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Draft Report

Traffic Impact Analysis for South Main Senior Lifestyles Development

In the City of Milpitas

May 13, 2014

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In the City of Milpitas

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www.tjkm.com

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Introduction and Summary

Introduction

This report presents the results of TJKM's traffic impact study for the proposed South Main Senior Lifestyles Development in the City of Milpitas. This proposed project, located along South Main Street at Cedar Way, includes the development of a senior housing community to be constructed in two phases, including 129 congregate care dwelling units and 70 assisted living beds under Phase 1, and 190 independent living senior housing units under Phase 2. In addition, the project proposal includes the construction of 141 marked subterranean parking spaces under Phase 1 and 257 marked parking spaces in a four-story, above grade parking structure under Phase 2. Information received from the project applicant indicates that it is expected that 80% of the congregate care residents (103 occupied congregate care units) will own vehicles. Figure 1 illustrates the location of the proposed project and its vicinity. Figure 2 shows the proposed South Main Senior Lifestyles Development site plan.

The purpose of this traffic analysis is to evaluate the potential impact of the proposed project, which consists of 389 senior residential units to be constructed in two phases. This report includes analysis of four study scenarios and eight existing study intersections that would potentially be impacted by proposed project traffic. For the purposes of this analysis, potential traffic operational effects from the project are identified based on established traffic operational thresholds for the Santa Clara County Valley Transportation Authority (VTA) Congestion Management Program (CMP) and the City of Milpitas. For any study intersections exceeding these thresholds, traffic mitigations are then identified and evaluated for the potential to bring overall level of service (LOS) back within acceptable thresholds.

Summary

Project Trip Generation

The proposed 389-unit South Main Senior Lifestyles Development is expected to generate 58 trips during the a.m. peak hour and 89 trips during the p.m. peak hour before applicable trip discounts are applied. Given the location of the project relative to existing VTA light rail, the project is eligible for a 9 percent transit-based trip reduction, which reduces the number of a.m. and p.m. peak hour trips generated to 53 and 81, respectively.

TJKM compared the number of trips generated by the proposed project with a previously entitled residential apartment development at the project site, which was estimated to produce 198 a.m. peak hour trips and 240 p.m. peak hour trips. The current proposed project is expected to generate 71 percent fewer a.m. peak hour trips, and 63 percent fewer p.m. peak hour trips when compared to the previously entitled residential apartment development.

Existing Conditions LOS

Currently, the intersection at Montague Expressway & S. Main Street/Oakland Road operates at LOS F during the a.m. and p.m. peak hour. All other intersections operate at an acceptable LOS based on applicable jurisdictional standards during both weekday a.m. and p.m. peak hours.

Existing Plus Project Conditions LOS

With the addition of project traffic, all project intersections operating at an acceptable LOS under Existing Conditions are expected to continue to operate acceptably, with minimal increases in average delay. At the Montague Expressway & S. Main Street/Oakland Road intersection, the addition

of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Existing Conditions.

Background Conditions LOS

With the addition of peak hour traffic from approved and pending projects and the completion of planned improvements to Montague Expressway, the intersection of Montague Expressway & S. Main Street/Oakland Road is expected to operate at LOS F during the a.m. and p.m. peak hours. All other intersections are expected to operate at acceptable LOS based on applicable jurisdictional standards during both the weekday a.m. and p.m. peak hours.

Background plus Project Conditions LOS

With the addition of project traffic, all project intersections operating at an acceptable LOS under Background Conditions are expected to continue to operate acceptably, with minimal increases to delay. At the Montague Expressway & S. Main Street/Oakland Road intersection, the addition of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Background Conditions.

Queue Lengths

An evaluation of 95th percentile (maximum) queue lengths for dedicated left- and right-turn pockets affected by the proposed project was conducted for the Existing and Background Conditions scenarios. The addition of project traffic is not expected to cause new spillover conditions to any adjacent through lanes or intersections, with the exception of the westbound left-turn at the South Main Street/Cedar Way intersection.

For storage lanes already operating deficiently under Existing and Background baseline conditions, the addition of project traffic is expected to increase the 95th percentile queue by less than one car length (20-25 feet), with the exception of the eastbound right-turn at the Montague Expressway & McCandless Drive/Trade Zone Boulevard intersection, which is expected to experience an increase in queue lengths of 28-feet during the p.m. peak hour under Background plus Project conditions. These additional queue lengths due to project traffic are not considered significant. It is therefore expected that the addition of project traffic will not contribute significantly to Existing and Background Conditions vehicle queues at the study intersections. In terms of improvements to accommodate spillover conditions at the South Main Street/Cedar Way intersection under both Existing plus Project and Background plus Project Conditions, TJKM recommends installing a 60' westbound left-turn pocket (increase of 15') with a corresponding adjustment to the location of the proposed taper. This improvement will may necessitate the removal of two planned on-street parallel parking spaces within the site area.

Site Access

The primary project site access is a 40-foot wide extension of Cedar Way east of South Main Street, which will initially provide access to the first phase of the project. An additional 24-foot wide Costa Street extension is proposed approximately 310 feet north of the Cedar Way driveway, and is expected to provide primary access to the four-story parking structure under Phase 2 via a recorded

emergency vehicle access easement. Given the relatively low number of a.m. and p.m. peak hour trips that the proposed project is expected to generate, the proposed project trips are not expected to result in queuing issues on South Main Street. An additional 20-foot wide fire and emergency access lane is proposed along the southern boundary of the project site. Overall, TJKM expects that the site access as proposed will adequately serve all vehicle types within the project site.

On Site Traffic Circulation

TJKM reviewed the project site layout in terms of internal traffic circulation for autos, including the two-aisle, one-way passenger loading zone at the main entrance to the Phase 1 building, and driveway aisle widths within the subterranean (Phase 1) garage and the four-story (Phase 2) garage. Based on the site plan and information received from the project applicant, TJKM expects that the site circulation will adequately serve all vehicles within the site.

Parking

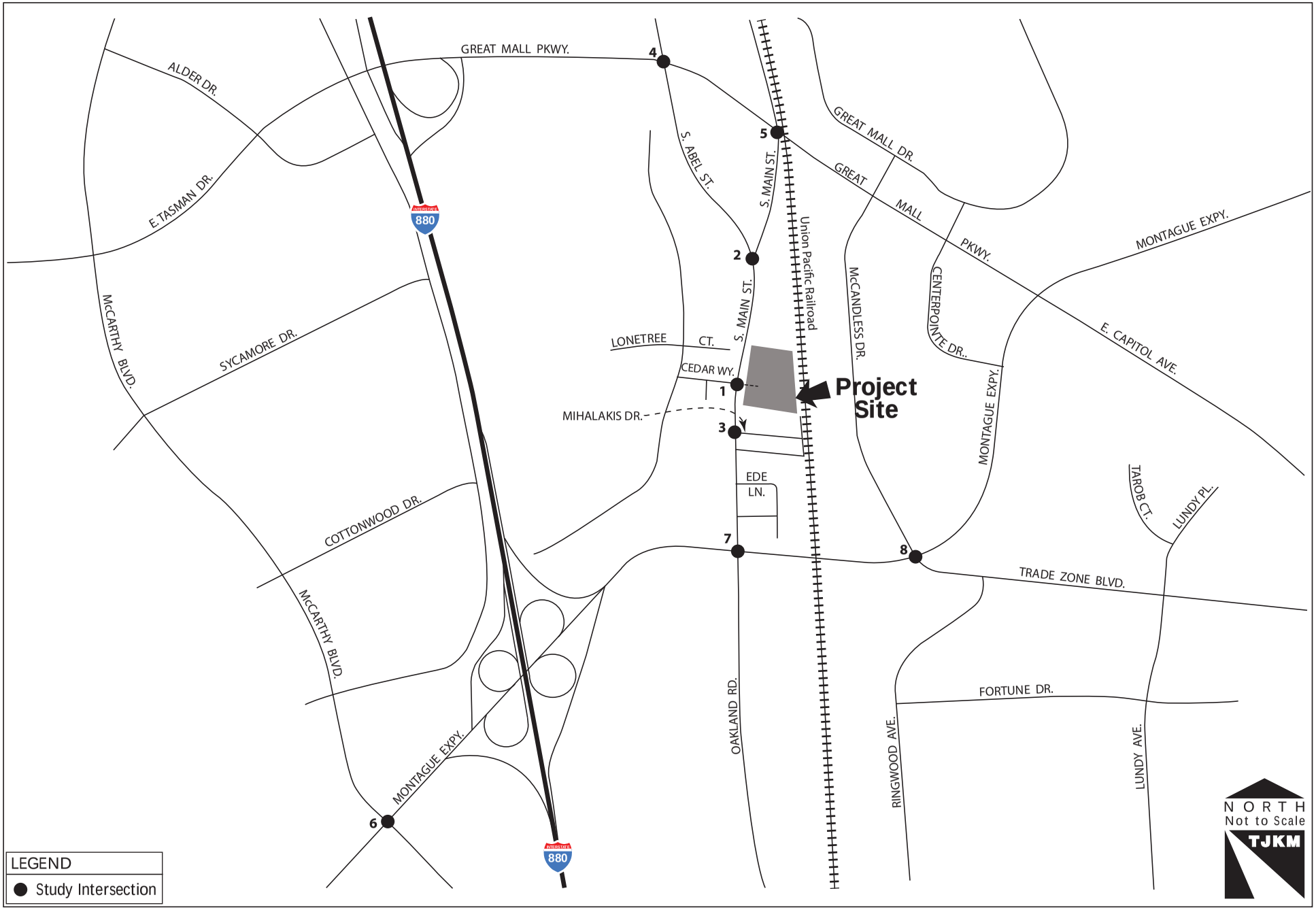
TJKM reviewed the site plan and information received from the project applicant to determine whether the proposed number of off-street parking spaces meets the City of Milpitas requirements. The City of Milpitas Municipal Code requires 391 off-street parking spaces for the proposed number of units of the project. The proposal currently includes 398 off-street parking spaces, including 141 spaces in a subterranean structure under Phase 1, and 257 spaces in a four-story garage under Phase 2. Thus, the proposed parking supply is expected to be adequate based on the City of Milpitas Municipal Code requirements.

TJKM additionally consulted ITE's *Parking Generation* 4th edition to estimate the total parking demand for the proposed project based on previous studies of peak period parking demand for compatible land uses. Application of the 85th percentile parking demand rates provided in *Parking Generation* to the proposed project produces a demand estimate of 227 parked vehicles, which is 171 fewer than the current proposal of 398 spaces provided, which is typical of senior residences with fewer residents owning vehicles and that also have access to alternative transportation means. Given this characteristic, it should be noted that the project applicant is considering converting the fourth story of the Phase 2 parking structure to a recreation/open space amenity for residents, which would eliminate 65 parking spaces and reduce the total number of parking spaces in the structure to 333. However, even with the elimination of 65 spaces on the fourth story of the parking structure, the proposed parking supply is expected to be adequate based on ITE *Parking Generation* 85th percentile parking demand rates for Senior Housing, Assisted Living, and Congregate Care land uses.

City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development

Vicinity Map

Figure 1



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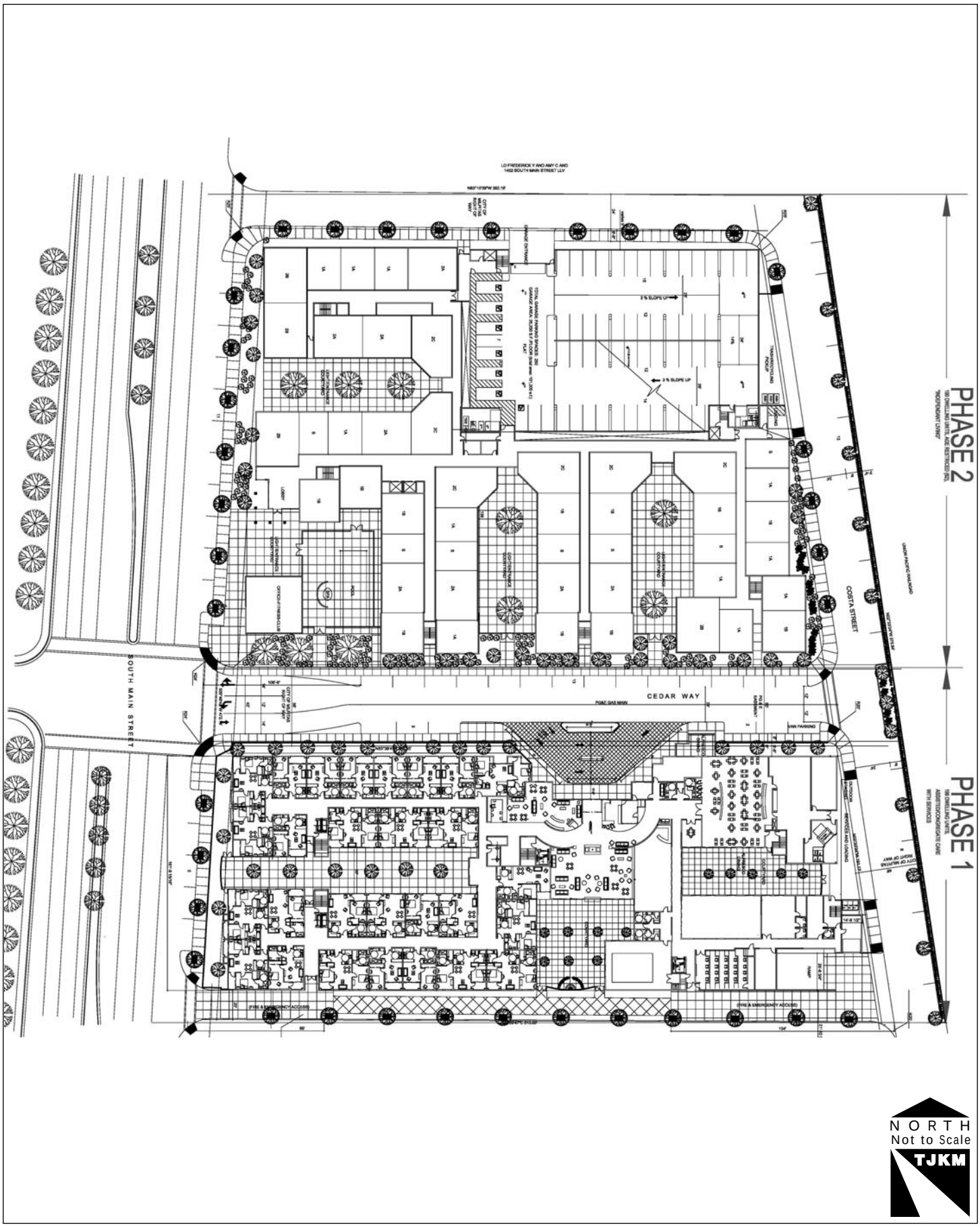
City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development
Project Site Plan

Figure
2



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Level of Service Analysis Methodology

Level of service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The level of service generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational levels of service are given letter designations from "A" to "F," with "A" representing the best operating conditions (free-flow) and "F" representing the worst (severely congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the Highway Capacity Manual 2000 (HCM 2000) Operations Method contained in the standard traffic software TRAFFIX. This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. LOS "A" indicates free flow conditions with little or no delay, while LOS "F" indicates jammed conditions with excessive delay and long back-ups. The methodology is described in detail in Appendix A.

Intersection Level of Service Threshold Criteria

All study intersections fall within City of Milpitas jurisdiction but are subject to different traffic operational standards depending on whether they are monitored as part of the Santa Clara County VTA CMP and non-CMP standards for the study intersections are described below.

Santa Clara County CMP Intersections

The intersection operational standard is LOS E for VTA CMP intersections located within the City of Milpitas. Exceedance of this LOS threshold at CMP intersections would occur when the addition of traffic associated with implementation of a proposed project causes:

- Intersection operations to deteriorate from an acceptable level (LOS E or better) under Background Conditions to an unacceptable level (LOS F); or
- Exacerbation of unacceptable operations by increasing the average critical delay by more than four (4) seconds and increasing the critical volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS F under the Current Precise Plan Conditions.
- An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable LOS F operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of Milpitas (Non-CMP) Intersections

LOS D is the standard for non-CMP intersections within City of Milpitas jurisdiction. For purposes of this study, such intersections exceeding this threshold will be evaluated for potential mitigations.

Study Traffic Analysis Scenarios

The study evaluated traffic operational conditions under the following four (4) analysis scenarios:

1. Existing Conditions – this scenario is based on existing roadway conditions and traffic counts.
2. Existing plus Project Conditions – this scenario is similar to Existing Conditions, but with the addition of approved project trips.
3. Background (Existing plus Approved Projects) Conditions – this scenario is similar to Existing Conditions, but with the addition of trips from City approved and pending projects within the study area.

4. Background plus Proposed Project Conditions – this scenario is identical to Background Conditions, but includes additional traffic expected to be generated by the proposed project.

Study Intersections

The study focused on evaluating traffic conditions at eight study intersections that the proposed project may potentially impact (see Figure 1), selected in consultation with City of Milpitas staff. The study intersections and their associated traffic controls are:

1. South Main Street & Cedar Way/Project Driveway (Signal)
2. South Main Street & South Abel Street (Signal)
3. South Main Street & Mihalakis Drive (Signal)
4. Great Mall Parkway & South Abel Street (Signal)
5. Great Mall Parkway & South Main Street (Signal)
6. Montague Expressway & McCarthy Boulevard/O'Toole Avenue (Signal)
7. Montague Expressway & South Main Street/Oakland Road (Signal)
8. Montague Expressway & McCandless Drive/Trade Zone Boulevard (Signal)

Existing Conditions

Existing Roadway System and Setting

Regional access to the proposed project site is provided by Interstates 880 (I-880), 680 (I-680), State Route 237 (SR 237), Montague Expressway, Great Mall Parkway/Tasman Drive, and Capitol Avenue. Local access are provided by Montague Expressway, S. Main Street/Oakland Road, McCandless Drive/Trade Zone Boulevard, with the project access point located on S. Main Street. The primary facilities providing regional and local access are described in detail below.

I-880 is a north-south freeway located west of the project site. This freeway extends south to the City of San Jose and north to the City of Oakland. Near the proposed project, the freeway consists of six lanes and provides local interchange connections at Great Mall Parkway/Tasman Drive and Montague Expressway. The I-880/SR 237 interchange is a major interchange to the north that provides additional regional access to northern and western Santa Clara County.

I-680 is a north-south freeway located east of the project site. This freeway extends south to the City of San Jose and north to Solano County. Near the project site, the freeway consists of eight mixed-flow lanes. Further north, I-680 consists of six mixed-flow lanes plus a southbound high-occupancy toll (HOT) lane north of Calaveras Boulevard (SR 237). Local interchange connections near the proposed project site are provided at Montague Expressway and Capitol Avenue. I-680 southbound is the primary commute direction during the a.m. peak hour, while northbound is the primary commute direction during the p.m. peak hour.

Montague Expressway is an east-west, six- to eight-lane divided expressway operating by Santa Clara County, which runs between the U.S. 101 freeway to the east and I-680 to the west. The roadway provides limited access to fronting land uses, with primary access via signalized intersections that include signal timing optimized for expressway traffic progressions. Between McCarthy Boulevard and Great Mall Parkway, Montague Expressway is a six-lane roadway, and connects with I-880 and I-680 via full cloverleaf interchanges.

Great Mall Parkway is an east-west, six-lane divided arterial roadway extending from I-880 easterly to Montague Expressway. Great Mall Parkway is designated as Tasman Drive west of I-880, providing a connection to the Cities of San Jose, Santa Clara, and Sunnyvale. Great Mall Parkway becomes Capitol Avenue east of Montague Expressway, connecting by interchange to I-680 and continuing southerly through the City of San Jose. Santa Clara VTA light-rail transit (LRT) service is provided along the median of Great Mall Parkway adjacent to the project vicinity in an aerial viaduct, with stations located at S. Main Street and just east of Montague Expressway.

Main Street is a north-south, two- to four-lane arterial roadway parallel to Abel Street extending from Railroad Avenue (north of SR 237/Calaveras Boulevard) south to Montague Expressway. This roadway, located west of the proposed project site, is designated as Oakland Road south of Montague Expressway, where it widens to six-lanes and continues into San Jose. Main Street includes two lanes north of Curtis Avenue and four lanes with a two-way left-turn lane and bicycle lanes south of Curtis Avenue.

Abel Street is a north-south, four-lane arterial roadway extending from Milpitas Boulevard (north of SR 237/Calaveras Boulevard) south to Main Street. This roadway is located north of the proposed project site. The section of Abel Street between Corning and Curtis Avenues includes four travel lanes plus a two-way left-turn lane.

Trade Zone Boulevard is an east-west, four-lane minor arterial roadway located east of the proposed project site. It forms the south leg of the Montague Expressway/McCandless Drive study intersection, providing the southeastern gateway to the project site. North of Montague Expressway, the roadway continues as McCandless Drive, a north-south, two-lane collector roadway.

Existing Transit Service

The Santa Clara VTA, which operates bus and light rail service within Santa Clara County, runs multiple transit routes through the study area.

The Great Mall/Main Transit Center (TC) is located within a half-mile walking distance of the proposed project site, on the north side of Great Mall Parkway east of Main Street. This multimodal transit hub consists of an elevated LRT station above Great Mall Parkway, as well as a bus transfer facility and park-and-ride lot located on the northeast corner of the Great Mall Parkway/Main Street intersection. A second LRT station (Montague) is located approximately two-thirds of a mile east of the Great Mall/Main TC and is elevated above Capitol Avenue. There are no bus nor park-and-ride facilities provided at this second station.

VTA bus routes operating on Montague Expressway and S. Main Street/Oakland Road also serve the project site. On Montague Expressway, VTA operates Express Bus Route 181, Limited Stop Route 321, and the Altamont Commuter Express (ACE) Violet Shuttle (Route 831). On Oakland Road and McCandless Drive/Trade Zone Boulevard, VTA operates local bus Routes 66 and 77, respectively. Table I summarizes the destinations, days and hours of operation, and service headways for the bus routes.

Table I: Existing Transit Service within Study Area

Route	*From*	*To*	*Weekdays*			*Weekends*	
			Operating Hours	*Peak Hdwys*	*Midday Hdwys*	*Operating Hours*	*Midday Hdwys*
66	Kaiser San Jose	Milpitas/ Dixon Road	5:10a – 12:07a	15	15-20	5:52a – 12:05a	15-20
77	Eastridge TC	Great Mall/Main TC	5:55a – 9:54p	15-20	20	6:41a – 7:55p	30
181	Fremont BART Station	San Jose Diridon TC	5:27a - 12:40a	15	30	7:04a - 12:41a	30
321	Great Mall/Main TC	Lockheed Martin	8:10a – 8:44a 5:50p – 6:32p	1 run per peak	–	No Service	–
831	Great America ACE/ Amtrak Station	Lundy/Commerce	6:16a – 9:55a 3:10p – 6:39p	60-75	–	No Service	–

Notes: Hdwys = Headways

Existing Bicycle Access
Bicycle facilities are classified in three ways: off-street paths separated from auto traffic (Class I), on-street striped lanes (Class II), and on-street signed routes in which bicycles share the roadway with other vehicles (Class III). Currently, Class II bicycle lanes are provided on Great Mall Parkway, Main Street, McCandless Drive, and Capitol Avenue south of Trimble Road within the project study area. Currently, there are no Class I bicycle paths or Class III bicycle routes designated within the project study area.

Existing Traffic Volumes
Baymetrics collected existing vehicle, bicycle, and pedestrian turning movement counts during weekday a.m. and p.m. peak periods (7:00-9:00 a.m. and 4:00-6:00 p.m., respectively) at all study intersections as follows:

May 2013
- Great Mall Parkway & South Abel Street
- Great Mall Parkway & South Main Street
- Montague Expressway & McCandless Drive/Trade Zone Boulevard

December 2013
- South Main Street & Cedar Way
- South Main Street & South Abel Street
- Montague Expressway & McCarthy Boulevard/O'Toole Avenue
- Montague Expressway & South Main Street

March 2014
- South Main Street/Mihalakis Drive

Peak hour traffic count data sheets for all study intersections are included in Appendix B.

Intersection Level of Service Analysis Results (Existing Conditions)
Figure 3 shows the existing peak hour intersection vehicle turning movement counts at the study intersections, as well as current lane configurations and traffic controls. Table II summarizes the results of the intersection analysis under Existing Conditions. Detailed LOS calculations are contained in Appendix C. Currently, all study intersections are operating at acceptable LOS during both weekday a.m. and p.m. peak hours, with the exception of the Montague Expressway & South Main Street / Oakland Road intersection, which currently operates at LOS F during the a.m. and p.m. peak hours, exceeding VTA CMP standards of LOS E or better.

