak hour being reported: Intersection Peak

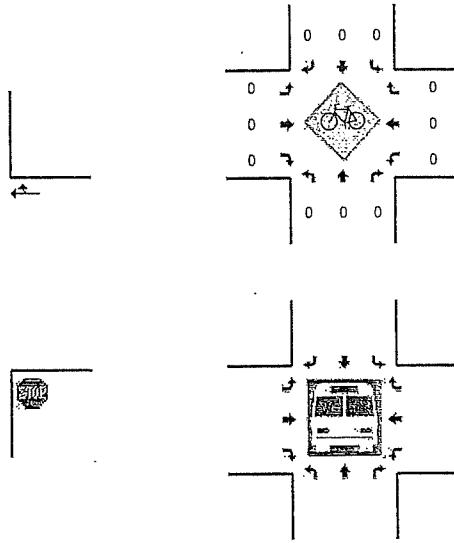
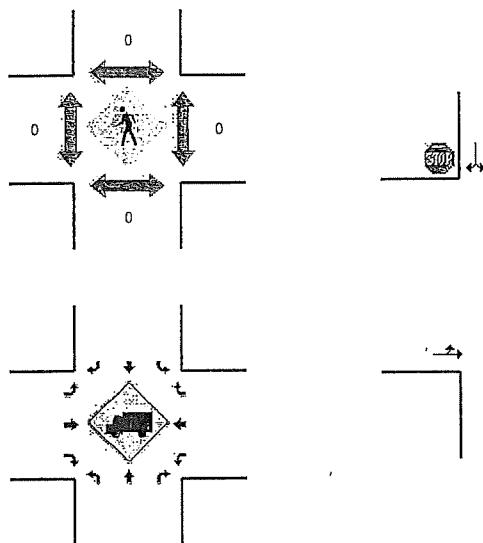
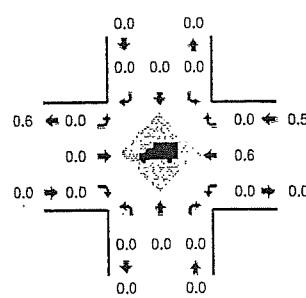
Method for determining peak hour: Total Entering Volume

**LOCATION:** Project Access East Dwy -- W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581805  
**DATE:** 2/15/2011



**Peak-Hour: 5:30 PM -- 6:30 PM**  
**Peak 15-Min: 6:05 PM -- 6:20 PM**



5-Min Count Period Beginning At	Project Access East Dwy (Northbound)				Project Access East Dwy (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
5:00 PM	0	0	0	0	1	0	0	0	0	18	0	0	0	0	9	0	0	274
5:05 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	0	7	0	0	271
5:10 PM	0	0	0	0	1	0	0	0	0	8	0	0	0	0	11	2	0	273
5:15 PM	0	0	0	0	1	0	0	0	0	7	0	0	0	0	9	1	0	267
5:20 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	0	11	0	0	270
5:25 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	0	15	0	0	281
5:30 PM	0	0	0	0	1	0	0	0	0	15	0	0	0	0	15	1	0	290
5:35 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	0	18	0	0	288
5:40 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	1	0	282
5:45 PM	0	0	0	0	0	0	0	0	0	1	7	0	0	0	12	0	0	278
5:50 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	0	15	2	0	281
5:55 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	0	20	1	0	296
6:00 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	13	0	0	292
6:05 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	17	1	0	302
6:10 PM	0	0	0	0	1	0	0	0	0	14	0	0	0	0	24	0	0	319
6:15 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	0	18	1	0	340
6:20 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	0	6	1	0	340
6:25 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	0	7	1	0	343
6:30 PM	0	0	0	0	2	0	0	0	0	17	0	0	0	0	7	1	0	338
6:35 PM	0	0	0	0	0	0	2	0	0	10	0	0	0	0	12	0	0	336
6:40 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	7	0	0	337
6:45 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	7	0	0	335
6:50 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	8	1	0	324
6:55 PM	0	0	0	0	2	0	0	0	0	16	0	0	0	0	5	1	0	311
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	4	0	0	0	0	180	0	0	0	0	236	-8	0	428
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:55 AM

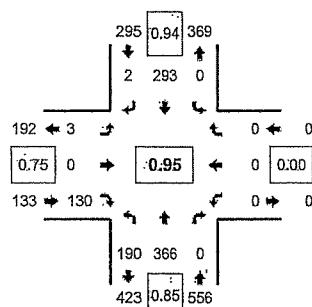
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: Intersection Peak

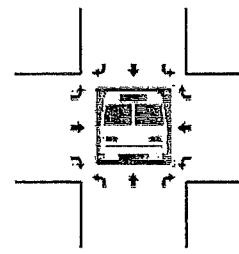
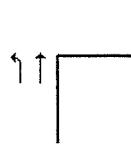
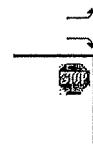
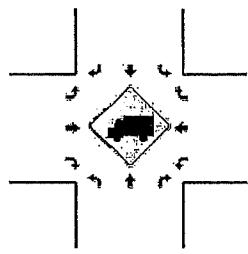
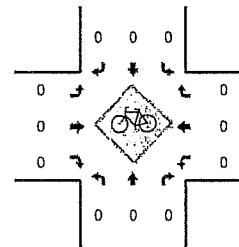
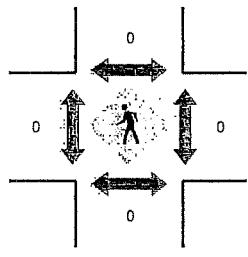
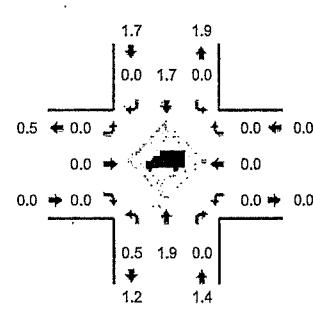
Method for determining peak hour: Total Entering Volume

**LOCATION:** Byron Rd – W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581807  
**DATE:** 2/15/2011



**Peak-Hour: 5:15 PM -- 6:15 PM**  
**Peak 15-Min: 5:15 PM -- 5:30 PM**



5-Min Count Period Beginning At	Byron Rd (Northbound)				Byron Rd (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	12	28	0	0	0	33	0	0	3	0	12	0	0	0	0	0	88	918
4:50 PM	8	31	0	0	0	28	0	0	0	0	11	0	0	0	0	0	78	917
4:55 PM	10	28	0	0	0	25	0	0	1	0	16	0	0	0	0	0	80	913
5:00 PM	8	28	0	0	0	19	0	0	0	0	19	0	0	0	0	0	74	905
5:05 PM	10	27	0	0	0	25	0	0	0	0	12	0	0	0	0	0	74	901
5:10 PM	12	34	0	0	0	23	1	0	0	0	12	0	0	0	0	0	82	929
5:15 PM	10	38	0	0	0	29	0	0	0	0	8	0	0	0	0	0	85	934
5:20 PM	9	35	0	0	0	36	1	0	0	0	9	0	0	0	0	0	90	955
5:25 PM	18	35	0	0	0	20	1	0	1	0	10	0	0	0	0	0	85	967
5:30 PM	15	34	0	0	0	20	0	0	0	0	15	0	0	0	0	0	84	979
5:35 PM	12	22	0	0	0	29	0	0	1	0	7	0	0	0	0	0	71	960
5:40 PM	11	26	0	0	0	23	0	0	0	0	10	0	0	0	0	0	70	961
5:45 PM	12	33	0	0	0	34	0	0	0	0	4	0	0	0	0	0	83	956
5:50 PM	16	28	0	0	0	20	0	0	0	0	15	0	0	0	0	0	79	957
5:55 PM	22	17	0	0	0	34	0	0	0	0	16	0	0	0	0	0	89	966
6:00 PM	17	34	0	0	0	18	0	0	0	0	9	0	0	0	0	0	78	970
6:05 PM	19	38	0	0	0	16	0	0	1	0	12	0	0	0	0	0	86	982
6:10 PM	29	26	0	0	0	14	0	0	0	0	15	0	0	0	0	0	84	984
6:15 PM	13	27	0	0	0	25	0	0	0	0	18	0	0	0	0	0	83	982
6:20 PM	7	28	0	0	0	15	1	0	0	0	12	0	0	0	0	0	63	955
6:25 PM	9	18	0	0	0	20	0	0	1	0	21	0	0	0	0	0	69	939
6:30 PM	8	33	0	0	0	24	0	0	0	0	25	0	0	0	0	0	90	945
6:35 PM	10	23	0	0	0	24	0	0	0	0	12	0	0	0	0	0	69	943
6:40 PM	9	24	0	0	0	22	0	0	1	0	10	0	0	0	0	0	66	939
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	148	432	0	0	0	340	8	0	4	0	108	0	0	0	0	0	1040	
Heavy Trucks	4	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

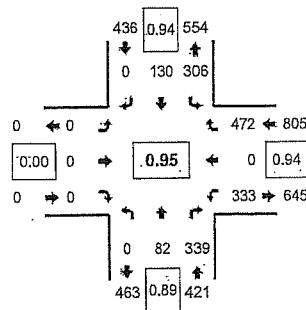
Comments:

Type of peak hour being reported: Intersection Peak

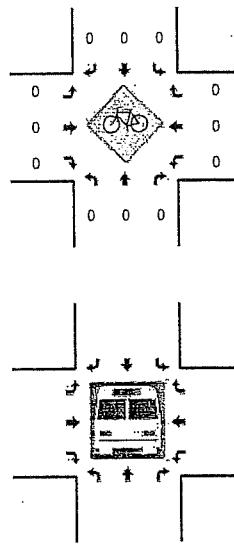
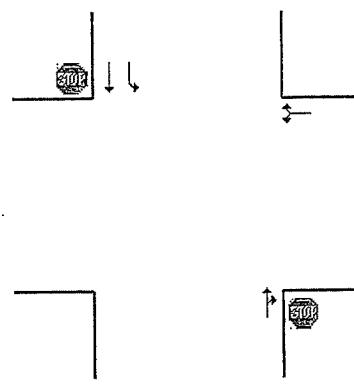
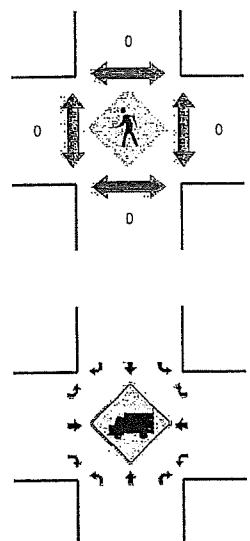
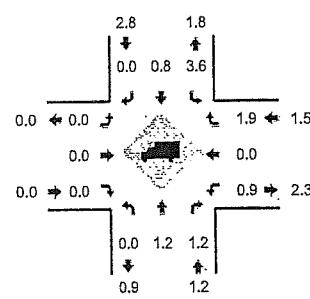
Method for determining peak hour: Total Entering Volume

**LOCATION:** Byron Rd – E Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581809  
**DATE:** 2/15/2011



**Peak-Hour: 5:10 PM -- 6:10 PM**  
**Peak 15-Min: 5:25 PM -- 5:40 PM**



5-Min Count Period Beginning At	Byron Rd (Northbound)				Byron Rd (Southbound)				E Grant Line Rd (Eastbound)				E Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:40 PM	0	3	36	0	34	12	0	0	0	0	0	0	30	0	26	0	141	
4:45 PM	0	7	37	0	33	12	0	0	0	0	0	0	17	0	35	0	141	
4:50 PM	0	12	19	0	26	8	0	0	0	0	0	0	31	0	28	0	124	
4:55 PM	0	8	21	0	35	4	0	0	0	0	0	0	25	0	31	0	124	1501
5:00 PM	0	9	27	0	34	10	0	0	0	0	0	0	24	0	30	0	134	1518
5:05 PM	0	4	22	0	24	11	0	0	0	0	0	0	31	0	27	0	119	1536
5:10 PM	30	7	38	0	27	14	0	0	0	0	0	0	31	0	39	0	156	1570
5:15 PM	0	7	22	0	24	11	0	0	0	0	0	0	31	0	41	0	136	1579
5:20 PM	0	6	22	0	30	9	0	0	0	0	0	0	25	0	43	0	135	1596
5:25 PM	0	14	29	0	24	11	0	30	0	0	0	0	34	0	41	0	163	1622
5:30 PM	0	8	29	0	25	10	0	0	0	0	0	0	26	0	41	0	139	1626
5:35 PM	0	12	38	0	29	16	0	0	0	0	0	0	29	0	51	0	145	1647
5:40 PM	0	6	21	0	26	7	0	0	0	0	0	0	25	0	30	0	115	1621
5:45 PM	0	4	34	0	17	11	0	0	0	0	0	0	30	0	38	0	134	1614
5:50 PM	0	5	29	0	31	8	0	0	0	0	0	0	26	0	40	0	139	1629
5:55 PM	0	7	28	0	35	13	0	0	0	0	0	0	21	0	34	0	138	1643
6:00 PM	0	11	30	0	21	12	0	0	0	0	0	0	24	0	37	0	135	1644
6:05 PM	0	5	19	0	17	8	0	0	0	0	0	0	31	0	57	0	137	1662
6:10 PM	0	10	23	0	21	9	0	0	0	0	0	0	32	0	34	0	129	1635
6:15 PM	0	6	34	0	30	13	0	0	0	0	0	0	38	0	30	0	151	1650
6:20 PM	0	9	24	0	27	9	0	0	0	0	0	0	30	0	32	0	131	1646
6:25 PM	0	1	20	0	29	11	0	0	0	0	0	0	22	0	29	0	112	1605
6:30 PM	0	5	25	0	29	11	0	0	0	0	0	0	26	0	36	0	132	1598
6:35 PM	0	6	28	0	34	9	0	0	0	0	0	0	23	0	23	0	123	1576
<b>Peak 15-Min Flowrates</b>	Northbound				Southbound				Eastbound				Westbound				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	.96	.384	0	312	148	0	0	0	0	0	0	356	0	452	0	1748	
Heavy Trucks	0	0	8	0	24	0	0	0	0	0	0	0	0	0	0	0	32	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:55 AM

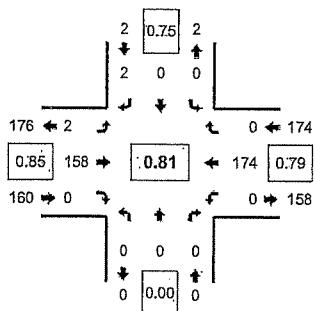
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: Intersection Peak

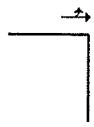
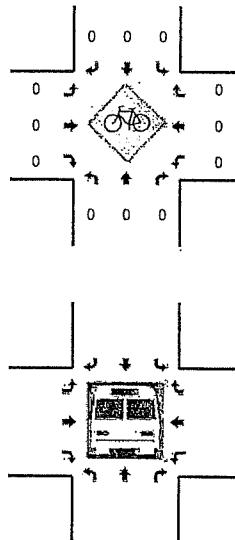
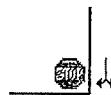
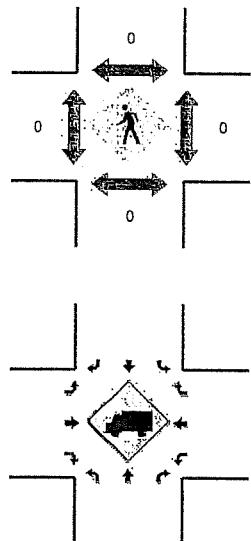
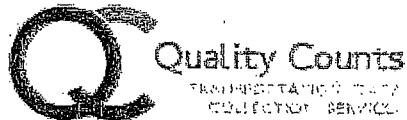
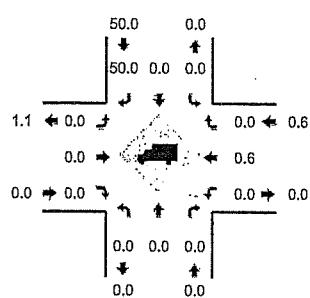
Method for determining peak hour: Total Entering Volume

**LOCATION:** Project Access West Dwy – W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581812  
**DATE:** 2/15/2011



**Peak-Hour: 5:30 PM -- 6:30 PM**  
**Peak 15-Min: 6:05 PM -- 6:20 PM**



5-Min Count Period Beginning At	Project Access West Dwy (Northbound)				Project Access West Dwy (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
5:00 PM	0	0	0	0	1	0	0	0	0	18	0	0	0	9	0	0	28	268
5:05 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	7	0	0	19	267
5:10 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	11	0	0	19	265
5:15 PM	0	0	0	0	1	0	0	0	0	6	0	0	0	9	0	0	16	260
5:20 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	11	0	0	21	264
5:25 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	15	0	0	25	274
5:30 PM	0	0	0	0	0	0	0	0	1	15	0	0	0	15	0	0	31	282
5:35 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	18	0	0	26	280
5:40 PM	0	0	0	0	0	0	0	1	0	8	0	0	0	8	0	0	17	274
5:45 PM	0	0	0	0	0	0	0	1	0	8	0	0	0	12	0	0	21	270
5:50 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	15	0	0	29	273
5:55 PM	0	0	0	0	0	0	0	0	1	15	0	0	0	21	0	0	37	289
6:00 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	13	0	0	24	285
6:05 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	17	0	0	28	294
6:10 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	24	0	0	38	313
6:15 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	18	0	0	38	335
6:20 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	6	0	0	20	334
6:25 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	7	0	0	27	336
6:30 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	7	0	0	24	329
6:35 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	14	0	0	24	327
6:40 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	7	0	0	18	328
6:45 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	7	0	0	18	325
6:50 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	8	0	0	19	315
6:55 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	5	0	0	21	299
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	0	0	0	0	0	0	0	180	0	0	0	236	0	0	416	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:55 AM

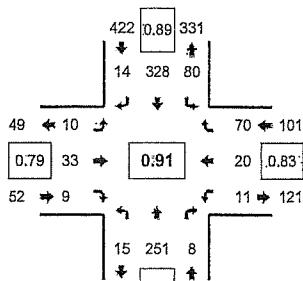
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: Intersection Peak

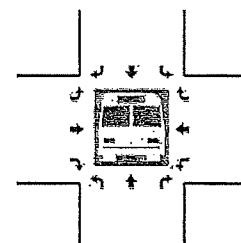
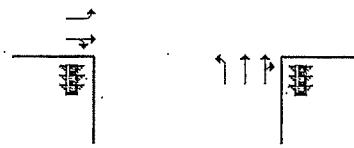
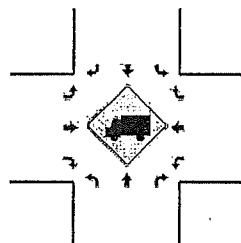
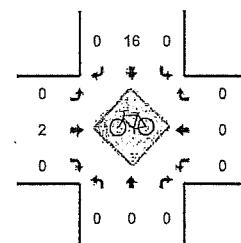
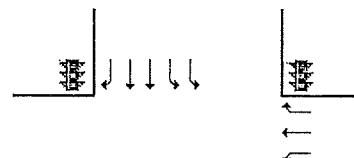
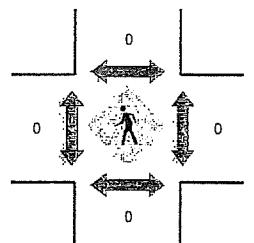
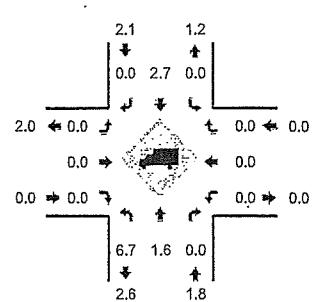
Method for determining peak hour: Total Entering Volume

**LOCATION:** Mountain House Pkwy -- W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581802  
**DATE:** 2/13/2011



**Peak-Hour: 12:35 PM -- 1:35 PM**  
**Peak 15-Min: 12:35 PM -- 12:50 PM**



5-Min Count Period Beginning At	Mountain House Pkwy (Northbound)				Mountain House Pkwy (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
12:00 PM	1	16	1	0	2	28	1	0	1	6	2	0	1	2	5	0	66	731	
12:05 PM	0	15	2	0	4	24	0	0	2	0	0	0	1	2	5	0	55	719	
12:10 PM	1	20	1	0	6	24	3	0	1	1	0	0	0	0	3	0	60	728	
12:15 PM	0	14	0	0	9	23	0	0	0	2	2	0	0	0	0	6	0	56	716
12:20 PM	0	20	2	0	6	17	4	0	0	3	0	0	0	3	7	0	62	723	
12:25 PM	0	21	1	0	7	28	3	0	1	3	0	0	2	2	4	0	72	732	
12:30 PM	0	14	2	0	8	17	0	0	1	3	1	0	1	2	4	0	53	721	
12:35 PM	1	19	2	0	10	34	1	0	3	5	1	0	1	1	6	0	82	748	
12:40 PM	1	20	1	0	5	34	0	0	0	4	0	0	0	2	6	0	73	754	
12:45 PM	1	18	1	0	8	27	2	0	2	2	1	0	0	4	11	0	77	770	
12:50 PM	0	26	1	0	7	18	1	0	0	1	0	0	2	1	4	0	61	770	
12:55 PM	0	21	0	0	10	37	4	0	0	2	1	0	1	1	5	0	82	799	
1:00 PM	2	28	0	0	2	30	0	0	1	4	1	0	2	1	6	0	77	810	
1:05 PM	3	13	0	0	6	11	2	0	0	1	0	0	1	1	7	0	45	800	
1:10 PM	0	15	0	0	2	34	1	0	0	2	1	0	0	2	7	0	64	804	
1:15 PM	2	13	0	0	7	43	0	0	1	3	1	0	0	1	4	0	75	823	
1:20 PM	2	23	0	0	13	19	0	0	1	5	2	0	0	2	3	0	70	831	
1:25 PM	2	29	1	0	5	17	2	0	1	2	0	0	0	2	4	0	65	824	
1:30 PM	1	26	2	0	5	24	1	0	1	4	1	0	4	2	7	0	78	849	
1:35 PM	0	24	1	0	10	24	1	0	3	0	1	0	0	0	6	0	70	837	
1:40 PM	0	33	0	0	8	26	2	0	1	0	4	0	1	2	6	0	83	847	
1:45 PM	1	26	0	0	8	22	0	0	0	1	3	0	2	1	7	0	71	841	
1:50 PM	1	25	1	0	11	20	0	0	2	0	0	0	1	0	3	0	64	844	
1:55 PM	0	20	0	0	8	18	3	0	1	5	1	0	0	2	3	0	61	823	

Peak 15-Min Flowrates	Northbound			Southbound			Eastbound			Westbound			Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	228	16	0	92	380	12	0	20	36	8	0	28	92
Heavy Trucks	4	8	0	0	0	8	0	0	0	0	0	0	0	20
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped/Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0

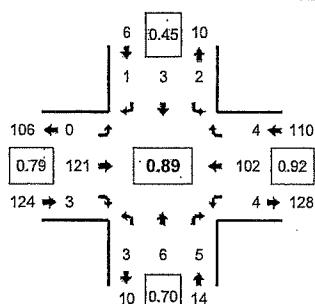
Comments:

Type of peak hour being reported: Intersection Peak

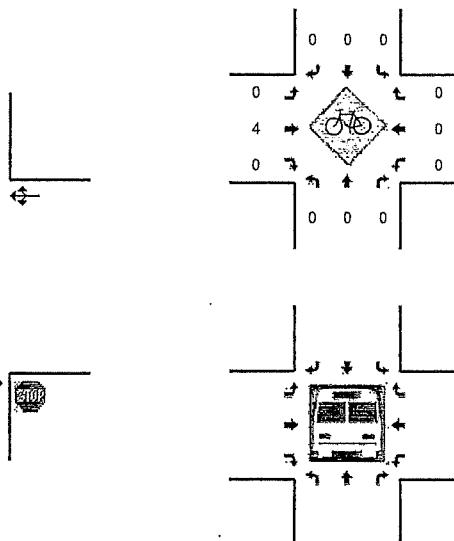
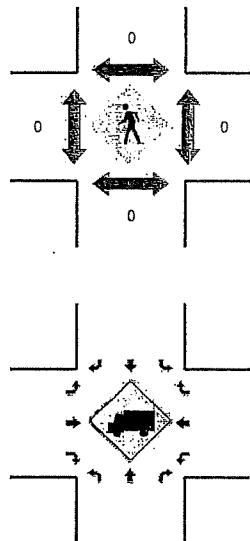
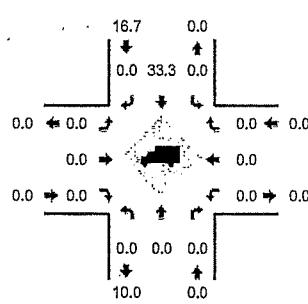
Method for determining peak hour: Total Entering Volume

**LOCATION:** Hansen Rd – W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581804.  
**DATE:** 2/13/2011



**Peak-Hour: 12:15 PM -- 1:15 PM**  
**Peak 15-Min: 12:25 PM -- 12:40 PM**



5-Min Count Period Beginning At	Hansen Rd (Northbound)				Hansen Rd (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:45 AM	0	0	0	0	1	3	0	0	0	14	0	0	1	11	0	0	30	
11:50 AM	0	0	1	0	0	0	0	0	0	6	0	0	0	7	0	0	14	
11:55 AM	0	1	0	0	0	0	0	0	0	8	0	0	0	9	0	0	18	222
12:00 PM	0	1	0	0	0	0	0	0	0	10	0	0	0	8	0	0	19	230
12:05 PM	0	1	0	0	0	1	0	0	0	6	0	0	1	4	1	0	14	229
12:10 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9	216
12:15 PM	0	1	1	0	0	0	0	0	0	11	0	0	2	9	0	0	.24	.222
12:20 PM	0	1	0	0	0	1	0	0	0	12	0	0	0	8	1	0	.23	.226
12:25 PM	0	0	0	0	0	0	0	0	0	12	0	0	2	8	0	0	.22	.233
12:30 PM	1	0	0	0	-1	0	0	0	0	14	0	0	0	6	0	0	.22	.234
12:35 PM	1	1	2	0	0	0	0	1	0	13	1	0	0	8	0	0	.27	.244
12:40 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	10	1	0	.21	.243
12:45 PM	0	1	0	0	0	0	0	0	0	9	2	0	0	11	0	0	.23	.236
12:50 PM	0	0	1	0	0	0	0	0	0	11	0	0	0	7	0	0	.19	.241
12:55 PM	0	0	0	0	1	1	0	0	0	7	0	0	0	10	1	0	.20	.243
1:00 PM	0	.2	0	0	0	0	0	0	0	11	0	0	0	8	0	0	.21	.245
1:05 PM	1	0	0	0	0	0	0	0	0	5	0	0	0	8	1	0	.15	.246
1:10 PM	0	0	1	0	0	1	0	0	0	6	0	0	0	9	0	0	.17	.254
1:15 PM	0	1	0	0	1	0	0	0	0	6	0	0	0	2	0	0	.10	.240
1:20 PM	0	0	0	0	1	0	0	0	0	19	1	0	1	6	0	0	.28	.245
1:25 PM	0	1	0	0	0	0	0	0	0	6	1	0	1	9	0	0	.18	.241
1:30 PM	1	0	0	0	0	0	0	0	0	11	0	0	0	9	0	0	.21	.240
1:35 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	8	1	0	.20	.233
1:40 PM	0	0	0	0	0	1	0	0	0	10	0	0	0	8	0	0	.19	.231
<b>Peak 15-Min Flowrates</b>		<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>
All Vehicles	.8	.4	.8	0	-4	0	-4	0	0	156	4	0	.8	.88	0	0	.284	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:57 AM

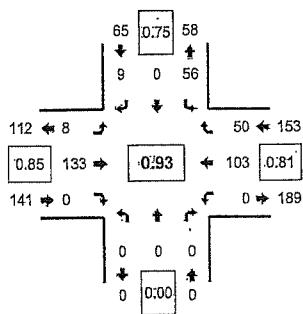
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: Intersection Peak

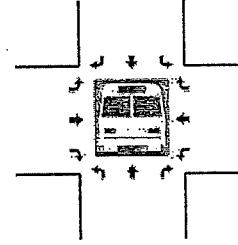
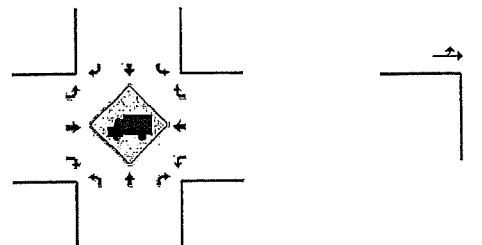
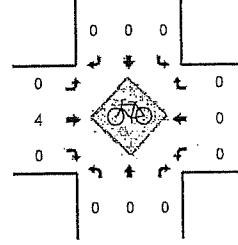
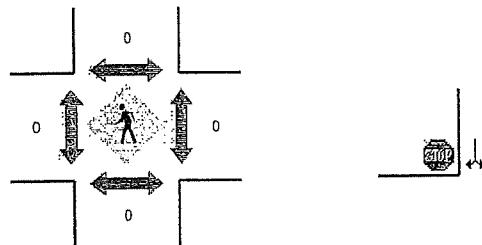
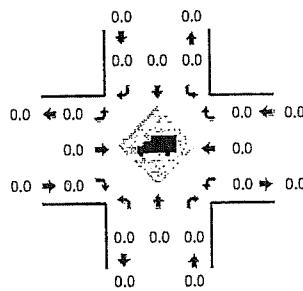
Method for determining peak hour: Total Entering Volume

**LOCATION:** Project Access East Dwy – W Grant Line.Rd  
**CITY/STATE:** Tracy, CA

QC JOB #: 10581806  
DATE: 2/13/2011



Peak-Hour: 12:15 PM -- 1:15 PM  
Peak 15-Min: 12:25 PM -- 12:40 PM



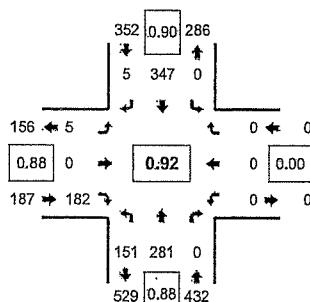
## Report generation

Type of peak hour being reported: Intersection Peak

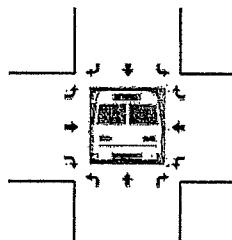
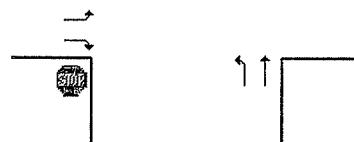
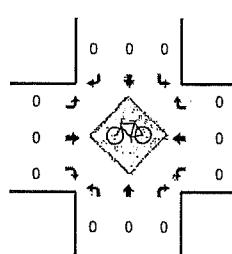
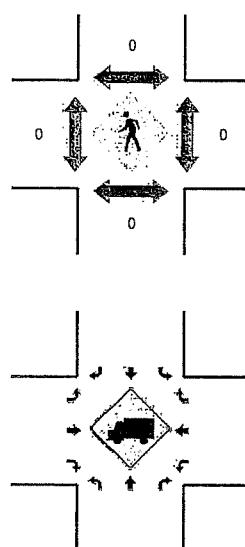
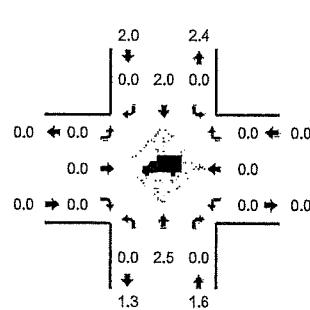
Method for determining peak hour: Total Entering Volume

**LOCATION:** Byron Rd -- W Grant Line Rd  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581808  
**DATE:** 2/13/2011



**Peak-Hour: 12:10 PM -- 1:10 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



5-Min Count Period Beginning At	Byron Rd (Northbound)				Byron Rd (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:40 AM	10	23	0	0	0	32	0	0	0	0	11	0	0	0	0	0	76	879
11:45 AM	16	11	0	0	0	27	0	0	0	0	15	0	0	0	0	0	69	900
11:50 AM	12	23	0	0	0	30	2	0	0	0	18	0	0	0	0	0	85	63
11:55 AM	11	18	0	0	0	23	0	0	1	0	10	0	0	0	0	0	71	879
12:00 PM	9	23	0	0	0	29	0	0	0	0	10	0	0	0	0	0	68	911
12:05 PM	6	18	0	0	0	33	0	0	0	0	11	0	0	0	0	0	73	911
12:10 PM	8	32	0	0	0	25	0	0	1	0	7	0	0	0	0	0	88	906
12:15 PM	14	24	0	0	0	37	1	0	0	0	12	0	0	0	0	0	93	933
12:20 PM	15	30	0	0	0	28	0	0	0	0	20	0	0	0	0	0	83	941
12:25 PM	13	24	0	0	0	31	1	0	1	0	13	0	0	0	0	0	79	946
12:30 PM	15	17	0	0	0	32	0	0	0	0	15	0	0	0	0	0	76	924
12:35 PM	15	25	0	0	0	23	0	0	1	0	12	0	0	0	0	0	68	916
12:40 PM	14	21	0	0	0	18	1	0	0	0	14	0	0	0	0	0	97	944
12:45 PM	17	21	0	0	0	43	0	0	0	0	16	0	0	0	0	0	79	938
12:50 PM	11	18	0	0	0	28	1	0	0	0	21	0	0	0	0	0	66	941
12:55 PM	.8	21	0	0	0	25	1	0	0	0	11	0	0	0	0	0	92	962
1:00 PM	9	28	0	0	0	30	0	0	1	0	24	0	0	0	0	0	77	971
1:05 PM	12	20	0	0	0	27	0	0	1	0	17	0	0	0	0	0	70	968
1:10 PM	9	22	0	0	0	22	1	0	0	0	16	0	0	0	0	0	75	955
1:15 PM	5	34	0	0	0	27	0	0	0	0	9	0	0	0	0	0	90	952
1:20 PM	11	29	0	0	0	23	0	0	0	0	27	0	0	0	0	0	85	954
1:25 PM	8	29	0	0	0	29	0	0	0	0	19	0	0	0	0	0	79	954
1:30 PM	10	38	0	0	0	16	0	0	0	0	15	0	0	0	0	0	62	940
1:35 PM	8	17	0	0	0	22	0	0	1	0	14	0	0	0	0	0		
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
Heavy Trucks	168	312	0	0	0	384	8	0	4	0	180	0	0	0	0	0	1056	
Pedestrians	.0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	12	
Bicycles	.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	Stopped Buses																	

Comments:

Type of peak hour being reported: Intersection Peak

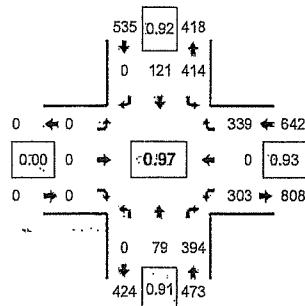
Method for determining peak hour: Total Entering Volume

LOCATION: Byron Rd -- E Grant Line Rd

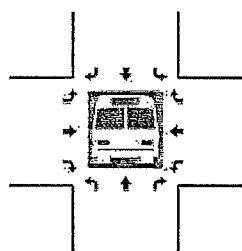
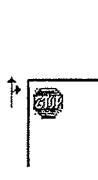
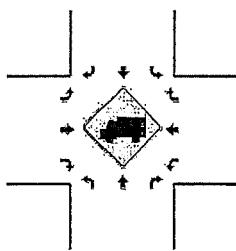
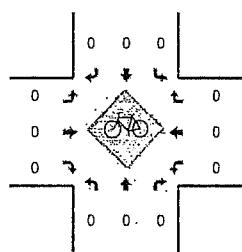
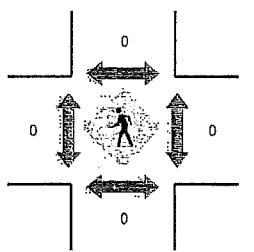
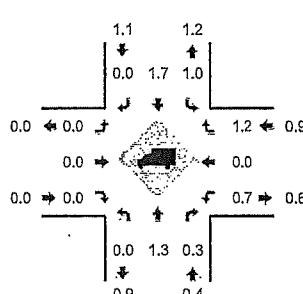
QC JOB #: 10581810

CITY/STATE: Tracy, CA

DATE: 2/13/2011



Peak-Hour: 12:15 PM -- 1:15 PM  
Peak 15-Min: 1:00 PM -- 1:15 PM



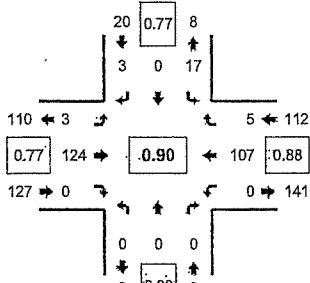
5-Min Count Period Beginning At	Byron Rd (Northbound)				Byron Rd (Southbound)				E Grant Line Rd (Eastbound)				E Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:45 AM	0	7	22	0	38	3	0	0	0	0	0	0	21	0	20	0	111	
11:50 AM	0	6	30	0	37	6	0	0	0	0	0	0	16	0	25	0	120	
11:55 AM	0	7	38	0	37	7	0	0	0	0	0	0	14	0	26	0	129	1445
12:00 PM	0	9	30	0	28	11	0	0	0	0	0	0	21	0	22	0	121	1460
12:05 PM	0	7	33	0	42	8	0	0	0	0	0	0	18	0	17	0	125	1496
12:10 PM	0	6	32	0	24	3	0	0	0	0	0	0	27	0	35	0	127	1489
12:15 PM	0	5	33	0	21	11	0	0	0	0	0	0	33	0	38	0	141	1501
12:20 PM	0	14	35	0	35	7	0	0	0	0	0	0	25	0	26	0	142	1524
12:25 PM	0	9	32	0	36	12	0	0	0	0	0	0	20	0	26	0	135	1539
12:30 PM	0	5	42	0	34	6	0	0	0	0	0	0	22	0	30	0	139	1560
12:35 PM	0	10	38	0	32	6	0	0	0	0	0	0	26	0	30	0	142	1569
12:40 PM	0	3	38	0	37	4	0	0	0	0	0	0	21	0	30	0	133	1565
12:45 PM	0	4	27	0	42	15	0	0	0	0	0	0	31	0	27	0	146	1600
12:50 PM	0	6	34	0	38	11	0	0	0	0	0	0	19	0	24	0	132	1612
12:55 PM	0	7	17	0	35	7	0	0	0	0	0	0	24	0	24	0	114	1597
1:00 PM	0	5	31	0	34	12	0	0	0	0	0	0	27	0	30	0	139	1615
1:05 PM	0	3	38	0	34	17	0	0	0	0	0	0	30	0	29	0	151	1641
1:10 PM	0	8	29	0	36	15	0	0	0	0	0	0	25	0	25	0	136	1650
1:15 PM	0	3	22	0	31	8	0	0	0	0	0	0	32	0	33	0	129	1638
1:20 PM	0	5	26	0	24	6	0	0	0	0	0	0	29	0	38	0	128	1624
1:25 PM	0	10	37	0	29	11	0	0	0	0	0	0	24	0	30	0	141	1630
1:30 PM	0	5	23	0	42	13	0	0	0	0	0	0	21	0	37	0	141	1632
1:35 PM	0	3	34	0	33	6	0	0	0	0	0	0	30	0	30	0	136	1626
1:40 PM	0	5	24	0	34	9	0	0	0	0	0	0	25	0	38	0	135	1628
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	64	392	0	416	168	0	0	0	0	0	0	328	0	336	0	1704	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	4	0	8	0	12	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Comments:																		

Type of peak hour being reported: Intersection Peak

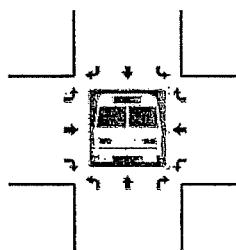
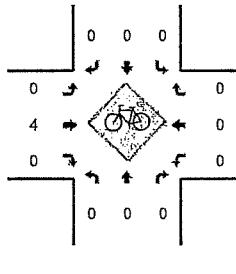
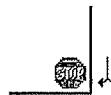
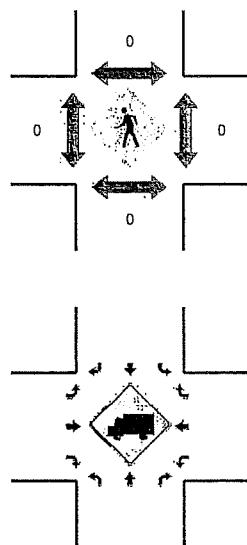
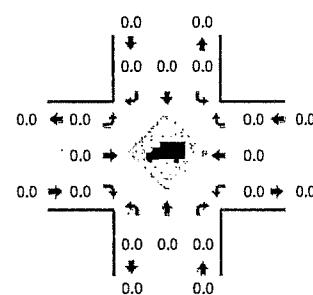
Method for determining peak hour: Total Entering Volume

**LOCATION:** Project Access West Dwy – W Grant Line Rd.  
**CITY/STATE:** Tracy, CA

**QC JOB #:** 10581813  
**DATE:** 2/13/2011



**Peak-Hour: 12:15 PM -- 1:15 PM**  
**Peak 15-Min: 12:35 PM -- 12:50 PM**



5-Min Count Period Beginning At	Project Access West Dwy (Northbound)				Project Access West Dwy (Southbound)				W Grant Line Rd (Eastbound)				W Grant Line Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:45 AM	0	0	0	0	0	0	2	0	0	18	0	0	0	10	1	0	31	217
11:50 AM	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	0	17	224
11:55 AM	0	0	0	0	1	0	0	0	0	7	0	0	0	7	0	0	15	218
12:00 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	0	13	211
12:05 PM	0	0	0	0	0	0	0	0	1	7	0	0	0	5	0	0	21	225
12:10 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	17	239
12:15 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	12	0	0	21	248
12:20 PM	0	0	0	0	1	0	0	0	0	12	0	0	0	8	0	0	21	253
12:25 PM	0	0	0	0	1	0	1	0	1	12	0	0	0	11	0	0	26	257
12:30 PM	0	0	0	0	1	0	0	0	1	10	0	0	0	4	1	0	17	261
12:35 PM	0	0	0	0	1	0	0	0	0	18	0	0	0	8	1	0	28	270
12:40 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	12	0	0	23	264
12:45 PM	0	0	0	0	1	0	0	0	1	8	0	0	0	10	1	0	21	259
12:50 PM	0	0	0	0	2	0	0	0	0	13	0	0	0	7	1	0	23	255
12:55 PM	0	0	0	0	1	0	1	0	0	7	0	0	0	10	0	0	19	248
1:00 PM	0	0	0	0	5	0	1	0	0	12	0	0	0	8	0	0	26	253
1:05 PM	0	0	0	0	4	0	0	0	0	5	0	0	0	8	1	0	18	248
1:10 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0	0	16	259
1:15 PM	0	0	0	0	2	0	0	0	0	6	0	0	0	3	0	0	11	249
1:20 PM	0	0	0	0	2	0	0	0	0	18	0	0	0	7	0	0	27	255
1:25 PM	0	0	0	0	5	0	1	0	0	8	0	0	0	10	0	0	24	253
1:30 PM	0	0	0	0	2	0	0	0	0	10	0	0	0	8	1	0	21	257
1:35 PM	0	0	0	0	2	0	1	0	1	11	0	0	0	8	1	0	24	253
1:40 PM	0	0	0	0	1	0	0	0	1	8	0	0	0	8	0	0	18	248
<b>Peak 15-Min Flowrates</b>		<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>
All Vehicles	0	0	0	0	8	0	0	0	4	148	0	0	0	120	8	0	288	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/22/2011 8:57 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

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QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 11 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	799	Total	Pace Speed	Number in Pace
12:00 AM																		
1:00 AM																		
2:00 AM																		
3:00 AM																		
4:00 AM																		
5:00 AM																		
6:00 AM																		
7:00 AM																		
8:00 AM																		
9:00 AM	2	1	0	1	4	2	6	8	27	13	6	2	1	1	74	51-60	40	
10:00 AM	0	0	0	1	1	2	7	27	40	24	10	0	1	0	114	46-55	67	
11:00 AM	2	0	0	1	1	1	11	21	41	30	6	5	0	0	120	51-60	70	
12:00 PM	1	0	0	0	5	3	5	12	36	36	5	3	1	0	119	51-60	71	
1:00 PM	1	0	0	0	2	1	1	11	20	42	16	17	5	1	0	117	47-56	61
2:00 PM	1	0	0	1	1	2	9	17	27	40	37	10	0	0	147	51-60	77	
3:00 PM	2	0	0	2	0	1	7	38	47	37	12	3	0	1	151	50-59	84	
4:00 PM	3	0	1	2	2	3	20	42	68	43	10	1	2	0	197	51-60	111	
5:00 PM	2	0	1	3	5	1	30	33	66	31	16	2	1	0	191	48-57	98	
6:00 PM	2	0	0	0	3	8	4	13	39	46	28	11	0	0	154	46-55	85	
7:00 PM	1	0	0	0	7	3	2	12	19	23	18	13	0	0	98	50-59	41	
8:00 PM	0	0	0	0	2	4	5	3	3	11	10	4	2	0	0	44	51-60	21
9:00 PM	0	0	0	0	0	0	0	1	3	5	8	5	2	1	0	25	51-60	13
10:00 PM	0	0	0	0	0	0	1	2	2	3	5	3	1	0	0	22	51-60	10
11:00 PM	0	0	0	0	0	0	0	0	0	4	2	3	0	0	0	9	46-55	6
Day Total	17	1	6	28	37	39	154	301	502	336	125	25	7	4	1582	51-60	837	
Percent	1.1%	0.1%	0.4%	1.8%	2.3%	2.5%	9.7%	19.0%	31.7%	21.2%	7.9%	1.6%	0.4%	0.3%				

AM Peak Volume	9:00 AM	9:00 AM	11:00 AM	9:00 AM	9:00 AM	9:00 AM	10:00 AM	11:00 AM	10:00 AM	11:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	11:00 AM	12:00
PM Peak Volume	2	1	1	1	4	2	14	27	41	30	10	5	1	1	1	1
PM Peak Volume	4:00 PM	3:00 PM	3:00 PM	6:00 PM	7:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	4:00 PM	1:00 PM	1:00 PM	2:00 PM	2:00 PM	4:00 PM	4:00 PM