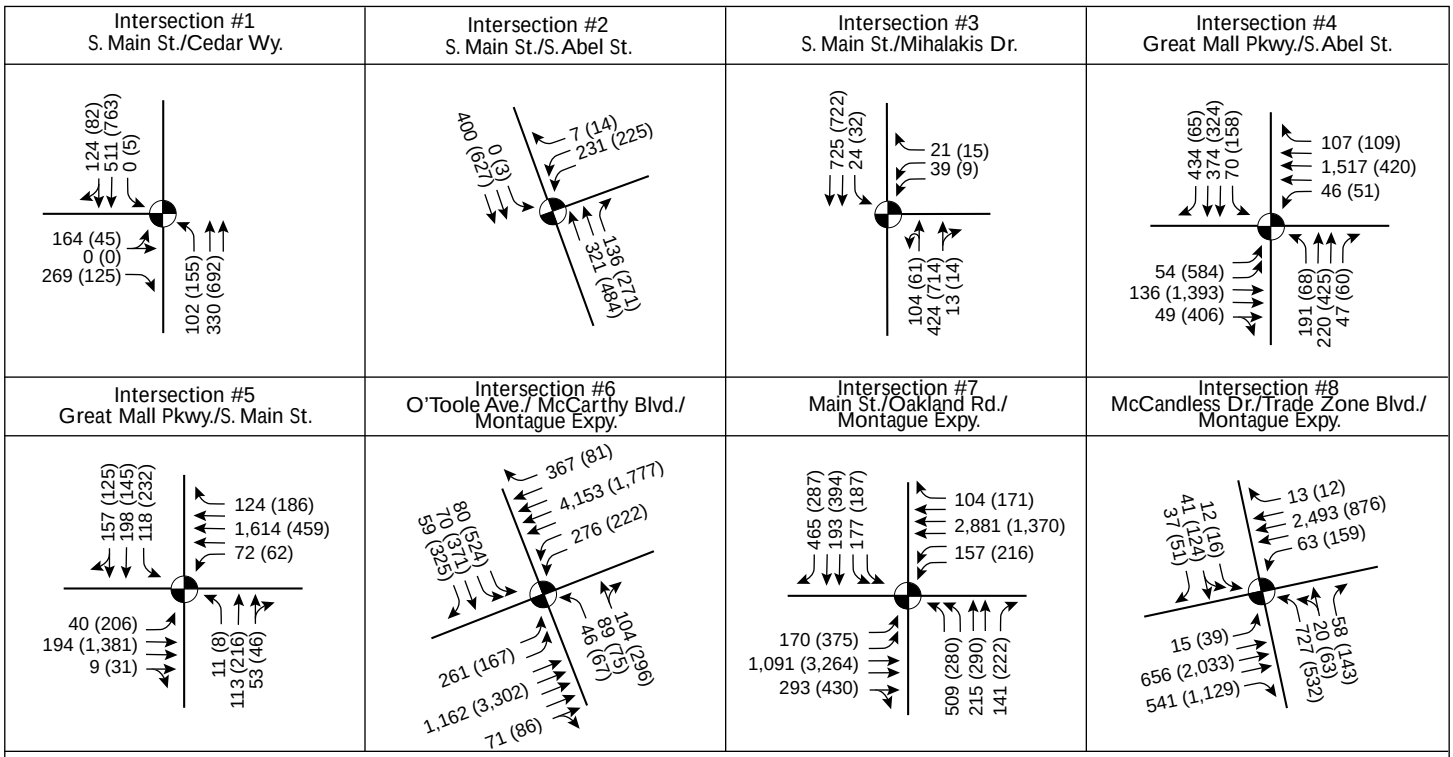
Table II: Intersection Levels of Service – Existing Conditions

ID	Intersection	Control	Existing Conditions							
			A.M. Peak Hour				P.M. Peak Hour			
			Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay
1	S. Main Street/Cedar Way/Project Driveway	Signal	22.0	C	0.486	25.2	15.5	B	0.503	21.0
2	S. Main Street/S. Abel Road	Signal	14.4	B	0.227	15.9	12.8	B	0.291	14.8
3	S. Main Street/Mihalakis Drive	Signal	15.5	B	0.466	22.0	13.9	B	0.499	21.2
4	Great Mall Parkway/S. Abel Street	Signal	24.6	C	0.897	27.7	20.8	C	0.796	21.3
5	Great Mall Parkway/S. Main Street	Signal	13.6	B	0.576	11.5	18.1	C	0.627	17.4
6	Montague Expressway/McCarthy Boulevard/O'Toole Avenue	Signal	47.1	D	0.973	51.3	70.7	E	1.035	86.4
7	Montague Expressway/S. Main Street/Oakland Road	Signal	**103.8**	**F**	1.158	135.2	**114.3**	**F**	1.227	150.7
8	Montague Expressway/McCandless Drive/Trade Zone Boulevard	Signal	36.1	D	0.846	42.2	43.8	D	0.931	63.7

Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, v/c = volume to capacity ratio
2) **Bold** indicates LOS exceeds applicable jurisdictional standards for intersection operating conditions.

City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development
Existing Conditions Traffic Volumes, Lane Geometry, and Traffic Controls

Figure 3



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Existing plus Project Conditions

This section details expected traffic conditions at the study intersections under Existing plus Project Conditions. This analysis scenario is similar to Existing Conditions, but with the addition of vehicle trips generated by the proposed project. Analysis of this scenario is consistent with both City of Milpitas and VTA Transportation Impact Analysis Guidelines.

Project Location and Proposal

The proposed project is located on South Main Street between South Abel Street and Mihalakis Drive, within the Transit Specific Plan Area of the City of Milpitas. The proposed project will be constructed in two phases, with the first phase comprised of 129 congregate care units, and 70 beds for assisted living residents. The second phase of the project includes the construction of 190 independent living senior housing units. The proposed project includes two full-access driveways, one at Cedar Way and one immediately north of Cedar Way, and an additional fire and emergency access driveway on South Main Street.

Trip Generation – Proposed Project

TJKM developed expected trip generation for the proposed project based on the Institute of Transportation Engineers *Trip Generation, 9th Edition*. The ITE uses most closely matching the proposed project based on the variety of proposed senior residential unit types are Assisted Living (Code 254), Congregate Care (253), and Senior Housing (252). Senior Housing most closely matches in the independent living units of the development. Table III shows the resulting trip generation that is expected to be generated by the proposed project. The proposed project is expected to generate 58 trips during the a.m. peak hour and 89 trips during the p.m. peak hour before trip discounts are applied.

TJKM evaluated the eligibility of the proposed project for potential trip discounts based on Santa Clara County's VTA guidelines. The project qualifies for a transit discount since the project is within a 2,000-foot walk of a rail station or major bus stop (defined as a stop where six or more buses per hour from the same or different routes stop during the peak period). Therefore, TJKM applied 9 percent transit-based trip reduction, which reduces the number of expected a.m. and p.m. peak hour trips generated by the project to 53 and 81, respectively.

Table III: Proposed Project Trip Generation

Land Use (ITE Code)	*Size*		*A.M. Peak*						*P.M. Peak*					
			Rate	*In %*	*Out %*	*In*	*Out*	*Total*	*Rate*	*In %*	*Out %*	*In*	*Out*	*Total*
Assisted Living (254)	70	Occupied Beds	0.18	68	32	9	4	13	0.29	50	50	10	10	20
Congregate Care (253)	129	DUs	0.06	59	41	5	3	8	0.17	55	45	12	10	22
Senior Housing (252)	190	DUs	0.20	34	66	13	25	38	0.25	54	46	26	22	47
Total (Undiscounted)	**389**	**DUs**				**26**	**32**	**58**				**48**	**42**	**89**
9 % Fixed Rail Discount						-2	-3	-5				-4	-4	-8
Total (with Discounts)						**24**	**29**	**53**				**43**	**38**	**81**

Notes: 1) DUs = Dwelling Units
Source: *Trip Generation* 9th Edition (2012)

TJKM additionally compared the number trips generated by the proposed project with a previously entitled residential apartment development at the project site, which was estimated to produce 198 a.m. peak hour trips and 240 p.m. peak hour trips. The current proposed project is expected to generate 71 percent fewer a.m. peak hour trips, and 63 percent fewer p.m. peak hour trips when compared to the previously entitled development.

Project Trip Distribution and Assignment

Trip distribution is a process that determines in what proportion vehicles would be expected to travel between a project site and various destinations outside the project study area. The process of trip assignment determines the various routes that vehicles would take from the project site to each destination using the calculated trip distribution.

Trip distribution assumptions for the South Main Senior Lifestyles Development were based on the trip distributions contained in the Milpitas TASP and in consultation with city staff. The assumed distribution percentages are as follows:

- 19 percent to/from Montague Expressway east
- 19 percent to from Trade Zone Boulevard east
- 17 percent to/from I-880 north
- 11 percent to/from I-880 south
- 12 percent to/from Montague Expressway west
- 8 percent to/from Oakland Road
- 3 percent to/from Abel Street north
- 3 percent to/from S Main Street north
- 2 percent to from East Tasman Drive west
- 2 percent to/from McCarthy Boulevard north
- 2 percent from Ringwood Avenue south
- 2 percent from Lundy Avenue south

Project trips were assigned to the study intersections according to the above trip distribution percentages. Figure 4 shows the proposed project trip distribution percentages and resulting trip assignments at all study intersections. The assigned project trips were then added to Existing Conditions traffic volumes to generate Existing plus Project traffic volumes. Figure 5 shows the resulting traffic volumes at the study intersections under Existing plus Project Conditions, as well as current lane configurations and traffic controls. The intersection traffic controls and lane geometries assumed under this analysis scenario are the same as under the Existing Conditions analysis scenario.

Intersection Level of Service Analysis Results (Existing plus Project Conditions)

Table II summarizes the results of the intersection analysis under Existing plus Project Conditions. Detailed LOS calculations are contained in Appendix D. With the addition of project traffic, all project intersections operating at an acceptable LOS under Existing Conditions are expected to continue operating acceptably, with minimal increases in average delay. At the Montague Expressway & S. Main Street/Oakland Road intersection, the addition of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Existing Conditions. Thus, no mitigations are required under this scenario.

Table IV: Intersection Levels of Service – Existing plus Project Conditions

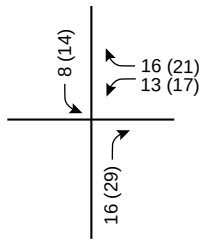
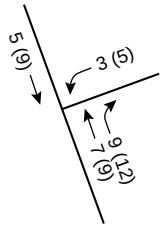
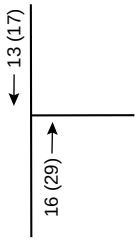
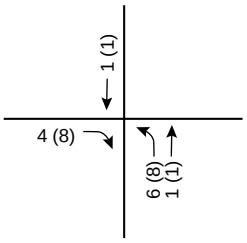
ID / Intersection / Traffic Control			Existing Conditions								Existing Plus Project Conditions							
			A.M. Peak Hour				P.M. Peak Hour				A.M. Peak Hour				P.M. Peak Hour			
			Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay
1	S. Main Street/Cedar Way/Project Driveway	Signal	22.0	C	0.486	25.2	15.5	B	0.503	21.0	25.2	C	0.511	27.2	19.0	B	0.531	23.3
2	S. Main Street/S. Abel Road	Signal	14.4	B	0.227	15.9	12.8	B	0.291	14.8	14.6	B	0.233	16.0	12.9	B	0.296	14.8
3	S. Main Street/Mihalakis Drive	Signal	15.5	B	0.466	22.0	13.9	B	0.499	21.2	15.4	B	0.475	22.1	13.9	B	0.514	21.4
4	Great Mall Parkway/S. Abel Street	Signal	24.6	C	0.897	27.7	20.8	C	0.796	21.3	24.9	C	0.902	28.2	20.9	C	0.798	21.4
5	Great Mall Parkway/S. Main Street	Signal	13.6	B	0.576	11.5	18.1	C	0.627	17.4	13.7	B	0.580	11.6	18.3	C	0.634	17.6
6	Montague Expressway/ McCarthy Boulevard/ O'Toole Avenue	Signal	47.1	D	0.973	51.3	70.7	E	1.035	86.4	47.2	D	0.974	51.4	70.8	E	1.036	86.6
7	Montague Expressway/ S. Main Street/ Oakland Road	Signal	**103.8**	**F**	1.158	135.2	**114.3**	**F**	1.227	150.7	**106.1**	**F**	1.166	138.7	**115.8**	**F**	1.233	153.6
8	Montague Expressway/ McCandless Drive/ Trade Zone Boulevard	Signal	36.1	D	0.846	42.2	43.8	D	0.931	63.7	36.3	D	0.848	42.5	44.2	D	0.934	64.2

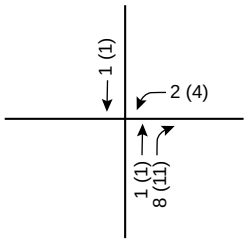
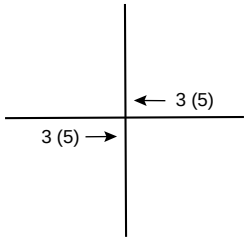
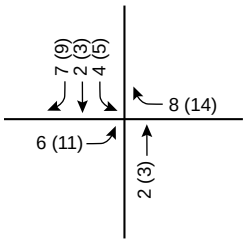
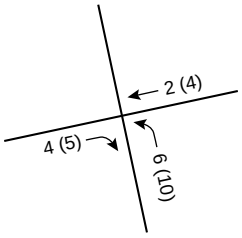
Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, v/c = volume to capacity ratio
2) **Bold** indicates LOS exceeds applicable jurisdictional standards for intersection operating conditions.

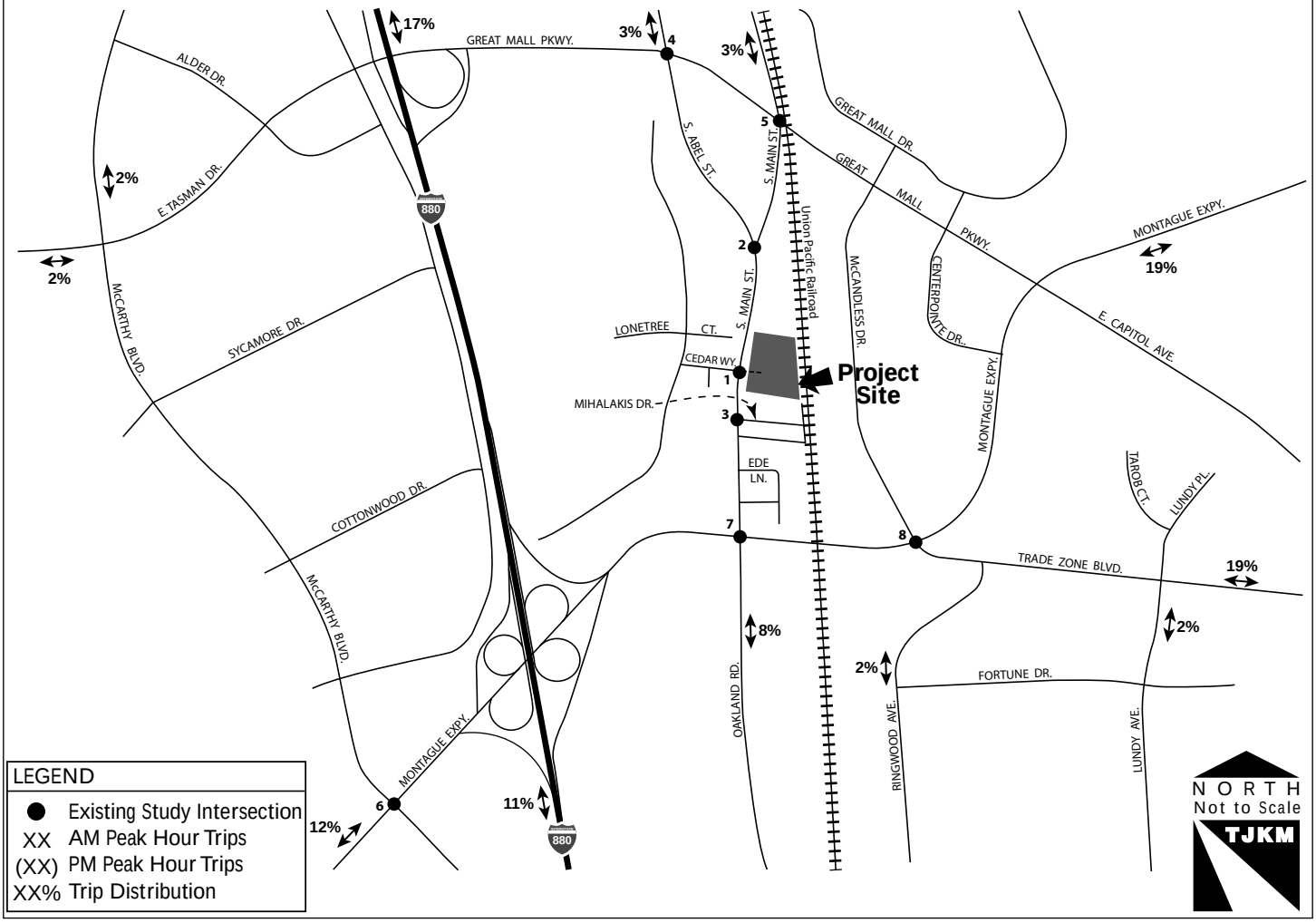
City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development

Proposed Project Trip Distribution and Assignment

Figure 4

Intersection #1 S. Main St./Cedar Wy./Project Dwy.	Intersection #2 S. Main St./S. Abel St.	Intersection #3 S. Main St./Mihalakis Dr.	Intersection #4 Great Mall Pkwy./S. Abel St.
			

Intersection #5 Great Mall Pkwy./S. Main St.	Intersection #6 O'Toole Ave./ McCarthy Blvd./ Montague Expy.	Intersection #7 Main St./Oakland Rd./ Montague Expy.	Intersection #8 McCandless Dr./Trade Zone Blvd./ Montague Expy.
			



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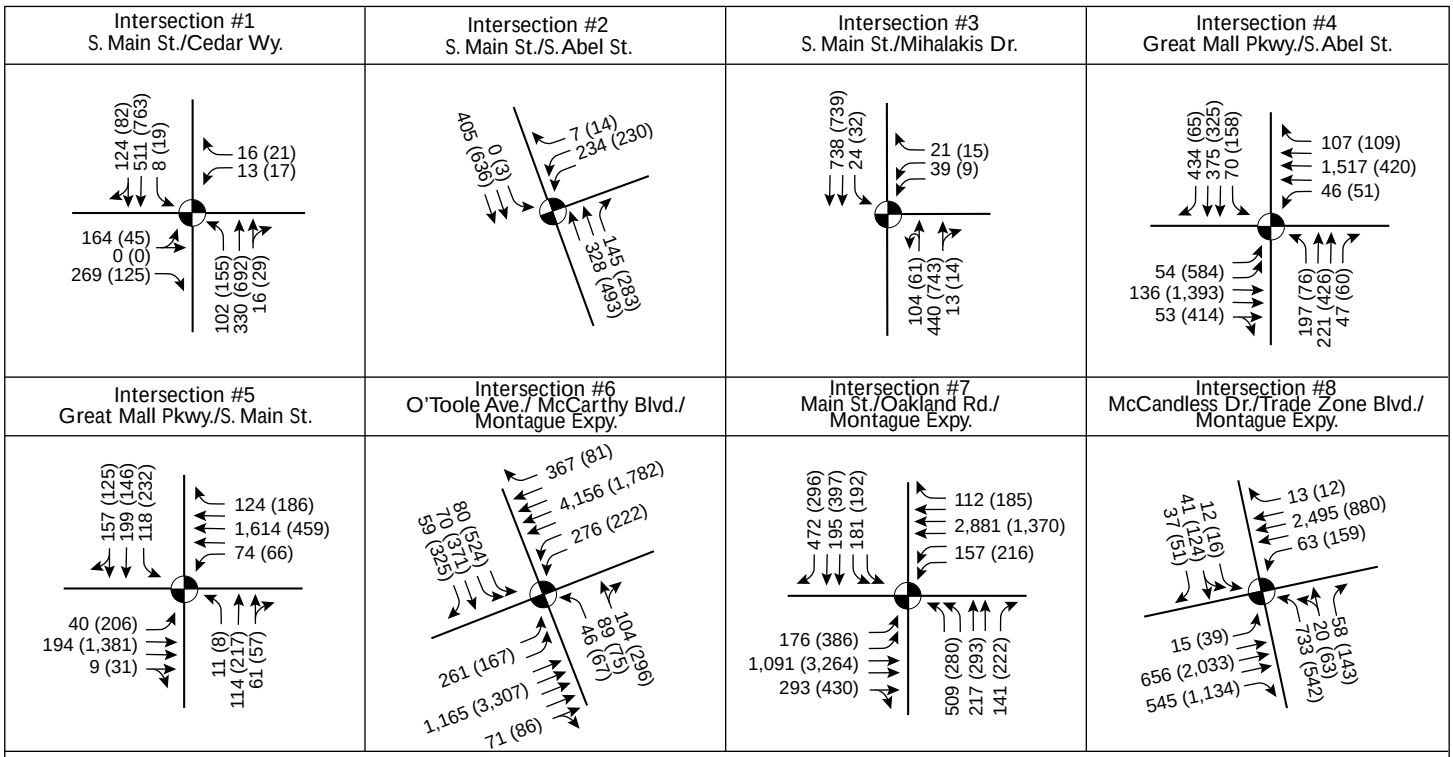
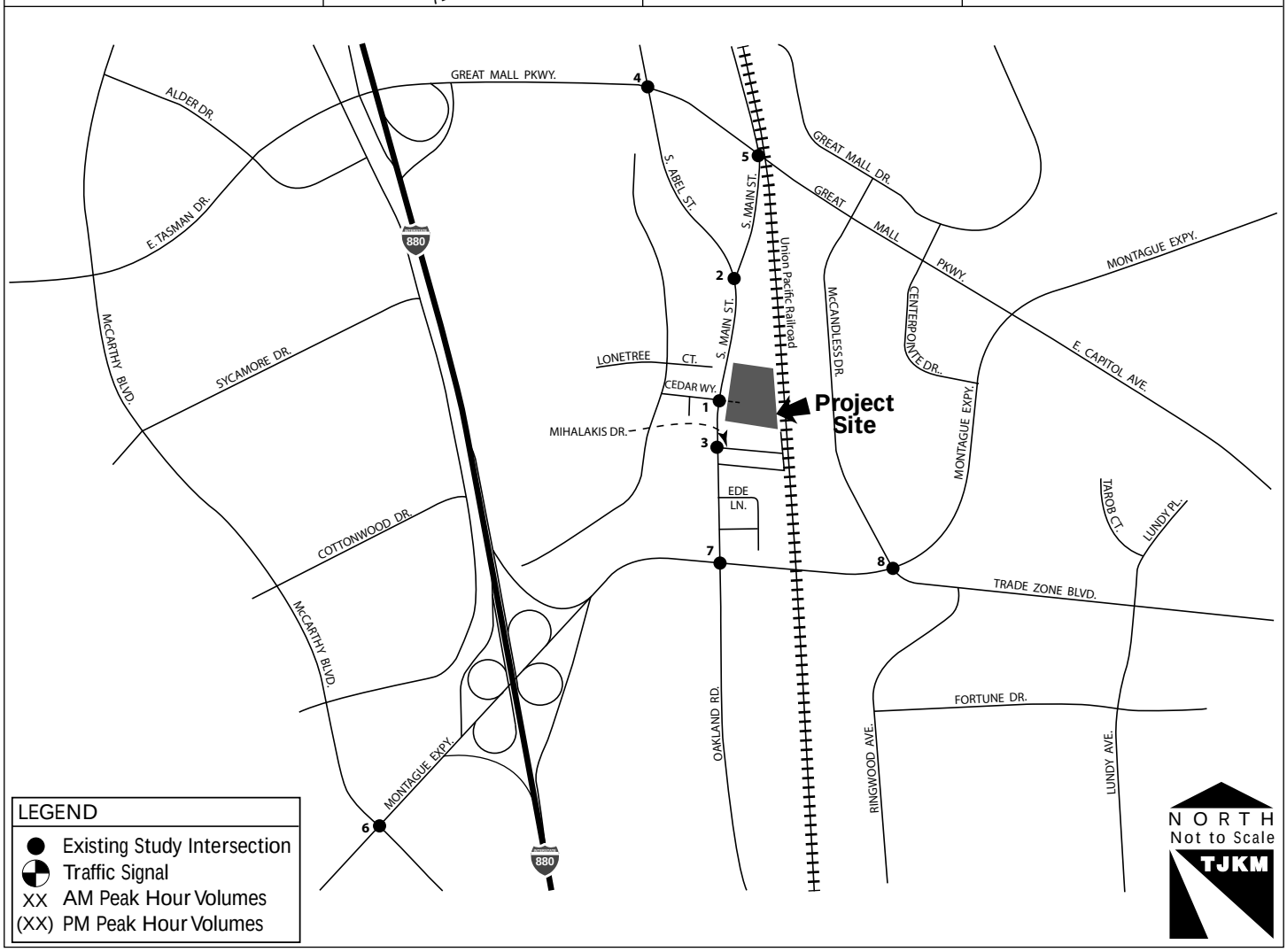
City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development
Existing plus Project Conditions Traffic Volumes, Lane Geometry, and Traffic Controls

Figure 5





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Background (Existing plus Approved Project) Conditions

This section details expected traffic conditions at the study intersections under Background Conditions. This analysis scenario is similar to Existing Conditions, but with the addition of vehicle trips generated by approved but not yet constructed projects as identified by the City of Milpitas Planning Division. Under this scenario, it is assumed that the proposed project site remains undeveloped. This scenario serves as a baseline for determining any exceedance of LOS thresholds with respect to the expected traffic generated by the proposed project. Analysis of this scenario is consistent with both City of Milpitas and VTA Transportation Impact Analysis Guidelines.

Background Development Assumptions and Traffic Estimates

Traffic volumes at the study intersections under Background Conditions were estimated by adding approved and pending project trips to Existing Conditions traffic volumes. A list of approved projects within Milpitas city limits that was included in the analysis is provided in Table V. The table also shows the daily, a.m. peak hour, and p.m. peak hour trips expected to be generated by each project before and after trip reduction discounts are applied. After applicable trip reduction discounts are applied, the approved and pending projects are expected to generate a total of 14,669 daily trips, with 1,141 trips occurring during the a.m. peak hour, and 1,356 trips occurring during the p.m. peak hour.

Table V: Pending and Approved Projects Trip Generation

Project	*Land Use*	*Size (DUs)*	*Daily Trips*	*A.M. Peak Hour Trips*			*P.M. Peak Hour Trips*		
				In	*Out*	*Total*	*In*	*Out*	*Total*
1102 Abel St.	Residential Condominium/Townhouse(230)	381	2,060	26	125	151	121	59	180
1201 S. Main St.	Residential Condominium/townhouse(230)	204	1,196	16	76	91	72	36	108
1200 Piper Dr.	Residential Condominium/townhouse(230)	94	610	8	41	49	38	19	57
	Apartment (220)	638	3,990	63	253	316	240	129	369
1425 S. Milpitas Dr.	Residential Condominium/townhouse(230)	77	512	7	35	42	33	16	49
	Single-family detached (210)	46	514	10	31	42	33	19	52
	Apartment (220)	180	1,214	18	74	92	76	41	117
1765 McCandless Dr.	Residential Condominium/townhouse(230)	276	1,556	20	97	116	93	46	138
324-368 Montague Expy	Residential Condominium/townhouse(230)	92	598	8	40	48	38	19	56
	Single-family detached (210)	42	473	10	29	39	30	18	48
750 E Capitol Ave	Apartment (220)	420	2,669	42	168	210	162	87	249
Totals (Undiscounted)			15,391	28	968	1,196	934	488	1,422
Discounts									
9% Fixed Rail									
1102 Abel St.			185	2	11	13	11	5	16
1201 S. Main St.			108	1	7	8	7	3	10
750 E Capitol Ave.			240	4	15	19	14	8	22
1200 Piper Dr.			414	7	27	34	25	14	39
1425 S Milpitas Blvd.			202	3	13	16	13	7	20
2 % Major Bus Stop									
1765 McCandless Dr.			31	0	2	2	2	1	3
324-368 Montague Expy			21	0	2	2	2	0	2
Total Trips Discounted			*722*	*9*	*46*	*55*	*45*	*21*	*66*
Totals (with Discounts)			**14,669**	**219**	**922**	**1,141**	**889**	**467**	**1,356**

Vehicle trips from the approved and pending projects were assigned to the network according to the trip distribution assumptions contained in the TASP Draft Environmental Impact Report (DEIR) and in consultation with city staff. Figure 6 shows the resulting approved and pending project trip assignments at each of the study intersections. These assigned trips were added to Existing Conditions traffic volumes to generate Background Conditions traffic volumes. The resulting turning movement volumes, traffic controls, and lane geometries anticipated for the study intersections under Background Conditions are shown in Figure 7. The intersection traffic controls and lane geometries are based on the anticipated Santa Clara County Expressway Master Plan roadway improvements under Background Conditions that are listed below.

Background Roadway Network and Improvement Assumptions

Under Background Conditions, several transportation improvements are assumed to be in place. According to the 2009 Comprehensive County Expressway Planning Study, Santa Clara County has identified the following improvements for Montague Expressway through the project study area:

- Convert the HOV lane on the six-lane portion between I-880 and I-680 to mixed-flow operations due to operational and safety problems. This project has been completed.
- Widen to eight lanes from Mission College to I-680 and to six lanes from I-680 to Park Victoria, including various intersection at-grade improvements and I-880 and I-680 interchange work. It is anticipated that right-of-way acquisition would be required to accommodate the proposed roadway widening. A Final Environmental Assessment/Initial Study was adopted in September 2002, and according to the 2009 Expressway Study, this improvement is partially completed and partially funded. It should be noted that the City of Milpitas recently completed widening Montague Expressway to four lanes per direction between Great Mall Parkway and Milpitas Boulevard, which was outside the scope of the County's planned Montague Expressway Improvement Project.

In addition, the Milpitas TASP anticipates improvements to the Montague Expressway/McCandless Drive/Trade Zone Boulevard study intersection, which will include widening the northbound (Trade Zone) approach to accommodate two left-turn lanes, one shared-through/left lane, and one right-turn lane. Similarly, and widening the southbound (McCandless) approach to accommodate the same configuration as the northbound approach.

Intersection Level of Service Analysis Results (Background Conditions)

Table VI shows the results of the LOS analysis conducted for the study intersections under Background Conditions. Detailed calculation sheets are contained in Appendix E. All intersections operating with acceptable service levels under Existing Conditions are expected to continue operating within applicable jurisdictional standards under Background Conditions, with the exception of the Montague Expressway & South Main Street/Oakland Road intersection, which is expected to continue to operate at LOS F during the a.m. and p.m. peak hours.

Table VI: Intersection Levels of Service – Background Conditions

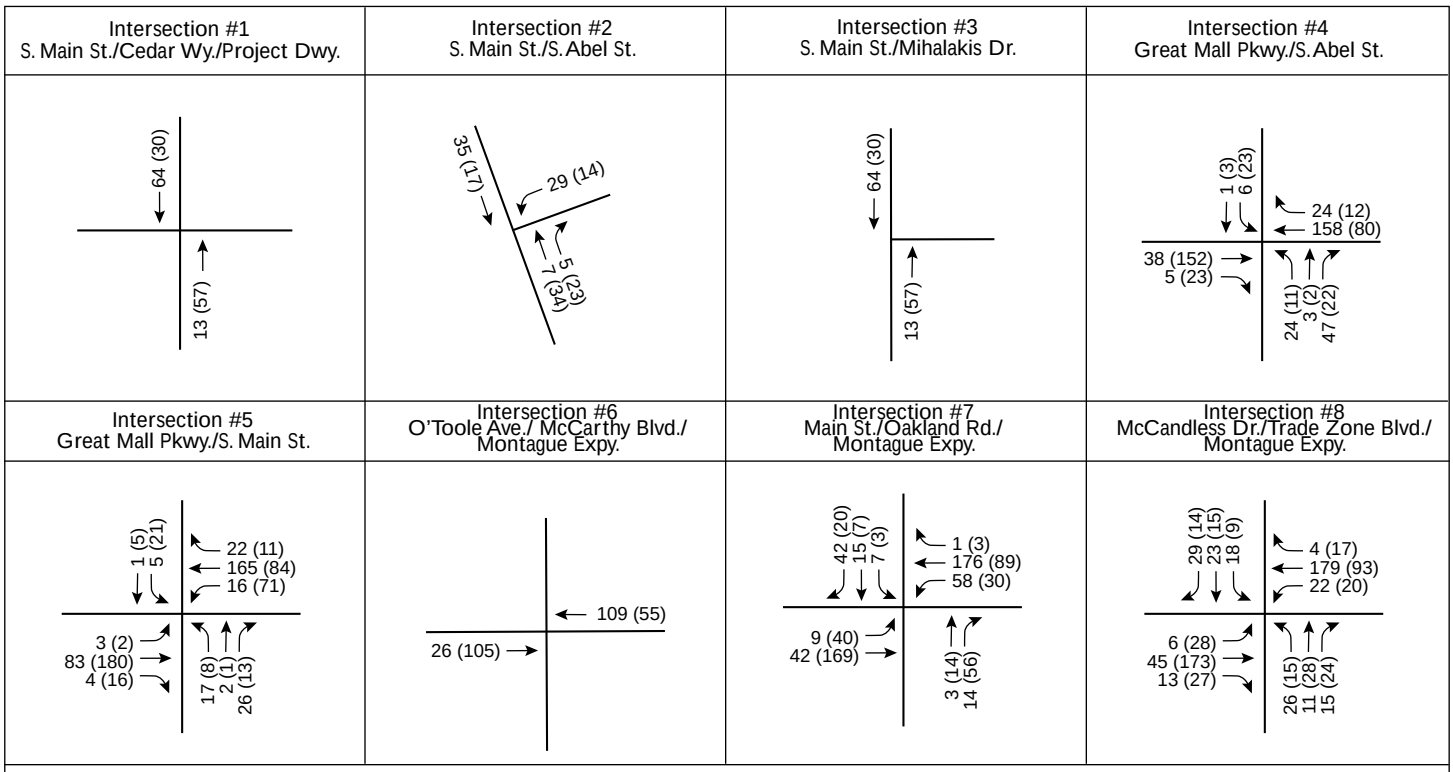
ID	Intersection	Control	Background Conditions							
			A.M. Peak Hour				P.M. Peak Hour			
			Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay
1	S. Main Street/ Cedar Way/ Project Driveway	Signal	21.8	C	0.507	24.9	15.1	B	0.514	20.7
2	S. Main Street/ S. Abel Road	Signal	14.8	B	0.250	16.2	12.8	B	0.296	14.9
3	S. Main Street/ Mihalakis Drive	Signal	15.2	B	0.492	21.9	14.0	B	0.526	21.5
4	Great Mall Parkway/ S. Abel Street	Signal	28.6	D	0.958	33.6	22.1	C	0.852	23.3
5	Great Mall Parkway/ S. Main Street	Signal	14.3	B	0.635	12.0	19.9	C	0.739	20.1
6	Montague Expressway/ McCarthy Boulevard/ O'Toole Avenue	Signal	49.8	D	0.991	55.0	73.8	E	1.052	91.5
7	Montague Expressway/ S. Main Street/ Oakland Road	Signal	**122.8**	**F**	1.266	163.6	**133.3**	**F**	1.290	178.4
8	Montague Expressway/ McCandless Drive/ Trade Zone Boulevard	Signal	35.2	D	0.839	39.7	46.9	D	0.972	75.4

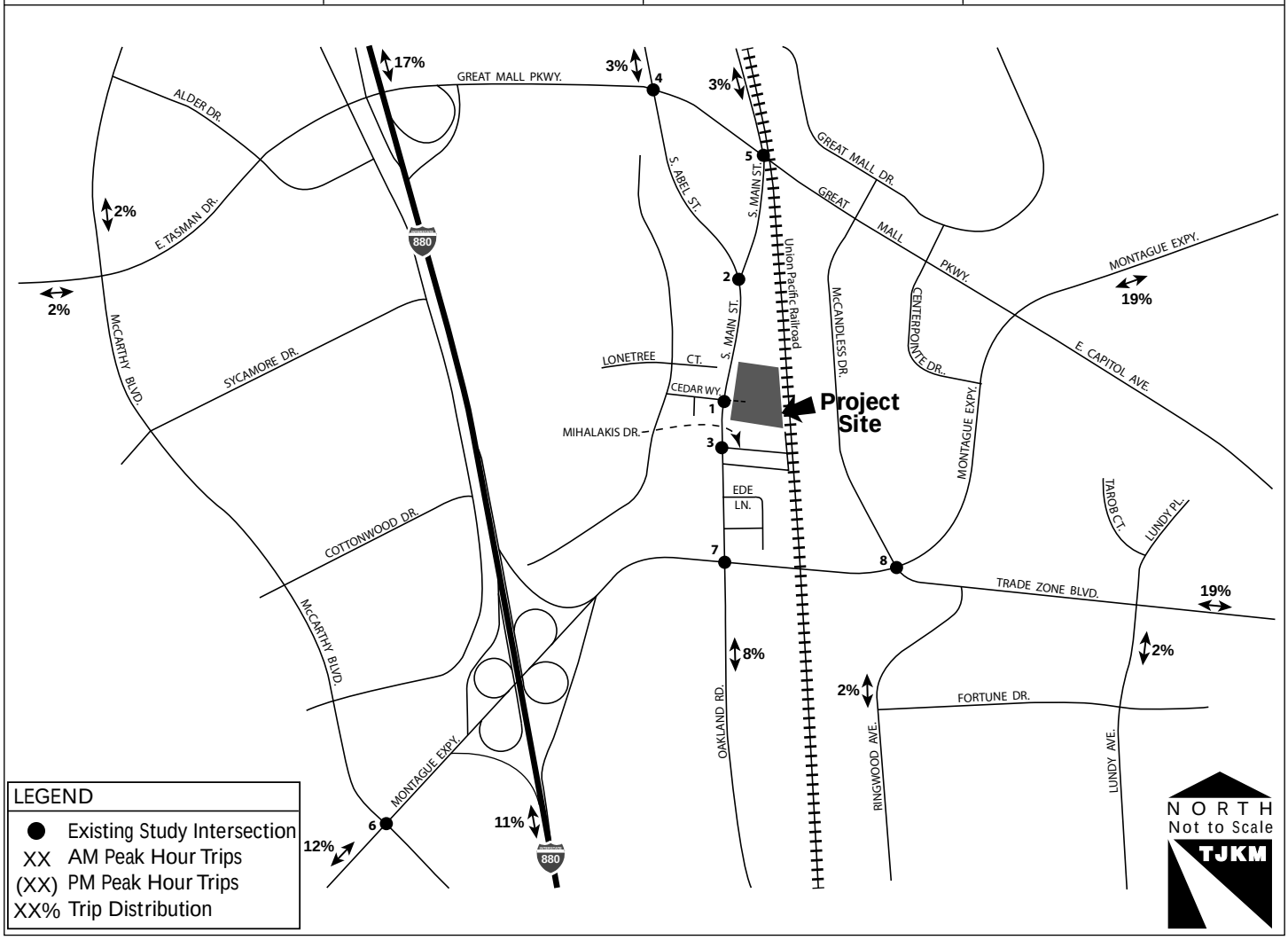
Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, v/c = volume to capacity ratio
2) **Bold** indicates LOS exceeds applicable jurisdictional standards for intersection operating conditions.

City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development

Approved and Pending Projects Trip Assignments

Figure 6





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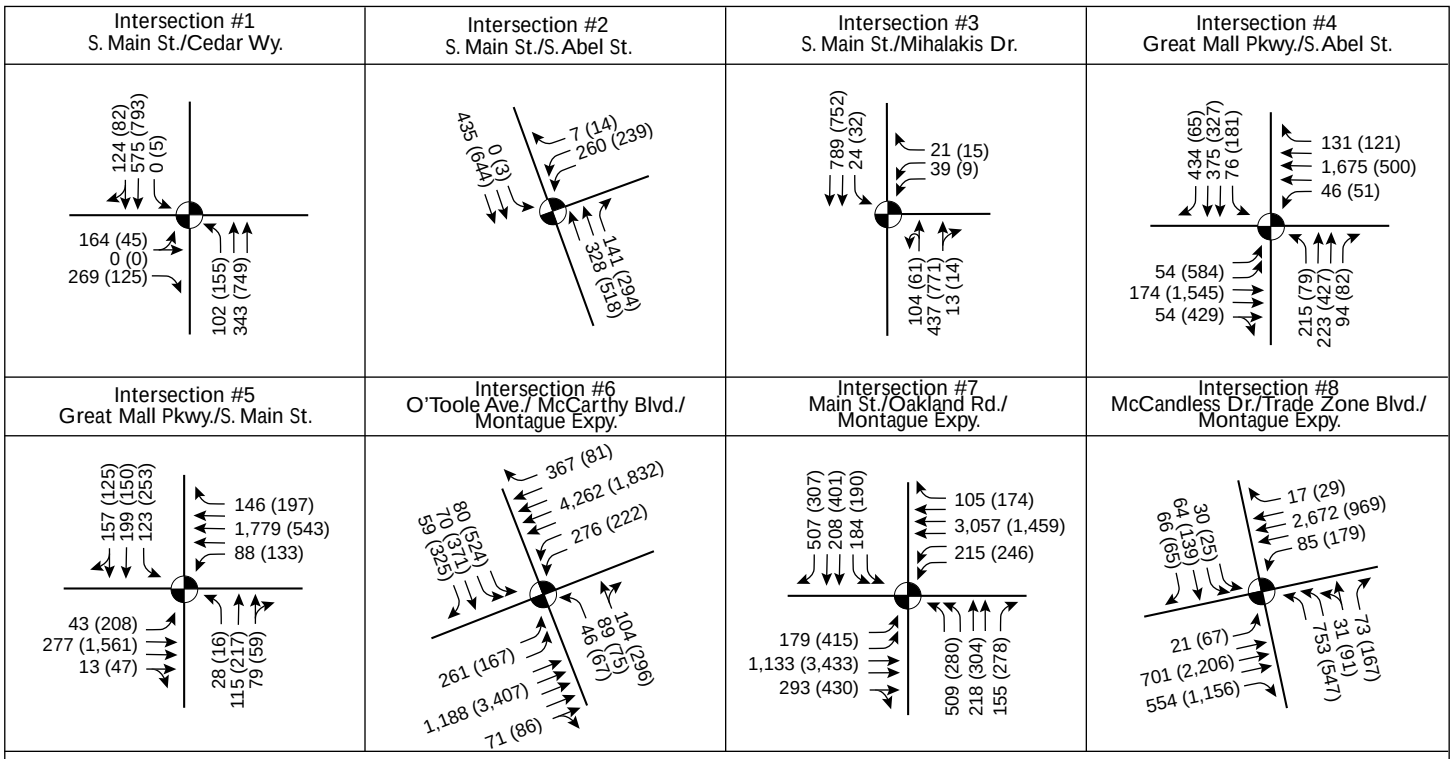
City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development
Background Conditions Traffic Volumes, Lane Geometry, and Traffic Controls

Figure 7



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Background plus Project Conditions

This analysis scenario is similar to Background Conditions, but with the addition of traffic expected to be generated by the proposed project. This scenario also includes the network improvements assumed under the Background Conditions scenario.

Intersection Level of Service Analysis Results (Background plus Project Conditions)
Table VII shows the results of the LOS analysis conducted for the study intersections under Background Plus Project Conditions. With the addition of project traffic, all project intersections operating at an acceptable LOS under Background Conditions are expected to continue to operate acceptably, with minimal increases to delay. At the Montague Expressway & S. Main Street/Oakland Road intersection, the addition of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Background Conditions.

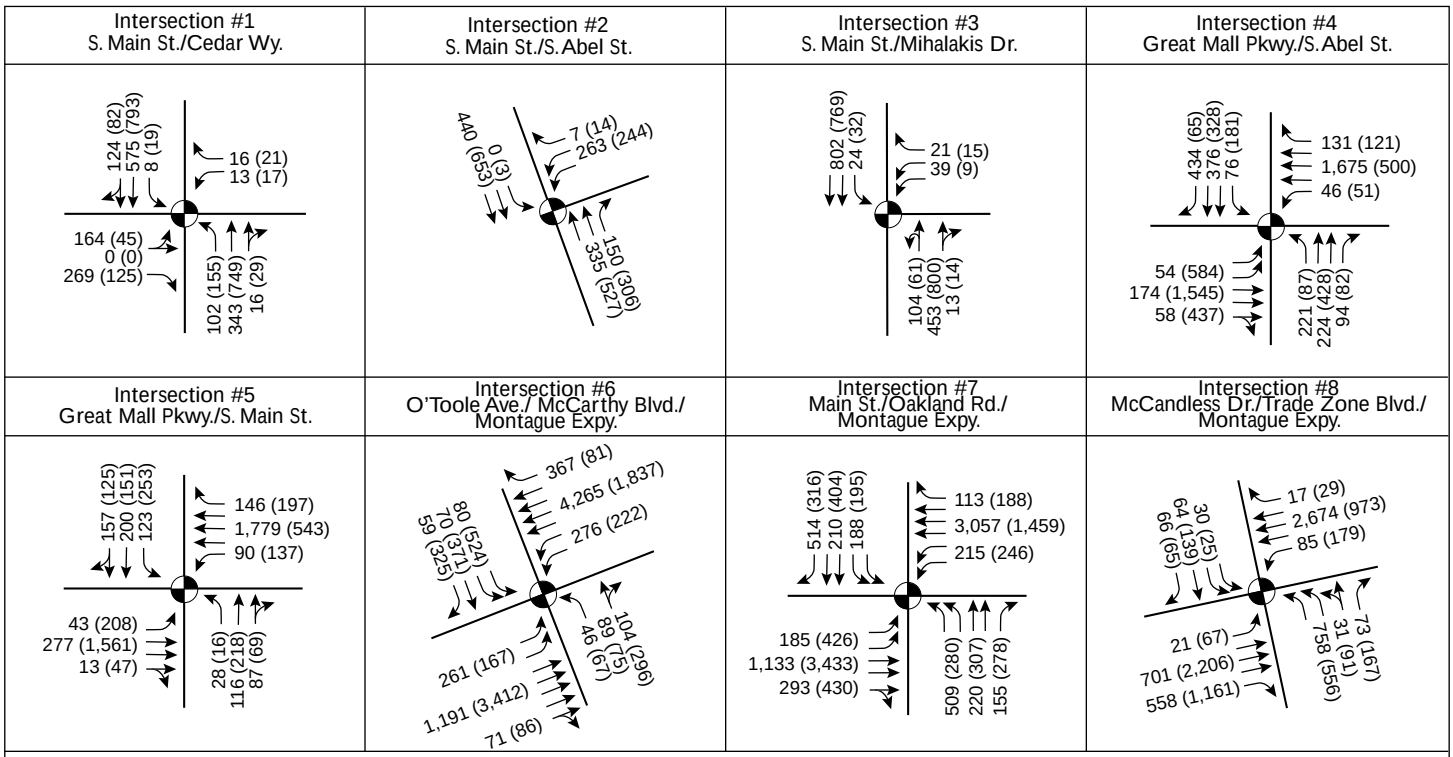
Table VII: Intersection Levels of Service – Background plus Project Conditions

ID	Intersection	Control	Background Conditions								Background Plus Project Conditions							
			A.M. Peak Hour				P.M. Peak Hour				A.M. Peak Hour				P.M. Peak Hour			
			Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay	Delay	LOS	Critical v/c	Average Critical Delay
1	S. Main Street/ Cedar Way/ Project Driveway	Signal	21.8	C	0.507	24.9	15.1	B	0.514	20.7	25.1	C	0.532	27.0	18.6	B	0.542	23.1
2	S. Main Street/ S. Abel Road	Signal	14.8	B	0.250	16.2	12.8	B	0.296	14.9	15.0	B	0.256	16.3	12.8	B	0.301	14.9
3	S. Main Street/ Mihalakis Drive	Signal	15.2	B	0.492	21.9	14.0	B	0.526	21.5	15.2	B	0.501	22.0	14.0	B	0.540	21.7
4	Great Mall Parkway/ S. Abel Street	Signal	28.6	D	0.958	33.6	22.1	C	0.852	23.3	29.2	D	0.962	34.4	22.2	C	0.854	23.4
5	Great Mall Parkway/ S. Main Street	Signal	14.3	B	0.635	12.0	19.9	C	0.739	20.1	14.4	B	0.639	12.2	20.1	C	0.746	20.4
6	Montague Expressway/ McCarthy Boulevard/ O'Toole Avenue	Signal	49.8	D	0.991	55.0	73.8	E	1.052	91.5	49.8	D	0.992	55.1	74.0	E	1.053	91.8
7	Montague Expressway/ S. Main Street/ Oakland Road	Signal	**122.8**	**F**	1.266	163.6	**133.3**	**F**	1.290	178.4	**125.2**	**F**	1.233	167.1	**134.8**	**F**	1.296	181.4
8	Montague Expressway/ McCandless Drive/ Trade Zone Boulevard	Signal	35.2	D	0.839	39.7	46.9	D	0.972	75.4	35.2	D	0.837	39.7	47.3	D	0.975	76.2

Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, v/c = volume to capacity ratio
2) **Bold** indicates LOS exceeds applicable jurisdictional standards for operating conditions.

City of Milpitas - Traffic Impact Analysis for South Main Senior Lifestyles Development
Background plus Project Conditions Traffic Volumes, Lane Geometry, and Traffic Controls

Figure 8



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Queuing Analysis

TJKM conducted a queuing and vehicle storage analysis at all study intersections for Existing, Existing Plus Project, Background, and Background Plus Project conditions, based on weekday a.m. and p.m. peak hour volumes. The 95th percentile (maximum) queues were analyzed using the HCM 2000 Queue methodology for all left and right-turn pockets where project traffic is expected to be added. Detailed calculations are contained in Appendix C through Appendix F.

Table VIII shows expected vehicle queues for the turn pockets of project access intersections under Existing and Existing Plus Project Conditions. Under Existing Conditions, the following study movements have 95th percentile queue lengths exceeding available storage length:

- Great Mall Parkway & South Abel Street
    - Northbound left-turn during the a.m. peak hour
- Montague Expressway & McCandless Drive/Trade Zone Boulevard
    - Eastbound right-turn during the a.m. and p.m. peak hours

Under Existing plus Project Conditions, with the exception of the westbound left-turn storage pocket at the intersection of South Main Street/Cedar Way, no additional turn pockets are expected to experience spillover conditions with the addition of project traffic. It should be noted that for those movements experiencing spillover conditions under Existing Conditions, the addition of project traffic is expected to increase the 95th percentile queue by no greater than approximately one car length (20-25 feet). For the remaining locations not experiencing spillover conditions, it is expected that the increase in queue lengths can be accommodated by the existing lane geometry without traffic spillover to the closest upstream intersection or into adjacent through lanes. It is therefore expected that the addition of project traffic will not contribute significantly to Existing Plus Project vehicle queues at the study intersections.

It should be noted that the long eastbound right-turn queue at the Montague Expressway & McCandless Drive/Trade Zone Boulevard intersection identified in Table VIII is a function of actual congestion in the eastbound direction of Montague Expressway during the p.m. peak hour. Rolling queues often occur in this direction and from time to time extend upstream to the Montague Expressway / Oakland Road / Main Street intersection. However, this is an existing congested condition that is not due to the proposed project.

Table VIII: Expected Turn Pocket Vehicle Queues – Existing and Existing Plus Project Conditions

Intersection	Movement	Total Storage Length (ft.)	Existing Conditions 95th Percentile Queue Length (ft)		Existing Plus Project Conditions 95th Percentile Queue Length (ft.)	
			AM	PM	AM	PM
S. Main Street/Cedar Way/ Project Driveway	SBL	60	0	22[1]	21	45
	WBL	45	n/a	n/a	44	**52**
S. Main Street/S. Abel Road	NBR	180	98	158	107	172
Great Mall Parkway/S. Abel Street	NBL	175	**230**	99	**236**	110
Great Mall Parkway/S. Main Street	WBL	280	62	67	64	72
Montague Expressway & South Main St/ Oakland Road	SBL	480	189	264	204	328
	EBL	1,015	324	414	334	426
Montague Expressway/McCandless Drive/Trade Zone Boulevard	EBR	235	**425**	**1,891 ***	**428**	**1,915 ***

Note: Vehicle queue lengths expressed in feet per lane.
[1]Queue length reflects traffic navigating a u-turn under Background conditions
* Field observations indicate eastbound queues can extend back to the Montague/South Main/Oakland intersection (approximate 1,395 feet distance), and periodically further upstream of this intersection.

Table IX shows expected vehicle queues for the turn pockets of project intersections under Background and Background Plus Project Conditions. Under Background Conditions, the following study movements are expected to have 95th percentile queue lengths exceeding available storage length:

- Great Mall Parkway & South Abel Street
  - Northbound left-turn during the a.m. peak hour
- Montague Expressway & McCandless Drive/Trade Zone Boulevard
  - Eastbound right-turn during the a.m. and p.m. peak hours

Table IX: Expected Turn Pocket Vehicle Queues – Background and Background Plus Project Conditions

Intersection	Movement	Total Storage Length (ft.)	Background Conditions 95th Percentile Queue Length (ft)		Background Plus Project Conditions 95th Percentile Queue Length (ft.)	
			AM	PM	AM	PM
S. Main Street/Cedar Way/Project Driveway	SBL	60	0	23[1]	21	46
	WBL	45	n/a	n/a	**46**	**53**
S. Main Street/S. Abel Road	NBR	180	104	173	112	182
Great Mall Parkway/S. Abel Street	NBL	175	**257**	114	**264**	125
Great Mall Parkway/S. Main Street	WBL	280	79	139	81	143
Montague Expressway & South Main St/ Oakland Road	SBL	480	221	368	215	374
	EBL	1015	349	458	359	472
Montague Expressway/McCandless Drive/ Trade Zone Boulevard	EBR	235	**499**	**2,179***	**502**	**2,207***

Note: Vehicle queue lengths expressed in feet per lane.
[1]Queue length reflects traffic navigating a u-turn under Background conditions
* Field observations indicate eastbound queues can extend back to the Montague/South Main/Oakland intersection (approximate 1,395 feet distance), and periodically further upstream of this intersection.

Under Background plus Project Conditions, with the exception of the westbound left-turn at the South Main Street/Cedar Way intersection, no additional turn pockets are expected to experience spillover conditions with the addition of project traffic. For those movements experiencing spillover conditions under Background Conditions, the addition of project traffic is expected to increase the 95th percentile queue by no greater than one car length (20-25 feet), with the exception of the eastbound right-turn movement at the Montague Expressway & McCandless Drive/Trade Zone Boulevard intersection, which is expected to experience an increase in the 95th percentile vehicle queue of 28 feet during the p.m. peak hour. These additional queue lengths due to project traffic are not considered significant. It is therefore expected that the addition of project traffic will not contribute significantly to Background Plus Project Conditions vehicle queues at the study intersections.

In terms of improvements to accommodate spillover conditions at the South Main Street/Cedar Way intersection under both Existing plus Project and Background plus Project Conditions, TJKM recommends installing a 60' westbound left-turn pocket (increase of 15') with a corresponding adjustment to the location of the proposed taper. This improvement will may necessitate the removal of two planned on-street parallel parking spaces within the site area.

Project Site Access, Onsite Circulation, and Parking

TJKM reviewed the proposed project site plan to determine adequacy of site access, onsite circulation, and proposed parking. Observations and recommendations are outlined below.