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

**LOCATION:** W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
**SPECIFIC LOCATION:** 100 ft from  
**CITY/STATE:** Tracy, CA

Page 2 of 9

QC JOB #: 10581811  
DIRECTION: EB  
DATE: Feb 12 2011

Start Time	1	16	21	26	30	31	36	40	45	50	55	51	56	60	65	61	66	71	76	75	999	Total	Pace	Number in Pace
12:00 AM	0	0	0	0	0	0	1	3	7	0	0	0	0	0	0	0	0	0	0	0	0	11	46-55	10
1:00 AM	0	0	0	1	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	6	46-55	3
2:00 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	4	56-65	2
3:00 AM	0	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4	46-55	3
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	5	56-65	3
5:00 AM	0	0	0	0	0	0	0	0	0	2	0	1	3	1	0	0	0	0	0	0	0	7	56-65	4
6:00 AM	0	0	0	1	0	0	1	1	1	1	1	2	2	1	0	0	0	0	0	0	0	10	56-65	4
7:00 AM	0	0	1	0	0	0	1	0	1	3	6	15	3	0	1	0	0	0	0	0	0	30	51-60	21
8:00 AM	0	0	1	4	2	1	1	8	22	13	7	1	0	0	0	0	0	0	0	0	0	60	51-60	35
9:00 AM	0	0	3	4	1	0	3	13	29	18	13	7	3	1	0	0	0	0	0	0	0	95	51-60	47
10:00 AM	1	0	0	0	2	2	2	6	21	40	31	14	2	0	1	0	0	0	0	0	0	122	51-60	70
11:00 AM	1	0	2	1	2	2	6	27	47	26	14	1	0	0	0	0	0	0	0	0	0	129	50-59	73
12:00 PM	2	0	3	3	5	2	14	26	42	39	13	2	1	0	0	0	0	0	0	0	0	152	51-60	80
1:00 PM	2	0	0	3	4	1	7	30	33	37	10	6	0	2	0	0	0	0	0	0	0	135	51-60	70
2:00 PM	1	0	3	1	1	2	5	24	43	28	13	2	1	0	0	0	0	0	0	0	0	124	51-60	71
3:00 PM	1	0	3	1	0	2	4	20	36	34	15	3	0	0	0	0	0	0	0	0	0	119	51-60	70
4:00 PM	0	0	1	1	4	0	6	21	25	32	16	5	1	0	0	0	0	0	0	0	0	112	51-60	57
5:00 PM	2	2	0	0	3	1	10	32	36	27	8	3	0	0	0	0	0	0	0	0	0	124	46-55	67
6:00 PM	2	0	2	3	6	5	8	28	29	18	3	4	0	0	0	0	0	0	0	0	0	108	46-55	57
7:00 PM	0	0	1	3	2	0	5	20	18	16	5	3	0	0	0	0	0	0	0	0	0	73	47-56	37
8:00 PM	1	0	7	12	11	0	6	9	6	12	2	1	0	0	0	0	0	0	0	0	0	66	26-35	23
9:00 PM	1	0	2	8	6	3	2	7	6	8	2	0	2	0	0	0	0	0	0	0	0	47	51-60	14
10:00 PM	0	0	1	3	0	1	3	4	4	3	3	0	0	0	0	0	0	0	0	0	0	22	46-55	8
11:00 PM	0	0	0	0	1	0	1	2	4	2	0	0	0	0	0	0	0	0	0	0	0	13	46-55	6
<b>Day Total</b>	<b>14</b>	<b>2</b>	<b>28</b>	<b>54</b>	<b>51</b>	<b>24</b>	<b>93</b>	<b>307</b>	<b>435</b>	<b>369</b>	<b>145</b>	<b>42</b>	<b>9</b>	<b>5</b>	<b>2.7%</b>	<b>9.2%</b>	<b>2.7%</b>	<b>0.6%</b>	<b>0.3%</b>	<b>0</b>	<b>1578</b>	<b>51-60</b>	<b>804</b>	
<b>Percent</b>	<b>0.9%</b>	<b>0.1%</b>	<b>1.8%</b>	<b>3.4%</b>	<b>3.2%</b>	<b>1.5%</b>	<b>5.9%</b>	<b>19.5%</b>	<b>27.6%</b>	<b>23.4%</b>	<b>9.2%</b>	<b>2.7%</b>	<b>0.6%</b>	<b>0.3%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

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QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 13 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	79	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	51-60	5
1:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	41-50	1
2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	51-60	1
3:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	61-70	1
4:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	51-60	2
5:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	56-65	2
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	51-60	6
7:00 AM	0	0	2	0	1	1	1	1	3	8	9	4	2	0	1	32	52-61	16
8:00 AM	0	0	4	5	4	1	3	5	13	10	6	1	0	0	0	52	51-60	22
9:00 AM	2	0	3	5	9	7	1	11	18	16	12	0	0	0	0	84	51-60	33
10:00 AM	1	0	0	0	5	7	8	24	24	22	17	3	2	1	119	46-55	48	
11:00 AM	1	0	4	14	11	9	7	14	35	30	10	1	1	0	0	137	51-60	65
12:00 PM	2	0	11	20	15	9	5	24	31	28	11	3	0	0	0	159	51-60	58
1:00 PM	3	2	9	24	28	14	14	20	40	30	23	10	2	0	0	205	46-55	70
2:00 PM	3	2	3	16	12	6	7	36	34	28	9	5	2	0	0	163	46-55	70
3:00 PM	3	0	4	6	2	3	7	14	36	29	10	3	1	1	1	119	51-60	65
4:00 PM	0	0	1	7	8	7	8	19	33	27	8	3	0	0	0	121	51-60	60
5:00 PM	0	1	1	3	1	2	1	11	15	31	28	9	3	1	0	106	51-60	58
6:00 PM	2	0	2	5	5	3	8	18	25	20	6	2	0	0	0	96	51-60	45
7:00 PM	0	0	1	3	3	0	5	10	17	12	4	0	0	0	0	55	51-60	29
8:00 PM	0	0	0	0	0	0	0	3	5	8	7	2	5	1	0	31	51-60	15
9:00 PM	0	0	0	0	0	0	0	1	0	1	7	6	1	0	0	17	51-60	13
10:00 PM	0	0	0	0	0	0	0	0	4	4	2	1	1	0	0	13	46-55	8
11:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	66-75	1
Day Total	17	5	45	113	108	72	96	243	364	304	122	36	8	4	1537	51-60	668	
Percent	1.1%	0.3%	2.9%	7.4%	7.0%	4.7%	6.2%	15.8%	23.7%	19.8%	7.9%	2.3%	0.5%	0.3%				
AM Peak Volume	2	4	14	11	9	8	24	35	30	17	3	2	1	1		11:00 AM		
PM Peak Volume	3	3	24	11	14	14	28	20	36	29	11	5	2	1		1:00 PM		
Comments:																		

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (116215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

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QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 14 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number in Pace	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	66-75	1	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	41-50	1	
2:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	66-75	2	
3:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	56-65	3	
4:00 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	6	56-65	3	
5:00 AM	0	0	0	0	1	0	0	0	2	1	0	0	0	0	7	46-55	4	
6:00 AM	1	0	2	0	0	0	1	3	5	9	1	1	1	0	24	52-61	13	
7:00 AM	1	0	0	0	1	0	2	4	9	14	5	3	1	1	41	52-61	22	
8:00 AM	0	0	1	2	1	3	6	13	19	15	10	1	0	1	72	51-60	33	
9:00 AM	0	0	2	2	3	1	6	33	30	24	2	2	1	0	106	46-55	62	
10:00 AM	0	0	0	0	2	3	3	11	35	44	24	10	3	1	136	46-55	79	
11:00 AM	1	0	0	1	2	6	21	43	57	38	13	3	0	1	186	46-55	100	
12:00 PM	2	0	2	2	10	13	26	50	38	19	1	1	0	0	166	51-60	87	
1:00 PM	0	0	1	0	1	2	9	23	46	34	9	7	0	0	132	51-60	80	
2:00 PM	1	0	0	2	1	1	4	31	39	25	9	0	1	1	115	46-55	70	
3:00 PM	1	0	1	0	0	6	15	30	41	17	7	1	0	1	120	46-55	70	
4:00 PM	0	0	0	2	0	3	7	38	56	27	10	4	0	0	147	46-55	93	
5:00 PM	1	1	0	4	3	4	12	39	48	33	6	3	1	0	155	46-55	87	
6:00 PM	1	0	0	0	4	2	3	14	36	55	17	9	4	0	145	46-55	90	
7:00 PM	0	0	0	4	0	4	0	11	19	21	18	7	2	2	1	89	50-59	39
8:00 PM	1	0	0	0	1	1	1	9	19	14	14	5	1	0	1	66	46-55	32
9:00 PM	0	0	0	0	0	0	0	4	2	9	12	4	0	0	0	31	51-60	21
10:00 PM	0	0	0	1	0	0	0	5	4	2	4	1	0	0	17	46-55	9	
11:00 PM	0	0	0	0	2	0	1	2	1	1	0	0	0	0	7	46-55	3	
Day Total	10	1	9	27	43	147	405	553	367	132	40	10	7	1778	46-55	957		
Percent	0.6%	0.1%	0.5%	1.5%	2.4%	8.3%	22.8%	31.1%	20.6%	7.4%	2.2%	0.6%	0.4%					



Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Comments:

AM Peak

Volume

PM Peak

Volume

Type of report: Tube Count - Speed Data  
 LOCATION: W. Grant Line Rd/East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Start Time	15	16	21	26	30	31	35	40	41	45	50	51	56	61	65	66	71	75	76	Total	Pace	Number in Pace	
12:00 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	46-55	3	
1:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	51-60	2	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0	
3:00 AM	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	31-40	1	
4:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	1	3	0	0	0	0	0	7	56-65	4	
5:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	1	0	1	0	0	0	0	6	56-65	3	
6:00 AM	1	0	0	0	1	1	0	0	1	1	1	4	3	2	2	0	0	0	0	16	56-65	7	
7:00 AM	0	0	2	1	0	1	2	7	27	25	12	2	1	0	0	0	0	0	0	80	51-60	52	
8:00 AM	2	0	0	3	1	0	8	21	29	20	4	1	0	1	0	0	0	0	0	90	46-55	50	
9:00 AM	1	0	0	1	5	4	8	20	38	21	2	2	0	0	0	0	0	0	0	102	51-60	58	
10:00 AM	1	0	0	0	0	0	3	2	12	17	28	17	1	1	1	0	0	0	0	83	46-55	45	
11:00 AM	2	0	0	0	1	1	2	15	35	65	44	14	5	3	1	0	0	0	0	188	51-60	109	
12:00 PM	1	0	1	1	1	4	11	26	42	15	6	7	1	0	0	0	0	0	0	116	46-55	67	
1:00 PM	2	0	0	1	3	1	0	4	23	42	24	4	3	0	0	0	0	0	0	107	51-60	65	
2:00 PM	4	0	0	1	0	3	4	12	41	37	22	6	3	0	0	0	0	0	0	133	46-55	77	
3:00 PM	5	0	0	0	0	3	2	5	31	59	26	8	0	1	0	0	0	0	0	140	46-55	90	
4:00 PM	2	0	0	0	1	1	4	14	28	72	38	7	5	0	0	0	0	0	0	172	51-60	109	
5:00 PM	1	0	0	0	1	2	7	9	37	52	22	7	2	0	0	0	0	0	0	140	46-55	88	
6:00 PM	1	0	0	0	0	4	1	9	4	62	49	30	8	3	2	0	0	0	0	173	46-55	110	
7:00 PM	0	0	1	1	4	2	1	11	10	27	22	8	0	1	0	0	0	0	0	87	51-60	49	
8:00 PM	1	0	0	1	2	1	1	1	6	30	32	13	8	1	1	0	0	0	0	97	46-55	62	
9:00 PM	0	0	0	0	0	0	0	0	0	4	10	1	4	1	1	0	0	0	0	24	46-55	14	
10:00 PM	0	0	0	0	0	0	0	0	0	0	2	4	1	2	0	0	0	0	0	10	46-55	6	
11:00 PM	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	6	61-70	3	
Day Total	26	0	8	23	29	44	122	398	621	348	110	40	16	3	1788	46-55	1018						
Percent	1.5%	0.0%	0.4%	1.3%	1.6%	2.5%	6.8%	22.3%	34.7%	19.5%	6.2%	2.2%	0.9%	0.2%									
AM Peak Volume	2	2	3	4	5	4	16	35	65	44	14	5	3	1									
PM Peak Volume	5	5	1	4	3	4	9	14	62	72	38	7	8	2									

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 16 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
1:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	66-75	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	26-35	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	61-70	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	46-55	6
5:00 AM	0	0	0	0	0	0	0	1	0	3	3	1	2	0	0	1	41-50	3
6:00 AM	0	0	0	0	0	0	0	1	2	0	1	1	1	0	0	6	51-60	10
7:00 AM	2	2	2	1	0	1	1	12	19	28	12	1	1	0	0	82	51-60	46
8:00 AM	1	0	0	1	0	0	3	23	35	29	9	2	0	2	0	105	51-60	64
9:00 AM	2	0	0	2	3	0	9	23	39	25	11	3	0	1	1	118	51-60	64
10:00 AM	0	0	0	2	1	1	6	12	14	37	28	12	3	0	1	117	51-60	65
11:00 AM	2	1	1	1	0	8	25	51	47	25	3	2	0	0	0	167	51-60	97
12:00 PM	0	0	1	1	7	0	7	22	50	31	15	5	0	0	1	140	51-60	80
1:00 PM	0	0	1	3	0	4	5	22	36	30	13	5	1	0	0	120	51-60	65
2:00 PM	1	0	0	3	0	0	14	22	45	38	9	2	1	0	0	135	51-60	82
3:00 PM	0	0	0	0	1	2	1	4	17	34	36	16	8	1	1	121	51-60	70
4:00 PM	2	0	0	0	0	1	0	2	36	49	45	13	2	0	0	152	51-60	94
5:00 PM	1	0	0	1	0	2	0	8	29	61	36	9	1	0	1	149	51-60	96
6:00 PM	1	0	1	4	2	6	9	28	56	25	10	1	0	0	0	143	47-56	83
7:00 PM	0	0	2	7	3	4	2	25	42	22	13	1	0	1	1	122	47-56	66
8:00 PM	1	0	0	0	2	1	1	9	28	32	19	5	4	1	1	104	46-55	60
9:00 PM	0	0	1	0	0	0	1	5	7	13	11	9	1	0	2	50	52-61	23
10:00 PM	0	0	0	0	0	0	1	0	1	2	1	3	4	0	0	12	56-65	7
11:00 PM	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	4	56-65	2
Day Total	13	3	13	31	24	25	101	343	608	462	191	45	7	16	0	1882	51-60	1070
Percent	0.7%	0.2%	0.7%	1.6%	1.3%	1.3%	5.4%	18.2%	32.3%	24.5%	10.1%	2.4%	0.4%	0.9%	0			

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

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QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 17 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number in Pace	
	15	20	25	30	35	40	45	50	55	60	65	70	75	999				
12:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	66-75	1	
1:00 AM	0	0	0	0	0	0	0	0	1	1	2	0	0	0	4	56-65	3	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0	
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71-80	1	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	56-65	4	
5:00 AM	0	0	1	0	0	0	0	0	1	1	3	1	0	0	5	46-55	2	
6:00 AM	1	0	0	0	0	1	0	2	2	6	5	4	1	0	0	22	51-60	11
7:00 AM	0	0	2	0	0	2	0	2	15	22	14	11	5	0	0	73	46-55	37
8:00 AM	2	0	2	0	2	0	5	18	28	12	5	0	1	1	78	46-55	45	
9:00 AM	1	0	2	0	3	1	1	16	28	22	8	4	1	1	88	51-60	50	
10:00 AM	1	0	1	3	3	5	6	24	42	21	9	1	0	0	116	47-56	65	
11:00 AM	1	0	0	4	2	2	7	45	41	33	6	1	0	1	143	46-55	85	
12:00 PM	2	0	0	0	1	14	24	40	34	13	2	1	0	0	131	46-55	74	
1:00 PM	1	0	1	2	5	2	14	40	17	12	4	1	1	0	100	46-55	57	
2:00 PM	0	0	0	0	1	0	4	17	41	48	20	3	1	0	135	46-55	89	
3:00 PM	2	0	0	0	0	7	0	10	28	52	27	11	3	0	0	140	50-59	79
4:00 PM	1	0	1	3	2	1	6	34	71	36	7	3	1	0	166	51-60	106	
5:00 PM	2	0	1	2	3	1	1	27	51	37	14	4	0	0	143	51-60	87	
6:00 PM	3	0	0	5	2	2	7	34	52	23	7	1	0	0	136	46-55	85	
7:00 PM	0	0	1	5	3	4	8	18	22	20	6	2	0	0	89	51-60	42	
8:00 PM	0	0	0	0	0	0	0	9	30	18	11	4	1	0	104	46-55	60	
9:00 PM	0	0	0	1	1	0	3	3	11	16	7	2	0	0	44	46-55	27	
10:00 PM	0	0	0	0	1	1	0	1	2	3	2	0	0	0	10	51-60	5	
11:00 PM	0	0	0	0	0	0	0	1	1	3	4	2	0	0	11	51-60	7	
Day Total	17	0	13	31	33	42	125	427	570	330	116	33	6	3	1746	46-55	997	
Percent	1.0%	0.0%	0.7%	1.8%	1.9%	2.4%	7.2%	24.5%	32.6%	18.9%	6.6%	1.9%	0.3%	0.2%				

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

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QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 18 2011

Start Time	1	16	21	26	31	36	41	46	50	55	51	56	61	66	70	75	76	71	999	Total	Pace	Number in Pace	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	46-55	2	
1:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	71-80	1	
2:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	41-50	2	
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	66-75	1	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	56-65	4	
5:00 AM	0	1	2	0	0	1	1	0	0	0	2	1	0	0	0	0	0	0	0	12	56-65	4	
6:00 AM	0	0	0	1	0	2	3	2	10	4	2	1	0	0	0	0	0	0	0	25	51-60	14	
7:00 AM	0	0	0	1	1	2	3	13	29	17	7	1	0	0	0	0	0	0	0	74	51-60	46	
8:00 AM	0	0	2	1	0	0	10	15	35	11	4	1	1	0	0	0	0	0	0	80	46-55	50	
9:00 AM																							
10:00 AM																							
11:00 AM																							
12:00 PM																							
1:00 PM																							
2:00 PM																							
3:00 PM																							
4:00 PM																							
5:00 PM																							
6:00 PM																							
7:00 PM																							
8:00 PM																							
9:00 PM																							
10:00 PM																							
11:00 PM																							
Day Total	0	1	4	3	5	19	34	75	38	16	4	2	1	205	51-60	112							
Percent	0.0%	0.5%	2.0%	1.5%	2.4%	9.3%	16.6%	36.6%	18.5%	7.8%	2.0%	1.0%	0.5%										
AM Peak Volume	5:00 AM	6:00 AM	3:00 AM	6:00 AM	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	3:00 AM	1:00 AM	8:00 AM	8:00 AM										
PM Peak Volume	1	2	1	1	2	10	10	15	15	35	17	17	17	17	17	17	17	17	17	17	17	17	
Comments:																							

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

**SUMMARY - Tube Count - Speed Data**

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

Start Time	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Speed	in Pace	
Grand Total	114	13	126	310	312	294	857	2458	3728	2554	957	265	65	43	12096	51-60	6281
Percent	0.9%	0.1%	1.0%	2.6%	2.6%	2.4%	7.1%	20.3%	30.8%	21.1%	7.9%	2.2%	0.5%	0.4%			
Cumulative Percent	0.9%	1.0%	2.1%	4.7%	7.2%	9.7%	16.7%	37.1%	67.9%	89.0%	96.9%	99.1%	99.6%	100.0%			
															85th Percentile: 59 MPH		
															Mean Speed(Average): 52 MPH		
															Médian: 52 MPH		
															Mode: 53 MPH		
															Average		

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 1 of 5  
QC JOB #: 10581811  
DIRECTION: EB

DATE: Feb 11 2011 - Feb 13 2011

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic		Average Week Profile
									12-Feb-11	13-Feb-11	
12:00 AM						0	11	5	8	8	
1:00 AM						0	6	1	3	3	
2:00 AM						0	4	2	3	3	
3:00 AM						0	4	2	3	3	
4:00 AM						0	5	2	3	3	
5:00 AM						0	7	3	5	5	
6:00 AM						0	10	11	10	10	
7:00 AM						0	30	32	31	31	
8:00 AM						0	60	52	56	56	
9:00 AM						74	95	84	84	84	
10:00 AM						114	114	122	119	118	
11:00 AM						120	120	129	137	128	
12:00 PM						119	119	152	159	143	
1:00 PM						117	117	135	205	152	
2:00 PM						147	147	124	163	144	
3:00 PM						151	151	119	119	129	
4:00 PM						197	197	112	121	143	
5:00 PM						191	191	124	106	140	
6:00 PM						154	154	108	96	119	
7:00 PM						98	98	73	55	75	
8:00 PM						44	44	66	31	47	
9:00 PM						25	25	47	17	29	
10:00 PM						22	22	22	13	19	
11:00 PM						9	9	13	2	8	
<b>Day Total</b>						<b>1582</b>	<b>1582</b>	<b>1578</b>	<b>1537</b>	<b>1600</b>	
% Weekday Average						100.0%					
% Week Average						98.9%	98.9%	96.1%	96.1%	96.1%	
AM Peak Volume						11:00 AM 120	11:00 AM 120	11:00 AM 129	11:00 AM 137	11:00 AM 128	
PM Peak Volume						4:00 PM 197	4:00 PM 197	12:00 PM 152	1:00 PM 205	1:00 PM 152	
Comments:											

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 2 of 5

QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 14 2011 - Feb 18 2011

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
Start Time	14-Feb-11	15-Feb-11	16-Feb-11	17-Feb-11	18-Feb-11					
12:00 AM	1	3	0	2	2	1			1	
1:00 AM	1	3	2	4	3	2			2	
2:00 AM	5	0	1	0	3	1			1	
3:00 AM	3	5	2	1	2	2			2	
4:00 AM	6	7	11	5	4	6			6	
5:00 AM	7	6	6	5	12	7			7	
6:00 AM	24	16	19	22	25	21			21	
7:00 AM	41	80	82	73	74	70			70	
8:00 AM	72	90	105	78	80	85			85	
9:00 AM	106	102	118	88	103	103			103	
10:00 AM	136	83	117	116	113	113			113	
11:00 AM	186	188	167	143	171	171			171	
12:00 PM	166	116	140	131	138	138			138	
1:00 PM	132	107	120	100	114	114			114	
2:00 PM	115	133	135	135	129	129			129	
3:00 PM	120	140	121	140	130	130			130	
4:00 PM	147	172	152	166	159	159			159	
5:00 PM	155	140	149	143	146	146			146	
6:00 PM	145	173	143	136	149	149			149	
7:00 PM	89	87	122	89	96	96			96	
8:00 PM	66	97	104	104	92	92			92	
9:00 PM	31	24	50	44	37	37			37	
10:00 PM	17	10	12	10	12	12			12	
11:00 PM	7	6	4	11	7	7			7	
<b>Day Total</b>	<b>1778</b>	<b>1788</b>	<b>1882</b>	<b>1746</b>	<b>205</b>	<b>1791</b>			<b>1791</b>	
% Weekday Average	112.4%	99.8%	105.1%	97.5%	114%					
% Week Average	111.1%	99.8%	105.1%	97.5%	114%	100.0%				
AM Peak Volume	11:00 AM	11:00 AM	11:00 AM	8:00 AM	11:00 AM				11:00 AM	
PM Peak Volume	12:00 PM	6:00 PM	4:00 PM	4:00 PM	4:00 PM				4:00 PM	
Comments:										