Site Access

The project site plan shows that access to the project site will be provided via extensions of Cedar Way east of South Main Street, as well as a northern extension of Costa Street, which will run adjacent to the project site's eastern boundary before turning west to connect with South Main Street approximately 300 feet north of Cedar Way. The Cedar Way extension is expected to provide access to the first phase of the project, which is comprised of 199 assisted living and congregate care units and includes off-street parking via a subterranean parking garage with a 25-foot entrance. The Costa Street extension will provide primary access for the second phase of the project, which will consist of 190 independent living units and include off-street parking via a four-story garage with a 30-foot wide two-way entrance. Given the relatively low number of a.m. and p.m. peak hour trips that the proposed project is expected to generate, the proposed project trips are not expected to result in queuing issues on South Main Street.

The project site plan also shows a dedicated 20-foot wide roadway running along the site's southern boundary between South Main Street and Costa Street, which will provide access to fire and emergency vehicles. Overall, TJKM expects that the site access as proposed will adequately serve all vehicle types within the project site.

On Site Traffic Circulation

TJKM reviewed the project site layout in terms of internal traffic circulation for autos. The Cedar Way extension includes a proposed two-aisle, one-way passenger loading zone at the main entrance to the Phase 1 component of the development and adjacent to the City of Milpitas right-of-way. The aisles in the loading zone will be constructed with a width of 16-feet, which will adequately accommodate two passenger vehicles in each aisle at a given time.

As mentioned previously, the Costa Street extension will provide access to the site's subterranean (Phase I) and four-story (Phase 2) parking garages. The project site plan shows variable driveway aisle widths ranging from 24-feet to 27-feet in all 90-degree parking areas within the subterranean garage. The City of Milpitas municipal code specifies that a minimum driveway aisle width of 25-feet in all 90-degree parking areas within parking structures. However, the project sponsor has indicated that City staff has allowed for a variance of the minimum required driveway aisle width given constraints pertaining to the nearby right-of-way utility access. Thus, TJKM does not recommend an increase to the driveway aisle widths within the subterranean garage.

Regarding the four-story parking garage, the site plan shows an adequate minimum of 26' for all driveway aisles on the ground floor. It is our understanding that the remaining floors of the parking structure will similarly include 26-foot wide driveway aisles in all 90-degree parking areas. Overall, TJKM expects that the site circulation will adequately serve all vehicles within the site.

Parking

TJKM reviewed the site plan and information received from the project applicant to determine whether the proposed number of off-street parking spaces meets the City of Milpitas requirements. The City of Milpitas Municipal Code requires 391 off-street parking spaces for the proposed number of units of the project. The proposal currently includes 398 off-street parking spaces, including 141 spaces in a subterranean structure under Phase 1, and 257 spaces in a four-story, above-grade parking garage under

Phase 2. Thus, the proposed parking supply is expected to be adequate based on the City of Milpitas Municipal Code requirements.

TJKM additionally consulted ITE's *Parking Generation* 4th edition to estimate the total parking demand for the proposed project based on previous studies of peak period parking demand for comparable land uses. Table X shows the *Parking Generation* 85th percentile ratios for each compatible land use, and compares the estimated number of parking spaces required per the City of Milpitas Municipal Code to the estimated number of parking spaces required per the application of the *Parking Generation* rates. It should be noted that for the Congregate Care land use, *Parking Generation* provides data for only two surveys conducted, and thus does not provide an 85th percentile peak period parking ratio. TJKM therefore applied the larger of the two ratios (0.48) to calculate the total amount of parking required for the Congregate Care land use. The rates provided in *Parking Generation* are consistent with TJKM's experience that Senior Housing, Congregate Care, and Assisted Living land uses typically generate parking demand at a lower rate due to decreased number of residents who typically drive when compared to other residential land uses.

Application of the 85th percentile parking demand rates provided in *Parking Generation* to the proposed project produces a demand estimate of 227 parked vehicles, which is 171 fewer than the current proposal of 398 spaces provided, which is typical of senior residences with fewer residents owning vehicles and that also have access to alternative transportation means. Given this characteristic, it should be noted that the project applicant is considering converting the fourth story of the Phase 2 parking structure to a recreation/open space amenity for residents, which would eliminate 65 parking spaces and reduce the total number of parking spaces in the structure to 333. However, even with the elimination of 65 spaces on the fourth story of the parking structure, the proposed parking supply is expected to be adequate based on ITE *Parking Generation* 85th percentile parking demand rates for Senior Housing, Assisted Living, and Congregate Care land uses.

Table X: Proposed Project Off-Street Parking Requirements

Project Component	Number of spaces required per Milpitas Municipal Code	Ratio for each use per Milpitas Municipal Code	*Parking Generation* 85th percentile ratio (vehicles per dwelling unit)	Parking Required per Parking Generation (85th percentile rate)	Proposed Parking	Proposed Parking (Alternate)
190 Senior Housing Units	190	1	0.66	125	255	190
129 Congregate Care Units	129	1	0.48 (largest peak period demand ratio of two sites)	62	141	141
70 Assisted Living Occupied Beds	70	1	0.54	38	0	0
1 Manager's Unit	2	2	-	2	2 (In parking structure)	2 (In parking structure)
Total Units Required	**391**			**227**	**398**	**333**

Conclusions

TJKM has reached the following conclusions regarding the proposed South Main Senior Lifestyles Development in the City of Milpitas:

Project Trip Generation
The proposed South Main Senior Lifestyles Development is expected to generate 53 a.m. peak hour trips and 81 p.m. peak hour trips, after applying all applicable trip discounts.

Existing Conditions
Currently, all study intersections operate at acceptable LOS based on applicable jurisdictional standards during both weekday a.m. and p.m. peak hours, with the exception of the Montague Expressway & South Main Street/Oakland Road intersection, which operates at LOS F during the a.m. and p.m. peak hours.

Existing Plus Project Conditions
With the addition of project traffic, all of the project intersections operating at an acceptable LOS under Existing Conditions are expected to continue to operate acceptably, with minimal increases in average delay. At the Montague Expressway & South Main Street/Oakland Road intersection, the addition of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Existing Conditions.

Background Conditions LOS
With the addition of peak hour traffic from approved and pending projects and the completion of planned improvements to Montague Expressway, the intersection of Montague Expressway & S. Main Street/Oakland Road is expected to operate at LOS F during the a.m. and p.m. peak hours. All other intersections are expected to meet an acceptable LOS based on applicable jurisdictional standards during both the weekday a.m. and p.m. peak hours.

Background plus Project Conditions LOS
With the addition of project traffic, all of the project intersections operating at an acceptable LOS under Background Conditions are expected to continue to operate acceptably, with minimal increases to delay. At the Montague Expressway & S. Main Street/Oakland Road intersection, the addition of project traffic is expected to increase the average control delay for critical movements by less than four seconds during the a.m. and p.m. peak hours, which does not constitute a significant impact for intersections already operating at LOS F under Existing Conditions.

Queue Lengths
An evaluation of 95th percentile (maximum) queue lengths for dedicated left- and right-turn pockets affected by the proposed project was conducted for the Existing and Background Conditions scenarios. For storage lanes already operating deficiently under Existing and Background baseline conditions, the addition of project traffic is expected to increase the 95th percentile queue by less than one car length (20-25 feet), with the exception of the eastbound right-turn at the Montague Expressway & McCandless Drive/Trade Zone Boulevard intersection, which is expected to experience an increase in queue lengths of 28-feet during the p.m. peak hour under Background plus Project conditions. These additional queue lengths due to project traffic are not considered significant. It is therefore expected that the addition of project traffic will not contribute significantly to Existing and Background Conditions vehicle queues at the study intersections. In terms of improvements to accommodate spillover conditions at the South Main Street/Cedar Way intersection under both Existing plus Project and Background plus Project Conditions,

TJKM recommends installing a 60' westbound left-turn pocket (increase of 15') with a corresponding adjustment to the location of the proposed taper. This improvement will may necessitate the removal of two planned on-street parallel parking spaces within the site area.

Site Access

The project site plan shows a 40-foot wide extension of Cedar Way east of South Main Street, which is expected to provide access to the first phase of the project. An additional 24-foot wide Costa Street extension is proposed approximately 310 feet north of the Cedar Way driveway, and is expected to provide primary access to the second phase of the project. Given the relatively low number of a.m. and p.m. peak hour trips that the proposed project is expected to generate, the proposed project trips are not expected to result in queuing issues on South Main Street. An additional 20-foot wide fire and emergency access lane is proposed along the southern boundary of the project site. Overall, TJKM expects that the site access as proposed will adequately serve all vehicle types within the project site.

On Site Traffic Circulation

TJKM reviewed the project site layout in terms of internal traffic circulation for autos, including the two-aisle, one-way passenger loading zone at the main entrance to the Phase 1 building, and driveway aisle widths within the subterranean (Phase 1) garage and the four-story (Phase 2 garage). Based on the site plan and information received from the project applicant, TJKM expects that the site circulation will adequately serve all vehicles within the site.

Parking

TJKM reviewed the site plan and information received from the project applicant to determine whether the proposed number of off-street parking spaces meets the City of Milpitas requirements. The City of Milpitas Municipal Code requires 391 off-street parking spaces for the proposed number of units of the project. The proposal currently includes 398 off-street parking spaces, including 141 spaces in a subterranean structure under Phase 1, and 257 spaces in a four-story garage under Phase 2. Thus, the proposed parking supply is expected to be adequate based on the City of Milpitas Municipal Code requirements.

Application of the 85th percentile parking demand rates provided in *Parking Generation* to the proposed project produces a demand estimate of 227 parked vehicles, which is 171 fewer than the current proposal of 398 spaces provided, which is typical of senior residences with fewer residents owning vehicles and that also have access to alternative transportation means. Given this characteristic, it should be noted that the project applicant is considering converting the fourth story of the Phase 2 parking structure to a recreation/open space amenity for residents, which would eliminate 65 parking spaces and reduce the total number of parking spaces in the structure to 333. However, even with the elimination of 65 spaces on the fourth story of the parking structure, the proposed parking supply is expected to be adequate based on ITE *Parking Generation* 85th percentile parking demand rates for Senior Housing, Assisted Living, and Congregate Care land uses.

Study References

TJKM Personnel

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Andrew Kluter, P.E.	Project Manager
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Dan Harrison	Graphics
Rosa Johnson	Word Processing

Traffic Data Collection

Baymetrics, 2013, 2014

Persons Consulted

Joe Callahan	Callahan Property Development
Steve Chan, T.E., E.E.	City of Milpitas, Traffic Engineer

References

- *City of Milpitas Engineering Guidelines.*
- *Comprehensive County Expressway Planning Study.* County of Santa Clara Roads and Airports Department, March 2009.
- *Milpitas Transit Area Specific Plan, Draft Environmental Impact Report, State Clearinghouse No. 2006032091,* October 2007.
- *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000.
- *2013 Congestion Management Program.* Santa Clara Valley Transportation Authority, October 2013
- *City of Milpitas General Plan,* City of Milpitas, 1994.

Appendix A – Level of Service Methodology

APPENDIX A
LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, Highway Capacity Manual 2000. Highway Capacity Manual 2000 represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I

Table A-I: Level of Service Description

	Uninterrupted Flow	**Interrupted Flow**
Facility Type	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: Highway Capacity Manual 2000

Urban Streets

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.
Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.
Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II: Functional and Design Categories for Urban Streets

Criterion	Functional Category	
	Principal Arterial	**Minor Arterial**
Mobility function	Very important	Important
Access function	Very minor	Substantial
Points connected	Freeways, important activity centers, major traffic generators	Principal arterials
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city	Trips of moderate length within relatively small geographical areas

Criterion	Design Category			
	High-Speed	**Suburban**	**Intermediate**	**Urban**
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: Highway Capacity Manual 2000

Table A-III: Urban Street Class based on Function and Design Categories

	Functional Category	
Design Category	**Principal Arterial**	**Minor Arterial**
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: Highway Capacity Manual 2000

Table A-IV: Urban Street Levels of Service by Class

Urban Street Class	**I**	**II**	**III**	**IV**
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	**Average Travel Speed (mph)**			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: Highway Capacity Manual 2000

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A description of levels of service for signalized intersections can be found in Table A-V

Table A-V: Description of Level of Service for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase doe not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: Highway Capacity Manual 2000

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required

to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI: Description of Level of Service for Two-Way Stop Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: Highway Capacity Manual 2000

Appendix B – Existing Traffic Counts

B.A.Y.M.E.T.R.I.C.S.

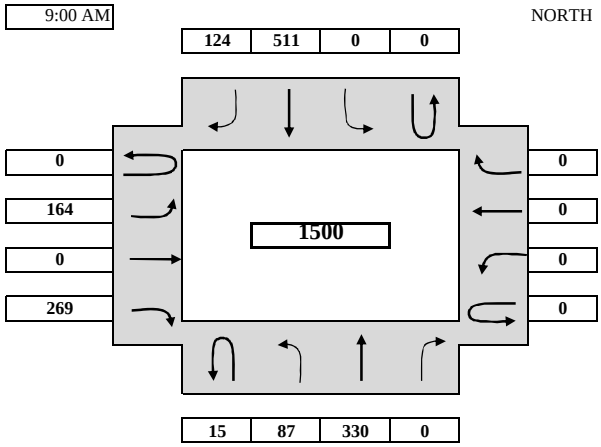
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**S. MAIN STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**CEDAR WAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-4AM**

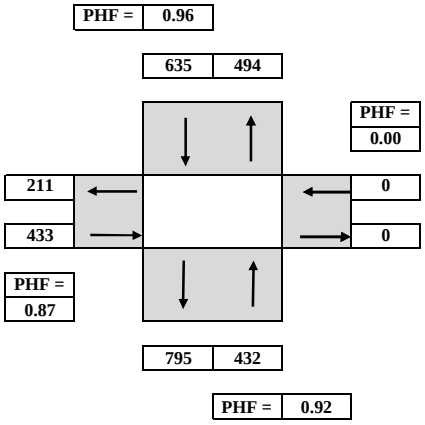
PEAK HOUR

8:00 AM to 9:00 AM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND U-TURN	LEFT	THRU	RIGHT	SOUTHBOUND U-TURN	LEFT	THRU	RIGHT	EASTBOUND U-TURN	LEFT	THRU	RIGHT	WESTBOUND U-TURN	LEFT	THRU	RIGHT	TOTAL
SURVEY DATA																		
7:00 AM	7:15 AM	0	10	37				42	4		16		41					**150**
7:15 AM	7:30 AM	1	24	86				104	10		30		84					**339**
7:30 AM	7:45 AM	2	40	135				196	25		44		135					**577**
7:45 AM	8:00 AM	5	57	194				305	40		57		200					**858**
8:00 AM	8:15 AM	8	72	275				420	62		82		278					**1197**
8:15 AM	8:30 AM	11	106	356				549	99		118		367					**1606**
8:30 AM	8:45 AM	15	140	431				679	135		168		415					**1983**
8:45 AM	9:00 AM	20	144	524				816	164		221		469					**2358**
TOTAL BY PERIOD																		
7:00 AM	7:15 AM	0	10	37	0	0	0	42	4	0	16	0	41	0	0	0	0	**150**
7:15 AM	7:30 AM	1	14	49	0	0	0	62	6	0	14	0	43	0	0	0	0	**189**
7:30 AM	7:45 AM	1	16	49	0	0	0	92	15	0	14	0	51	0	0	0	0	**238**
7:45 AM	8:00 AM	3	17	59	0	0	0	109	15	0	13	0	65	0	0	0	0	**281**
8:00 AM	8:15 AM	3	15	81	0	0	0	115	22	0	25	0	78	0	0	0	0	**339**
8:15 AM	8:30 AM	3	34	81	0	0	0	129	37	0	36	0	89	0	0	0	0	**409**
8:30 AM	8:45 AM	4	34	75	0	0	0	130	36	0	50	0	48	0	0	0	0	**377**
8:45 AM	9:00 AM	5	4	93	0	0	0	137	29	0	53	0	54	0	0	0	0	**375**
HOURLY TOTALS																		
7:00 AM	8:00 AM	5	57	194	0	0	0	305	40	0	57	0	200	0	0	0	0	**858**
7:15 AM	8:15 AM	8	62	238	0	0	0	378	58	0	66	0	237	0	0	0	0	**1047**
7:30 AM	8:30 AM	10	82	270	0	0	0	445	89	0	88	0	283	0	0	0	0	**1267**
7:45 AM	8:45 AM	13	100	296	0	0	0	483	110	0	124	0	280	0	0	0	0	**1406**
8:00 AM	9:00 AM	15	87	330	0	0	0	511	124	0	164	0	269	0	0	0	0	**1500**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	15	87	330	0	0	0	511	124	0	164	0	269	0	0	0	0	**1500**
PEDESTRIAN																	**10**
BICYCLE																	**3**
PHF BY MOVEMENT	0.75	0.64	0.89	0.00	0.00	0.00	0.93	0.84	0.00	0.77	0.00	0.76	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH	0.92				0.96				0.87				0.00				0.92

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

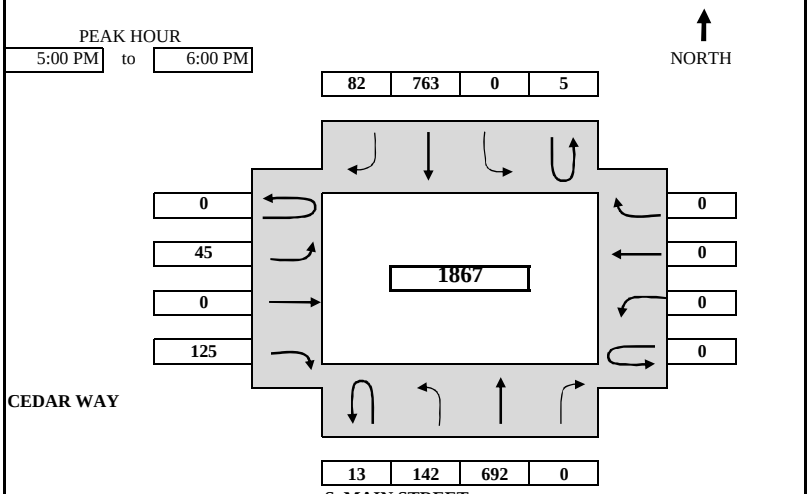
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

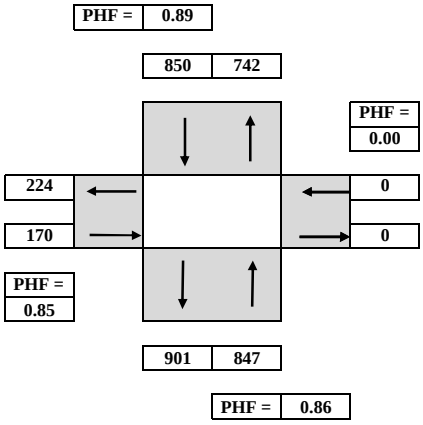
PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**S. MAIN STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**CEDAR WAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-4PM**

PEAK HOUR

5:00 PM to 6:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND U-TURN	LEFT	THRU	RIGHT	SOUTHBOUND U-TURN	LEFT	THRU	RIGHT	EASTBOUND U-TURN	LEFT	THRU	RIGHT	WESTBOUND U-TURN	LEFT	THRU	RIGHT	TOTAL
SURVEY DATA																		
4:00 PM	4:15 PM	5	33	124		0		117	20		12		20					**331**
4:15 PM	4:30 PM	7	61	243		0		241	37		20		43					**652**
4:30 PM	4:45 PM	13	93	365		0		378	53		39		64					**1005**
4:45 PM	5:00 PM	14	123	516		2		533	66		51		88					**1393**
5:00 PM	5:15 PM	21	152	666		5		711	82		60		118					**1815**
5:15 PM	5:30 PM	21	188	829		6		890	107		66		153					**2260**
5:30 PM	5:45 PM	24	222	1037		7		1108	128		83		186					**2795**
5:45 PM	6:00 PM	27	265	1208		7		1296	148		96		213					**3260**
TOTAL BY PERIOD																		
4:00 PM	4:15 PM	5	33	124	0	0	0	117	20	0	12	0	20	0	0	0	0	**331**
4:15 PM	4:30 PM	2	28	119	0	0	0	124	17	0	8	0	23	0	0	0	0	**321**
4:30 PM	4:45 PM	6	32	122	0	0	0	137	16	0	19	0	21	0	0	0	0	**353**
4:45 PM	5:00 PM	1	30	151	0	2	0	155	13	0	12	0	24	0	0	0	0	**388**
5:00 PM	5:15 PM	7	29	150	0	3	0	178	16	0	9	0	30	0	0	0	0	**422**
5:15 PM	5:30 PM	0	36	163	0	1	0	179	25	0	6	0	35	0	0	0	0	**445**
5:30 PM	5:45 PM	3	34	208	0	1	0	218	21	0	17	0	33	0	0	0	0	**535**
5:45 PM	6:00 PM	3	43	171	0	0	0	188	20	0	13	0	27	0	0	0	0	**465**
HOURLY TOTALS																		
4:00 PM	5:00 PM	14	123	516	0	2	0	533	66	0	51	0	88	0	0	0	0	**1393**
4:15 PM	5:15 PM	16	119	542	0	5	0	594	62	0	48	0	98	0	0	0	0	**1484**
4:30 PM	5:30 PM	14	127	586	0	6	0	649	70	0	46	0	110	0	0	0	0	**1608**
4:45 PM	5:45 PM	11	129	672	0	7	0	730	75	0	44	0	122	0	0	0	0	**1790**
5:00 PM	6:00 PM	13	142	692	0	5	0	763	82	0	45	0	125	0	0	0	0	**1867**

PEAK HOUR SUMMARY

5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	13	142	692	0	5	0	763	82	0	45	0	125	0	0	0	0	**1867**
PEDESTRIAN																	**13**
BICYCLE																	**6**
PHF BY MOVEMENT	0.46	0.83	0.83	0.00	0.42	0.00	0.88	0.82	0.00	0.66	0.00	0.89	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH	0.86				0.89				0.85				0.00				0.87

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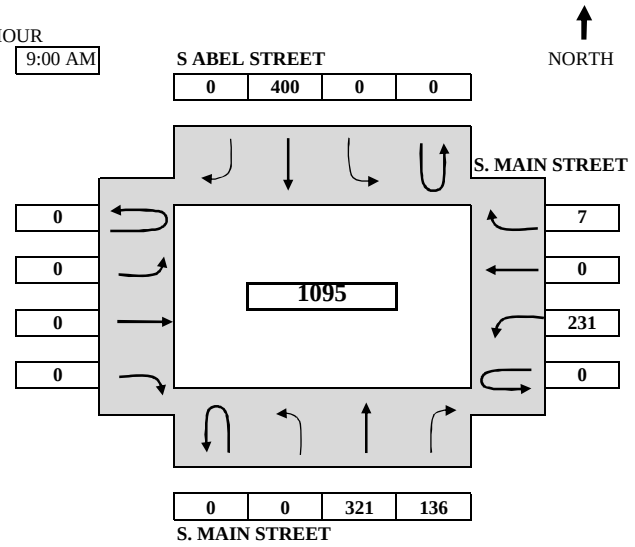
B.A.Y.M.E.T.R.I.C.S.

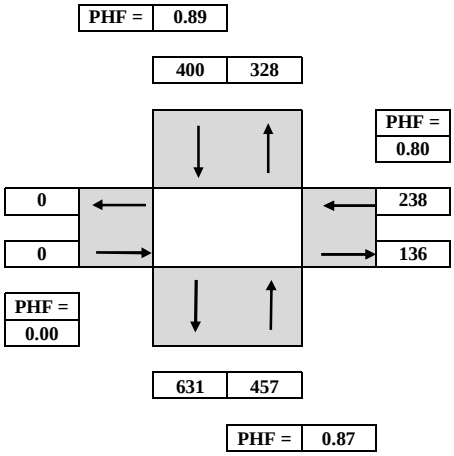
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**S. MAIN STREET - S ABEL STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**S. MAIN STREET**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-5AM**

PEAK HOUR
8:00 AM to 9:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM			34	19		0	43							12		1	**109**
7:15 AM	to 7:30 AM			82	32		0	90							33		3	**240**
7:30 AM	to 7:45 AM			120	50		0	171							58		4	**403**
7:45 AM	to 8:00 AM			165	71		0	269							93		5	**603**
8:00 AM	to 8:15 AM			240	91		0	359							155		6	**851**
8:15 AM	to 8:30 AM			309	131		0	471							212		6	**1129**
8:30 AM	to 8:45 AM			409	162		0	576							281		11	**1439**
8:45 AM	to 9:00 AM			486	207		0	669							324		12	**1698**
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	34	19	0	0	43	0	0	0	0	0	0	12	0	1	**109**
7:15 AM	to 7:30 AM	0	0	48	13	0	0	47	0	0	0	0	0	0	21	0	2	**131**
7:30 AM	to 7:45 AM	0	0	38	18	0	0	81	0	0	0	0	0	0	25	0	1	**163**
7:45 AM	to 8:00 AM	0	0	45	21	0	0	98	0	0	0	0	0	0	35	0	1	**200**
8:00 AM	to 8:15 AM	0	0	75	20	0	0	90	0	0	0	0	0	0	62	0	1	**248**
8:15 AM	to 8:30 AM	0	0	69	40	0	0	112	0	0	0	0	0	0	57	0	0	**278**
8:30 AM	to 8:45 AM	0	0	100	31	0	0	105	0	0	0	0	0	0	69	0	5	**310**
8:45 AM	to 9:00 AM	0	0	77	45	0	0	93	0	0	0	0	0	0	43	0	1	**259**
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	165	71	0	0	269	0	0	0	0	0	0	93	0	5	**603**
7:15 AM	to 8:15 AM	0	0	206	72	0	0	316	0	0	0	0	0	0	143	0	5	**742**
7:30 AM	to 8:30 AM	0	0	227	99	0	0	381	0	0	0	0	0	0	179	0	3	**889**
7:45 AM	to 8:45 AM	0	0	289	112	0	0	405	0	0	0	0	0	0	223	0	7	**1036**
8:00 AM	to 9:00 AM	0	0	321	136	0	0	400	0	0	0	0	0	0	231	0	7	**1095**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	
VOLUME	0	0	321	136	0	0	400	0	0	0	0	0	0	231	0	7	**1095**
PEDESTRIAN																	**15**
BICYCLE																	**6**
PHF BY MOVEMENT	0.00	0.00	0.80	0.76	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.35	OVERALL
PHF BY APPROACH	0.87				0.89				0.00				0.80				0.88

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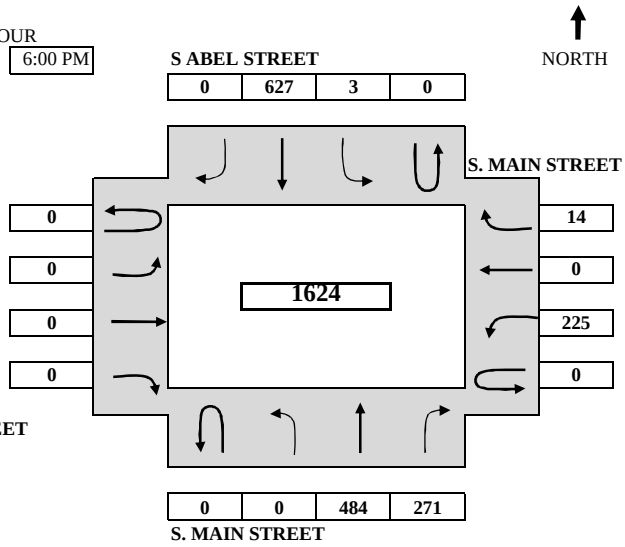
B.A.Y.M.E.T.R.I.C.S.