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

**SUMMARY - Tube Count - Volume Data (Weekday)**

Page 3 of 5

QC JOB #: 105581811

DIRECTION: EB

DATE: Feb 07 2011 - Feb 11 2011

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Average Weekday Profile
07-Feb-11	07-Feb-11	08-Feb-11	09-Feb-11	10-Feb-11	11-Feb-11		
12:00 AM	1	3	0	2	2	1	
1:00 AM	1	3	2	4	3	2	
2:00 AM	5	0	1	0	3	1	
3:00 AM	3	5	2	1	2	2	
4:00 AM	6	7	11	5	4	6	
5:00 AM	7	6	6	5	12	7	
6:00 AM	24	16	19	22	25	21	
7:00 AM	41	80	82	73	74	70	
8:00 AM	72	90	105	78	80	85	
9:00 AM	106	102	118	88	74	97	
10:00 AM	136	83	117	116	114	113	
11:00 AM	186	188	167	143	120	160	
12:00 PM	166	116	140	131	119	134	
1:00 PM	132	107	120	100	117	115	
2:00 PM	115	133	135	135	147	133	
3:00 PM	120	140	121	140	151	134	
4:00 PM	147	172	152	166	197	166	
5:00 PM	155	149	149	143	191	155	
6:00 PM	145	173	143	136	154	150	
7:00 PM	89	87	122	89	98	97	
8:00 PM	66	97	104	104	44	83	
9:00 PM	31	24	50	44	25	34	
10:00 PM	17	10	12	10	22	14	
11:00 PM	7	6	4	11	9	7	
Day Total	1778	1788	1882	1746	1787	1787	
% Weekday Average	99.5%	100.1%	105.3%	97.7%	100.0%		
% Week Average							
AM Peak Volume	11:00 AM						
PM Peak Volume	12:00 PM	6:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	
Comments:							

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Volume Data

Page 4 of 5

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

**SUMMARY - Tube Count - Volume Data (Weekend)**

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 12 2011 - Feb 13 2011

Start Time				Sat	Sun	Average Weekend Hourly Traffic	Average Weekend Profile
				12-Feb-11	13-Feb-11		
12:00 AM				11	5	8	8
1:00 AM				6	1	3	3
2:00 AM				4	2	3	3
3:00 AM				4	2	3	3
4:00 AM				5	2	3	3
5:00 AM				7	3	5	5
6:00 AM				10	11	10	10
7:00 AM				30	32	31	31
8:00 AM				60	52	56	56
9:00 AM				95	84	89	89
10:00 AM				122	119	120	120
11:00 AM				129	137	133	133
12:00 PM				152	159	155	155
1:00 PM				135	205	170	170
2:00 PM				124	163	143	143
3:00 PM				119	119	119	119
4:00 PM				112	121	116	116
5:00 PM				124	106	115	115
6:00 PM				108	96	102	102
7:00 PM				73	55	64	64
8:00 PM				66	31	48	48
9:00 PM				47	17	32	32
10:00 PM				22	13	17	17
11:00 PM				13	2	7	7
<b>Day Total</b>				<b>1578</b>	<b>1537</b>	<b>1552</b>	
% Weekday Average							
% Week Average							
AM Peak Volume							
PM Peak Volume							
Comments:							

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

**LOCATION:** W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
**SPECIFIC LOCATION:** 100 ft from  
**CITY/STATE:** Tracy, CA

**SUMMARY - Tube Count - Volume Data (Week)**

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
Start Time	07-Feb-11	08-Feb-11	09-Feb-11	10-Feb-11	11-Feb-11	Hourly Traffic	12-Feb-11	13-Feb-11	Hourly Traffic	
12:00 AM	1	3	0	2	2	1	11	5	3	
1:00 AM	1	3	2	4	3	2	6	1	2	
2:00 AM	5	0	1	0	3	1	4	2	2	
3:00 AM	3	5	2	1	2	2	4	2	2	
4:00 AM	6	7	11	5	4	6	5	2	5	
5:00 AM	7	6	6	5	12	7	7	3	6	
6:00 AM	24	16	19	22	25	21	10	11	18	
7:00 AM	41	80	82	73	74	70	30	32	58	
8:00 AM	72	90	105	78	80	85	60	52	76	
9:00 AM	106	102	118	88	74	97	95	84	95	
10:00 AM	136	83	117	116	114	113	122	119	115	
11:00 AM	186	188	167	143	120	160	129	137	152	
12:00 PM	166	116	140	131	119	134	152	159	140	
1:00 PM	132	107	120	100	117	115	135	205	130	
2:00 PM	115	133	135	135	147	133	124	163	136	
3:00 PM	120	140	121	140	151	134	119	119	130	
4:00 PM	147	172	152	166	197	166	112	121	152	
5:00 PM	155	140	149	143	191	155	124	106	144	
6:00 PM	145	173	143	136	154	150	108	96	136	
7:00 PM	89	87	122	89	98	97	73	55	87	
8:00 PM	66	97	104	104	44	83	66	31	73	
9:00 PM	31	24	50	44	25	34	47	17	34	
10:00 PM	17	10	12	10	22	14	22	13	15	
11:00 PM	7	6	4	11	9	7	13	2	7	
<b>Day Total</b>	<b>1778</b>	<b>1788</b>	<b>1882</b>	<b>1746</b>	<b>1787</b>	<b>1787</b>	<b>1578</b>	<b>1537</b>	<b>1718</b>	
% Weekday Average	99.5%	100.1%	105.3%	97.7%	100.0%					
% Week Average	103.5%	104.1%	109.5%	101.6%	104.0%					
AM Peak Volume	11:00 AM 186	11:00 AM 188	11:00 AM 167	11:00 AM 143	11:00 AM 120	11:00 AM 160	11:00 AM 129	11:00 AM 137	11:00 AM 152	
PM Peak Volume	12:00 PM 166	6:00 PM 173	4:00 PM 152	4:00 PM 166	4:00 PM 197	4:00 PM 166	12:00 PM 152	1:00 PM 205	4:00 PM 152	
Comments:										

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 1 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 11/2011

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number in Pace
12:00 AM																	
1:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	2	0	2	4	4	6	6	6	10	12	13	13	13	13	13	13	13
6:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Day Total	15	1	3	14	39	42	62	171	388	320	154	38	10	5	1262	51-60	707
Percent	1.2%	0.1%	0.2%	1.1%	3.1%	3.3%	4.9%	13.5%	30.7%	25.4%	12.2%	3.0%	0.8%	0.4%			
AM Peak Volume	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
PM Peak Volume	2	5	2	12	10	6	12	20	41	40	25	22	7	2	1	1	1
Comments:																	

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)											QC JOB #: 10581811								
SPECIFIC LOCATION: 100 ft from											DIRECTION: WB								
CITY/STATE: Tracy, CA											DATE: Feb 12 2011								
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace	Number in Pace	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999					
12:00 AM	0	0	0	0	0	1	0	1	6	2	0	0	0	0	0	0	10	51-60	8
1:00 AM	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	4	51-60	3
2:00 AM	0	0	0	0	0	0	0	0	1	2	1	0	1	1	0	0	6	46-55	3
3:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	61-70	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	56-65	2
5:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	56-65	5
6:00 AM	0	0	0	0	1	3	3	2	1	5	9	2	0	0	0	0	26	52-61	13
7:00 AM	0	0	0	2	2	2	3	2	5	5	5	1	1	0	0	0	23	51-60	10
8:00 AM	0	0	0	0	3	2	2	7	7	13	6	1	0	0	0	0	41	55-64	19
9:00 AM	1	0	0	0	3	2	5	6	7	15	5	2	1	0	0	0	47	53-62	21
10:00 AM	6	0	0	0	4	5	5	11	23	28	8	4	0	1	95	51-60	50		
11:00 AM	0	0	0	3	1	8	16	27	16	15	3	0	1	93	51-60	43			
12:00 PM	4	0	0	1	1	5	3	22	25	36	17	2	0	0	116	51-60	60		
1:00 PM	2	0	0	0	0	1	5	4	16	29	39	12	4	1	1	114	51-60	68	
2:00 PM	1	0	1	1	3	3	2	17	28	34	21	4	1	0	0	116	51-60	62	
3:00 PM	1	0	0	1	0	1	8	10	25	47	12	5	3	0	0	113	51-60	71	
4:00 PM	0	0	0	0	0	3	2	3	10	32	40	22	3	1	1	117	51-60	72	
5:00 PM	3	0	0	0	2	3	6	9	23	34	23	10	0	1	0	114	51-60	57	
6:00 PM	1	0	3	10	18	13	11	23	30	15	3	1	1	1	1	130	46-55	52	
7:00 PM	0	0	2	12	6	8	9	20	31	17	4	0	1	0	0	110	47-56	50	
8:00 PM	1	0	0	1	2	2	10	11	17	11	4	1	0	0	0	60	51-60	28	
9:00 PM	1	0	0	0	0	0	2	15	8	11	2	1	0	0	0	40	46-55	23	
10:00 PM	0	0	0	1	0	0	0	3	3	14	7	1	0	0	0	30	51-60	20	
11:00 PM	0	0	0	0	0	0	0	2	4	7	5	0	0	0	0	18	51-60	11	
Day Total	21	0	6	35	55	61	93	220	364	377	152	35	10	6	1435	51-60	741		
Percent	1.5%	0.0%	0.4%	2.4%	3.8%	4.3%	6.5%	15.3%	25.4%	26.3%	10.6%	2.4%	0.7%	0.4%					
AM Peak Volume	6																		
PM Peak Volume	12:00 PM	6:00 PM	5:00 PM	5:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	1:00 PM	10:00 AM	10:00 AM	10:00 AM	10:00 AM						
Comments:															10:00 AM	9:55			

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Start Time	1	16	21	26	30	35	40	45	50	55	56	61	66	71	76	Total	Pace	Number in Pace
12:00 AM	0	0	0	0	0	0	0	1	1	5	2	0	1	0	1	11	51-60	7
1:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	51-60	2
2:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	56-65	4
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	41-50	1
4:00 AM	0	0	1	0	0	0	0	1	0	1	3	0	0	1	0	7	51-60	4
5:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	1	2	1	7	66-75	3
6:00 AM	0	0	0	1	5	6	0	0	3	1	1	1	1	0	0	18	31-40	11
7:00 AM	0	0	1	0	4	2	6	3	2	7	2	2	0	0	0	29	41-50	9
8:00 AM	1	0	0	2	3	7	2	6	6	5	2	1	0	0	0	35	46-55	12
9:00 AM	1	0	0	2	4	17	7	7	10	9	4	1	1	0	0	63	36-45	24
10:00 AM	5	0	1	2	15	20	13	13	12	16	7	3	1	0	0	108	31-40	35
11:00 AM	2	0	1	2	33	27	16	11	22	17	6	2	1	0	0	140	31-40	60
12:00 PM	5	0	0	5	29	31	17	15	21	10	11	3	0	0	0	147	31-40	60
1:00 PM	1	0	0	0	4	7	21	6	11	32	15	7	1	0	0	105	51-60	47
2:00 PM	3	0	0	2	2	5	6	20	33	42	10	3	1	0	0	127	51-60	74
3:00 PM	1	0	0	1	5	4	6	13	31	39	23	4	0	1	0	128	51-60	70
4:00 PM	0	0	0	1	9	5	8	26	36	37	11	1	0	0	0	134	51-60	72
5:00 PM	1	0	0	0	1	8	2	10	25	31	32	6	2	0	1	119	51-60	62
6:00 PM	1	0	0	0	1	2	7	9	30	28	19	5	3	0	0	105	46-55	57
7:00 PM	0	0	0	0	2	0	2	4	19	15	18	5	3	0	1	69	50-59	33
8:00 PM	0	0	0	0	0	1	1	2	5	16	13	7	0	1	0	46	51-60	28
9:00 PM	0	0	0	0	1	2	3	3	9	12	7	2	1	0	1	41	46-55	21
10:00 PM	0	0	0	0	0	0	2	2	3	5	0	2	0	0	0	16	51-60	8
11:00 PM	0	0	0	0	0	0	0	1	2	2	2	2	0	0	0	9	56-65	4
Day Total	21	0	4	27	129	163	121	218	324	304	111	35	8	6	1471	51-60	628	
Percent	1.4%	0.0%	0.3%	1.8%	8.8%	11.1%	8.2%	14.8%	22.0%	20.7%	7.5%	2.4%	0.5%	0.4%				
AM Peak	10:00 AM	4:00 AM	8:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	5:00 AM	12:00 PM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	
VOLUME	5	1	2	38	27	16	13	22	17	17	7	3	2	1	1	140		
PM Peak	12:00 PM	4:00 PM	4:00 PM	3:00 PM	3:00 PM	2:00 PM	3:00 PM	3:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM						
VOLUME	5	5	31	29	31	17	30	36	42	23	4	1	1	1	1	147		

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CAPage 4 of 9  
QC JOB #: 10581811  
DIRECTION: WB  
DATE: Feb 14 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace	Number in Pace
12:00 AM	0	0	0	0	0	0	0	0	2	1	0	0	1	0	5	51-60	3	
1:00 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	4	66-75	1	
2:00 AM	0	0	0	0	0	0	0	0	1	2	0	1	0	0	4	46-55	3	
3:00 AM	0	0	0	0	0	0	0	0	0	4	2	0	1	0	7	51-60	6	
4:00 AM	0	0	0	0	0	0	0	1	1	3	4	5	2	1	18	56-65	9	
5:00 AM	1	0	0	0	0	1	0	2	2	18	57	105	60	24	15	285	61-70	165
6:00 AM	4	0	0	1	1	2	3	33	151	186	106	54	8	20	569	51-60	337	
7:00 AM	2	0	0	0	0	0	3	39	137	199	89	30	13	4	516	51-60	335	
8:00 AM	1	0	0	0	2	2	2	9	32	43	26	17	5	3	142	51-60	75	
9:00 AM	0	0	0	0	1	0	4	5	25	28	16	6	1	3	89	51-60	52	
10:00 AM	0	1	0	1	3	2	4	6	9	17	3	3	0	0	49	51-60	26	
11:00 AM	0	0	0	0	0	2	0	1	15	33	23	15	9	2	0	100	51-60	55
12:00 PM	1	0	0	0	0	3	0	8	25	32	17	10	2	1	102	51-60	57	
1:00 PM	1	0	1	2	3	0	2	14	42	34	18	8	4	0	129	51-60	75	
2:00 PM	1	0	0	0	1	0	8	12	27	31	11	1	2	0	94	51-60	57	
3:00 PM	1	0	0	0	0	5	3	14	32	30	9	8	2	0	104	51-60	62	
4:00 PM	0	0	0	1	3	2	6	13	32	85	13	5	2	0	112	51-60	67	
5:00 PM	1	0	0	1	5	4	6	26	51	41	17	7	2	1	162	51-60	91	
6:00 PM	1	0	0	0	4	5	3	6	27	47	34	13	1	1	143	51-60	80	
7:00 PM	0	0	0	0	0	3	1	9	14	27	16	4	3	0	77	51-60	43	
8:00 PM	1	0	0	1	2	0	0	0	23	32	9	8	2	0	82	46-55	55	
9:00 PM	0	0	0	0	0	0	1	6	7	12	9	2	0	0	37	51-60	21	
10:00 PM	0	0	0	0	1	0	0	6	7	6	4	1	0	1	26	46-55	13	
11:00 PM	0	0	0	0	0	0	1	3	1	5	0	4	0	0	14	46-55	6	
Day Total	15	1	2	14	33	24	81	278	754	836	484	228	70	50	2870	51-60	1590	
Percent	0.5%	0.0%	0.1%	0.5%	1.1%	0.8%	2.8%	9.7%	26.3%	29.1%	16.9%	7.9%	2.4%	1.7%				
AM Peak Volume	4	1	1	1	1	1	1	4	39	151	199	106	60	24	6:00 AM	6:00 AM	6:00 AM	
PM Peak Volume	12:00 PM	1	1	1	1	1	4	5	9	27	51	41	18	10	20	5:00 PM	5:00 PM	5:00 PM
Comments:																		

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 5 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 15 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace	Number in Pace	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	84	999				
12:00 AM	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	3	66-75	1	
1:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	46-55	3	
2:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	4	51-60	3	
3:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	8	56-65	5	
4:00 AM	0	0	0	0	0	0	0	0	1	4	5	6	1	1	1	20	56-65	11	
5:00 AM	1	0	0	0	0	0	1	1	1	3	6	25	68	83	34	11	236	56-65	151
6:00 AM	2	0	0	1	1	0	2	10	64	88	84	18	11	2	283	56-65	171		
7:00 AM	0	0	0	0	0	3	3	6	9	31	48	20	8	1	4	133	51-60	79	
8:00 AM	1	0	0	0	0	3	3	2	13	20	24	31	6	1	1	105	56-65	55	
9:00 AM	4	0	0	0	0	1	2	3	17	23	28	15	3	2	1	99	51-60	50	
10:00 AM	1	0	0	0	0	2	2	6	17	19	14	8	1	0	0	70	46-55	36	
11:00 AM	1	0	0	0	1	3	2	5	10	29	24	17	3	1	0	96	51-60	53	
12:00 PM	1	0	0	0	1	0	3	7	15	18	30	6	4	0	2	87	51-60	47	
1:00 PM	2	0	0	0	0	0	4	1	18	27	37	7	4	0	0	100	51-60	64	
2:00 PM	4	0	0	0	0	0	2	5	6	19	25	22	7	2	0	0	92	51-60	47
3:00 PM	3	0	0	0	1	5	1	4	25	37	32	18	4	2	0	0	132	51-60	69
4:00 PM	2	1	1	1	2	2	2	3	18	24	26	10	4	0	0	0	96	51-60	50
5:00 PM	1	0	0	0	3	6	2	8	19	59	28	23	4	3	1	0	157	51-60	87
6:00 PM	3	0	0	0	1	3	9	13	20	41	32	11	2	2	1	0	138	51-60	72
7:00 PM	0	0	0	0	2	3	4	4	15	28	25	11	5	0	0	97	51-60	52	
8:00 PM	2	0	0	0	0	0	1	2	7	16	21	13	4	6	0	1	73	47-56	36
9:00 PM	0	0	0	0	0	0	0	0	2	6	6	10	3	0	0	0	27	51-60	16
10:00 PM	0	0	0	0	0	0	0	0	1	1	3	6	5	0	0	0	16	56-65	11
11:00 PM	0	0	0	0	0	0	0	0	1	5	1	6	1	0	0	0	14	61-70	7
Day Total	28	1	2	12	36	46	83	261	512	565	378	112	36	18	0	2090	51-60	1077	
Percent	1.3%	0.0%	0.1%	0.6%	1.7%	2.2%	4.0%	12.5%	24.5%	27.0%	18.1%	5.4%	1.7%	0.9%	0				
Comments:																			
AM Peak Volume	9:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 AM	8:00 AM	9:00 AM	6:00 AM	6:00 AM	5:00 AM	6:00 AM	6:00 AM	6:00 AM	6:00 AM	
PM Peak Volume	2:00 PM	4:00 PM	4:00 PM	5:00 PM	5:00 PM	6:00 PM	6:00 PM	6:00 PM	1:00 AM	1:00 AM	1:00 AM	5:00 PM							

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Report generated on 2/22/2011 8:45 AM

Type of report: Tube Count - Speed Data  
 LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

QC JOB #: 10581811  
 DIRECTION: WB  
 DATE: Feb 16 2011

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace	Number in Pace	
12:00 AM	1	0	0	0	0	0	1	1	1	0	1	1	0	0	0	6	61-70	2	
1:00 AM	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	5	46-55	5	
2:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	46-55	1	
3:00 AM	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	6	46-55	5	
4:00 AM	0	0	0	0	0	0	1	0	0	3	6	3	3	2	0	0	18	51-60	
5:00 AM	0	0	0	0	0	0	1	4	19	65	89	54	20	8	0	260	51-60	153	
6:00 AM	0	0	0	0	0	1	3	4	18	70	124	71	26	5	1	323	56-65	194	
7:00 AM	1	0	0	0	0	2	3	5	20	49	49	30	16	0	3	178	51-60	98	
8:00 AM	0	0	0	0	0	2	3	9	17	38	62	20	3	2	2	158	51-60	99	
9:00 AM	0	0	0	0	1	1	7	5	14	37	31	13	5	2	0	116	51-60	67	
10:00 AM	1	0	0	0	2	0	2	2	6	18	14	10	1	1	0	57	51-60	31	
11:00 AM	0	0	1	0	1	0	0	3	1	8	39	31	8	2	2	0	96	51-60	70
12:00 PM	1	0	0	0	0	1	0	0	7	19	33	21	11	2	2	0	97	51-60	53
1:00 PM	0	1	0	0	0	0	0	5	13	27	25	12	3	1	0	92	51-60	52	
2:00 PM	2	0	0	0	2	8	5	14	32	13	6	2	0	1	0	85	46-55	46	
3:00 PM	0	0	1	0	1	0	3	16	37	28	17	3	0	0	0	106	51-60	65	
4:00 PM	2	0	0	0	0	4	2	8	25	29	23	8	4	2	0	107	46-55	54	
5:00 PM	1	0	2	1	4	4	9	25	35	33	22	2	1	0	0	139	51-60	67	
6:00 PM	1	0	0	0	3	10	3	19	38	38	17	3	0	0	0	135	51-60	75	
7:00 PM	0	0	0	0	0	9	3	5	25	30	20	10	1	0	0	103	46-55	55	
8:00 PM	1	0	0	0	0	0	0	4	3	21	24	13	6	2	1	76	46-55	45	
9:00 PM	0	0	0	0	0	0	0	1	1	10	14	15	5	0	0	46	51-60	28	
10:00 PM	0	0	0	0	1	2	0	4	2	1	4	0	0	1	0	15	46-55	6	
11:00 PM	0	0	0	0	0	0	0	0	3	1	2	1	1	0	0	9	41-50	4	
Day Total	11	1	4	9	37	55	84	304	631	634	329	99	27	9	2234	51-60	1265		
Percent	0.5%	0.0%	0.2%	0.4%	1.7%	2.5%	3.8%	13.6%	28.2%	28.4%	14.7%	4.4%	1.2%	0.4%					

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data  
 LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number in Pace	
	15	20	25	30	35	40	45	50	55	60	65	70	75	999				
12:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	51-60	2	
1:00 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	4	51-60	4	
2:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	51-60	3	
3:00 AM	0	0	0	0	0	0	0	0	0	2	2	3	0	0	7	56-65	5	
4:00 AM	0	0	0	0	0	0	0	1	0	2	3	3	3	1	17	66-75	6	
5:00 AM	0	0	0	0	0	0	0	0	4	24	64	68	42	10	2	214	56-65	132
6:00 AM	0	0	0	0	0	0	0	1	6	31	92	73	40	9	7	263	56-65	165
7:00 AM	2	0	0	0	0	1	2	5	4	22	53	26	6	4	1	126	56-65	79
8:00 AM	5	0	0	0	2	1	2	4	12	23	44	23	12	2	3	133	56-65	67
9:00 AM	1	0	0	0	0	0	3	5	4	12	30	20	5	1	0	81	56-65	50
10:00 AM	0	0	0	0	0	0	2	2	14	11	18	10	3	1	1	.63	55-64	28
11:00 AM	0	0	0	0	0	0	0	7	14	25	24	6	4	3	0	.89	51-60	49
12:00 PM	2	0	0	0	0	0	1	11	26	21	14	4	1	0	1	.82	46-55	46
1:00 PM	0	0	0	0	0	0	4	1	9	18	22	19	5	0	2	.84	51-60	41
2:00 PM	1	0	0	0	0	0	0	0	11	14	22	18	7	2	0	.79	51-60	40
3:00 PM	0	0	0	0	0	0	2	6	20	41	35	11	6	1	1	.122	51-60	75
4:00 PM	1	0	0	0	0	0	5	2	10	19	34	30	19	3	1	.124	51-60	64
5:00 PM	4	0	0	0	1	3	3	10	24	30	42	13	5	1	1	.137	51-60	71
6:00 PM	1	0	0	0	4	4	3	4	13	45	46	15	4	3	1	.143	51-60	90
7:00 PM	0	0	0	2	0	5	1	4	15	25	17	5	4	2	0	.80	51-60	42
8:00 PM	0	0	0	0	0	0	2	3	8	18	17	18	4	0	1	.71	46-55	35
9:00 PM	0	0	0	0	0	0	1	2	1	6	13	11	2	1	0	.38	51-60	23
10:00 PM	0	0	0	0	0	0	1	0	2	3	3	3	1	0	0	.13	51-60	6
11:00 PM	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	.6	51-60	5
Day Total Percent	17	0	2	19	29	35	100	237	432	590	319	140	44	20	1984	51-60	1022	

Comments:

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Report generated on 2/22/2011 8:45 AM

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 17 2011

## Type of report: Tube Count - Speed Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

Page 8 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 18 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number in Pace	
12:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	46-55	2	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	56-65	1	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51-60	2	
3:00 AM	0	0	0	0	0	0	0	0	1	4	0	0	1	0	7	46-55	5	
4:00 AM	0	0	0	0	0	0	0	0	1	2	5	2	0	0	0	11	56-65	7
5:00 AM	0	0	1	0	0	1	0	1	5	16	36	33	18	6	5	122	56-65	68
6:00 AM	0	0	0	1	2	2	1	6	45	36	36	17	3	1	150	51-60	80	
7:00 AM	0	0	0	0	0	0	1	2	7	29	29	26	6	0	1	101	51-60	58
8:00 AM	0	0	0	5	4	1	10	22	16	10	0	0	0	0	68	51-60	38	
9:00 AM																		
10:00 AM																		
11:00 AM																		
12:00 PM																		
1:00 PM																		
2:00 PM																		
3:00 PM																		
4:00 PM																		
5:00 PM																		
6:00 PM																		
7:00 PM																		
8:00 PM																		
9:00 PM																		
10:00 PM																		
11:00 PM																		
Day Total	0	0	1	1	8	6	31	121	123	108	42	9	7	465	51-60	244		
Percent	0.0%	0.0%	0.2%	0.2%	1.7%	1.7%	6.7%	1.3%	1.7%	26.0%	26.5%	23.2%	9.0%	1.9%	1.5%			
AM Peak Volume	5:00 AM	6:00 AM	8:00 AM	7:00 AM	8:00 AM	5:00 AM	6:00 AM	5:00 AM	6:00 AM	5:00 AM	6:00 AM	150						
PM Peak Volume	1	5	4	2	10	45	36	36	18	18	6	5						
Comments:																		

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Speed Data

**SUMMARY - Tube Count - Speed Data**

Page 9 of 9

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 11 2011 - Feb 18 2011

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
Grand Total	128	4	24	131	366	434	630	1720	3526	3749	2035	729	214	121	13811	51-60	7275
Percent	0.9%	0.0%	0.2%	0.9%	2.7%	3.1%	4.6%	12.5%	25.5%	27.1%	14.7%	5.3%	1.5%	0.9%			
Cumulative Percent	0.9%	1.0%	1.1%	2.1%	4.7%	7.9%	12.4%	24.9%	50.4%	77.6%	92.3%	97.6%	99.1%	100.0%			

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 1 of 5

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 11 2011 - Feb 13 2011

Start Time	Average Weekday						Average Week			Average Week Profile	
	Mon	Tue	Wed	Thu	Fri	Average Hourly Traffic	12-Feb-11	13-Feb-11	Sat	Sun	Average Week Hourly Traffic
12:00 AM						0	0	0	10	11	10
1:00 AM						0	0	4	2	3	0
2:00 AM						0	0	6	4	5	0
3:00 AM						0	0	3	1	2	0
4:00 AM						0	0	2	7	4	0
5:00 AM						0	0	7	7	7	0
6:00 AM						0	0	26	18	22	0
7:00 AM						0	0	23	29	26	0
8:00 AM						0	0	41	35	38	0
9:00 AM						76	76	47	63	62	0
10:00 AM						72	72	95	108	91	0
11:00 AM						92	92	93	140	108	0
12:00 PM						110	110	116	147	124	0
1:00 PM						102	102	114	105	107	0
2:00 PM						89	89	116	127	110	0
3:00 PM						125	125	113	128	122	0
4:00 PM						108	108	117	134	119	0
5:00 PM						116	116	114	119	116	0
6:00 PM						106	106	130	105	113	0
7:00 PM						101	101	110	69	93	0
8:00 PM						68	68	60	46	58	0
9:00 PM						55	55	40	41	45	0
10:00 PM						25	25	30	16	23	0
11:00 PM						17	17	18	9	14	0
<b>Day Total</b>						1262	1262	1435	1471	1422	
% Weekday Average						100.0%					
% Week Average						88.7%					
AM Peak Volume						11:00 AM 92	11:00 AM 92	10:00 AM 95	11:00 AM 140	11:00 AM 108	
PM Peak Volume						3:00 PM 125	3:00 PM 125	6:00 PM 130	12:00 PM 147	12:00 PM 124	
Comments:											

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 2 of 5

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 14 2011 - Feb 18 2011

Start Time

14-Feb-11

Mon

Tue

Wed

Thu

Fri

Average Weekday

Hourly Traffic

Sun

Sat

Average Week

Hourly Traffic

Start Time	14-Feb-11	15-Feb-11	16-Feb-11	17-Feb-11	18-Feb-11	Average Weekday	Average Week	Average Week
	Mon	Tue	Wed	Thu	Fri	Hourly Traffic	Hourly Traffic	Hourly Traffic
12:00 AM	5	3	6	3	3	4	4	4
1:00 AM	4	4	5	4	1	3	3	3
2:00 AM	4	4	1	5	2	3	3	3
3:00 AM	7	8	6	7	7	7	7	7
4:00 AM	18	20	18	17	11	16	16	16
5:00 AM	285	236	260	214	122	223	223	223
6:00 AM	569	283	323	263	150	317	317	317
7:00 AM	516	133	178	126	101	210	210	210
8:00 AM	142	105	158	133	68	121	121	121
9:00 AM	89	99	116	81	96	96	96	96
10:00 AM	49	70	57	63	59	59	59	59
11:00 AM	100	96	96	89	95	95	95	95
12:00 PM	102	87	97	82	92	92	92	92
1:00 PM	129	100	92	84	101	101	101	101
2:00 PM	94	92	85	79	87	87	87	87
3:00 PM	104	132	106	122	116	116	116	116
4:00 PM	112	96	107	124	109	109	109	109
5:00 PM	162	157	139	137	148	148	148	148
6:00 PM	143	138	135	143	139	139	139	139
7:00 PM	77	97	103	80	89	89	89	89
8:00 PM	82	73	76	71	75	75	75	75
9:00 PM	37	27	46	38	37	37	37	37
10:00 PM	26	16	15	13	17	17	17	17
11:00 PM	14	14	9	6	10	10	10	10
Day Total	2870	2090	2234	1984	465	2174	2174	2174
% Weekday Average	227.4%	96.1%	102.8%	91.3%	21.4%	100.0%	100.0%	100.0%
% Week Average	201.8%	96.1%	102.8%	91.3%	21.4%	100.0%	100.0%	100.0%
AM Peak Volume	6:00 AM	317	317	317				
PM Peak Volume	5:00 PM	5:00 PM	6:00 PM	6:00 PM	5:00 PM	148	148	148

Comments:

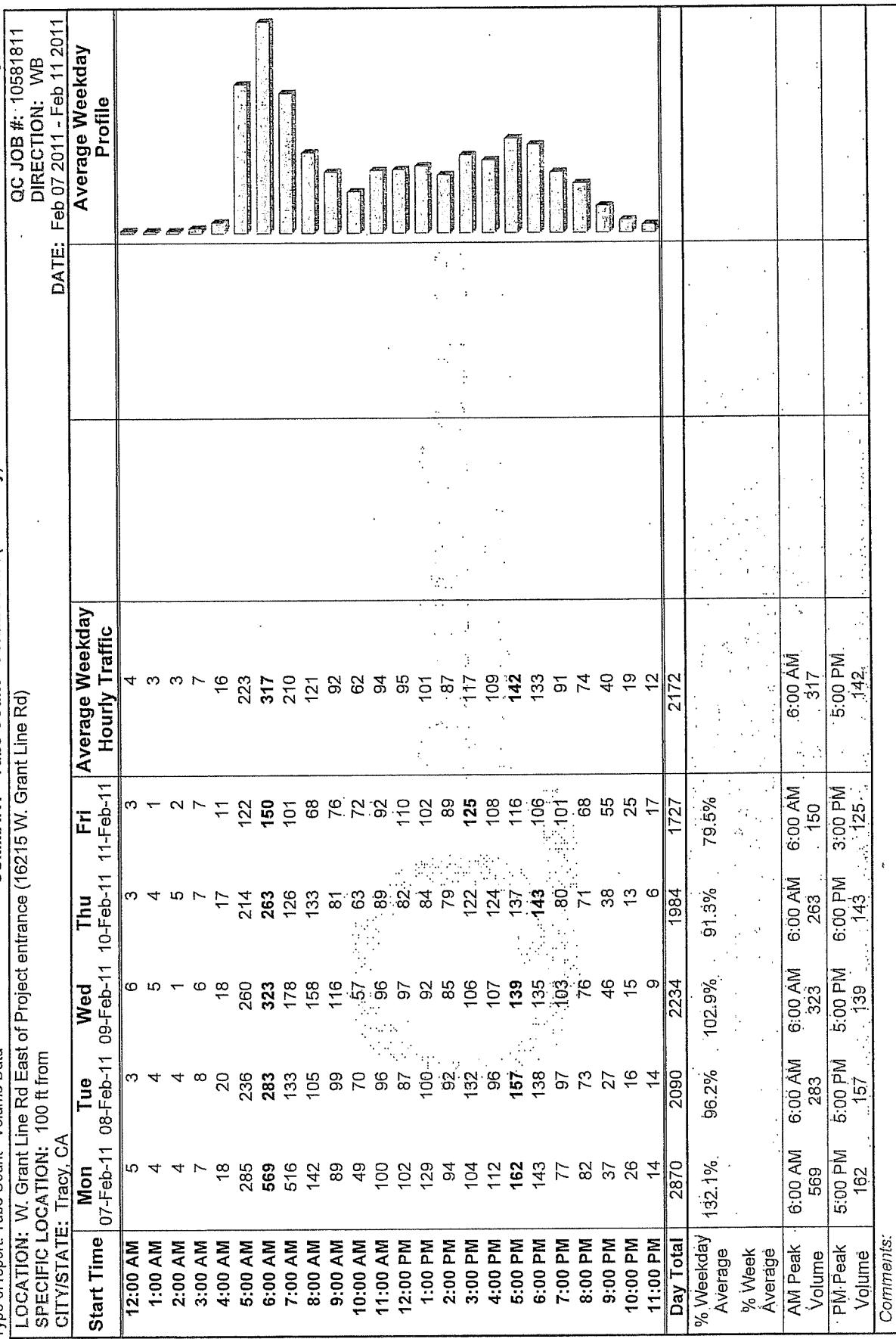
Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## SUMMARY - Tube Count - Volume Data (Weekday)

Type of report: Tube Count - Volume Data  
LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
**SUMMARY - Tube Count**

Type of report: Telephone Count - Volume Data



Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA**SUMMARY - Tube Count - Volume Data (Weekend)**

Page 4 of 5

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 12 2011 - Feb 13 2011

Start Time				Sat			Sun			Average Weekend Profile		
				12-Feb-11	13-Feb-11	12-Feb-11	13-Feb-11	10	11	10	11	10
12:00 AM								4	2	3	3	
1:00 AM								6	4	5	5	
2:00 AM								3	1	2	2	
3:00 AM								2	7	4	4	
4:00 AM								7	7	7	7	
5:00 AM								26	18	22	22	
6:00 AM								23	29	26	26	
7:00 AM								41	35	38	38	
8:00 AM								47	63	55	55	
9:00 AM								95	108	101	101	
10:00 AM								93	140	116	116	
11:00 AM								116	147	131	131	
12:00 PM								114	105	109	109	
1:00 PM								116	127	124	124	
2:00 PM								113	128	120	120	
3:00 PM								117	134	125	125	
4:00 PM								114	119	116	116	
5:00 PM								130	105	117	117	
6:00 PM								110	69	89	89	
7:00 PM								60	46	53	53	
8:00 PM								40	41	40	40	
9:00 PM								30	16	23	23	
10:00 PM								18	9	13	13	
11:00 PM								1435	1471	1446	1446	
<b>Day Total</b>												
% Weekday Average												
% Week Average												
AM Peak Volume												
PM Peak Volume												
<b>Comments:</b>												

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Volume Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

### SUMMARY - Tube Count - Volume Data (Week)

Page 5 of 5

QC JOB #: 1058-811

DIRECTION: WB

DATE: Feb 07 2011 - Feb 13 2011

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic
	07-Feb-11	08-Feb-11	09-Feb-11	10-Feb-11	11-Feb-11		12-Feb-11	13-Feb-11	
12:00 AM	5	3	6	3	3	4	10	11	5
1:00 AM	4	4	5	4	1	3	4	2	3
2:00 AM	4	4	1	5	2	3	6	4	3
3:00 AM	7	8	6	7	7	7	3	1	5
4:00 AM	18	20	18	17	11	16	2	7	13
5:00 AM	285	236	260	214	122	223	7	7	161
6:00 AM	<b>569</b>	<b>283</b>	<b>323</b>	<b>263</b>	<b>150</b>	<b>317</b>	<b>26</b>	<b>18</b>	<b>233</b>
7:00 AM	516	133	178	126	101	210	23	29	158
8:00 AM	142	105	158	133	68	121	41	35	97
9:00 AM	89	99	116	81	76	92	47	63	81
10:00 AM	49	70	57	63	72	62	<b>95</b>	108	73
11:00 AM	100	96	96	89	92	94	<b>93</b>	<b>140</b>	100
12:00 PM	102	87	97	82	110	95	116	<b>147</b>	105
1:00 PM	129	100	92	84	102	101	114	105	103
2:00 PM	94	92	85	79	89	87	116	127	97
3:00 PM	104	132	106	122	<b>125</b>	117	113	128	118
4:00 PM	112	96	107	124	108	109	117	134	114
5:00 PM	<b>162</b>	<b>157</b>	<b>139</b>	<b>137</b>	116	<b>142</b>	114	119	<b>134</b>
6:00 PM	143	138	135	<b>143</b>	106	133	<b>130</b>	105	128
7:00 PM	77	97	103	80	101	91	110	69	91
8:00 PM	82	73	76	71	68	74	60	46	68
9:00 PM	37	27	46	38	55	40	40	41	40
10:00 PM	26	16	15	13	25	19	30	16	20
11:00 PM	14	14	9	6	17	12	18	9	12
<b>Day Total</b>	<b>2870</b>	<b>2090</b>	<b>2234</b>	<b>1984</b>	<b>1727</b>	<b>2172</b>	<b>1435</b>	<b>1471</b>	<b>1962</b>
% Weekday Average	132.1%	96.2%	102.9%	91.3%	79.5%				
% Week Average	146.3%	106.5%	113.9%	101.1%	88.0%				
AM Peak Volume	6:00 AM 569	6:00 AM 283	6:00 AM 328	6:00 AM 263	6:00 AM 150	6:00 AM 317	10:00 AM 95	11:00 AM 140	6:00 AM 233
PM Peak Volume	5:00 PM 162	5:00 PM 157	5:00 PM 139	3:00 PM 143	3:00 PM 125	5:00 PM 142	6:00 PM 130	12:00 PM 147	5:00 PM 134
Comments:									

Report generated on 2/22/2011 8:44 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 1 of 9  
QC JOB #: 10581811  
DIRECTION: EB  
DATE: Feb 11 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	5 Axle Double	>6 Axle Multi	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM															
1:00 AM															
2:00 AM															
3:00 AM															
4:00 AM															
5:00 AM															
6:00 AM															
7:00 AM															
8:00 AM															
9:00 AM	0	46	24	0	1	0	0	0	1	0	0	0	0	0	74
10:00 AM	2	86	25	0	1	0	0	0	0	0	0	0	0	0	114
11:00 AM	1	82	28	1	4	0	0	0	2	0	0	0	0	0	120
12:00 PM	1	91	25	0	0	0	0	0	1	0	0	0	0	0	119
1:00 PM	4	82	24	0	6	0	0	0	0	0	0	0	0	0	117
2:00 PM	2	103	37	1	3	0	0	0	0	0	0	0	0	0	147
3:00 PM	3	106	33	0	4	1	0	0	1	0	0	0	0	0	151
4:00 PM	3	148	36	0	6	0	0	0	0	0	1	0	0	0	197
5:00 PM	3	142	36	0	7	0	0	0	0	0	0	0	0	0	191
6:00 PM	1	127	22	0	1	0	0	0	0	0	0	0	0	0	154
7:00 PM	5	81	10	0	1	0	0	0	0	0	0	0	0	0	98
8:00 PM	0	38	6	0	0	0	0	0	0	0	0	0	0	0	44
9:00 PM	0	18	6	0	0	1	0	0	0	0	0	0	0	0	25
10:00 PM	0	16	5	0	1	0	0	0	0	0	0	0	0	0	22
11:00 PM	0	5	3	0	1	0	0	0	0	0	0	0	0	0	9
Day Total	25	1171	320	2	36	3	0	4	3	0	1	0	0	0	1582
Percent	1.6%	74.0%	20.2%	0.1%	2.3%	0.2%	0.0%	0.3%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	1.1%
															
AM Peak Volume	2	86	28	1	4	1	0	2	1	0	0	0	0	0	9:00 AM
PM Peak Volume	7:00 PM	4:00 PM	148	400 PM	2:00 PM	5:00 PM	3:00 PM	12:00 PM	3:00 PM	4:00 PM	1	1	1	1	11:00 AM
Comments:															

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 2 of 9

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 12 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle	3 Axle	4 Axle	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	10	1	0	0	0	0	0	0	0	0	0	0	0	11
1:00 AM	0	5	0	1	0	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
5:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	0	8	1	0	0	0	0	1	0	0	0	0	0	0	10
7:00 AM	0	26	3	0	1	0	0	0	0	0	0	0	0	0	30
8:00 AM	2	38	19	0	1	0	0	0	0	0	0	0	0	0	60
9:00 AM	0	81	11	0	3	0	0	0	0	0	0	0	0	0	95
10:00 AM	0	94	23	1	3	0	0	0	0	0	0	0	0	0	122
11:00 AM	3	105	17	0	3	0	0	0	0	0	0	0	0	1	129
12:00 PM	0	113	34	0	2	0	0	0	0	1	0	0	0	2	152
1:00 PM	3	108	20	0	1	0	0	0	0	1	0	0	0	2	135
2:00 PM	5	91	18	0	5	0	0	0	0	0	0	0	0	0	4
3:00 PM	4	93	19	0	2	0	0	0	0	0	0	0	0	1	119
4:00 PM	4	85	22	0	1	0	0	0	0	0	0	0	0	0	112
5:00 PM	0	93	23	0	6	0	0	0	0	0	0	0	0	2	124
6:00 PM	0	86	20	0	0	0	0	0	0	0	0	0	0	2	108
7:00 PM	2	59	10	0	2	0	0	0	0	0	0	0	0	0	73
8:00 PM	1	56	6	0	2	0	0	0	0	0	0	0	0	0	66
9:00 PM	0	38	8	0	0	0	0	0	0	0	0	0	0	1	47
10:00 PM	0	17	4	0	1	0	0	0	0	0	0	0	0	0	22
11:00 PM	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Day Total	24	1237	261	2	33	0	0	1	3	0	0	0	0	17	1578
Percent	1.5%	78.4%	16.5%	0.1%	2.1%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	1.1%	
AM Peak Volume	3	105	23	1	3	0	0	0	1	1	0	0	0	0	
PM Peak Volume	5	113	34	6	6	0	0	0	1	1	0	0	0	0	
Comments:															

AM Peak Volume	11:00 AM	11:00 AM	10:00 AM	1:00 AM	9:00 AM	9:00 AM	6:00 AM	6:00 AM	10:00 AM						
PM Peak Volume	2:00 PM	12:00 PM	12:00 PM	5:00 PM	5:00 PM	6	6	1	1	1	1	1	1	1	1
Comments:															

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Vehicle Classification Data  
 LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	4	0	0	1	0	0	0	0	0	0	0	0	5
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	0	10	1	0	0	0	0	0	0	0	0	0	0	11
7:00 AM	0	22	8	0	2	0	0	0	0	0	0	0	0	32
8:00 AM	0	39	11	0	1	0	0	1	0	0	0	0	0	52
9:00 AM	0	67	14	0	2	0	0	0	0	0	0	0	1	84
10:00 AM	3	87	24	0	3	0	0	1	0	0	0	0	0	119
11:00 AM	1	100	32	0	3	0	0	0	0	0	0	0	0	137
12:00 PM	4	117	34	0	2	0	0	0	0	0	0	0	0	2
1:00 PM	4	164	32	0	2	0	0	0	0	0	0	0	0	205
2:00 PM	3	132	20	0	4	1	0	0	0	0	0	0	0	163
3:00 PM	3	95	17	0	2	0	0	0	0	0	0	0	0	2
4:00 PM	0	90	26	0	5	0	0	0	0	0	0	0	0	121
5:00 PM	2	81	22	0	1	0	0	0	0	0	0	0	0	106
6:00 PM	2	79	12	0	1	0	0	0	0	0	0	0	0	96
7:00 PM	0	49	6	0	0	0	0	0	0	0	0	0	0	55
8:00 PM	0	28	3	0	0	0	0	0	0	0	0	0	0	31
9:00 PM	0	16	1	0	0	0	0	0	0	0	0	0	0	17
10:00 PM	0	9	4	0	0	0	0	0	0	0	0	0	0	13
11:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	2
<b>Day Total</b>	<b>22</b>	<b>1198</b>	<b>269</b>	<b>0</b>	<b>30</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>1537</b>
<b>Percent</b>	<b>1.4%</b>	<b>77.9%</b>	<b>17.5%</b>	<b>0.0%</b>	<b>2.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.0%</b>	
<b>Comments:</b>														
AM Peak	10:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	11:00 AM
AM Volume	3	100	32	3	5	3	1	1	1	1	1	1	1	1
PM Peak	12:00 PM	1:00 PM	12:00 PM	4:00 PM	2:00 PM	4:00 PM	2:00 PM	4:00 PM	2:00 PM	4:00 PM	2:00 PM	4:00 PM	2:00 PM	1:00 PM
PM Volume	4	164	34	5	1	5	1	5	1	5	1	5	1	3