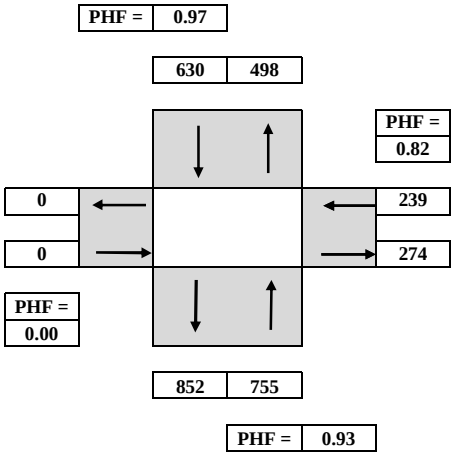
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**S. MAIN STREET - S ABEL STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**S. MAIN STREET**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-5PM**

PEAK HOUR
5:00 PM to 6:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME From	PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																		
4:00 PM	4:15 PM			72	54		1	76							33		2	**238**
4:15 PM	4:30 PM			150	102		2	176							75		4	**509**
4:30 PM	4:45 PM			232	164		2	294							131		9	**832**
4:45 PM	5:00 PM			321	209		4	392							166		16	**1108**
5:00 PM	5:15 PM			445	277		4	538							221		19	**1504**
5:15 PM	5:30 PM			557	336		5	696							275		25	**1894**
5:30 PM	5:45 PM			669	412		6	857							344		29	**2317**
5:45 PM	6:00 PM			805	480		7	1019							391		30	**2732**
TOTAL BY PERIOD																		
4:00 PM	4:15 PM	0	0	72	54	0	1	76	0	0	0	0	0	0	33	0	2	**238**
4:15 PM	4:30 PM	0	0	78	48	0	1	100	0	0	0	0	0	0	42	0	2	**271**
4:30 PM	4:45 PM	0	0	82	62	0	0	118	0	0	0	0	0	0	56	0	5	**323**
4:45 PM	5:00 PM	0	0	89	45	0	2	98	0	0	0	0	0	0	35	0	7	**276**
5:00 PM	5:15 PM	0	0	124	68	0	0	146	0	0	0	0	0	0	55	0	3	**396**
5:15 PM	5:30 PM	0	0	112	59	0	1	158	0	0	0	0	0	0	54	0	6	**390**
5:30 PM	5:45 PM	0	0	112	76	0	1	161	0	0	0	0	0	0	69	0	4	**423**
5:45 PM	6:00 PM	0	0	136	68	0	1	162	0	0	0	0	0	0	47	0	1	**415**
HOURLY TOTALS																		
4:00 PM	5:00 PM	0	0	321	209	0	4	392	0	0	0	0	0	0	166	0	16	**1108**
4:15 PM	5:15 PM	0	0	373	223	0	3	462	0	0	0	0	0	0	188	0	17	**1266**
4:30 PM	5:30 PM	0	0	407	234	0	3	520	0	0	0	0	0	0	200	0	21	**1385**
4:45 PM	5:45 PM	0	0	437	248	0	4	563	0	0	0	0	0	0	213	0	20	**1485**
5:00 PM	6:00 PM	0	0	484	271	0	3	627	0	0	0	0	0	0	225	0	14	**1624**

PEAK HOUR SUMMARY

5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	0	484	271	0	3	627	0	0	0	0	0	0	225	0	14	**1624**
PEDESTRIAN																	**21**
BICYCLE																	**7**
PHF BY MOVEMENT	0.00	0.00	0.89	0.89	0.00	0.75	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.58	OVERALL
PHF BY APPROACH	0.93				0.97				0.00				0.82				0.96

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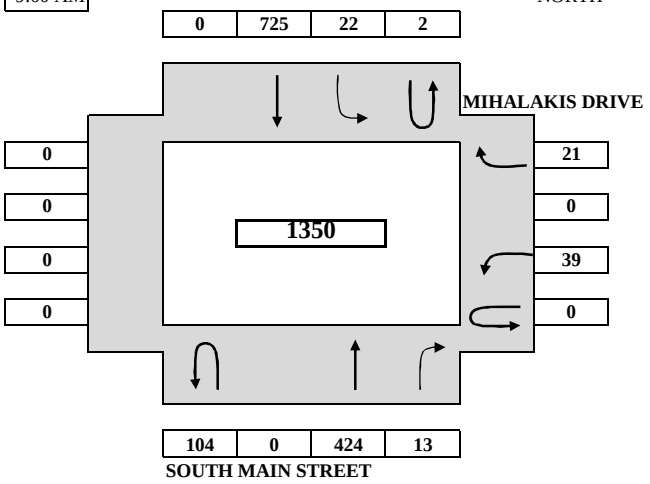
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

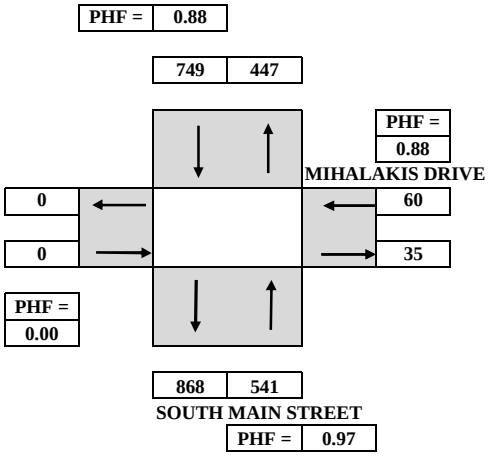
PROJECT:	**TRAFFIC COUNTS IN MILPITAS**	**SURVEY DATE:**	**3/27/2014**	**DAY:**	**THURSDAY**
N-S APPROACH:	**SOUTH MAIN STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**MIHALAKIS DRIVE**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3403029-AM**

PEAK HOUR
8:00 AM to 9:00 AM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From	PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																		
7:00 AM	7:15 AM	11		46	2	0	1	88							8		2	**158**
7:15 AM	7:30 AM	26		94	4	1	2	182							16		6	**331**
7:30 AM	7:45 AM	53		156	7	1	4	310							24		15	**570**
7:45 AM	8:00 AM	74		245	9	2	11	463							32		21	**857**
8:00 AM	8:15 AM	98		347	11	3	14	646							45		24	**1188**
8:15 AM	8:30 AM	124		456	16	3	22	805							55		29	**1510**
8:30 AM	8:45 AM	151		564	19	4	28	979							62		39	**1846**
8:45 AM	9:00 AM	178		669	22	4	33	1188							71		42	**2207**
TOTAL BY PERIOD																		
7:00 AM	7:15 AM	11	0	46	2	0	1	88	0	0	0	0	0	0	8	0	2	**158**
7:15 AM	7:30 AM	15	0	48	2	1	1	94	0	0	0	0	0	0	8	0	4	**173**
7:30 AM	7:45 AM	27	0	62	3	0	2	128	0	0	0	0	0	0	8	0	9	**239**
7:45 AM	8:00 AM	21	0	89	2	1	7	153	0	0	0	0	0	0	8	0	6	**287**
8:00 AM	8:15 AM	24	0	102	2	1	3	183	0	0	0	0	0	0	13	0	3	**331**
8:15 AM	8:30 AM	26	0	109	5	0	8	159	0	0	0	0	0	0	10	0	5	**322**
8:30 AM	8:45 AM	27	0	108	3	1	6	174	0	0	0	0	0	0	7	0	10	**336**
8:45 AM	9:00 AM	27	0	105	3	0	5	209	0	0	0	0	0	0	9	0	3	**361**
HOURLY TOTALS																		
7:00 AM	8:00 AM	74	0	245	9	2	11	463	0	0	0	0	0	0	32	0	21	**857**
7:15 AM	8:15 AM	87	0	301	9	3	13	558	0	0	0	0	0	0	37	0	22	**1030**
7:30 AM	8:30 AM	98	0	362	12	2	20	623	0	0	0	0	0	0	39	0	23	**1179**
7:45 AM	8:45 AM	98	0	408	12	3	24	669	0	0	0	0	0	0	38	0	24	**1276**
8:00 AM	9:00 AM	104	0	424	13	2	22	725	0	0	0	0	0	0	39	0	21	**1350**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	104	0	424	13	2	22	725	0	0	0	0	0	0	39	0	21	**1350**
PEDESTRIAN																	**25**
BICYCLE																	**2**
PHF BY MOVEMENT	0.96	0.00	0.97	0.65	0.50	0.69	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.53	OVERALL
PHF BY APPROACH	0.97				0.88				0.00				0.88				0.93

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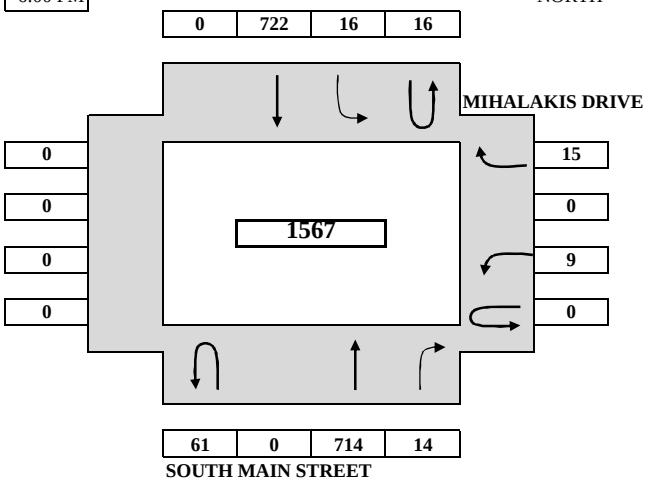
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

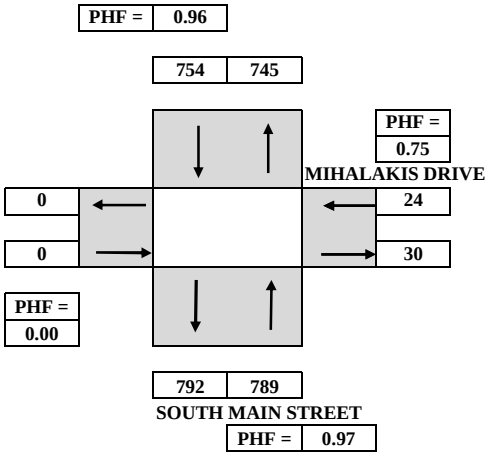
PROJECT:	**TRAFFIC COUNTS IN MILPITAS**	**SURVEY DATE:**	**3/27/2014**	**DAY:**	**THURSDAY**
N-S APPROACH:	**SOUTH MAIN STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**MIHALAKIS DRIVE**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3403029-PM**

PEAK HOUR
5:00 PM to 6:00 PM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From	PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																		
4:00 PM	4:15 PM	15		116	4	2	6	121							4		1	**269**
4:15 PM	4:30 PM	25		263	8	5	12	228							8		3	**552**
4:30 PM	4:45 PM	41		396	10	7	16	360							11		4	**845**
4:45 PM	5:00 PM	57		534	15	9	17	487							15		7	**1141**
5:00 PM	5:15 PM	73		702	17	14	22	650							17		13	**1508**
5:15 PM	5:30 PM	95		878	23	18	26	838							20		15	**1913**
5:30 PM	5:45 PM	105		1068	27	21	30	1020							22		19	**2312**
5:45 PM	6:00 PM	118		1248	29	25	33	1209							24		22	**2708**
TOTAL BY PERIOD																		
4:00 PM	4:15 PM	15	0	116	4	2	6	121	0	0	0	0	0	0	4	0	1	**269**
4:15 PM	4:30 PM	10	0	147	4	3	6	107	0	0	0	0	0	0	4	0	2	**283**
4:30 PM	4:45 PM	16	0	133	2	2	4	132	0	0	0	0	0	0	3	0	1	**293**
4:45 PM	5:00 PM	16	0	138	5	2	1	127	0	0	0	0	0	0	4	0	3	**296**
5:00 PM	5:15 PM	16	0	168	2	5	5	163	0	0	0	0	0	0	2	0	6	**367**
5:15 PM	5:30 PM	22	0	176	6	4	4	188	0	0	0	0	0	0	3	0	2	**405**
5:30 PM	5:45 PM	10	0	190	4	3	4	182	0	0	0	0	0	0	2	0	4	**399**
5:45 PM	6:00 PM	13	0	180	2	4	3	189	0	0	0	0	0	0	2	0	3	**396**
HOURLY TOTALS																		
4:00 PM	5:00 PM	57	0	534	15	9	17	487	0	0	0	0	0	0	15	0	7	**1141**
4:15 PM	5:15 PM	58	0	586	13	12	16	529	0	0	0	0	0	0	13	0	12	**1239**
4:30 PM	5:30 PM	70	0	615	15	13	14	610	0	0	0	0	0	0	12	0	12	**1361**
4:45 PM	5:45 PM	64	0	672	17	14	14	660	0	0	0	0	0	0	11	0	15	**1467**
5:00 PM	6:00 PM	61	0	714	14	16	16	722	0	0	0	0	0	0	9	0	15	**1567**

PEAK HOUR SUMMARY

5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	61	0	714	14	16	16	722	0	0	0	0	0	0	9	0	15	**1567**
PEDESTRIAN																	**19**
BICYCLE																	**2**
PHF BY MOVEMENT	0.69	0.00	0.94	0.58	0.80	0.80	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.63	OVERALL
PHF BY APPROACH	0.97				0.96				0.00				0.75				0.97

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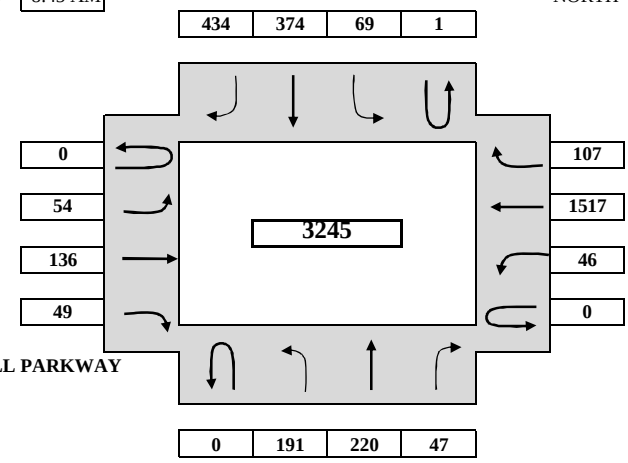
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

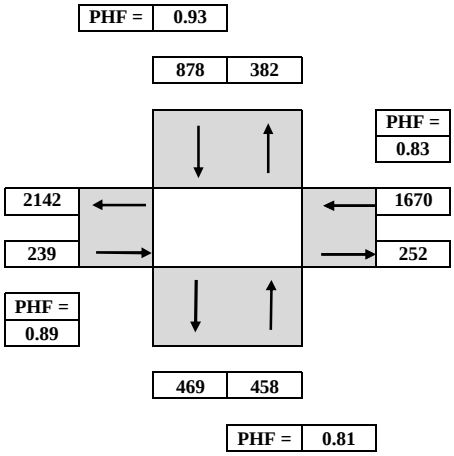
PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**S. ABEL STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**GREAT MALL PARKWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-3AM**

PEAK HOUR
7:45 AM to 8:45 AM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND U-TURN	LEFT	THRU	RIGHT	SOUTHBOUND U-TURN	LEFT	THRU	RIGHT	EASTBOUND U-TURN	LEFT	THRU	RIGHT	WESTBOUND U-TURN	LEFT	THRU	RIGHT	TOTAL
SURVEY DATA																		
7:00 AM	7:15 AM		32	40	6	0	4	36	68	0	7	23	14		12	201	12	**455**
7:15 AM	7:30 AM		67	86	14	0	11	78	137	2	20	62	28		16	457	25	**1003**
7:30 AM	7:45 AM		101	169	23	0	22	140	225	2	28	99	35		23	747	41	**1655**
7:45 AM	8:00 AM		137	211	38	0	37	231	339	2	37	133	48		36	1068	69	**2386**
8:00 AM	8:15 AM		171	256	54	0	62	308	429	2	46	170	57		47	1373	92	**3067**
8:15 AM	8:30 AM		232	313	65	1	75	409	549	2	60	205	69		57	1798	121	**3956**
8:30 AM	8:45 AM		292	389	70	1	91	514	659	2	82	235	84		69	2264	148	**4900**
8:45 AM	9:00 AM		349	457	70	1	111	598	736	2	91	262	98		78	2536	179	**5568**
TOTAL BY PERIOD																		
7:00 AM	7:15 AM	0	32	40	6	0	4	36	68	0	7	23	14	0	12	201	12	**455**
7:15 AM	7:30 AM	0	35	46	8	0	7	42	69	2	13	39	14	0	4	256	13	**548**
7:30 AM	7:45 AM	0	34	83	9	0	11	62	88	0	8	37	7	0	7	290	16	**652**
7:45 AM	8:00 AM	0	36	42	15	0	15	91	114	0	9	34	13	0	13	321	28	**731**
8:00 AM	8:15 AM	0	34	45	16	0	25	77	90	0	9	37	9	0	11	305	23	**681**
8:15 AM	8:30 AM	0	61	57	11	1	13	101	120	0	14	35	12	0	10	425	29	**889**
8:30 AM	8:45 AM	0	60	76	5	0	16	105	110	0	22	30	15	0	12	466	27	**944**
8:45 AM	9:00 AM	0	57	68	0	0	20	84	77	0	9	27	14	0	9	272	31	**668**
HOURLY TOTALS																		
7:00 AM	8:00 AM	0	137	211	38	0	37	231	339	2	37	133	48	0	36	1068	69	**2386**
7:15 AM	8:15 AM	0	139	216	48	0	58	272	361	2	39	147	43	0	35	1172	80	**2612**
7:30 AM	8:30 AM	0	165	227	51	1	64	331	412	0	40	143	41	0	41	1341	96	**2953**
7:45 AM	8:45 AM	0	191	220	47	1	69	374	434	0	54	136	49	0	46	1517	107	**3245**
8:00 AM	9:00 AM	0	212	246	32	1	74	367	397	0	54	129	50	0	42	1468	110	**3182**

PEAK HOUR SUMMARY

7:45 AM to 8:45 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	191	220	47	1	69	374	434	0	54	136	49	0	46	1517	107	**3245**
PEDESTRIAN																	**10**
BICYCLE																	**28**
PHF BY MOVEMENT	0.00	0.78	0.72	0.73	0.25	0.69	0.89	0.90	0.00	0.61	0.92	0.82	0.00	0.88	0.81	0.92	OVERALL
PHF BY APPROACH	0.81				0.93				0.89				0.83				0.86

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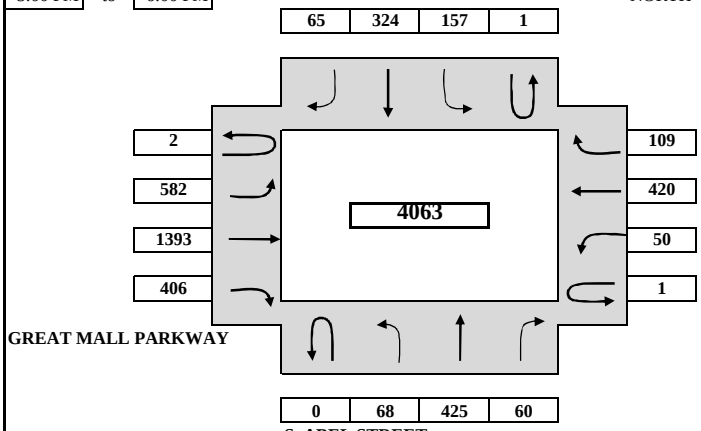
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

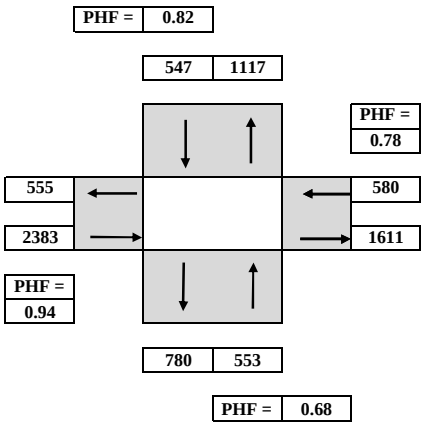
PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**S. ABEL STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**GREAT MALL PARKWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-3PM**

PEAK HOUR
5:00 PM to 6:00 PM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM	0	19	84	20	0	38	52	13	0	49	241	36	1	9	88	22	**672**
4:15 PM	to	4:30 PM	2	33	160	39	0	64	103	34	2	125	498	75	2	17	198	45	**1397**
4:30 PM	to	4:45 PM	2	47	255	51	0	97	178	49	4	214	774	130	2	26	320	78	**2227**
4:45 PM	to	5:00 PM	2	58	335	60	0	123	249	60	5	327	1093	208	2	34	438	104	**3098**
5:00 PM	to	5:15 PM	2	73	436	78	1	168	318	78	5	453	1421	283	2	49	536	129	**4032**
5:15 PM	to	5:30 PM	2	86	531	86	1	211	417	84	7	625	1770	388	2	62	641	149	**5062**
5:30 PM	to	5:45 PM	2	106	690	111	1	252	514	113	7	782	2131	506	3	77	773	188	**6256**
5:45 PM	to	6:00 PM	2	126	760	120	1	280	573	125	7	909	2486	614	3	84	858	213	**7161**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	19	84	20	0	38	52	13	0	49	241	36	1	9	88	22	**672**
4:15 PM	to	4:30 PM	2	14	76	19	0	26	51	21	2	76	257	39	1	8	110	23	**725**
4:30 PM	to	4:45 PM	0	14	95	12	0	33	75	15	2	89	276	55	0	9	122	33	**830**
4:45 PM	to	5:00 PM	0	11	80	9	0	26	71	11	1	113	319	78	0	8	118	26	**871**
5:00 PM	to	5:15 PM	0	15	101	18	1	45	69	18	0	126	328	75	0	15	98	25	**934**
5:15 PM	to	5:30 PM	0	13	95	8	0	43	99	6	2	172	349	105	0	13	105	20	**1030**
5:30 PM	to	5:45 PM	0	20	159	25	0	41	97	29	0	157	361	118	1	15	132	39	**1194**
5:45 PM	to	6:00 PM	0	20	70	9	0	28	59	12	0	127	355	108	0	7	85	25	**905**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	2	58	335	60	0	123	249	60	5	327	1093	208	2	34	438	104	**3098**
4:15 PM	to	5:15 PM	2	54	352	58	1	130	266	65	5	404	1180	247	1	40	448	107	**3360**
4:30 PM	to	5:30 PM	0	53	371	47	1	147	314	50	5	500	1272	313	0	45	443	104	**3665**
4:45 PM	to	5:45 PM	0	59	435	60	1	155	336	64	3	568	1357	376	1	51	453	110	**4029**
5:00 PM	to	6:00 PM	0	68	425	60	1	157	324	65	2	582	1393	406	1	50	420	109	**4063**

PEAK HOUR SUMMARY

5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	68	425	60	1	157	324	65	2	582	1393	406	1	50	420	109	**4063**
PEDESTRIAN																	**21**
BICYCLE																	**24**
PHF BY MOVEMENT	0.00	0.85	0.67	0.60	0.25	0.87	0.82	0.56	0.25	0.85	0.96	0.86	0.25	0.83	0.80	0.70	OVERALL
PHF BY APPROACH	0.68				0.82				0.94				0.78				0.85

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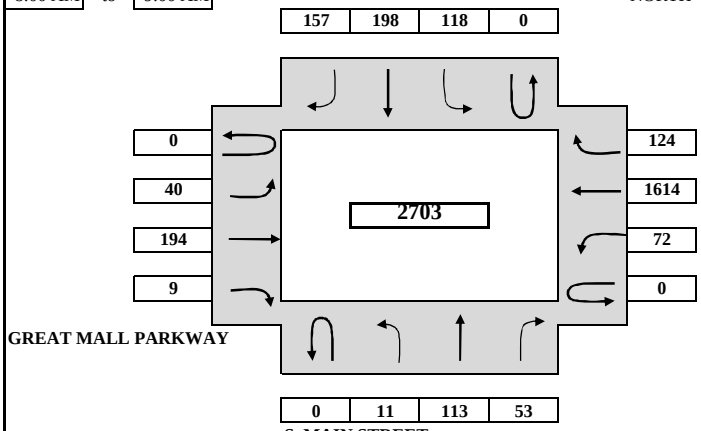
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

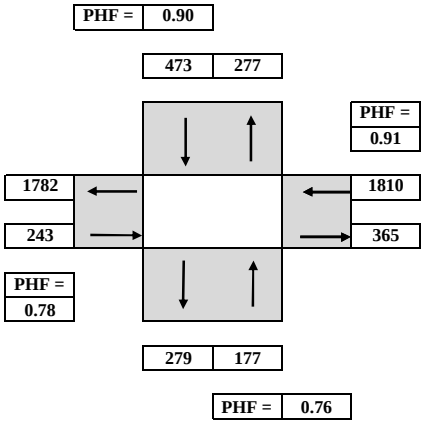
PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**S. MAIN STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**GREAT MALL PARKWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-4AM**