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Report generated on 2/22/2011 8:45 AM

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 14 2011

Start Time	Motor-cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle	3 Axle	4 Axle Single	<5 Axle Double	>6 Axle Double	5 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	4	2	0	1	0	0	0	0	0	0	0	0	7
6:00 AM	0	15	3	0	3	0	0	0	1	0	0	0	0	24
7:00 AM	0	27	10	0	2	1	0	0	0	0	0	0	1	41
8:00 AM	0	49	20	1	2	0	0	0	0	0	0	0	0	72
9:00 AM	0	80	23	0	1	0	0	1	1	0	0	0	0	106
10:00 AM	0	108	25	0	3	0	0	0	0	0	0	0	0	136
11:00 AM	0	145	37	0	3	0	0	0	0	0	0	0	0	186
12:00 PM	1	119	35	0	6	0	0	0	3	0	0	0	0	166
1:00 PM	0	110	20	0	2	0	0	0	0	0	0	0	0	132
2:00 PM	0	85	25	0	2	1	0	0	0	0	0	0	0	115
3:00 PM	0	87	27	0	5	0	0	0	0	0	0	0	0	120
4:00 PM	1	113	25	0	8	0	0	0	0	0	0	0	0	147
5:00 PM	0	120	34	0	0	0	0	0	0	0	0	0	0	155
6:00 PM	0	122	18	0	3	0	0	1	0	0	0	0	0	145
7:00 PM	0	80	9	0	0	0	0	0	0	0	0	0	0	89
8:00 PM	0	53	11	0	1	0	0	0	0	0	0	0	0	66
9:00 PM	0	26	5	0	0	0	0	0	0	0	0	0	0	31
10:00 PM	0	13	3	0	1	0	0	0	0	0	0	0	0	17
11:00 PM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Day Total	2	1377	334	1	43	2	0	2	6	0	0	0	11	1778
Percent	0.1%	77.4%	18.8%	0.1%	2.4%	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.6%	
AM Peak Volume		145	37	1	3	1								
PM Peak Volume	1	122	35	8	1	1								
Comments:														

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Vehicle Classification Data  
 LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Start Time	Motor- cycles	Cars & Trailer		Buses	2 Axle Long	3 Axle 6 Tire	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
		Long	Single											
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	1	1	0	0	0	0	0	0	0	2
4:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
5:00 AM	0	4	2	0	0	0	0	0	0	0	0	0	0	6
6:00 AM	0	7	5	0	2	0	0	0	1	0	0	0	1	16
7:00 AM	1	58	16	1	2	0	0	1	0	0	0	0	0	80
8:00 AM	0	68	18	0	2	0	0	0	0	0	0	0	0	90
9:00 AM	0	86	12	0	1	0	0	0	2	0	0	0	0	102
10:00 AM	1	64	11	0	5	1	0	0	0	0	0	0	0	83
11:00 AM	0	156	27	0	2	0	0	0	1	0	0	0	0	188
12:00 PM	1	91	21	0	2	0	0	0	0	0	0	0	0	116
1:00 PM	0	84	18	0	3	0	0	0	0	0	0	0	0	107
2:00 PM	0	100	24	0	3	1	0	1	0	0	0	0	0	133
3:00 PM	0	102	29	2	0	0	0	0	1	0	0	0	0	140
4:00 PM	0	125	38	1	4	1	0	0	1	0	0	0	0	172
5:00 PM	1	105	28	0	4	0	0	0	0	0	0	0	0	140
6:00 PM	1	142	27	0	2	0	0	0	0	0	0	0	0	173
7:00 PM	0	69	16	0	2	0	0	0	0	0	0	0	0	87
8:00 PM	0	85	10	0	0	1	0	0	0	0	0	0	0	97
9:00 PM	1	19	3	0	1	0	0	0	0	0	0	0	0	24
10:00 PM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
11:00 PM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Day Total	6	1393	307	4	36	7	0	2	7	0	0	0	0	26
Percent	0.3%	77.9%	17.2%	0.2%	2.0%	0.4%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	1.5%
AM Peak Volume	1	156	27	1	5	2								
PM Peak Volume	1	142	38	2	4	1								

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 15 2011

**LOCATION:** W Grant | ine Bd East of Project entrance (16215 W Grant | ine Bd)

#### **SPECIFIC LOCATION:** 100 ft from

SPECIFIC LOCATION: 100 FT FROM CITY/STATE: TRUCKEE CA

100

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

Page 7 of 9

QC JOB #: 10581811

DIRECTION: EB

DATE: Feb 17 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	5 Axle Double	>6 Axle Double	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	5
5:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
6:00 AM	0	15	3	0	3	0	0	0	0	0	0	0	0	22
7:00 AM	1	55	13	1	3	0	0	0	0	0	0	0	0	73
8:00 AM	0	50	23	1	1	0	0	0	1	0	0	0	0	78
9:00 AM	0	65	19	0	2	1	0	0	0	0	0	0	0	88
10:00 AM	1	80	27	1	4	1	0	0	1	0	0	0	0	116
11:00 AM	0	103	33	1	5	0	0	0	0	0	0	0	0	143
12:00 PM	0	85	38	0	5	0	0	0	1	0	0	0	0	131
1:00 PM	0	77	16	0	6	0	0	0	0	0	0	0	0	100
2:00 PM	0	108	22	0	5	0	0	0	0	0	0	0	0	135
3:00 PM	0	98	35	1	2	1	0	0	0	0	0	0	0	140
4:00 PM	0	124	34	0	6	0	0	0	1	0	0	0	0	166
5:00 PM	1	100	35	0	5	0	0	0	0	0	0	0	0	143
6:00 PM	2	103	26	1	1	0	0	0	0	0	0	0	0	136
7:00 PM	0	71	15	0	3	0	0	0	0	0	0	0	0	89
8:00 PM	0	90	13	0	1	0	0	0	0	0	0	0	0	104
9:00 PM	0	40	4	0	0	0	0	0	0	0	0	0	0	44
10:00 PM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
11:00 PM	0	7	3	0	1	0	0	0	0	0	0	0	0	11
Day Total	5	1294	363	6	53	3	0	2	3	0	0	0	0	1746
Percent	0.3%	74.1%	20.8%	0.3%	3.0%	0.2%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	1.0%
<i>Comments:</i>														
AM Peak Volume	7:00 AM	1	11:00 AM	103	11:00 AM	33	12:00 PM	1	1:00 PM	1	2:00 PM	1	3:00 PM	1
PM Peak Volume	6:00 PM	2	4:00 PM	124	4:00 PM	38	5:00 PM	1	6:00 PM	1	7:00 PM	1	8:00 PM	1

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

QC JOB #: 10581811  
 DIRECTION: EB  
 DATE: Feb 18 2011

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle	3 Tire	3 Axle	4 Tire	4 Axle	Single	Double	<5 Axle Double	>6 Axle Double	5 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
1:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
2:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
4:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
5:00 AM	1	8	2	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
6:00 AM	0	14	9	0	2	0	0	0	0	0	0	0	0	0	0	0	12	
7:00 AM	1	53	17	1	2	0	0	0	0	0	0	0	0	0	0	0	25	
8:00 AM	0	56	24	0	0	0	0	0	0	0	0	0	0	0	0	0	74	
9:00 AM																	80	
10:00 AM																		
11:00 AM																		
12:00 PM																		
1:00 PM																		
2:00 PM																		
3:00 PM																		
4:00 PM																		
5:00 PM																		
6:00 PM																		
7:00 PM																		
8:00 PM																		
9:00 PM																		
10:00 PM																		
11:00 PM																		
Day Total	2	139	57	1	5	1	0.5%	2.4%	0.5%	0	0	0.0%	0.0%	0	0	0	205	
Percent	1.0%	67.8%	27.8%															

AM Peak Volume	5:00 AM	8:00 AM	8:00 AM	7:00 AM	6:00 AM	5:00 AM	8:00 AM										
PM Peak Volume	1	56	24	1	2	1	2	1	2	1	2	1	2	1	2	1	80
Comments:																	

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

#### SUMMARY - Tube Count - Vehicle Classification Data

		QC JOB #: 10581811											
		DIRECTION: EB											
		DATE: Feb 11 2011 - Feb 18 2011											
Start Time	Motor- cycles	Cars & Trailer Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	5 Axle Double	>6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
Grand Total	92	92/73 76.7%	2253 18.6%	22 0.2%	282 2.3%	19 0.2%	0 0.0%	15 0.1%	24 0.2%	0 0.0%	1 0.0%	0 0.0%	115 1.0%
Percent													12096

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 1 of 9

QC JOB #: 10581811  
 DIRECTION: WB  
 DATE: Feb 11 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle	3 Axle	4 Axle	<5 Axle Single	5 Axle Double	>6 Axle Double	6 Axle Multi	>6 Axle Multi	Not Multi	Total Classified
12:00 AM														
1:00 AM														
2:00 AM														
3:00 AM														
4:00 AM														
5:00 AM														
6:00 AM														
7:00 AM														
8:00 AM														
9:00 AM	1	44	27	1	1	1	0	0	0	0	0	0	0	76
10:00 AM	1	46	16	1	4	0	0	2	0	0	0	0	0	72
11:00 AM	0	59	25	1	3	1	0	0	1	0	0	0	0	92
12:00 PM	2	69	34	0	4	0	0	1	0	0	0	0	0	110
1:00 PM	0	59	37	0	4	0	0	0	0	0	0	0	0	102
2:00 PM	0	68	17	1	2	0	0	0	0	0	0	0	0	89
3:00 PM	2	84	31	0	7	0	0	0	0	0	0	0	0	125
4:00 PM	1	77	26	1	1	0	0	0	1	0	0	0	0	108
5:00 PM	2	82	23	0	5	2	0	0	0	0	0	0	0	116
6:00 PM	1	76	25	0	2	0	0	0	0	0	0	0	0	106
7:00 PM	0	77	21	0	3	0	0	0	0	0	0	0	0	101
8:00 PM	0	56	9	0	3	0	0	0	0	0	0	0	0	68
9:00 PM	1	42	9	0	2	0	0	0	0	0	0	0	0	55
10:00 PM	0	15	9	0	1	0	0	0	0	0	0	0	0	25
11:00 PM	0	10	4	0	3	0	0	0	0	0	0	0	0	17
Day Total	11	864	313	5	45	4	0	3	1	1	0	0	0	15
Percent	0.9%	68.5%	24.8%	0.4%	3.6%	0.3%	0.0%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	1.2%
AM Peak Volume	1	69	27	1	4	1	0	2	1	1	0	0	0	100 AM 11:00 AM
PM Peak Volume	2	84	37	1	7	2	0	1	1	1	0	0	0	10:00 PM 11:00 PM
Comments:														

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Page 2 of 9  
 QC JOB #: 10581811  
 DIRECTION: WB  
 DATE: Feb 12 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	3	0	1	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
3:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	0	19	6	0	1	0	0	0	0	0	0	0	0	0	26
7:00 AM	1	13	5	0	3	0	0	0	0	0	0	0	0	1	23
8:00 AM	1	25	12	0	2	0	0	1	0	0	0	0	0	0	41
9:00 AM	0	30	10	0	6	0	0	0	0	0	0	0	0	1	47
10:00 AM	11	50	17	2	5	0	0	0	0	0	0	0	0	10	95
11:00 AM	1	71	18	0	2	0	0	0	0	0	0	0	0	0	93
12:00 PM	1	77	27	0	5	0	0	1	0	0	0	0	0	5	116
1:00 PM	2	76	31	2	1	0	0	0	0	0	0	0	0	0	114
2:00 PM	2	80	27	0	5	0	0	0	0	0	0	0	0	0	116
3:00 PM	2	84	22	1	3	0	0	0	0	0	0	0	0	0	113
4:00 PM	1	87	27	0	2	0	0	0	0	0	0	0	0	0	117
5:00 PM	1	85	22	0	3	0	0	0	0	0	0	0	0	0	114
6:00 PM	0	99	26	0	4	0	0	0	0	0	0	0	0	0	130
7:00 PM	0	87	19	0	4	0	0	0	0	0	0	0	0	0	110
8:00 PM	0	36	19	0	4	0	0	0	0	0	0	0	0	0	60
9:00 PM	0	32	6	0	1	0	0	0	0	0	0	0	0	1	40
10:00 PM	0	24	6	0	0	0	0	0	0	0	0	0	0	0	30
11:00 PM	0	13	5	0	0	0	0	0	0	0	0	0	0	0	18
Day Total	23	1015	308	6	52	0	0	3	0	0	0	0	0	28	1435
Percent	1.6%	70.7%	21.5%	0.4%	3.6%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	
AM Peak Volume	11	71	18	2	6	1	1	1	1	1	1	1	1	10	95
PM Peak Volume	2	96	31	2	5	1	1	1	1	1	1	1	1	5	130
Comments:															

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 3 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 13 2011

Start Time	Motor- cycles	Cars & Trailer Long	2 Axle Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not classified	Total
12:00 AM	0	8	3	0	0	0	0	0	0	0	0	0	0	11
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	6	0	0	1	0	0	0	0	0	0	0	0	7
5:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	0	15	2	0	1	0	0	0	0	0	0	0	0	18
7:00 AM	1	20	6	0	2	0	0	0	0	0	0	0	0	29
8:00 AM	0	22	12	0	0	0	0	0	0	0	0	0	1	35
9:00 AM	0	43	16	0	2	0	0	0	0	1	0	0	0	63
10:00 AM	2	74	23	0	2	1	0	0	0	0	0	0	0	108
11:00 AM	4	103	25	0	5	0	0	1	0	0	0	0	0	140
12:00 PM	5	101	29	0	7	0	0	0	0	0	0	0	0	147
1:00 PM	2	78	22	0	2	0	0	0	0	0	0	0	0	105
2:00 PM	8	76	36	0	4	0	0	0	0	0	0	0	0	127
3:00 PM	1	87	34	0	3	0	0	1	0	0	0	0	0	2
4:00 PM	0	106	23	0	5	0	0	0	0	0	0	0	0	134
5:00 PM	1	89	24	0	4	0	0	0	0	0	0	0	0	119
6:00 PM	1	75	23	0	4	0	0	1	0	0	0	0	0	105
7:00 PM	0	50	16	0	3	0	0	0	0	0	0	0	0	69
8:00 PM	0	37	8	0	1	0	0	0	0	0	0	0	0	46
9:00 PM	0	37	4	0	0	0	0	0	0	0	0	0	0	41
10:00 PM	0	11	4	0	1	0	0	0	0	0	0	0	0	16
11:00 PM	0	7	2	0	0	0	0	0	0	0	0	0	0	9
<b>Day Total</b>	<b>25</b>	<b>1055</b>	<b>314</b>	<b>0</b>	<b>49</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1471</b>
<b>Percent</b>	<b>1.7%</b>	<b>71.7%</b>	<b>21.3%</b>	<b>0.0%</b>	<b>3.3%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.6%</b>

AM Peak Volume	4	11:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	11:00 AM	9:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM
PM Peak Volume	8	2:00 PM	4:00 PM	2:00 PM	12:00 PM	12:00 PM	3:00 PM	1	1	1	6	140	

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Page 4 of 9

QC JOB #: 1058187/1

DIRECTION: WB

DATE: Feb 14 2011

Start Time	Motor- cycles	Cars & Trailer		Buses	2 Axle Long	3 Axle 6 Tire	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	>6 Axle Multi	Not Classified	Total
		Cars	Trailer											
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	9	7	0	2	0	0	0	0	0	0	0	0	18
5:00 AM	1	194	67	1	19	0	0	1	1	0	0	0	0	285
6:00 AM	1	377	126	2	52	0	0	4	2	0	0	1	0	4
7:00 AM	1	356	107	2	44	0	1	1	1	0	0	0	0	516
8:00 AM	1	108	28	0	4	0	0	0	0	0	0	0	0	142
9:00 AM	0	65	22	0	1	0	0	0	1	0	0	0	0	89
10:00 AM	0	35	11	0	1	0	0	2	0	0	0	0	0	49
11:00 AM	0	60	34	1	5	0	0	0	0	0	0	0	0	100
12:00 PM	0	73	24	0	3	0	0	1	0	0	0	0	0	102
1:00 PM	0	87	29	1	10	0	0	0	1	0	0	0	0	129
2:00 PM	0	65	23	0	5	0	0	0	0	0	0	0	0	94
3:00 PM	1	75	24	0	2	0	0	0	0	0	0	0	0	104
4:00 PM	0	76	34	0	1	0	0	0	1	0	0	0	0	112
5:00 PM	0	129	28	0	4	0	0	0	0	0	0	0	0	162
6:00 PM	0	114	25	0	2	0	0	0	0	0	0	0	0	143
7:00 PM	0	61	13	0	3	0	0	0	0	0	0	0	0	77
8:00 PM	0	57	23	0	1	0	0	0	0	0	0	0	0	82
9:00 PM	0	31	5	0	1	0	0	0	0	0	0	0	0	37
10:00 PM	0	21	4	0	1	0	0	0	0	0	0	0	0	26
11:00 PM	0	13	1	0	0	0	0	0	0	0	0	0	0	14
Day Total	5	2022	638	7	162	0	1	9	7	1	1	0	0	16
Percent	0.2%	70.5%	22.2%	0.2%	5.6%	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.6%



	AM Peak Volume	6:00 AM												
PM Peak Volume	3:00 PM	5:00 PM	4:00 PM	1:00 PM										
Comments:	1	129	34	10	1	1	1	1	1	1	1	1	1	1

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)  
 Report generated on 2/22/2011 8:45 AM

**LOCATION:** W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
**SPECIFIC LOCATION:** 100 ft from  
e of report: the Count - Vehicle Classification Data

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[www.brown.edu](http://www.brown.edu)

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	AM Peak Volume	6:00 AM 3	6:00 AM 193	6:00 AM 65	7:00 PM -3
	PM Peak Volume	3:00 PM 1	5:00 PM 116	5:00 PM 37	4:00 PM 1

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

## Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from  
CITY/STATE: Tracy, CA

Page 6 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 16 2011

Start Time	Motor- cycles	Cars & Trailer Long	Buses 6 Tire	2 Axle Single	3 Axle Double	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	3	3	0	0	0	0	0	0	0	0	0	6
4:00 AM	0	8	7	0	3	0	0	0	0	0	0	0	18
5:00 AM	0	190	50	0	19	0	0	0	1	0	0	0	260
6:00 AM	0	248	55	1	19	0	0	0	0	0	0	0	323
7:00 AM	0	138	26	2	11	0	0	0	0	0	0	0	178
8:00 AM	0	114	40	0	3	1	0	0	0	0	0	0	158
9:00 AM	0	92	19	0	4	1	0	0	0	0	0	0	116
10:00 AM	1	32	18	0	5	0	0	0	0	0	0	0	57
11:00 AM	2	66	23	0	5	0	0	0	0	0	0	0	96
12:00 PM	0	72	18	0	5	1	0	0	0	0	0	0	1
1:00 PM	0	61	26	1	4	0	0	0	0	0	0	0	92
2:00 PM	0	51	25	1	5	0	0	0	0	0	0	0	85
3:00 PM	0	72	28	0	5	0	0	0	1	0	0	0	106
4:00 PM	0	73	29	1	1	0	0	0	0	0	0	0	107
5:00 PM	0	102	31	0	5	0	0	0	0	0	0	0	139
6:00 PM	1	111	21	0	1	0	0	0	0	0	0	0	135
7:00 PM	0	78	22	0	2	0	0	0	1	0	0	0	103
8:00 PM	0	58	15	1	1	0	0	0	0	0	0	0	76
9:00 PM	0	39	6	0	1	0	0	0	0	0	0	0	46
10:00 PM	0	13	2	0	0	0	0	0	0	0	0	0	15
11:00 PM	0	8	1	0	0	0	0	0	0	0	0	0	9
Day Total	4	1639	467	7	99	3	0	1	4	0	0	0	2234
Percent	0.2%	73.4%	20.9%	0.3%	4.4%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	10.4%
Comments:													
AM Peak Volume	11:00 AM	6:00 AM	6:00 AM	7:00 AM	5:00 AM	8:00 AM	1	1	5:00 AM	1	1	1	6:00 AM
PM Peak Volume	6:00 PM	6:00 PM	5:00 PM	1:00 PM	12:00 PM	12:00 PM	5	1	3:00 PM	1	1	2	5:00 PM

Report generated on 2/22/2011 8:45 AM

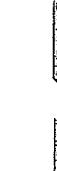
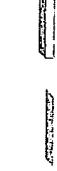
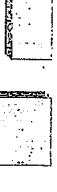
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)  
 SPECIFIC LOCATION: 100 ft from  
 CITY/STATE: Tracy, CA

Page 7 of 9  
 QC JOB #: 10581811  
 DIRECTION: WB  
 DATE: Feb 17 2011

Start Time	Motor- cycles	Cars & Trailer	2 Axle Long	Buses	2 Axle	3 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	10	5	0	1	1	0	0	0	0	0	0	0	0	0	17
5:00 AM	0	149	50	0	14	0	0	0	1	0	0	0	0	0	0	214
6:00 AM	0	193	49	1	18	0	0	1	0	0	0	0	0	0	1	263
7:00 AM	0	91	25	2	6	0	0	0	0	0	0	0	0	0	0	126
8:00 AM	1	91	27	0	7	0	0	1	0	0	0	0	0	0	0	133
9:00 AM	0	54	22	0	2	2	0	0	0	0	0	0	0	0	0	6
10:00 AM	0	41	18	1	3	0	0	0	0	0	0	0	0	0	0	1
11:00 AM	1	59	24	0	5	0	0	0	0	0	0	0	0	0	0	81
12:00 PM	0	46	28	0	6	0	0	0	0	0	0	0	0	0	0	63
1:00 PM	0	55	26	0	3	0	0	0	0	0	0	0	0	0	0	89
2:00 PM	0	54	22	0	2	0	0	0	0	0	0	0	0	0	0	82
3:00 PM	1	93	26	1	1	0	0	0	0	0	0	0	0	0	0	84
4:00 PM	0	84	31	0	8	0	0	0	0	0	0	0	0	0	0	122
5:00 PM	0	107	20	0	5	1	0	0	0	0	0	0	0	0	0	124
6:00 PM	1	105	33	0	3	0	0	0	0	0	0	0	0	0	0	137
7:00 PM	0	57	18	0	4	0	0	0	1	0	0	0	0	0	0	143
8:00 PM	0	55	15	0	0	1	0	0	0	0	0	0	0	0	0	80
9:00 PM	0	27	10	0	1	0	0	0	0	0	0	0	0	0	0	71
10:00 PM	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	38
11:00 PM	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	13
Day Total	4	1399	457	5	91	5	0.3%	4.6%	0.0%	0.1%	2	0	0	0	0	6
Percent	0.2%	70.5%	23.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1984



AM Peak Volume	8:00 AM	6:00 AM	5:00 AM	7:00 AM	6:00 AM	9:00 AM	18	2	1	1	5:00 AM	6:00 AM	1	8:00 AM	6	6:00 AM
PM Peak Volume	3:00 PM	5:00 PM	6:00 PM	3:00 PM	4:00 PM	5:00 PM	8	1	1	1	7:00 PM	8	1	5:00 PM	4	6:00 PM

Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of report: Tube Count - Vehicle Classification Data

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 8 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 18 2011

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Double	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Not Classified	Total
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
5:00 AM	0	89	25	0	7	0	0	0	0	1	0	0	0	0	122
6:00 AM	0	103	37	1	9	0	0	0	0	0	0	0	0	0	150
7:00 AM	0	69	24	3	5	0	0	0	0	0	0	0	0	0	101
8:00 AM	0	40	23	0	5	0	0	0	0	0	0	0	0	0	68
9:00 AM															
10:00 AM															
11:00 AM															
12:00 PM															
1:00 PM															
2:00 PM															
3:00 PM															
4:00 PM															
5:00 PM															
6:00 PM															
7:00 PM															
8:00 PM															
9:00 PM															
10:00 PM															
11:00 PM															
Day Total	0	317	116	4	27	0	0	0	1	0	0	0	0	0	465
Percent	0.0%	68.2%	24.9%	0.9%	5.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AM Peak Volume															
PM Peak Volume															
Comments:															

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Report generated on 2/22/2011 8:45 AM

Type of report: Tube Count - Vehicle Classification Data

**SUMMARY - Tube Count - Vehicle Classification Data**

LOCATION: W. Grant Line Rd East of Project entrance (16215 W. Grant Line Rd)

SPECIFIC LOCATION: 100 ft from

CITY/STATE: Tracy, CA

Page 9 of 9

QC JOB #: 10581811

DIRECTION: WB

DATE: Feb 11 2011 - Feb 18 2011

Start Time

Motor-  
cycles

Cars &  
Trailer

2 Axle  
Long

Buses

2 Axle  
6 Tire

3 Axle  
Single

4 Axle  
Single

<5 Axle  
Double

5 Axle  
Double

>6 Axle  
Double

<6 Axle  
Multi

6 Axle  
Multi

>6 Axle  
Multi

Not  
Classified

Total

Grand Total

79

9758

3126

39

600

17

1

26

19

3

1

2

0

0.0%

0.0%

0.1%

0.0%

0.2%

0.1%

0.0%

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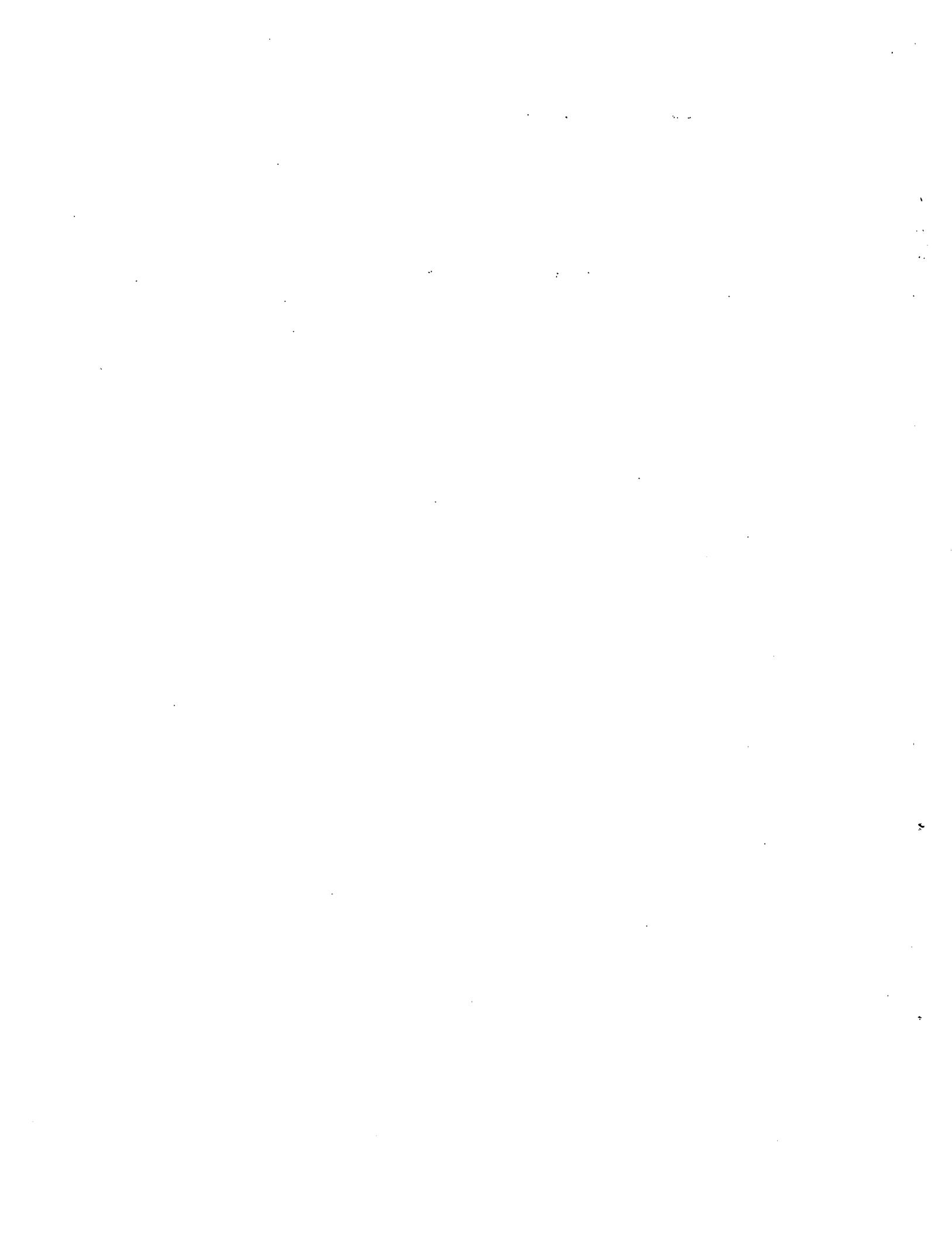
Comments:

Report generated on 2/22/2011 8:45 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

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## Appendix C – Level of Service Worksheets: Existing Conditions



Sikh Temple Traffic Study

1: W. Grant Line Road (west) & Mountain House Parkway

Existing Weekday PM Peak

6/14/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt	1.00	0.91	1.00	1.00	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1670	1736	1827	1553	3367	3465	3367	3471	1553	3367	3471
Flt Permitted	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	1670	1736	1827	1553	3367	3465	3367	3471	1553	3367	3471
Volume (vph)	73	95	128	13	76	98	257	552	6	79	254	25
Peak-hour factor, PHF	0.70	0.70	0.70	0.76	0.76	0.76	0.79	0.79	0.79	0.88	0.88	0.88
Adj. Flow (vph)	104	136	183	4	100	129	325	699	8	90	289	28
RTOR Reduction (vph)	0	86	0	0	0	105	0	1	0	0	0	22
Lane Group Flow (vph)	104	233	10	4	100	24	325	706	0	90	289	6
Turn Type	Prot		Prot		Perm	Prot		Prot		Prot		Perm
Protected Phases	7	4	3	8	5	2	1	1	6			
Permitted Phases				8								6
Actuated Green, G (s)	3.4	11.6		0.6	8.8	8.8	10.1	17.4		2.4	9.7	9.7
Effective Green, g (s)	3.4	11.6		0.6	8.8	8.8	10.1	17.4		2.4	9.7	9.7
Actuated g/C Ratio	0.07	0.24		0.01	0.18	0.18	0.21	0.36		0.05	0.20	0.20
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	123	404		22	335	285	708	1256		168	701	314
v/s Ratio Prot	c0.06	c0.14		0.00	0.05		c0.10	c0.20		0.03	0.08	
v/s Ratio Perm					0.02						0.00	
v/c Ratio	0.85	0.58		0.18	0.30	0.08	0.46	0.56		0.54	0.41	0.02
Uniform Delay, d1	22.0	16.0		23.5	16.9	16.3	16.6	12.2		22.3	16.7	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	38.4	2.0		4.0	0.5	0.1	0.5	0.6		3.3	0.4	0.0
Delay (s)	60.4	18.0		27.4	17.4	16.4	17.0	12.8		25.5	17.1	15.4
Level of Service	E	B		C	B	B	B	B		C	B	B
Approach Delay (s)		28.5			17.0			14.2			18.8	
Approach LOS		C			B			B			B	
Intersection Summary												
HCM Average Control Delay		18.3										
HCM Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		48.0										
Intersection Capacity Utilization		41.6%										
Analysis Period (min)		15										
c Critical Lane Group												

Sikh Temple Traffic Study  
2: W. Grant Line Road (west) & Hansen Road

Existing Weekday PM Peak  
6/14/2011

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Volume (veh/h)	5	149	8	5	180	2	13	9	4	0	11	1
Peak Hour Factor	0.83	0.83	0.83	0.79	0.79	0.79	0.62	0.62	0.62	0.75	0.75	0.75
Hourly flow rate (vph)	4.6	180	10	6	228	3	21	15	6	0	15	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None	None	None	None	None	None
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	230		189		447	439	184	452	443	229		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	230		189		447	439	184	452	443	229		
tC, single (s)	4.1		4.1		7.1	6.5	6.2	7.1	6.5	6.2		
tC, 2 stage (s)												
tF (s)	2.2		2.2		3.5	4.0	3.3	3.5	4.0	3.3		
p0 queue free %	100		100		96	97	99	100	97	100		
cM, capacity (veh/h)	1326		1373		503	504	853	496	501	805		
Direction, Lane #	EB-1	WB-1	NB-1	SB-1								
Volume, Total	195	237	42	16								
Volume Left	6	6	21	0								
Volume Right	10	3	6	1								
cSH	1326	1373	537	518								
Volume to Capacity	0.00	0.00	0.08	0.03								
Queue Length 95th (ft)	0	0	6	2								
Control Delay (s)	0.3	0.2	12.3	12.2								
Lane LOS	A	A	B	B								
Approach Delay (s)	10.3	10.2	12.3	12.2								
Approach LOS			B	B								

Intersection Summary

Average Delay	1.7
Intersection Capacity Utilization	26.5%
Analysis Period (min)	15

## Sikh Temple Traffic Study

## 4: W. Grant Line Road (west) &amp; Project Access (west)

Existing Weekday PM Peak

6/14/2011



Movement	EB1	EB2	WB1	WB2	SB1	SBR
Lane Configurations						
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	157	174	0	0	12	
Peak Hour Factor	0.84	0.84	0.79	0.79	0.44	0.44
Hourly flow rate (vph)	131	187	220	0	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	220	220	410	220		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	220		410	220		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	99		
cM-capacity (veh/h)	1337		594	814		

Direction	Lane #	EB1	WB1	SB1
Volume Total		188	220	15
Volume Left	1	0	0	
Volume Right	0	0	5	
cSH	1337	1700	814	
Volume to Capacity	0.00	0.13	0.01	
Queue Length 95th (ft)	0	0	0	
Control Delay (s)	0.1	0.0	9.4	
Lane LOS	A		A	
Approach Delay (s)	0.1	0.0	9.4	
Approach LOS	A			

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization	19.2%		ICU Level of Service	A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↓	↑	↓	↑	↓
Sign Control	Free	Free	Stop	Stop	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	156	173	9	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	170	188	10	2	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	198		365	193		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	198		365	193		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	100		
cM, capacity (veh/h)	1363		630	843		

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	171	198	3
Volume Left	1	0	2
Volume Right	0	10	1
cSH	1363	1700	688
Volume to Capacity	0.00	0.12	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.1	0.0	10.3
Lane LOS	A	B	
Approach Delay (s)	0.1	0.0	10.3
Approach LOS		B	

**Intersection Summary**

Average Delay	0.1		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

Sikh Temple Traffic Study  
6: W. Grant Line Road (west) & Byron Road

Existing Weekday PM Peak  
6/14/2011



Movement	EB	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	1	1	1	1	1
Sign Control	Stop	Free	Free			
Grade	0%	0%	0%			
Volume (veh/h)	3	130	190	366	293	2
Peak Hour Factor	0.75	0.75	0.82	0.82	0.94	0.94
Hourly flow rate (vph)	4	173	232	446	312	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			8			
Median type		None				
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1221	312	314			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1221	312	314			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	76	81			
cM, capacity (veh/h)	160	724	1235			
Direction\Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	177	232	446	312	2	
Volume Left	4	232	0	0	0	
Volume Right	173	0	0	0	2	
cSH	741	1235	1700	1700	1700	
Volume to Capacity	0.24	0.19	0.26	0.18	0.00	
Queue Length 95th (ft)	23	17	0	0	0	
Control Delay (s)	11.9	8.6	0.0	0.0	0.0	
Lane LOS	B	A				
Approach Delay (s)	1.9	2.9		10.0		
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	3.5					
Intersection Capacity Utilization	39.3%					
Analysis Period (min)	15					
ICU Level of Service						A



Movement	WB-L	WB-R	NB-T	NB-R	SB-L	SB-T
Lane Configurations	↑ ↙	↑ ↘	↑	↗ ↘	↑ ↙	↓
Sign Control	Free	Stop	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	333	472	82	339	306	130
Peak Hour Factor	0.94	0.94	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	354	502	92	381	326	138
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None			None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	1211	0	1135	709	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	1211	0	1135	709	
tC, single (s)	4.1	6.5	6.2	7.1	6.5	
tC, 2 stage (s)						
tF (s)	2.2	4.0	3.3	3.5	4.0	
p0 queue free %	78	35	65	0	50	
cM:capacity (veh/h)	1610	141	1079	47	278	

Direction, Lane #	WB-1	WB-2	NB-1	SB-1	SB-2
Volume Total	354	502	473	326	138
Volume Left	354	0	0	326	0
Volume Right	0	502	381	0	0
cSH	1610	1700	470	47	278
Volume to Capacity	0.22	0.30	1.01	6.99	0.50
Queue Length 95th (ft)	21	0	338	Err	65
Control Delay (s)	7.9	0.0	73.0	Err	30.1
Lane LOS	A	F	F	F	D
Approach Delay (s)	3.8	7.8	0.7	26.6	
Approach LOS		F	F		

#### Intersection Summary

Average Delay	1838.3
Intersection Capacity Utilization	70.6%
Analysis Period (min)	15

Sikh Temple Traffic Study  
7: W. Grant Line Road (east) & Byron Road

Existing Weekday PM Peak - Mitigated  
6/14/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.89		1.00	1.00
Frt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	1553	1628		1736	1827
Frt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1736	1553	1628		1736	1827
Volume (vph)	333	472	82	339	306	130
Peak-hour factor, PHF	0.94	0.94	0.89	0.89	0.94	0.94
Adj. Flow (vph)	354	502	92	381	326	138
RTOR Reduction (vph)	0	362	272	0	0	0
Lane Group Flow (vph)	354	140	201	0	326	138
<b>Turn Type</b>						
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	13.6	13.6	10.5		12.8	27.3
Effective Green, g (s)	13.6	13.6	10.5		12.8	27.3
Actuated g/C Ratio	0.28	0.28	0.21		0.26	0.56
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	483	432	350		454	1020
v/s Ratio Prot	c0.20		c0.12		c0.19	0.08
v/s Ratio Perm	0.09					
v/c Ratio	0.73	0.32	0.57		0.72	0.14
Uniform Delay, d1	16.0	14.0	17.2		16.4	5.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.7	0.4	2.3		5.4	0.1
Delay (s)	21.7	14.4	19.5		21.8	5.2
Level of Service	C	B	B		C	A
Approach Delay (s)	17.4		19.5		16.9	
Approach LOS	B		B		B	

**Intersection Summary**

HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume-to-Capacity ratio	0.68		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c = Critical Lane Group

Sikh Temple Traffic Study  
1: W. Grant Line Road (west) &

Existing Weekend Midday Peak

6/14/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	0.97	0.95		0.97	0.95	1.00
Fr <sub>t</sub>	1.00	0.97		1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt:Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	1770		1736	1827	1553	3367	3456		3367	3471	1553
Flt:Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	1770		1736	1827	1553	3367	3456		3367	3471	1553
Volume (vph)	10	33	9	11	20	70	15	251	8	80	328	14
Peak-hour factor, PHF	0.79	0.79	0.79	0.83	0.83	0.83	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	13	42	11	13	24	84	18	295	9	90	369	16
RTOR Reduction (vph)	0	10	0	0	0	78	0	4	0	0	0	12
Lane Group Flow (vph)	13	43	0	13	24	76	18	300	0	90	369	14
Turn Type	Prot		Prot		Perm	Prot		Prot		Prot		Perm
Protected Phases	7	4		3	8	5	2	1		1		6
Permitted Phases					8							6
Actuated Green, G (s)	0.4	1.8		0.4	1.8	1.8	0.4	5.7		1.2	6.5	6.5
Effective Green, g (s)	0.4	1.8		0.4	1.8	1.8	0.4	5.7		1.2	6.5	6.5
Actuated g/C Ratio	0.02	0.07		0.02	0.07	0.07	0.02	0.23		0.05	0.26	0.26
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	28	127		28	131	111	54	785		161	899	402
v/s Ratio Prot	c0.01	c0.02		0.01	0.01		0.01	0.09		c0.03	c0.11	
v/s Ratio Perm						0.00						0.00
V/C Ratio	0.46	0.34		0.46	0.18	0.05	0.38	0.38		0.56	0.41	0.01
Uniform Delay, d1	12.2	11.1		12.2	11.0	10.9	12.2	8.2		11.7	7.7	6.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.7	1.6		11.7	0.7	0.2	3.6	0.3		4.2	0.3	0.0
Delay (s)	23.9	12.7		23.9	11.6	11.1	15.6	8.5		15.9	8.0	6.9
Level of Service	C	B		C	B	B	B	A		B	A	A
Approach Delay (s)	14.9			12.6			8.9			9.5		
Approach LOS	B			B			A			A		

Intersection Summary

HCM Average Control Delay	10.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	25.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

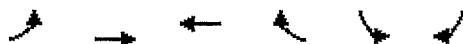
Sikh Temple Traffic Study  
2: W. Grant Line Road (west) & Hansen Road

Existing Weekend Midday Peak

6/14/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	Stop	↔	↔	Stop
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Volume (veh/h)	0	121	3	4	102	4	3	6	5	2	3	1
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.70	0.70	0.70	0.45	0.45	0.45
Hourly flow rate (vph)	0	153	4	4	111	4	4	9	7	4	7	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	115			157			282	279	155	288	279	113
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			157			282	279	155	288	279	113
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	99	99	99	99	100
cM, capacity (veh/h)	1461			1411			657	624	885	646	624	934
Direction Lane #	EB1	WB1	NB1	SB1								
Volume Total	157	120	20	13								
Volume Left	0	4	4	4								
Volume Right	4	4	7	2								
cSH	1461	1411	706	669								
Volume to Capacity	0.00	0.00	0.03	0.02								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.0	0.3	10.2	10.5								
Lane LOS	A	B	B									
Approach Delay (s)	0.0	0.3	10.2	10.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			18.9%									
Analysis Period (min)			15									
ICU Level of Service												



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↓	↑	↔	↑	↓	↔
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Volume (veh/h)	3	124	107	5	17	3
Peak Hour Factor	0.89	0.89	0.81	0.81	0.75	0.75
Hourly flow rate (vph)	3	139	132	6	23	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	138			281	135	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol.	138			281	135	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			97	100	
cM, capacity (veh/h)	1433			703	908	

Direction\Lane #	EB1	WB1	SB1
Volume Total	143	138	27
Volume Left	3	0	23
Volume Right	0	6	4
cSH	1433	1700	728
Volume to Capacity	0.00	0.08	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.2	0.0	10.1
Lane LOS	A	B	
Approach Delay (s)	0.2	0.0	10.1
Approach LOS		B	

Intersection Summary

Average Delay	1.0		
Intersection Capacity Utilization	18.9%	ICU Level of Service	A
Analysis Period (min)	15		

Sikh Temple Traffic Study  
5: W. Grant Line Road (west) & Project Access (east)

Existing Weekend Midday Peak  
6/14/2011



Movement	EB1	EB1	WB1	WB1	SB1	SBR
Lane Configurations						
Sign/Control	Free	Free	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	153	166	103	50	56	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	109	143	112	54	61	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	153	166	103	50	56	9
vC1, stage 1 conf vol				302	139	
vC2, stage 2 conf vol				302	139	
vCu, unblocked vol	153	166	103	50	56	9
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	99			91	99	
cM capacity (veh/h)	1400			681	904	
Direction, Lane #	EB1	WB1	SB1			
Volume Total	153	166	71			
Volume Left	10	0	61			
Volume Right	0	54	10			
cSH	1400	1700	705			
Volume to Capacity	0.01	0.10	0.10			
Queue Length 95th (ft)	1	0	8			
Control Delay (s)	0.5	0.0	10.7			
Lane LOS	A		B			
Approach Delay (s)	0.5	0.0	10.7			
Approach LOS			B			
Intersection Summary						
Average Delay		2.1				
Intersection Capacity Utilization		24.7%				
Analysis Period (min)		15				
ICU Level of Service						



Movement	EBL	EBC	NBL	NBT	SBT	SBR
Lane Configurations	↓	↑	↑	↑	↑	↑
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	182	151	281	347	5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	4.6	207	172	319	386	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			8			
Median type		None				
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1048	386	391			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1048	386	391			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	69	85			
cM, capacity (veh/h)	213	658	1157			
Direction\Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	212	172	319	386	6	
Volume Left	6	172	0	0	0	
Volume Right	207	0	0	0	6	
cSH	676	1157	1700	1700	1700	
Volume to Capacity	0.31	0.15	0.19	0.23	0.00	
Queue Length 95th (ft)	34	13	0	0	0	
Control Delay (s)	13.2	8.7	0.0	0.0	0.0	
Lane LOS	B	A				
Approach Delay (s)	13.2	3.0		0.0		
Approach LOS	B					

#### Intersection Summary

Average Delay	3.9
Intersection Capacity Utilization	40.0%
Analysis Period (min)	15

Sikh Temple Traffic Study  
7: W. Grant Line Road.(east) & Byron Road

Existing Weekend Midday Peak  
6/14/2011

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Free	Stop	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	303	339	79	394	414	121
Peak Hour Factor	0.93	0.93	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	326	365	87	433	450	132
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None		None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	1016	0	1128	652	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	1016	0	1128	652	
tC, single (s)	4.1	6.5	6.2	7.1	6.5	
tC, 2 stage (s)						
tE (s)	2.2	4.0	3.3	3.5	4.0	
p0 queue free %	80	54	60	0	57	
cM:capacity (veh/h)	1610	188	1079	59	307	
Direction\Lane#	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	326	365	520	450	132	
Volume Left	326	0	0	450	0	
Volume Right	0	365	433	0	0	
cSH	1610	1700	603	59	307	
Volume to Capacity	0.20	0.21	0.86	0.64	0.43	
Queue Length 95th (ft)	19	0	243	Err	51	
Control Delay (s)	7.8	0.0	37.3	Err	25.2	
Lane LOS	A	E	F	F	D	
Approach Delay (s)	3.7	37.3	77.3	43.3		
Approach LOS		E	F			
Intersection Summary						
Average Delay		2525.5				
Intersection Capacity Utilization		78.2%		ICU Level of Service		D
Analysis Period (min)		15				