PEAK HOUR
8:00 AM to 9:00 AM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From	PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																		
7:00 AM	7:15 AM		2	4	7		14	7	20		6	25	5		3	186	22	**301**
7:15 AM	7:30 AM		2	21	15		35	35	55		14	65	9		12	430	48	**741**
7:30 AM	7:45 AM		4	46	29		65	58	88		22	113	11		22	751	78	**1287**
7:45 AM	8:00 AM		5	60	39		93	80	121		28	172	12		31	986	98	**1725**
8:00 AM	8:15 AM		8	85	48		132	127	166		46	229	15		52	1332	136	**2376**
8:15 AM	8:30 AM		12	104	61		156	180	196		52	282	17		75	1782	158	**3075**
8:30 AM	8:45 AM		13	133	77		186	247	229		59	325	20		92	2157	184	**3722**
8:45 AM	9:00 AM		16	173	92		211	278	278		68	366	21		103	2600	222	**4428**
TOTAL BY PERIOD																		
7:00 AM	7:15 AM	0	2	4	7	0	14	7	20	0	6	25	5	0	3	186	22	**301**
7:15 AM	7:30 AM	0	0	17	8	0	21	28	35	0	8	40	4	0	9	244	26	**440**
7:30 AM	7:45 AM	0	2	25	14	0	30	23	33	0	8	48	2	0	10	321	30	**546**
7:45 AM	8:00 AM	0	1	14	10	0	28	22	33	0	6	59	1	0	9	235	20	**438**
8:00 AM	8:15 AM	0	3	25	9	0	39	47	45	0	18	57	3	0	21	346	38	**651**
8:15 AM	8:30 AM	0	4	19	13	0	24	53	30	0	6	53	2	0	23	450	22	**699**
8:30 AM	8:45 AM	0	1	29	16	0	30	67	33	0	7	43	3	0	17	375	26	**647**
8:45 AM	9:00 AM	0	3	40	15	0	25	31	49	0	9	41	1	0	11	443	38	**706**
HOURLY TOTALS																		
7:00 AM	8:00 AM	0	5	60	39	0	93	80	121	0	28	172	12	0	31	986	98	**1725**
7:15 AM	8:15 AM	0	6	81	41	0	118	120	146	0	40	204	10	0	49	1146	114	**2075**
7:30 AM	8:30 AM	0	10	83	46	0	121	145	141	0	38	217	8	0	63	1352	110	**2334**
7:45 AM	8:45 AM	0	9	87	48	0	121	189	141	0	37	212	9	0	70	1406	106	**2435**
8:00 AM	9:00 AM	0	11	113	53	0	118	198	157	0	40	194	9	0	72	1614	124	**2703**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	11	113	53	0	118	198	157	0	40	194	9	0	72	1614	124	**2703**
PEDESTRIAN																	**15**
BICYCLE																	**23**
PHF BY MOVEMENT	0.00	0.69	0.71	0.83	0.00	0.76	0.74	0.80	0.00	0.56	0.85	0.75	0.00	0.78	0.90	0.82	OVERALL
PHF BY APPROACH	0.76				0.90				0.78				0.91				0.96

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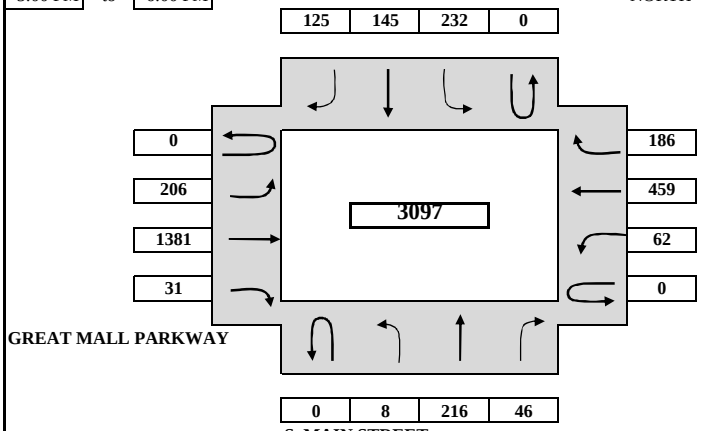
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

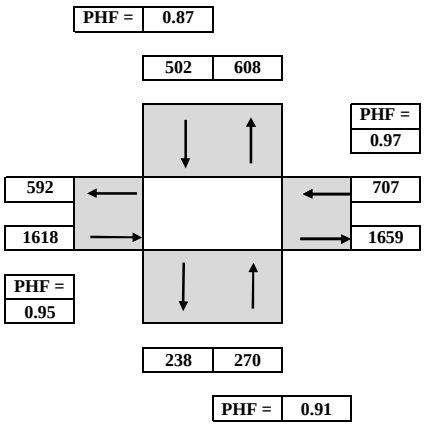
PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**S. MAIN STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**GREAT MALL PARKWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-4PM**

PEAK HOUR
5:00 PM to 6:00 PM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM		1	36	16		54	32	32		43	261	2		12	104	26	**619**
4:15 PM	to	4:30 PM		2	66	29		86	64	69		84	536	9		31	207	61	**1244**
4:30 PM	to	4:45 PM		3	119	48		148	94	105		124	829	10		42	332	111	**1965**
4:45 PM	to	5:00 PM		5	152	56		190	112	142		161	1146	17		57	434	152	**2624**
5:00 PM	to	5:15 PM		5	204	66		270	149	170		205	1485	25		76	536	212	**3403**
5:15 PM	to	5:30 PM		7	266	72		324	190	200		248	1835	32		90	649	261	**4174**
5:30 PM	to	5:45 PM		10	311	88		383	231	242		304	2203	36		101	781	301	**4991**
5:45 PM	to	6:00 PM		13	368	102		422	257	267		367	2527	48		119	893	338	**5721**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	1	36	16	0	54	32	32	0	43	261	2	0	12	104	26	**619**
4:15 PM	to	4:30 PM	0	1	30	13	0	32	32	37	0	41	275	7	0	19	103	35	**625**
4:30 PM	to	4:45 PM	0	1	53	19	0	62	30	36	0	40	293	1	0	11	125	50	**721**
4:45 PM	to	5:00 PM	0	2	33	8	0	42	18	37	0	37	317	7	0	15	102	41	**659**
5:00 PM	to	5:15 PM	0	0	52	10	0	80	37	28	0	44	339	8	0	19	102	60	**779**
5:15 PM	to	5:30 PM	0	2	62	6	0	54	41	30	0	43	350	7	0	14	113	49	**771**
5:30 PM	to	5:45 PM	0	3	45	16	0	59	41	42	0	56	368	4	0	11	132	40	**817**
5:45 PM	to	6:00 PM	0	3	57	14	0	39	26	25	0	63	324	12	0	18	112	37	**730**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	5	152	56	0	190	112	142	0	161	1146	17	0	57	434	152	**2624**
4:15 PM	to	5:15 PM	0	4	168	50	0	216	117	138	0	162	1224	23	0	64	432	186	**2784**
4:30 PM	to	5:30 PM	0	5	200	43	0	238	126	131	0	164	1299	23	0	59	442	200	**2930**
4:45 PM	to	5:45 PM	0	7	192	40	0	235	137	137	0	180	1374	26	0	59	449	190	**3026**
5:00 PM	to	6:00 PM	0	8	216	46	0	232	145	125	0	206	1381	31	0	62	459	186	**3097**

PEAK HOUR SUMMARY

5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	8	216	46	0	232	145	125	0	206	1381	31	0	62	459	186	**3097**
PEDESTRIAN																	**30**
BICYCLE																	**29**
PHF BY MOVEMENT	0.00	0.67	0.87	0.72	0.00	0.73	0.88	0.74	0.00	0.82	0.94	0.65	0.00	0.82	0.87	0.78	OVERALL
PHF BY APPROACH	0.91				0.87				0.95				0.97				0.95

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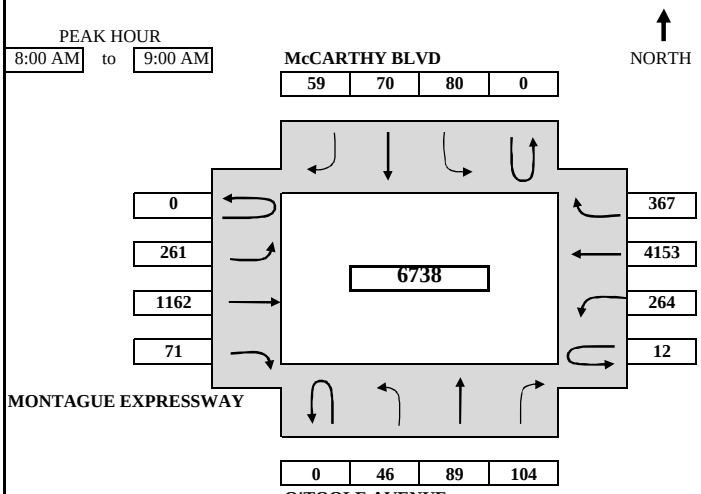
B.A.Y.M.E.T.R.I.C.S.

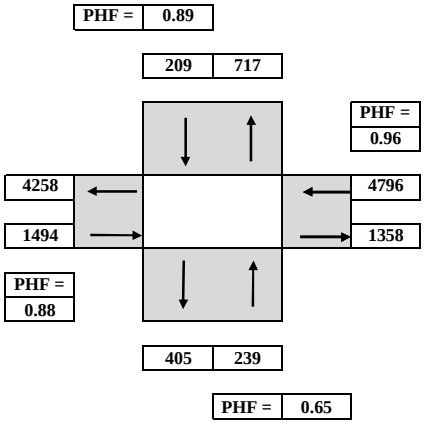
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**O'TOOLE AVENUE - McCARTHY BLVD**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-1AM**

PEAK HOUR 8:00 AM to 9:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME From	TO	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																		
7:00 AM	7:15 AM		9	14	32		11	8	5		33	163	11	2	60	676	84	**1108**
7:15 AM	7:30 AM		24	31	76		28	17	10		65	375	34	4	111	1611	194	**2580**
7:30 AM	7:45 AM		32	45	104		44	30	32		118	632	43	7	166	2681	299	**4233**
7:45 AM	8:00 AM		35	66	138		55	48	43		162	863	65	8	208	3584	403	**5678**
8:00 AM	8:15 AM		40	90	171		74	67	55		220	1213	83	12	281	4550	491	**7347**
8:15 AM	8:30 AM		64	125	204		95	86	74		281	1529	102	14	355	5557	600	**9086**
8:30 AM	8:45 AM		70	138	220		117	103	91		354	1755	125	17	414	6635	703	**10742**
8:45 AM	9:00 AM		81	155	242		135	118	102		423	2025	136	20	472	7737	770	**12416**
TOTAL BY PERIOD																		
7:00 AM	7:15 AM	0	9	14	32	0	11	8	5	0	33	163	11	2	60	676	84	**1108**
7:15 AM	7:30 AM	0	15	17	44	0	17	9	5	0	32	212	23	2	51	935	110	**1472**
7:30 AM	7:45 AM	0	8	14	28	0	16	13	22	0	53	257	9	3	55	1070	105	**1653**
7:45 AM	8:00 AM	0	3	21	34	0	11	18	11	0	44	231	22	1	42	903	104	**1445**
8:00 AM	8:15 AM	0	5	24	33	0	19	19	12	0	58	350	18	4	73	966	88	**1669**
8:15 AM	8:30 AM	0	24	35	33	0	21	19	19	0	61	316	19	2	74	1007	109	**1739**
8:30 AM	8:45 AM	0	6	13	16	0	22	17	17	0	73	226	23	3	59	1078	103	**1656**
8:45 AM	9:00 AM	0	11	17	22	0	18	15	11	0	69	270	11	3	58	1102	67	**1674**
HOURLY TOTALS																		
7:00 AM	8:00 AM	0	35	66	138	0	55	48	43	0	162	863	65	8	208	3584	403	**5678**
7:15 AM	8:15 AM	0	31	76	139	0	63	59	50	0	187	1050	72	10	221	3874	407	**6239**
7:30 AM	8:30 AM	0	40	94	128	0	67	69	64	0	216	1154	68	10	244	3946	406	**6506**
7:45 AM	8:45 AM	0	38	93	116	0	73	73	59	0	236	1123	82	10	248	3954	404	**6509**
8:00 AM	9:00 AM	0	46	89	104	0	80	70	59	0	261	1162	71	12	264	4153	367	**6738**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	46	89	104	0	80	70	59	0	261	1162	71	12	264	4153	367	**6738**
PEDESTRIAN																	**7**
BICYCLE																	**1**
PHF BY MOVEMENT	0.00	0.48	0.64	0.79	0.00	0.91	0.92	0.78	0.00	0.89	0.83	0.77	0.75	0.89	0.94	0.84	OVERALL
PHF BY APPROACH	0.65				0.89				0.88				0.96				0.97

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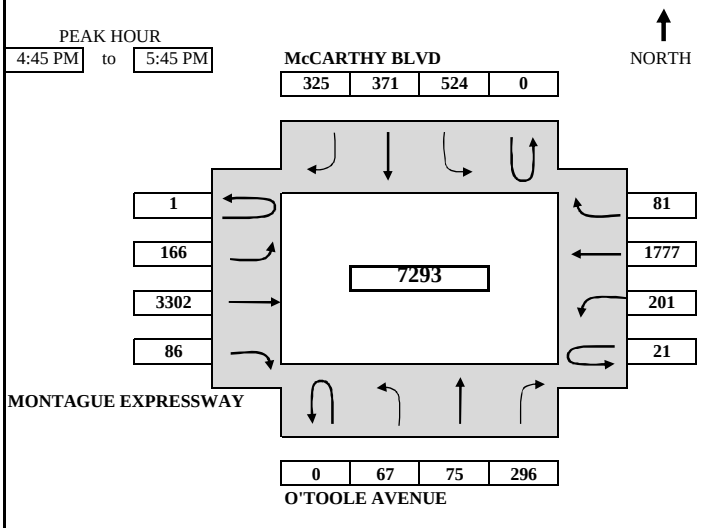
B.A.Y.M.E.T.R.I.C.S.

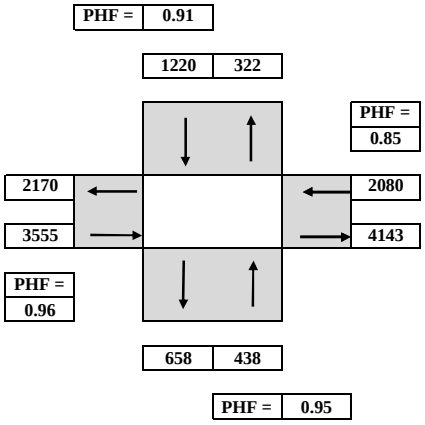
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**O'TOOLE AVENUE - McCARTHY BLVD**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-1PM**

PEAK HOUR 4:45 PM to 5:45 PM



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM		12	8	60		120	40	45	2	42	638	10	4	40	343	19	**1383**
4:15 PM	to	4:30 PM		27	21	127		249	95	102	4	84	1520	27	5	84	663	43	**3051**
4:30 PM	to	4:45 PM		45	34	198		371	161	146	7	131	2365	47	7	124	1066	62	**4764**
4:45 PM	to	5:00 PM		64	52	276		509	265	240	7	179	3153	67	13	183	1399	93	**6500**
5:00 PM	to	5:15 PM		78	73	348		643	351	317	8	233	3994	84	18	225	1944	110	**8426**
5:15 PM	to	5:30 PM		103	84	413		757	439	400	8	266	4800	107	24	274	2385	131	**10191**
5:30 PM	to	5:45 PM		112	109	494		895	532	471	8	297	5667	133	28	325	2843	143	**12057**
5:45 PM	to	6:00 PM		120	135	551		1003	593	511	9	321	6224	156	30	364	3147	154	**13318**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	12	8	60	0	120	40	45	2	42	638	10	4	40	343	19	**1383**
4:15 PM	to	4:30 PM	0	15	13	67	0	129	55	57	2	42	882	17	1	44	320	24	**1668**
4:30 PM	to	4:45 PM	0	18	13	71	0	122	66	44	3	47	845	20	2	40	403	19	**1713**
4:45 PM	to	5:00 PM	0	19	18	78	0	138	104	94	0	48	788	20	6	59	333	31	**1736**
5:00 PM	to	5:15 PM	0	14	21	72	0	134	86	77	1	54	841	17	5	42	545	17	**1926**
5:15 PM	to	5:30 PM	0	25	11	65	0	114	88	83	0	33	806	23	6	49	441	21	**1765**
5:30 PM	to	5:45 PM	0	9	25	81	0	138	93	71	0	31	867	26	4	51	458	12	**1866**
5:45 PM	to	6:00 PM	0	8	26	57	0	108	61	40	1	24	557	23	2	39	304	11	**1261**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	64	52	276	0	509	265	240	7	179	3153	67	13	183	1399	93	**6500**
4:15 PM	to	5:15 PM	0	66	65	288	0	523	311	272	6	191	3356	74	14	185	1601	91	**7043**
4:30 PM	to	5:30 PM	0	76	63	286	0	508	344	298	4	182	3280	80	19	190	1722	88	**7140**
4:45 PM	to	5:45 PM	0	67	75	296	0	524	371	325	1	166	3302	86	21	201	1777	81	**7293**
5:00 PM	to	6:00 PM	0	56	83	275	0	494	328	271	2	142	3071	89	17	181	1748	61	**6818**

PEAK HOUR SUMMARY

4:45 PM to 5:45 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	67	75	296	0	524	371	325	1	166	3302	86	21	201	1777	81	**7293**
PEDESTRIAN																	**6**
BICYCLE																	**4**
PHF BY MOVEMENT	0.00	0.67	0.75	0.91	0.00	0.95	0.89	0.86	0.25	0.77	0.95	0.83	0.88	0.85	0.82	0.65	OVERALL
PHF BY APPROACH	0.95				0.91				0.96				0.85				0.95

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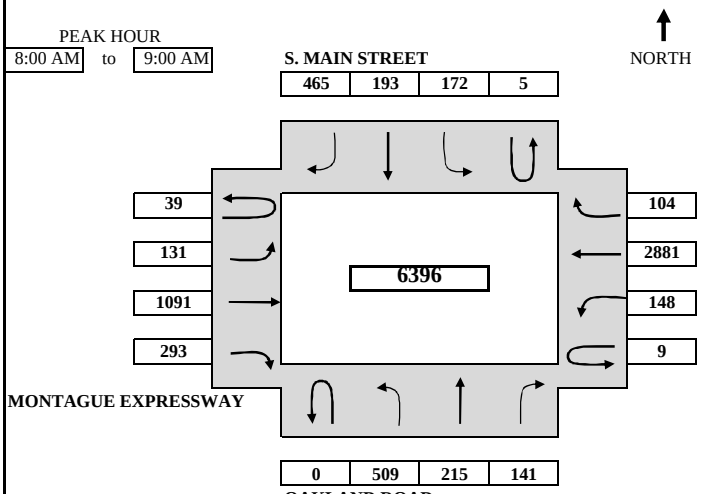
B.A.Y.M.E.T.R.I.C.S.

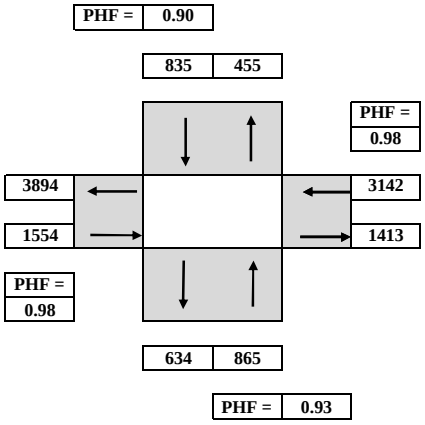
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**OAKLAND ROAD - S. MAIN STREET**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-2AM**

PEAK HOUR
8:00 AM to 9:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
7:00 AM	to	7:15 AM		82	26	25	3	25	21	82	16	17	177	55	1	29	503	14	**1076**
7:15 AM	to	7:30 AM		173	63	44	5	56	44	184	27	35	387	88	2	63	1233	38	**2442**
7:30 AM	to	7:45 AM		288	96	78	7	100	66	301	39	67	635	136	4	88	1992	54	**3951**
7:45 AM	to	8:00 AM		381	140	108	10	134	111	412	51	100	889	198	6	138	2715	68	**5461**
8:00 AM	to	8:15 AM		491	202	148	12	191	172	516	64	121	1158	265	10	177	3451	82	**7060**
8:15 AM	to	8:30 AM		625	257	191	12	236	216	659	71	157	1441	330	12	210	4188	114	**8719**
8:30 AM	to	8:45 AM		746	302	218	13	261	262	765	79	189	1711	417	13	257	4906	148	**10287**
8:45 AM	to	9:00 AM		890	355	249	15	306	304	877	90	231	1980	491	15	286	5596	172	**11857**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	82	26	25	3	25	21	82	16	17	177	55	1	29	503	14	**1076**
7:15 AM	to	7:30 AM	0	91	37	19	2	31	23	102	11	18	210	33	1	34	730	24	**1366**
7:30 AM	to	7:45 AM	0	115	33	34	2	44	22	117	12	32	248	48	2	25	759	16	**1509**
7:45 AM	to	8:00 AM	0	93	44	30	3	34	45	111	12	33	254	62	2	50	723	14	**1510**
8:00 AM	to	8:15 AM	0	110	62	40	2	57	61	104	13	21	269	67	4	39	736	14	**1599**
8:15 AM	to	8:30 AM	0	134	55	43	0	45	44	143	7	36	283	65	2	33	737	32	**1659**
8:30 AM	to	8:45 AM	0	121	45	27	1	25	46	106	8	32	270	87	1	47	718	34	**1568**
8:45 AM	to	9:00 AM	0	144	53	31	2	45	42	112	11	42	269	74	2	29	690	24	**1570**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	381	140	108	10	134	111	412	51	100	889	198	6	138	2715	68	**5461**
7:15 AM	to	8:15 AM	0	409	176	123	9	166	151	434	48	104	981	210	9	148	2948	68	**5984**
7:30 AM	to	8:30 AM	0	452	194	147	7	180	172	475	44	122	1054	242	10	147	2955	76	**6277**
7:45 AM	to	8:45 AM	0	458	206	140	6	161	196	464	40	122	1076	281	9	169	2914	94	**6336**
8:00 AM	to	9:00 AM	0	509	215	141	5	172	193	465	39	131	1091	293	9	148	2881	104	**6396**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	509	215	141	5	172	193	465	39	131	1091	293	9	148	2881	104	**6396**
PEDESTRIAN																	**3**
BICYCLE																	**7**
PHF BY MOVEMENT	0.00	0.88	0.87	0.82	0.63	0.75	0.79	0.81	0.75	0.78	0.96	0.84	0.56	0.79	0.98	0.76	OVERALL
PHF BY APPROACH	0.93				0.90				0.98				0.98				0.96

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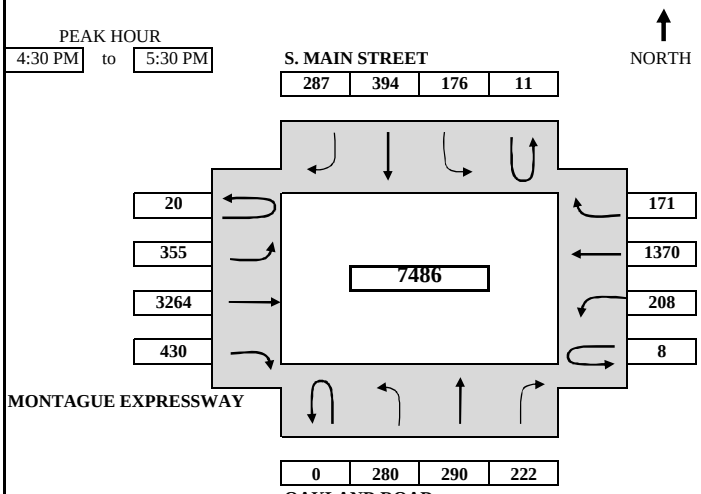
B.A.Y.M.E.T.R.I.C.S.