Movement	WB1	WB2	NB1	NB2	SB1	SB2
Lane Configurations	↑ ↗	↑ ↗	↗ ↑	↗ ↑	↑ ↗	↑ ↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.89		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	1553	1622		1736	1827
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1736	1553	1622		1736	1827
Volume (vph)	303	339	79	394	414	121
Peak-hour factor, PHF	0.93	0.93	0.91	0.91	0.92	0.92
Adj. Flow (vph)	326	365	87	433	450	132
RTOR Reduction (vph)	0	271	325	0	0	0
Lane Group Flow (vph)	326	394	195	0	450	132
Turn Type				Perm		Prot
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	13.3	13.3	10.4		16.2	30.6
Effective Green, g (s)	13.3	13.3	10.4		16.2	30.6
Actuated g/C Ratio	0.26	0.26	0.20		0.31	0.59
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	445	398	325		542	1077
v/s Ratio Prot	c0.19		c0.12		c0.26	0.07
v/s Ratio Perm		0.06				
v/c Ratio	0.73	0.24	0.60		0.83	0.12
Uniform Delay, d1	17.7	15.3	18.9		16.6	4.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.1	0.3	3.0		10.4	0.1
Delay (s)	23.8	15.6	21.8		27.0	4.8
Level of Service	C	B	C		C	A
Approach Delay (s)	19.5		21.8		21.9	
Approach LOS	B		C		C	

#### Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	51.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

## Appendix D – Level of Service Worksheets: Existing plus Project Conditions



## Sikh Temple Traffic Study

Existing + Project Weekday PM Peak

1: W. Grant Line Road (west) &amp; Mountain House Parkway

6/14/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	0.97	0.95		0.97	0.95	1.00
Frt	1.00	0.92		1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Frt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	1672		1736	1827	1553	3367	3465		3367	3471	1553
Frt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	1672		1736	1827	1553	3367	3465		3367	3471	1553
Volume (vph)	73	99	128	3	78	99	257	552	7	81	254	25
Peak-hour factor, PHF	0.70	0.70	0.70	0.76	0.76	0.76	0.79	0.79	0.79	0.88	0.88	0.88
Adj. Flow (vph)	104	141	183	4	103	130	325	699	9	92	289	28
RTOR Reduction (vph)	0	83	0	0	0	106	0	1	0	0	0	22
Lane Group Flow (vph)	104	241	0	4	103	24	325	707	0	92	289	6
Turn Type	Prot		Prot		Perm	Prot		Prot		Prot		Perm
Protected Phases	7	4	3	8	5	2	1	1	6			
Permitted Phases					8							6
Actuated Green, G (s)	3.4	11.6		0.6	8.8	8.8	10.1	17.4		2.4	9.7	9.7
Effective Green, g (s)	3.4	11.6		0.6	8.8	8.8	10.1	17.4		2.4	9.7	9.7
Actuated g/C Ratio	0.07	0.24		0.01	0.18	0.18	0.21	0.36		0.05	0.20	0.20
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	123	404		22	335	285	708	1256		168	701	314
v/s Ratio Prot	c0.06	c0.14		0.00	0.06		c0.10	c0.20		0.03	0.08	
v/s Ratio Perm					0.02						0.00	
W/C Ratio	0.85	0.60		0.18	0.31	0.08	0.46	0.56		0.55	0.41	0.02
Uniform Delay, d1	22.0	16.1		23.5	17.0	16.3	16.6	12.3		22.3	16.7	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	38.4	2.4		4.0	0.5	0.1	0.5	0.6		3.6	0.4	0.0
Delay (s)	60.4	18.5		27.4	17.5	16.4	17.0	12.8		25.9	17.1	15.4
Level of Service	E	B		C	B	B	B	B		C	B	B
Approach Delay (s)	28.7			17.0			14.2			18.9		
Approach LOS	C			B			B			B		

## Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		
Critical Lane Group			

## Sikh Temple Traffic Study

2: W. Grant Line Road (west) &amp; Hansen Road

Existing + Project Weekday PM Peak

6/14/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Volume (veh/h)	15	156	8	7	183	3	13	9	9	2	11	1
Peak Hour Factor	0.83	0.83	0.83	0.79	0.79	0.79	0.62	0.62	0.62	0.75	0.75	0.75
Hourly flow rate (vph)	12	188	10	9	232	4	21	15	15	3	15	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None	None	None	None	None	None
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	235		198		465	458	193	478	461	234		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	235		198		465	458	193	478	461	234		
tC, single (s)	4.1		4.1		7.1	6.5	6.2	7.1	6.5	6.2		
tC, 2 stage (s)												
tF (s)	2.2		2.2		3.5	4.0	3.6	3.5	4.0	3.3		
p0 queue free %	100		99		96	97	98	99	97	100		
cM, capacity (veh/h)	1320		1363		488	491	844	471	489	801		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	204	244	50	19
Volume Left	6	9	21	3
Volume Right	10	4	15	1
cSH	1320	1363	557	500
Volume to Capacity	0.00	0.01	0.09	0.04
Queue Length 95th (ft)	0	0	7	3
Control Delay (s)	0.3	0.3	12.1	12.5
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.3	12.1	12.5
Approach LOS			B	B

## Intersection Summary

Average Delay	1.9	
Intersection Capacity Utilization	23.6%	ICU Level of Service A
Analysis Period (min)	15	



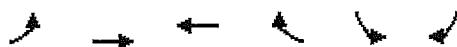
Movement	E BL	E BT	W BT	W BR	S BL	S BR
Lane Configurations	↑	↑	↑	↑	↑	↑
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	0	172	175	2	0	7
Peak Hour Factor	0.85	0.85	0.79	0.79	0.75	0.75
Hourly flow rate (vph)	0	202	222	3	0	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	224		424	222		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	224		424	222		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	99		
cM:capacity (veh/h)	1333		583	813		
Direction/Lane #	EB 1	WB 1	WB 2	SB 1		
Volume Total	202	222	3	9		
Volume Left	0	0	0	0		
Volume Right	0	0	3	9		
cSH	1700	1700	1700	813		
Volume to Capacity	0.12	0.13	0.00	0.01		
Queue Length 95th (ft)	0	0	0	1		
Control Delay (s)	0.0	0.0	0.0	9.5		
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0	9.5		
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay		0.2				
Intersection Capacity Utilization		19.2%				
Analysis Period (min)		15				
ICU Level of Service					A	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	14	158	176	23	9	1
Peak Hour Factor	0.84	0.84	0.79	0.79	0.44	0.44
Hourly flow rate (vph)	17	188	223	29	20	2
<b>Pedestrians</b>						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	252			444	223	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	252			444	223	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	99			96	100	
cM, capacity (veh/h)	1302			560	812	
<b>Direction Lane #</b>						
	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	17	188	223	29	20	2
Volume Left	17	0	0	0	20	0
Volume Right	0	0	0	29	0	2
cSH	1302	1700	1700	1700	560	812
Volume to Capacity	0.01	0.11	0.13	0.02	0.04	0.00
Queue Length 95th (ft)	1	0	0	0	3	0
Control Delay (s)	7.8	0.0	0.0	0.0	11.7	9.4
Lane LOS	A				B	A
Approach Delay (s)	0.6		0.0		11.4	
Approach LOS					B	

**Intersection Summary**

Average Delay	0.8		
Intersection Capacity Utilization	21.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	4	↑	↑	↑	↑	↑
Sign/Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	182	165	198	16	6	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate(vph)	162	179	215	17	7	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	233		399	215		
vC1, stage 1 conf vol	0					
vC2, stage 2 conf vol	0					
vCu, unblocked vol	233		399	215		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)	3.1					
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		99	100		
cM/capacity (veh/h)	997		601	820		
Direction, Lane #	EB1	WB1	WB2	SB1		
Volume Total	182	215	17	8		
Volume Left	2	0	0	7		
Volume Right	0	0	17	1		
cSH	997	1700	1700	625		
Volume to Capacity	0.00	0.13	0.01	0.01		
Queue Length 95th (ft)	0	0	0	1		
Control Delay (s)	0.1	0.0	0.0	10.8		
Lane LOS	A		B			
Approach Delay (s)	0.1	0.0	10.8			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay		0.2				
Intersection Capacity Utilization		20.4%				
Analysis Period (min)		15				



Movement	EBL	EBR	NBL	NBT	SBT	SBR
<b>Lane Configurations</b>						
Sign Control	Stop		Free	Free		
Grade	0%		0%	0%		
Volume (veh/h)	193	143	222	366	293	2
Peak Hour Factor	0.75	0.75	0.82	0.82	0.94	0.94
Hourly flow rate (vph)	144	191	271	446	312	2
<b>Pedestrians</b>						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			8			
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC <sub>1</sub> , conflicting volume	1300	312	314			
vC <sub>1</sub> , stage 1 conf vol						
vC <sub>2</sub> , stage 2 conf vol						
vCu, unblocked vol	1300	312	314			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	74	78			
cM, capacity (veh/h)	138	724	1235			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	195	271	446	312	2
Volume Left	4	271	0	0	0
Volume Right	191	0	0	0	2
cSH	739	1235	1700	1700	1700
Volume to Capacity	0.26	0.22	0.26	0.18	0.00
Queue Length 95th (ft)	26	21	0	0	0
Control Delay (s)	12.2	8.7	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.2	3.3		0.0	
Approach LOS	B				

**Intersection Summary**

Average Delay	3.9
Intersection Capacity Utilization	41.1%
Analysis Period (min)	15



Movement	WB-L	WB-R	NB-T	NB-R	SB-L	SB-T
Lane Configurations	↑ ↗	↑ ↗	↑ ↘	↗ ↘	↑ ↗	↑ ↘
Sign Control	Free	Stop	Stop	Stop	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	333	479	107	339	309	140
Peak Hour Factor	0.94	0.94	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	354	510	120	381	329	149
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median-type		None		None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	1218	0	1150	709	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	1218	0	1150	709	
tC, single (s)	4.1	6.5	6.2	7.1	6.5	
tC, 2 stage (s)						
tF (s)	2.2	4.0	3.3	3.5	4.0	
p0 queue free %	78	14	65	0	46	
cM-capacity (veh/h)	1610	140	1079	26	278	
Direction, Lane #	WB-1	WB-2	NB-1	SB-1	SB-2	
Volume Total	354	510	501	329	149	
Volume Left	354	0	0	329	0	
Volume Right	0	510	381	0	0	
cSH	1610	1700	413	26	278	
Volume to Capacity	0.22	0.30	1.21	12.57	0.54	
Queue Length 95th (ft)	21	0	508	Err	73	
Control Delay (s)	7.9	0.0	146.3	Err	31.9	
Lane LOS	A	F	F	D		
Approach Delay (s)	3.2		146.3	6891.2		
Approach LOS		F	F			
Intersection Summary						
Average Delay		1827.7				
Intersection Capacity Utilization		72.1%		ICU Level of Service	C	
Analysis Period (min)		15				



Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.90		1.00	1.00
Frt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	1553	1639		1736	1827
Frt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1736	1553	1639		1736	1827
Volume (vph)	388	479	107	339	309	140
Peak-hour factor, PHF	0.94	0.94	0.89	0.89	0.94	0.94
Adj. Flow (vph)	354	510	120	381	329	149
RTOR Reduction (vph)	0	375	199	0	0	0
Lane Group Flow (vph)	354	135	302	0	329	149
Turn Type		Perm		Prot		
Protected Phases		8		2		1
Permitted Phases		8				
Actuated Green, G (s)	13.8	13.8	13.1		13.1	30.2
Effective Green, g (s)	13.8	13.8	13.1		13.1	30.2
Actuated g/C Ratio	0.27	0.27	0.25		0.25	0.58
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	461	412	413		437	1061
v/s Ratio Prot	c0.20		c0.18		c0.19	0.08
v/s Ratio Perm		0.09				
v/c Ratio	0.77	0.33	0.73		0.75	0.14
Uniform Delay, d1	17.6	15.4	17.8		18.0	5.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.5	0.5	6.5		7.2	0.1
Delay (s)	25.1	15.8	24.4		25.1	5.0
Level of Service	C	B	C		C	A
Approach Delay (s)	19.7		24.4		18.9	
Approach LOS	B		C		B	

**Intersection Summary**

HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	52.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c = Critical Lane Group

Sikh Temple Traffic Study  
1: W. Grant Line Road (west) &

Existing + Project Weekend Midday Peak

6/14/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	0.97	0.95			0.97	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Filt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	1788		1736	1827	1553	3367	3446		3367	3471	1553
Filt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	1788		1736	1827	1553	3367	3446		3367	3471	1553
Volume (vph)	10	53	9	17	46	86	15	251	13	92	328	14
Peak-hour factor, PHF	0.79	0.79	0.79	0.83	0.83	0.83	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	13	67	11	20	55	104	18	295	15	103	369	16
RTOR Reduction (vph)	0	10	0	0	0	91	0	7	0	0	0	12
Lane Group Flow (vph)	13	68	10	20	55	13	18	303	0	103	369	14
Turn Type	Prot		Prot		Perm	Prot		Prot		Prot		Perm
Protected Phases	7	4	3	8	5	2	1	1	1	1	1	6
Permitted Phases				8								6
Actuated Green, G (s)	0.5	3.4		0.5	3.4	3.4	0.5	5.7		2.2	7.4	7.4
Effective Green, g (s)	0.5	3.4		0.5	3.4	3.4	0.5	5.7		2.2	7.4	7.4
Actuated g/C Ratio	0.02	0.12		0.02	0.12	0.12	0.02	0.21		0.08	0.27	0.27
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	31	219		31	223	190	61	707		266	924	413
v/s Ratio Prot	c0.01	c0.04		c0.01	c0.03		0.01	0.09		c0.03	c0.11	
v/s Ratio Perm						0.01					0.00	
V/C Ratio	0.42	0.31		0.65	0.25	0.07	0.30	0.43		0.39	0.40	0.01
Uniform Delay, d1	13.5	11.1		13.6	11.0	10.8	13.5	9.6		12.2	8.4	7.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.9	0.8		37.9	0.6	0.1	2.7	0.4		0.9	0.3	0.0
Delay (s)	22.4	12.0		51.4	11.6	10.9	16.2	10.0		13.1	8.7	7.5
Level of Service	C	B	D	B	B	B	B	B		B	A	A
Approach Delay (s)	13.4			15.7			10.4			9.6		
Approach LOS	B		B		B		B			A		

Intersection Summary

HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	27.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c = Critical Lane Group

## Sikh Temple Traffic Study

2: W. Grant Line Road (west) &amp; Hansen Road

Existing + Project Weekend Midday Peak

6/14/2011

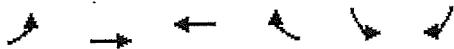


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Sign Control	Free	Free	Free	Free	Stop							
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Volume (veh/h)	0	158	3	36	150	20	3	6	30	14	3	1
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.70	0.70	0.70	0.45	0.45	0.45
Hourly flow-rate (vph)	0	200	4	39	163	22	4	9	43	31	7	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type									None		None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	185			204			460	465	202	501	456	174
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	185			204			460	465	202	501	456	174
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			99	98	95	93	99	100
cM, capacity (veh/h)	1378			1356			491	478	834	437	483	864
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume, Total	204	224	56	40								
Volume Left	0	39	4	31								
Volume Right	4	22	43	2								
cSH	1378	1356	714	456								
Volume to Capacity	0.00	0.03	0.08	0.09								
Queue Length 95th (ft)	0	2	6	7								
Control Delay (s)	0.0	1.6	10.5	13.6								
Lane LOS	A	B	B									
Approach Delay (s)	0.0	1.6	10.5	13.6								
Approach LOS		B	B									

## Intersection Summary

Average Delay	2.8
Intersection Capacity Utilization	35.2%
Analysis Period (min)	15

## 3: W. Grant Line Road (west) &amp; Project Access (west)



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	0	201	132	5	0	75
Peak Hour Factor	0.77	0.77	0.88	0.88	0.77	0.77
Hourly flow rate (vph)	0	261	150	6	0	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	156	104	411	150		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	156		411	150		
tC, single (s)	41		64	62		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	89		
cM, capacity (veh/h)	1412		593	891		
Direction, Lane #	EB 1	WB 1	WB 2	SB 1		
Volume Total	261	150	6	97		
Volume Left	0	0	0	0		
Volume Right	0	0	6	97		
cSH	1700	1700	1700	891		
Volume to Capacity	0.15	0.09	0.00	0.11		
Queue Length 95th (ft)	0	0	0	9		
Control Delay (s)	0.0	0.0	0.0	9.5		
Lane LOS			A			
Approach Delay (s)	0.0	0.0		9.5		
Approach LOS			A			
Intersection Summary						
Average Delay		1.8				
Intersection Capacity Utilization		18.3%		ICU Level of Service		A
Analysis Period (min)		15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	66	135	113	131	152	24
Peak Hour Factor	0.89	0.89	0.81	0.81	0.75	0.75
Hourly flow rate (vph)	74	152	140	162	203	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	301			440	140	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	301			440	140	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	94			62	96	
cM, capacity (veh/h)	1248			537	903	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	74	152	140	162	203	32
Volume Left	74	0	0	0	203	0
Volume Right	0	0	0	162	0	32
cSH	1248	1700	1700	1700	537	903
Volume to Capacity	0.06	0.09	0.08	0.10	0.38	0.04
Queue Length 95th (ft)	5	0	0	0	44	3
Control Delay (s)	8.1	0.0	0.0	0.0	15.7	9.1
Lane LOS	A			C	A	
Approach Delay (s)	2.6		0.0	14.8		
Approach LOS				B		

**Intersection Summary**

Average Delay	5.3		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	4	1	1	1	1	1
Sign Control	Free	Free	Stop			
Grade	0%	0%	0%			
Volume (veh/h)	18	269	234	91	144	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow-rate (vph)	20	292	254	99	157	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	353			586	254	
vC1, stage 1 conf vol	0					
vC2, stage 2 conf vol	0					
vCu, unblocked vol	353			586	254	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)	3.1					
tF (s)	2.2			3.5	3.3	
p0 queue free %	98			66	99	
cM capacity (veh/h)	954			460	779	
Direction, Lane #	EB:1	WB:1	WB:2	SB:1		
Volume, Total	312	254	99	157		
Volume Left	20	0	0	157		
Volume, Right	0	0	99	11		
cSH	954	1700	1700	472		
Volume to Capacity	0.02	0.15	0.06	0.35		
Queue Length 95th (ft)	2	0	0	40		
Control Delay (s)	0.8	0.0	0.0	16.7		
Lane LOS	A			C		
Approach Delay (s)	0.8	0.0		16.7		
Approach LOS				C		
Intersection Summary						
Average Delay		3.7				
Intersection Capacity Utilization		44.2%				
Analysis Period (min)		15				
ICU Level of Service					A	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
<b>Lane Configurations</b>						
Sign Control	Stop		Free	Free		
Grade	0%		0%	0%		
Volume (veh/h)	45	405	323	281	347	55
Peak Hour Factor	0.88	0.88	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	36	360	367	319	386	46
<b>Pedestrians</b>						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		8				
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1439	386	391			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1439	386	391			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	30	68			
cM, capacity (veh/h)	99	658	1157			

Direction\ Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	466	367	319	386	6
Volume Left	6	367	0	0	0
Volume Right	460	0	0	0	6
cSH	666	1157	1700	1700	1700
Volume to Capacity	0.70	0.32	0.19	0.23	0.00
Queue Length 95th (ft)	142	34	0	0	0
Control Delay (s)	22.5	9.6	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	22.5	5.1		0.0	
Approach LOS	C				

#### Intersection Summary

Average Delay	9.1
Intersection Capacity Utilization	50.0%
Analysis Period (min)	15

ICU Level of Service A

Sikh Temple Traffic Study  
7: W. Grant Line Road (east) & Byron Road

Existing + Project Weekend Midday Peak  
6/14/2011



Movement	WB-L	WB-R	NB-T	NB-R	SB-L	SB-T
Lane Configurations	1	1	1	1	1	1
Sign Control	Free		Stop		Stop	
Grade	0%		0%		0%	
Volume (veh/h)	303	376	214	394	462	296
Peak Hour Factor	0.93	0.93	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	326	404	235	433	502	322
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		1056	0	1202	652
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		1056	0	1202	652
tC, single (s)	4.1		6.5	6.2	7.1	6.5
tC, 2 stage (s)						
tF (s)	2.2		4.0	3.3	3.5	4.0
p0 queue free %	80		0	60	0	0
cM, capacity (veh/h)	1610		178	1079	0	307
Direction, Lane #	WB-1	WB-2	NB-1	SB-1	SB-2	
Volume, Total	326	404	668	502	322	
Volume Left	326	0	0	502	0	
Volume Right	0	404	433	0	0	
cSH	1610	1700	388	0	307	
Volume to Capacity	0.20	0.24	1.72	Err	1.05	
Queue Length 95th (ft)	19	0	1027	Err	299	
Control Delay (s)	7.8	0.0	359.3	Err	102.7	
Lane LOS	A		F	F	F	
Approach Delay (s)	3.5		359.3	Err		
Approach LOS	F	F				
Intersection Summary						
Average Delay			Err			
Intersection Capacity Utilization	87.8%			ICU Level of Service	E	
Analysis Period (min)	15					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.91		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	1553	1667		1736	1827
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1736	1553	1667		1736	1827
Volume (vph)	303	376	214	394	462	296
Peak-hour factor, PHF	0.93	0.93	0.91	0.91	0.92	0.92
Adj. Flow (vph)	326	404	235	433	502	322
RTOR Reduction (vph)	0	323	73	0	0	0
Lane Group Flow (vph)	326	481	595	0	502	322
Turn Type	Perm		Prot			
Protected Phases	8	2	1	6		
Permitted Phases	8					
Actuated Green, G (s)	18.0	18.0	33.0	27.0	64.0	
Effective Green, g (s)	18.0	18.0	33.0	27.0	64.0	
Actuated g/C Ratio	0.20	0.20	0.37	0.30	0.71	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	347	311	611	521	1299	
v/s Ratio Prot	c0.19	c0.36	c0.29	c0.18		
v/s Ratio Perm	0.05					
v/c Ratio	0.94	0.26	0.97	0.96	0.25	
Uniform Delay, d1	35.5	30.4	28.1	31.0	4.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	32.6	0.4	29.5	30.1	0.1	
Delay (s)	68.0	30.8	57.6	61.1	4.7	
Level of Service	E	C	E	E	A	
Approach Delay (s)	47.4		57.6		39.1	
Approach LOS	D		E		D	
<b>Intersection Summary</b>						
HCM Average Control Delay	47.4		HCM Level of Service		D	
HCM Volume-to-Capacity ratio	0.96					
Actuated Cycle Length (s)	90.0		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	87.8%		IGU Level of Service		E	
Analysis Period (min)	15					
C = Critical Lane Group						