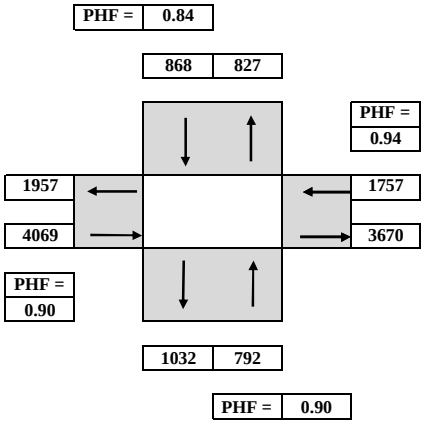
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN MILPITAS (120613)**	**SURVEY DATE:**	**12/12/2013**	**DAY:**	**THURSDAY**
N-S APPROACH:	**OAKLAND ROAD - S. MAIN STREET**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3312118-2PM**

PEAK HOUR 4:30 PM to 5:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM		75	83	48	2	50	64	55	4	73	604	104	2	29	336	29	**1558**
4:15 PM	to	4:30 PM		133	126	83	3	86	119	147	11	142	1253	182	3	55	560	61	**2964**
4:30 PM	to	4:45 PM		213	183	142	5	120	210	187	16	220	2020	268	6	97	882	101	**4670**
4:45 PM	to	5:00 PM		274	231	195	8	160	301	249	20	310	2805	375	7	154	1212	138	**6439**
5:00 PM	to	5:15 PM		351	317	245	12	210	402	342	27	402	3607	492	8	199	1587	185	**8386**
5:15 PM	to	5:30 PM		413	416	305	14	262	513	434	31	497	4517	612	11	263	1930	232	**10450**
5:30 PM	to	5:45 PM		435	513	331	18	299	620	523	39	581	5099	695	17	301	2169	257	**11897**
5:45 PM	to	6:00 PM		497	578	357	23	348	739	577	51	645	5740	788	22	341	2437	294	**13437**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	75	83	48	2	50	64	55	4	73	604	104	2	29	336	29	**1558**
4:15 PM	to	4:30 PM	0	58	43	35	1	36	55	92	7	69	649	78	1	26	224	32	**1406**
4:30 PM	to	4:45 PM	0	80	57	59	2	34	91	40	5	78	767	86	3	42	322	40	**1706**
4:45 PM	to	5:00 PM	0	61	48	53	3	40	91	62	4	90	785	107	1	57	330	37	**1769**
5:00 PM	to	5:15 PM	0	77	86	50	4	50	101	93	7	92	802	117	1	45	375	47	**1947**
5:15 PM	to	5:30 PM	0	62	99	60	2	52	111	92	4	95	910	120	3	64	343	47	**2064**
5:30 PM	to	5:45 PM	0	22	97	26	4	37	107	89	8	84	582	83	6	38	239	25	**1447**
5:45 PM	to	6:00 PM	0	62	65	26	5	49	119	54	12	64	641	93	5	40	268	37	**1540**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	274	231	195	8	160	301	249	20	310	2805	375	7	154	1212	138	**6439**
4:15 PM	to	5:15 PM	0	276	234	197	10	160	338	287	23	329	3003	388	6	170	1251	156	**6828**
4:30 PM	to	5:30 PM	0	280	290	222	11	176	394	287	20	355	3264	430	8	208	1370	171	**7486**
4:45 PM	to	5:45 PM	0	222	330	189	13	179	410	336	23	361	3079	427	11	204	1287	156	**7227**
5:00 PM	to	6:00 PM	0	223	347	162	15	188	438	328	31	335	2935	413	15	187	1225	156	**6998**

PEAK HOUR SUMMARY

4:30 PM to 5:30 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	280	290	222	11	176	394	287	20	355	3264	430	8	208	1370	171	**7486**
PEDESTRIAN																	**7**
BICYCLE																	**11**
PHF BY MOVEMENT	0.00	0.88	0.73	0.93	0.69	0.85	0.89	0.77	0.71	0.93	0.90	0.90	0.67	0.81	0.91	0.91	OVERALL
PHF BY APPROACH	0.90				0.84				0.90				0.94				0.91

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

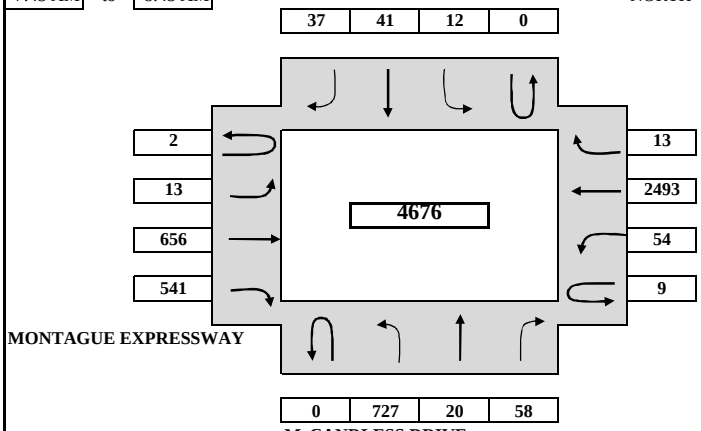
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

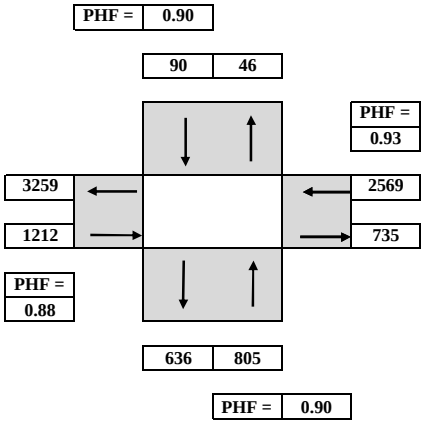
PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**McCANDLESS DRIVE**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-9AM**

PEAK HOUR
7:45 AM to 8:45 AM

NORTH



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	LEFT	THRU	RIGHT	SOUTHBOUND U-TURN	LEFT	THRU	RIGHT	EASTBOUND U-TURN	LEFT	THRU	RIGHT	WESTBOUND U-TURN	LEFT	THRU	RIGHT	TOTAL
SURVEY DATA																			
7:00 AM	to	7:15 AM		160	4	9		0	4	12	0	10	65	90	4	23	493	7	**881**
7:15 AM	to	7:30 AM		294	8	18		1	9	16	0	12	205	216	6	33	1121	14	**1953**
7:30 AM	to	7:45 AM		553	13	29		3	11	22	1	15	363	351	6	50	1777	21	**3215**
7:45 AM	to	8:00 AM		717	19	51		7	24	27	2	18	543	506	8	67	2445	27	**4461**
8:00 AM	to	8:15 AM		916	23	61		10	32	35	3	22	680	622	11	76	2973	29	**5493**
8:15 AM	to	8:30 AM		1080	27	70		15	43	44	3	27	854	713	12	88	3615	32	**6623**
8:30 AM	to	8:45 AM		1280	33	87		15	52	59	3	28	1019	892	15	104	4270	34	**7891**
8:45 AM	to	9:00 AM		1496	37	103		17	67	67	5	31	1176	1023	18	120	4813	37	**9010**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	160	4	9	0	0	4	12	0	10	65	90	4	23	493	7	**881**
7:15 AM	to	7:30 AM	0	134	4	9	0	1	5	4	0	2	140	126	2	10	628	7	**1072**
7:30 AM	to	7:45 AM	0	259	5	11	0	2	2	6	1	3	158	135	0	17	656	7	**1262**
7:45 AM	to	8:00 AM	0	164	6	22	0	4	13	5	1	3	180	155	2	17	668	6	**1246**
8:00 AM	to	8:15 AM	0	199	4	10	0	3	8	8	1	4	137	116	3	9	528	2	**1032**
8:15 AM	to	8:30 AM	0	164	4	9	0	5	11	9	0	5	174	91	1	12	642	3	**1130**
8:30 AM	to	8:45 AM	0	200	6	17	0	0	9	15	0	1	165	179	3	16	655	2	**1268**
8:45 AM	to	9:00 AM	0	216	4	16	0	2	15	8	2	3	157	131	3	16	543	3	**1119**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	717	19	51	0	7	24	27	2	18	543	506	8	67	2445	27	**4461**
7:15 AM	to	8:15 AM	0	756	19	52	0	10	28	23	3	12	615	532	7	53	2480	22	**4612**
7:30 AM	to	8:30 AM	0	786	19	52	0	14	34	28	3	15	649	497	6	55	2494	18	**4670**
7:45 AM	to	8:45 AM	0	727	20	58	0	12	41	37	2	13	656	541	9	54	2493	13	**4676**
8:00 AM	to	9:00 AM	0	779	18	52	0	10	43	40	3	13	633	517	10	53	2368	10	**4549**

PEAK HOUR SUMMARY

7:45 AM to 8:45 AM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	727	20	58	0	12	41	37	2	13	656	541	9	54	2493	13	**4676**
PEDESTRIAN																	**0**
BICYCLE																	**6**
PHF BY MOVEMENT	0.00	0.91	0.83	0.66	0.00	0.60	0.79	0.62	0.50	0.65	0.91	0.76	0.75	0.79	0.93	0.54	OVERALL
PHF BY APPROACH	0.90				0.90				0.88				0.93				0.92

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

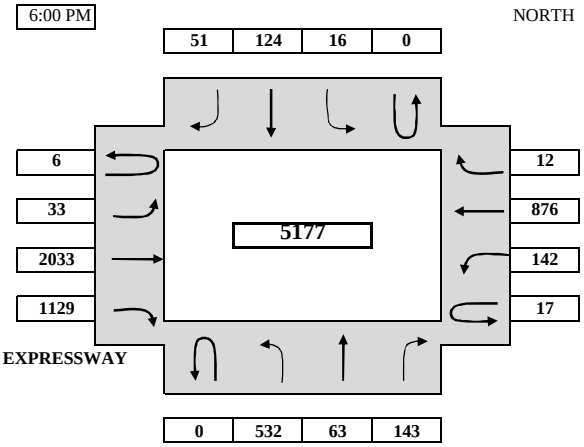
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**MILPITAS TRAFFIC COUNTS**	**SURVEY DATE:**	**5/15/2013**	**DAY:**	**WEDNESDAY**
N-S APPROACH:	**McCANDLESS DRIVE**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**MONTAGUE EXPRESSWAY**	**JURISDICTION:**	**MILPITAS**	**FILE:**	**3305057-9PM**

PEAK HOUR
5:00 PM to 6:00 PM

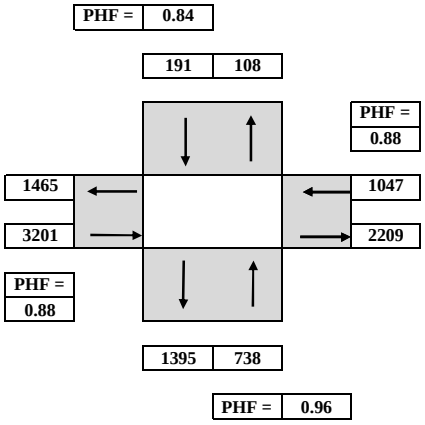
NORTH



MONTAGUE EXPRESSWAY

McCANDLESS DRIVE

ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NORTHBOUND U-TURN	NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND U-TURN	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	EASTBOUND U-TURN	EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND U-TURN	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM		156	14	28		2	20	9	3	7	416	220	14	35	216	2	**1142**
4:15 PM	to	4:30 PM		267	25	50		9	44	15	7	14	900	460	19	57	407	3	**2277**
4:30 PM	to	4:45 PM		357	43	84		12	59	20	9	23	1375	723	23	84	630	5	**3447**
4:45 PM	to	5:00 PM		473	60	111		19	77	35	17	34	1895	998	34	113	859	8	**4733**
5:00 PM	to	5:15 PM		619	74	143		24	107	49	19	40	2278	1263	40	150	1110	12	**5928**
5:15 PM	to	5:30 PM		761	86	173		30	137	58	21	48	2843	1598	45	182	1322	13	**7317**
5:30 PM	to	5:45 PM		879	102	213		33	167	65	21	55	3407	1866	49	216	1524	16	**8613**
5:45 PM	to	6:00 PM		1005	123	254		35	201	86	23	67	3928	2127	51	255	1735	20	**9910**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	156	14	28	0	2	20	9	3	7	416	220	14	35	216	2	**1142**
4:15 PM	to	4:30 PM	0	111	11	22	0	7	24	6	4	7	484	240	5	22	191	1	**1135**
4:30 PM	to	4:45 PM	0	90	18	34	0	3	15	5	2	9	475	263	4	27	223	2	**1170**
4:45 PM	to	5:00 PM	0	116	17	27	0	7	18	15	8	11	520	275	11	29	229	3	**1286**
5:00 PM	to	5:15 PM	0	146	14	32	0	5	30	14	2	6	383	265	6	37	251	4	**1195**
5:15 PM	to	5:30 PM	0	142	12	30	0	6	30	9	2	8	565	335	5	32	212	1	**1389**
5:30 PM	to	5:45 PM	0	118	16	40	0	3	30	7	0	7	564	268	4	34	202	3	**1296**
5:45 PM	to	6:00 PM	0	126	21	41	0	2	34	21	2	12	521	261	2	39	211	4	**1297**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	473	60	111	0	19	77	35	17	34	1895	998	34	113	859	8	**4733**
4:15 PM	to	5:15 PM	0	463	60	115	0	22	87	40	16	33	1862	1043	26	115	894	10	**4786**
4:30 PM	to	5:30 PM	0	494	61	123	0	21	93	43	14	34	1943	1138	26	125	915	10	**5040**
4:45 PM	to	5:45 PM	0	522	59	129	0	21	108	45	12	32	2032	1143	26	132	894	11	**5166**
5:00 PM	to	6:00 PM	0	532	63	143	0	16	124	51	6	33	2033	1129	17	142	876	12	**5177**

PEAK HOUR SUMMARY

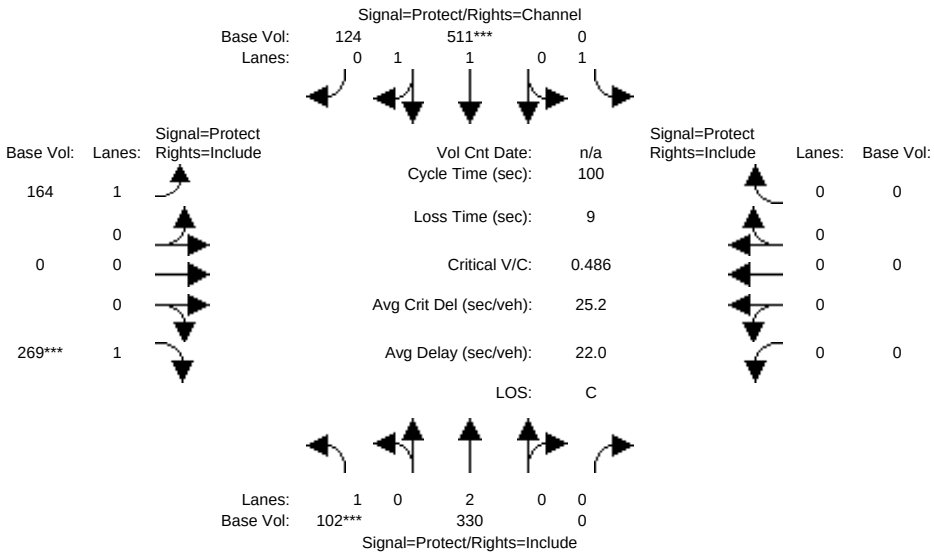
5:00 PM to 6:00 PM	NORTHBOUND NBU	NBL	NBT	NBR	SOUTHBOUND SBU	SBL	SBT	SBR	EASTBOUND EBU	EBL	EBT	EBR	WESTBOUND WBU	WBL	WBT	WBR	TOTAL
VOLUME	0	532	63	143	0	16	124	51	6	33	2033	1129	17	142	876	12	**5177**
PEDESTRIAN																	**1**
BICYCLE																	**6**
PHF BY MOVEMENT	0.00	0.91	0.75	0.87	0.00	0.67	0.91	0.61	0.75	0.69	0.90	0.84	0.71	0.91	0.87	0.75	OVERALL
PHF BY APPROACH	0.96				0.84				0.88				0.88				0.93

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

Appendix C – Level of Service Worksheets: Existing Conditions

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

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	102	330	0	0	511	124	164	0	269	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	330	0	0	511	124	164	0	269	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.96	0.96	0.96	0.87	0.87	0.87	1.00	1.00	1.00
PHF Volume:	111	359	0	0	532	129	189	0	309	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	359	0	0	532	129	189	0	309	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	359	0	0	532	129	189	0	309	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.92	0.92	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.61	0.39	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	1900	2818	684	1805	0	1610	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.00	0.00	0.19	0.19	0.10	0.00	0.19	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.13	0.51	0.00	0.00	0.39	0.39	0.40	0.00	0.40	0.00	0.00	0.00
Volume/Cap:	0.49	0.19	0.00	0.00	0.49	0.49	0.26	0.00	0.49	0.00	0.00	0.00
Uniform Del:	40.7	13.1	0.0	0.0	23.0	23.0	20.4	0.0	22.6	0.0	0.0	0.0
IncremntDel:	1.6	0.1	0.0	0.0	0.3	0.3	0.2	0.0	0.6	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	42.3	13.1	0.0	0.0	23.3	23.3	20.6	0.0	23.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.3	13.1	0.0	0.0	23.3	23.3	20.6	0.0	23.2	0.0	0.0	0.0
LOS by Move:	D	B	A	A	C	C	C	A	C	A	A	A
HCM2k95thQ:	126	120	0	0	309	308	154	0	279	0	0	0

Note: Queue reported is the distance per lane in feet.

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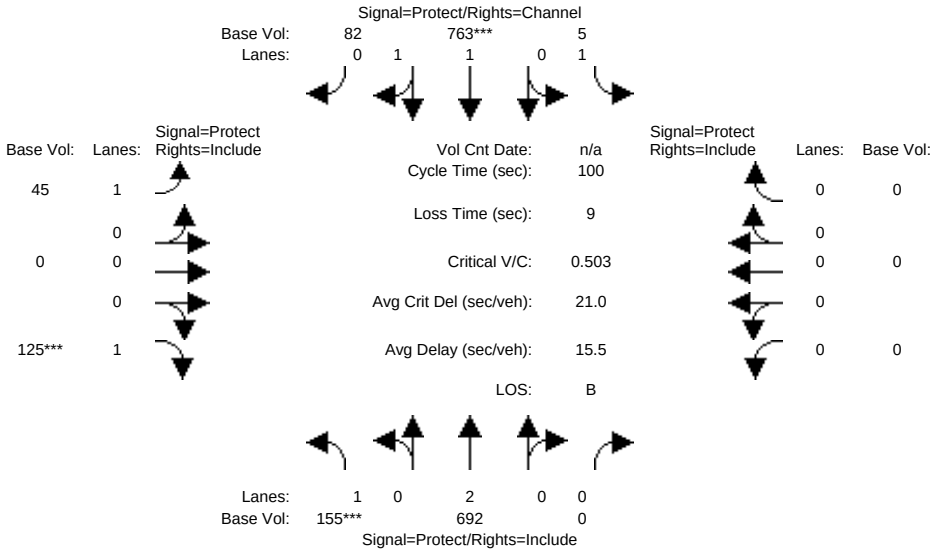
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	692	0	5	763	82	45	0	125	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	692	0	5	763	82	45	0	125	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.89	0.89	0.89	0.85	0.85	0.85	1.00	1.00	1.00
PHF Volume:	180	805	0	6	857	92	53	0	147	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	805	0	6	857	92	53	0	147	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	180	805	0	6	857	92	53	0	147	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.94	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.81	0.19	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	1805	3209	345	1805	0	1612	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.22	0.00	0.00	0.27	0.27	0.03	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.20	0.72	0.00	0.01	0.53	0.53	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.50	0.31	0.00	0.31	0.50	0.50	0.16	0.00	0.50	0.00	0.00	0.00
Uniform Del:	35.7	5.1	0.0	49.2	15.0	15.0	34.5	0.0	36.9	0.0	0.0	0.0
IncremntDel:	1.1	0.1	0.0	9.5	0.2	0.2	0.2	0.0	1.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	36.8	5.2	0.0	58.7	15.3	15.3	34.8	0.0	38.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.8	5.2	0.0	58.7	15.3	15.3	34.8	0.0	38.3	0.0	0.0	0.0
LOS by Move:	D	A	A	E	B	B	C	A	D	A	A	A
HCM2k95thQ:	190	182	0	22	365	364	59	0	182	0	0	0

Note: Queue reported is the distance per lane in feet.

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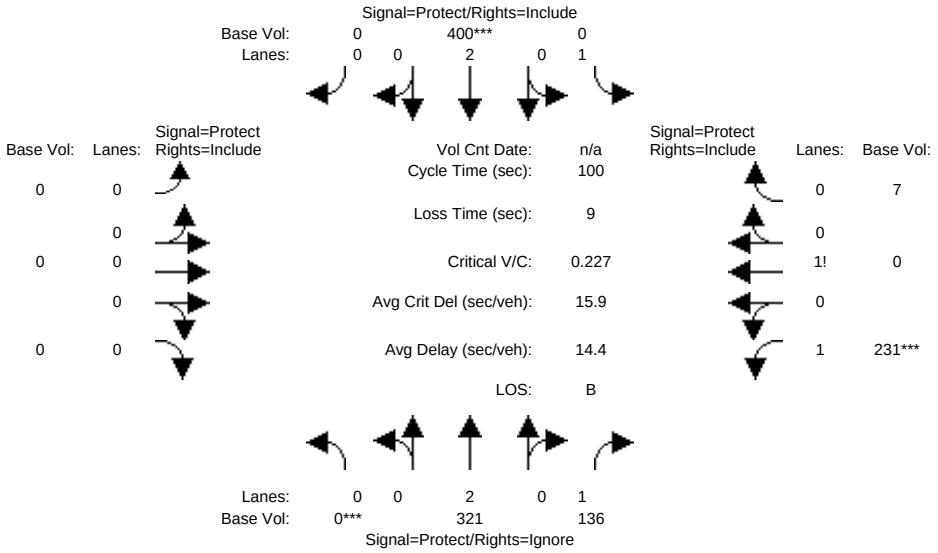
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	321	136	0	400	0	0	0	0	231	0	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	321	136	0	400	0	0	0	0	231	0	7
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.00	0.89	0.89	0.89	1.00	1.00	1.00	0.80	0.80	0.80
PHF Volume:	0	369	0	0	449	0	0	0	0	289	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	369	0	0	449	0	0	0	0	289	0	9
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	369	0	0	449	0	0	0	0	289	0	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.94	0.00	0.06
Final Sat.:	0	3610	1900	1900	3610	0	0	0	0	3508	0	103
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.55	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.36	0.00	0.36
Volume/Cap:	0.00	0.19	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23	0.00	0.23
Uniform Del:	0.0	11.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0	22.2	0.0	22.2
IncremntDel:	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	11.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0	22.3	0.0	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0	22.3	0.0	22.3
LOS by Move:	A	B	A	A	B	A	A	A	A	C	A	C
HCM2k95thQ:	0	118	0	0	147	0	0	0	0	127	0	131

Note: Queue reported is the distance per lane in feet.

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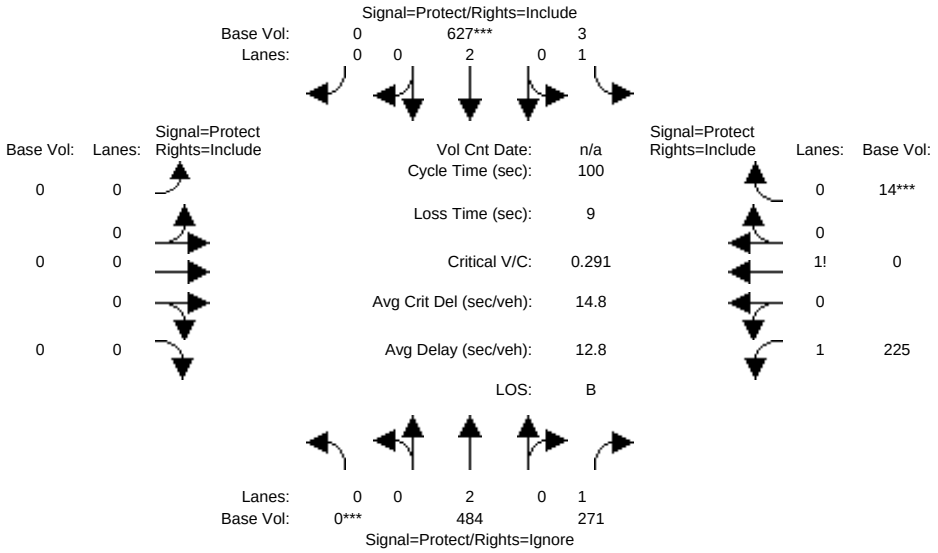
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	484	271	3	627	0	0	0	0	225	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	484	271	3	627	0	0	0	0	225	0	14
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.00	0.97	0.97	0.97	1.00	1.00	1.00	0.82	0.82	0.82
PHF Volume:	0	520	0	3	646	0	0	0	0	274	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	520	0	3	646	0	0	0	0	274	0	17
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	520	0	3	646	0	0	0	0	274	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.89	0.00	0.11
Final Sat.:	0	3610	1900	1805	3610	0	0	0	0	3397	0	199
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.08	0.00	0.09
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.61	0.00	0.01	0.62	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.00	0.24	0.00	0.24	0.29	0.00	0.00	0.00	0.00	0.27	0.00	0.29
Uniform Del:	0.0	9.0	0.0	49.4	9.0	0.0	0.0	0.0	0.0	27.1	0.0	27.2
IncremntDel:	0.0	0.1	0.0	9.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.0	0.0	58.6	9.1	0.0	0.0	0.0	0.0	27.2	0.0	27.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.0	0.0	58.6	9.1	0.0	0.0	0.0	0.0	27.2	0.0	27.4
LOS by Move:	A	A	A	E	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	151	0	14	190	0	0	0	0	138	0	148

Note: Queue reported is the distance per lane in feet.

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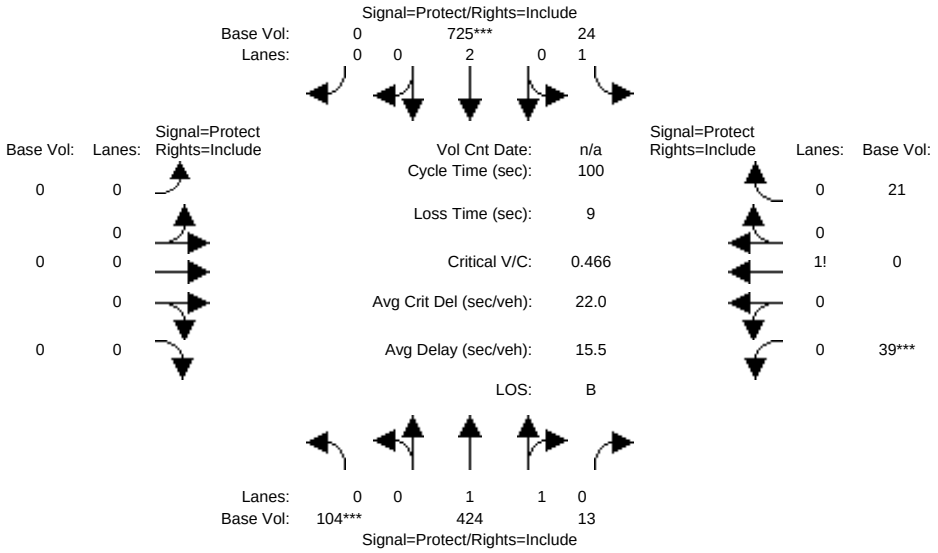
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	104	424	13	24	725	0	0	0	0	39	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	424	13	24	725	0	0	0	0	39	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.88	0.88	0.88	1.00	1.00	1.00	0.88	0.88	0.88
PHF Volume:	107	437	13	27	824	0	0	0	0	44	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	437	13	27	824	0	0	0	0	44	0	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	437	13	27	824	0	0	0	0	44	0	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.93	0.95	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.92
Lanes:	0.38	1.57	0.05	1.00	2.00	0.00	0.00	0.00	0.00	0.65	0.00	0.35
Final Sat.:	684	2790	86	1805	3610	0	0	0	0	1138	0	613
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.02	0.23	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green/Cycle:	0.34	0.75	0.75	0.07	0.49	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	0.47	0.21	0.21	0.21	0.47	0.00	0.00	0.00	0.00	0.47	0.00	0.47
Uniform Del:	26.1	3.6	3.6	43.7	16.9	0.0	0.0	0.0	0.0	43.7	0.0	43.7
IncremntDel:	0.3	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	2.3	0.0	2.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	26.4	3.6	3.6	44.4	17.0	0.0	0.0	0.0	0.0	46.0	0.0	46.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.4	3.6	3.6	44.4	17.0	0.0	0.0	0.0	0.0	46.0	0.0	46.0
LOS by Move:	C	A	A	D	B	A	A	A	A	D	A	D
HCM2k95thQ:	263	105	105	32	318	0	0	0	0	106	0	105

Note: Queue reported is the distance per lane in feet.

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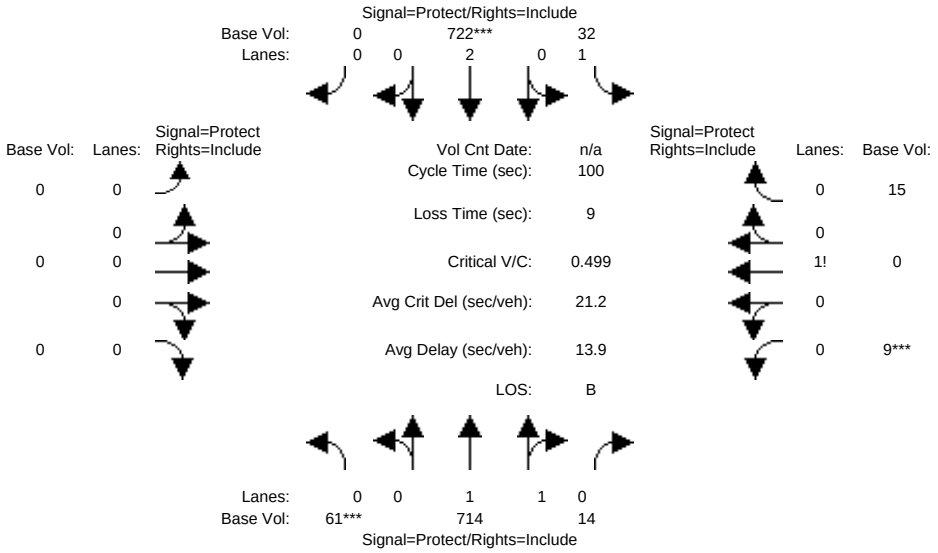
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #3: South Main Street / Mihalakis Dr

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Street Name:        South Main Street                  Mihalakis Drive
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      61  714    14    32  722     0     0    0     0     9    0    15
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   61  714    14    32  722     0     0    0     0     9    0    15
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.96 0.96  0.96  1.00 1.00  1.00  0.75 0.75  0.75
PHF Volume:    63  736    14    33  752     0     0    0     0    12    0    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   63  736    14    33  752     0     0    0     0    12    0    20
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   63  736    14    33  752     0     0    0     0    12    0    20
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.94 0.94  0.94  0.95 0.95  1.00  1.00 1.00  1.00  0.90 1.00  0.89
Lanes:       0.15 1.81  0.04  1.00 2.00  0.00  0.00 0.00  0.00  0.37 0.00  0.63
Final Sat.:   277 3244    64  1805 3610     0     0    0     0   638    0  1063
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.23  0.23  0.02 0.21  0.00  0.00 0.00  0.00  0.02 0.00  0.02
Crit Moves:  ****                 ****                          ****
Green/Cycle: 0.45 0.81  0.81  0.07 0.42  0.00  0.00 0.00  0.00  0.04 0.00  0.04
Volume/Cap:  0.50 0.28  0.28  0.28 0.50  0.00  0.00 0.00  0.00  0.50 0.00  0.50
Uniform Del: 19.2  2.4   2.4  44.5 21.4   0.0   0.0  0.0   0.0  47.2  0.0  47.2
IncremntDel:  0.2  0.1   0.1   1.3  0.3   0.0   0.0  0.0   0.0   6.0  0.0   6.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:   19.5  2.5   2.5  45.8 21.7   0.0   0.0  0.0   0.0  53.2  0.0  53.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  19.5  2.5   2.5  45.8 21.7   0.0   0.0  0.0   0.0  53.2  0.0  53.2
LOS by Move:    B    A     A     D    C     A     A    A     A     D    A     D
HCM2k95thQ:   332  130   130    39  323     0     0    0     0    70    0    69
Note: Queue reported is the distance per lane in feet.
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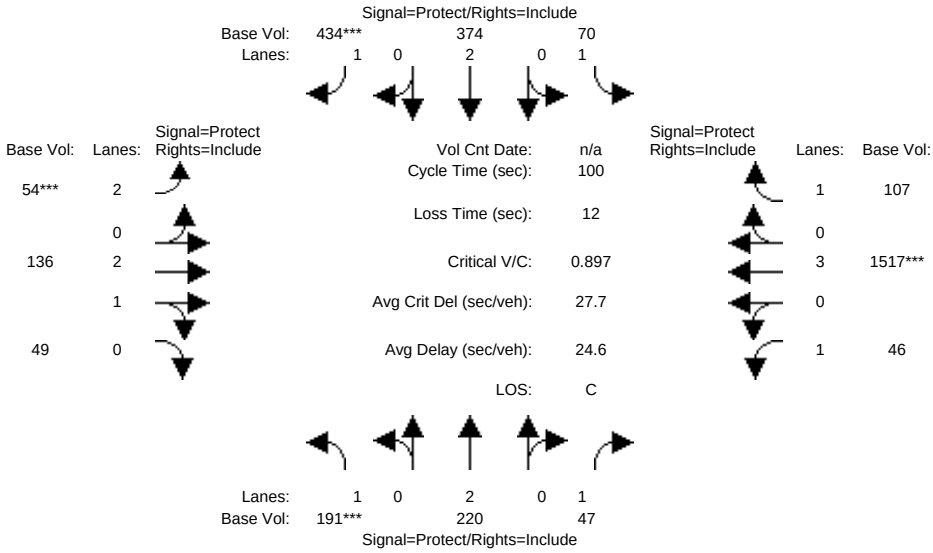
Level Of Service Computation Report
1994 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	191	220	47	70	374	434	54	136	49	46	1517	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	220	47	70	374	434	54	136	49	46	1517	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.93	0.93	0.93	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	236	272	58	75	402	467	61	153	55	55	1828	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	272	58	75	402	467	61	153	55	55	1828	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	236	285	58	75	422	467	62	168	61	55	2010	129
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.21	0.79	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4023	1449	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.13	0.08	0.04	0.04	0.11	0.29	0.02	0.04	0.04	0.03	0.35	0.08
Crit Moves:	****					****	****				****	
Green/Cycle:	0.15	0.30	0.30	0.17	0.32	0.32	0.02	0.24	0.24	0.17	0.39	0.39
Volume/Cap:	0.90	0.25	0.12	0.25	0.35	0.90	0.90	0.18	0.18	0.18	0.90	0.20
Uniform Del:	31.9	20.1	19.3	27.5	19.6	24.6	37.2	23.0	23.0	26.7	21.6	15.2
IncremntDel:	21.3	0.0	0.0	0.1	0.1	12.9	50.5	0.0	0.0	0.0	3.8	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	48.4	17.1	16.4	23.5	16.8	33.8	82.1	19.6	19.6	22.7	22.2	13.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.4	17.1	16.4	23.5	16.8	33.8	82.1	19.6	19.6	22.7	22.2	13.0
DesignQueue:	230	113	45	70	163	371	34	65	65	51	488	88

Note: Queue reported is the distance per lane in feet.

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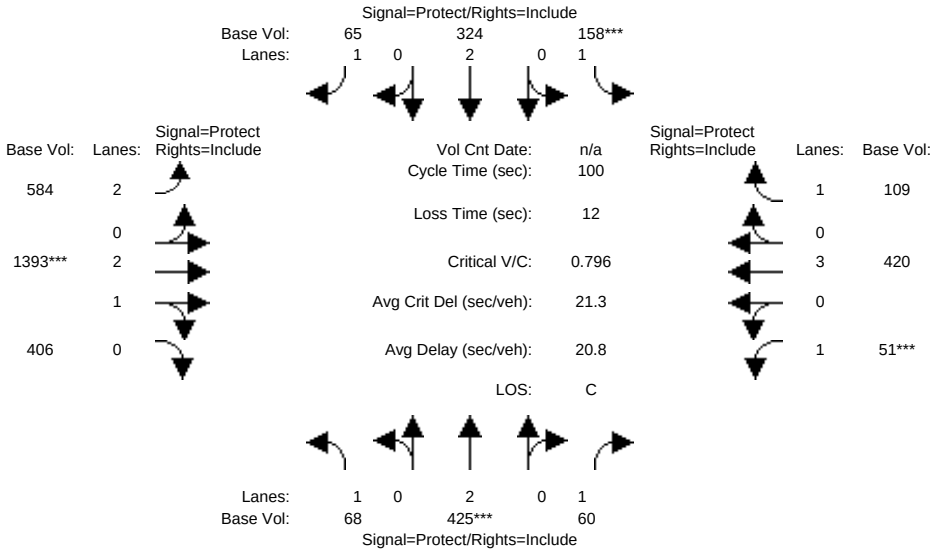
Level Of Service Computation Report
1994 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	68	425	60	158	324	65	584	1393	406	51	420	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	425	60	158	324	65	584	1393	406	51	420	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.68	0.68	0.68	0.82	0.82	0.82	0.94	0.94	0.94	0.78	0.78	0.78
PHF Volume:	100	625	88	193	395	79	621	1482	432	65	538	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	625	88	193	395	79	621	1482	432	65	538	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	100	656	88	193	415	79	640	1630	475	65	592	140
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.32	0.68	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4237	1235	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.05	0.11	0.11	0.05	0.18	0.38	0.38	0.04	0.10	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.22	0.22	0.13	0.23	0.23	0.33	0.48	0.48	0.05	0.20	0.20
Volume/Cap:	0.47	0.80	0.25	0.80	0.47	0.21	0.53	0.80	0.80	0.80	0.53	0.44
Uniform Del:	31.3	28.2	24.6	31.9	25.1	23.5	20.5	16.5	16.5	35.9	27.4	26.9
IncremntDel:	1.2	3.8	0.1	11.3	0.3	0.0	0.4	1.3	1.3	26.2	0.4	0.7
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	27.8	27.8	21.0	38.4	21.6	20.0	17.8	15.3	15.3	56.8	23.7	23.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.8	27.8	21.0	38.4	21.6	20.0	17.8	15.3	15.3	56.8	23.7	23.6
DesignQueue:	99	296	78	189	181	68	246	437	437	70	180	127

Note: Queue reported is the distance per lane in feet.

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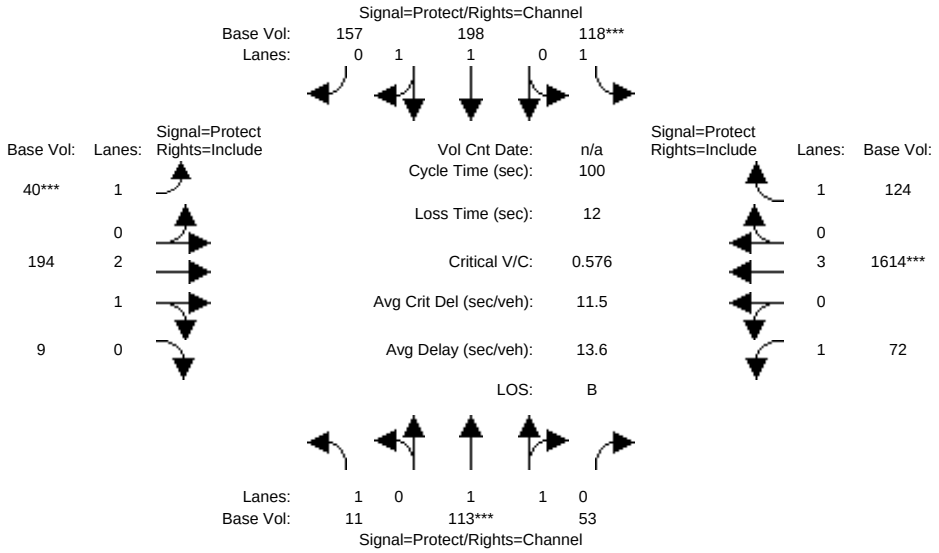
Level Of Service Computation Report
1994 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	11	113	53	118	198	157	40	194	9	72	1614	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	113	53	118	198	157	40	194	9	72	1614	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.90	0.90	0.90	0.78	0.78	0.78	0.91	0.91	0.91
PHF Volume:	14	149	70	131	220	174	51	249	12	79	1774	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	149	70	131	220	174	51	249	12	79	1774	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	14	156	73	131	231	183	51	274	13	79	1951	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.93	0.93	0.95	0.99	0.99	0.95	1.00	0.85
Lanes:	1.00	1.36	0.64	1.00	1.12	0.88	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	1805	2457	1153	1805	1971	1563	1805	5393	250	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.06	0.07	0.12	0.12	0.03	0.05	0.05	0.04	0.34	0.08
Crit Moves:		****		****			****				****	
Green/Cycle:	0.02	0.11	0.11	0.13	0.22	0.22	0.05	0.35	0.35	0.30	0.59	0.59
Volume/Cap:	0.53	0.58	0.58	0.58	0.53	0.53	0.58	0.15	0.15	0.15	0.58	0.14
Uniform Del:	37.2	32.1	32.1	31.3	26.1	26.1	35.3	17.2	17.2	19.6	9.5	6.8
IncremntDel:	12.5	1.5	1.5	2.6	0.6	0.6	6.2	0.0	0.0	0.0	0.2	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	44.1	28.8	28.8	29.2	22.7	22.7	36.3	14.6	14.6	16.6	8.3	5.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.1	28.8	28.8	29.2	22.7	22.7	36.3	14.6	14.6	16.6	8.3	5.8
DesignQueue:	16	115	115	129	183	183	54	70	70	62	316	62

Note: Queue reported is the distance per lane in feet.

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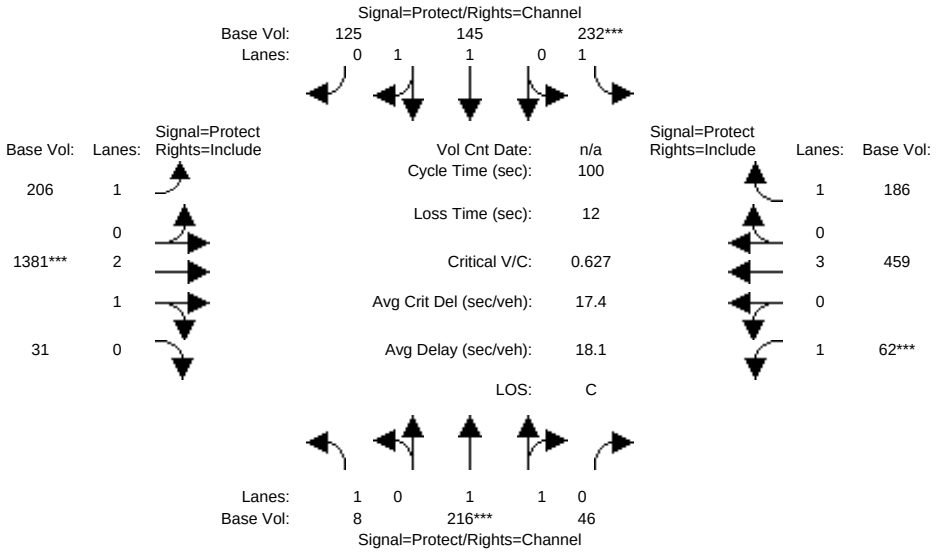
Level Of Service Computation Report
1994 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	216	46	232	145	125	206	1381	31	62	459	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	216	46	232	145	125	206	1381	31	62	459	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.87	0.87	0.87	0.95	0.95	0.95	0.97	0.97	0.97
PHF Volume:	9	237	51	267	167	144	217	1454	33	64	473	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	237	51	267	167	144	217	1454	33	64	473	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	9	249	53	267	175	151	217	1599	36	64	521	192
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	0.93	0.93	0.95	1.00	1.00	0.95	1.00	0.84
Lanes:	1.00	1.65	0.35	1.00	1.07	0.93	1.00	2.93	0.07	1.00	3.00	1.00
Final Sat.:	1805	3039	647	1805	1898	1636	1805	5575	125	1805	5700	1596
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.08	0.15	0.09	0.09	0.12	0.29	0.29	0.04	0.09	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.02	0.13	0.13	0.24	0.35	0.35	0.26	0.46	0.46	0.06	0.26	0.26
Volume/Cap:	0.27	0.63	0.63	0.63	0.27	0.27	0.47	0.63	0.63	0.63	0.36	0.47
Uniform Del:	36.8	31.3	31.3	26.1	17.8	17.8	23.9	15.7	15.7	35.1	23.1	23.9
IncremntDel:	1.0	1.8	1.8	2.1	0.0	0.0	0.6	0.3	0.3	7.8	0.1	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	32.3	28.4	28.4	24.2	15.2	15.2	20.8	13.7	13.7	37.6	19.7	20.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.3	28.4	28.4	24.2	15.2	15.2	20.8	13.7	13.7	37.6	19.7	20.9
DesignQueue:	10	148	148	233	120	120	183	350	350	67	146	162

Note: Queue reported is the distance per lane in feet.

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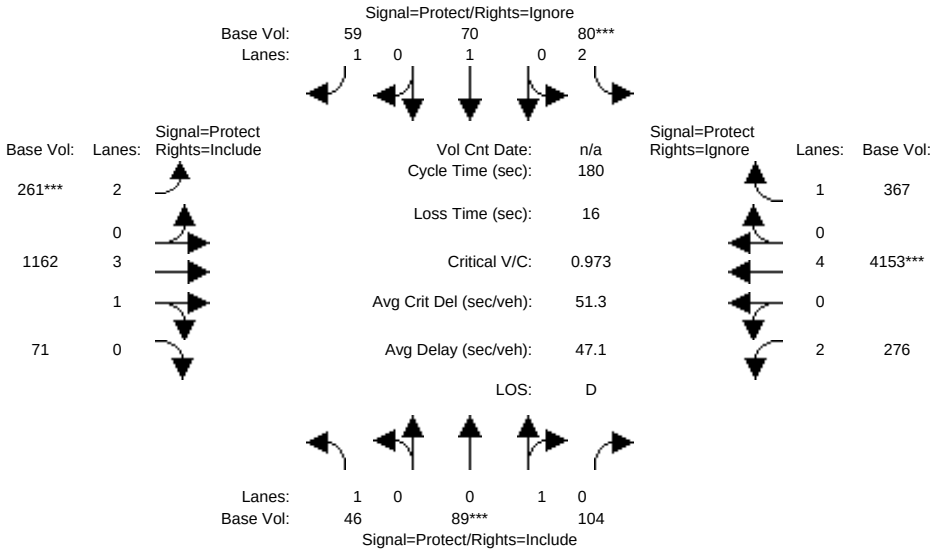
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:O'Toole Avenue/McCarthy Boulevard Montague Expressway

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	46	89	104	80	70	59	261	1162	71	276	4153	367
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	89	104	80	70	59	261	1162	71	276	4153	367
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.65	0.65	0.65	0.89	0.89	0.00	0.88	0.88	0.88	0.96	0.96	0.00
PHF Volume:	71	137	160	90	79	0	297	1320	81	288	4326	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	137	160	90	79	0	297	1320	81	288	4326	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	137	160	90	79	0	297	1320	81	288	4326	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.46	0.54	2.00	1.00	1.00	2.00	3.77	0.23	2.00	4.00	1.00
Final Sat.:	1900	876	1024	3686	1900	1900	3686	6518	398	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.02	0.04	0.00	0.08	0.20	0.20	0.08	0.63	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.09	0.16	0.16	0.03	0.10	0.00	0.08	0.52	0.52	0.20	0.64	0.00
Volume/Cap:	0.42	0.97	0.97	0.97	0.42	0.00	0.97	0.39	0.39	0.39	0.97	0.00
Uniform Del:	77.8	75.2	75.2	87.7	76.4	0.0	82.4	25.6	25.6	62.2	30.7	0.0
IncremntDel:	1.7	44.0	44.0	84.5	1.6	0.0	44.1	0.1	0.1	0.3	8.3	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	79.5	119	119.2	172.2	78.0	0.0	126.4	25.7	25.7	62.5	39.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.5	119	119.2	172.2	78.0	0.0	126.4	25.7	25.7	62.5	39.0	0.0
LOS by Move:	E	F	F	F	E	A	F	C	C	E	D	A
HCM2k95thQ:	160	690	690	182	173	0	426	438	438	268	2029	0

Note: Queue reported is the distance per lane in feet.

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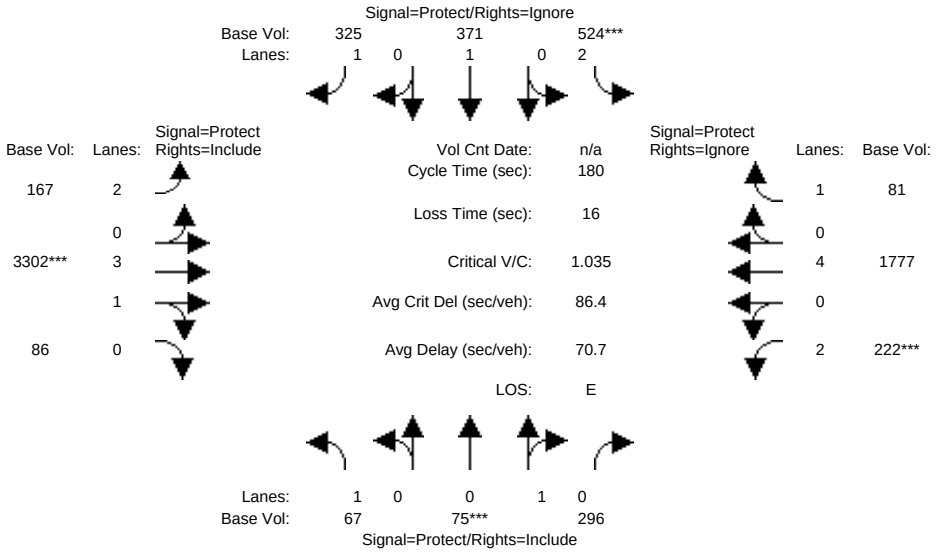
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:	O'Toole Avenue/McCarthy Boulevard						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	67	75	296	524	371	325	167	3302	86	222	1777	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	75	296	524	371	325	167	3302	86	222	1777	81
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.91	0.91	0.00	0.96	0.96	0.96	0.85	0.85	0.00
PHF Volume:	71	79	312	576	408	0	174	3440	90	261	2091	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	79	312	576	408	0	174	3440	90	261	2091	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	79	312	576	408	0	174	3440	90	261	2091	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	3.90	0.10	2.00	4.00	1.00
Final Sat.:	1900	384	1516	3686	1900	1900	3686	6740	176	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.16	0.21	0.00	0.05	0.51	0.51	0.07	0.30	0.00
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.20	0.20	0.15	0.30	0.00	0.08	0.49	0.49	0.07	0.49	0.00
Volume/Cap:	0.72	1.03	1.03	1.03	0.72	0.00	0.62	1.03	1.03	1.03	0.62	0.00
Uniform Del:	84.1	72.1	72.1	76.4	56.5	0.0	80.7	45.6	45.6	83.8	34.1	0.0
IncremntDel:	22.7	55.6	55.6	47.5	4.5	0.0	4.3	25.4	25.4	66.0	0.4	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	106.8	128	127.8	123.9	61.0	0.0	85.0	71.0	71.0	149.9	34.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.8	128	127.8	123.9	61.0	0.0	85.0	71.0	71.0	149.9	34.5	0.0
LOS by Move:	F	F	F	F	E	A	F	E	E	F	C	A
HCM2k95thQ:	202	893	893	726	694	0	222	1876	1876	406	760	0

Note: Queue reported is the distance per lane in feet.

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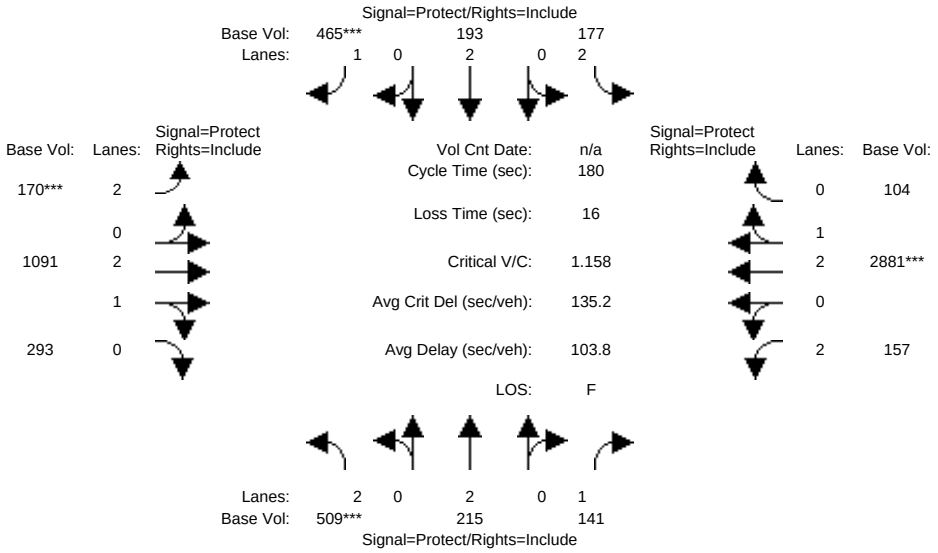
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	509	215	141	177	193	465	170	1091	293	157	2881	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	509	215	141	177	193	465	170	1091	293	157	2881	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	547	231	152	197	214	517	173	1113	299	160	2940	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	547	231	152	197	214	517	173	1113	299	160	2940	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	547	231	152	197	214	517	173	1113	299	160	2940	106
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.36	0.64	2.00	2.90	0.10
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4089	1098	3686	5006	181
Capacity Analysis Module:												
Vol/Sat:	0.15	0.06	0.08	0.05	0.06	0.27	0.05	0.27	0.27	0.04	0.59	0.59
Crit Moves:	****					****	****				****	
Green/Cycle:	0.13	0.22	0.22	0.15	0.23	0.23	0.04	0.47	0.47	0.08	0.51	0.51
Volume/Cap:	1.16	0.29	0.37	0.37	0.25	1.16	1.16	0.58	0.58	0.58	1.16	1.16
Uniform Del:	78.5	58.9	59.9	69.4	56.0	68.9	86.3	34.4	34.4	80.4	44.3	44.3
IncremntDel:	92.4	0.2	0.6	0.4	0.2	93.4	122.1	0.3	0.3	3.0	75.6	75.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	170.8	59.1	60.4	69.8	56.2	162.3	208.5	34.8	34.8	83.4	120	120.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	170.8	59.1	60.4	69.8	56.2	162.3	208.5	34.8	34.8	83.4	120	120.0
LOS by Move:	F	E	E	E	E	F	F	C	C	F	F	F
HCM2k95thQ:	764	214	267	189	187	1187	324	681	681	202	2424	2424

Note: Queue reported is the distance per lane in feet.

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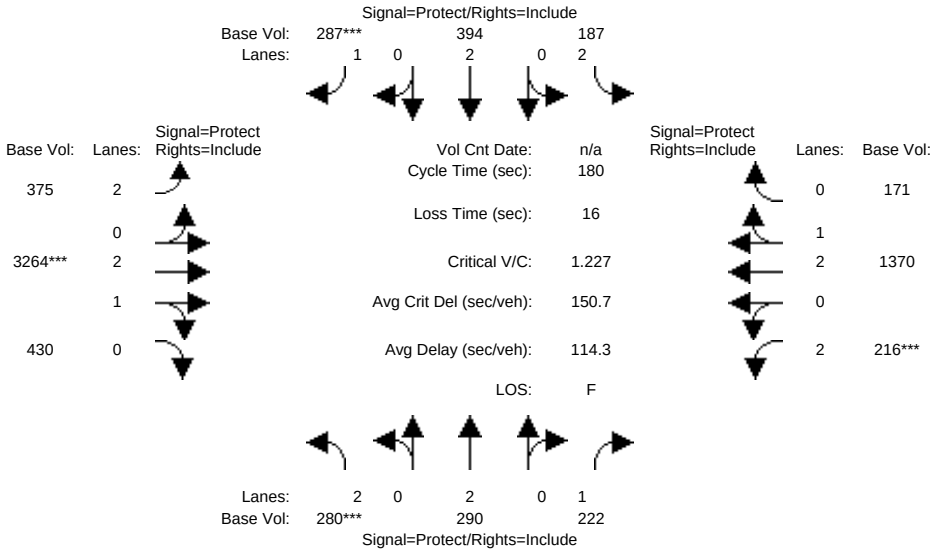
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	280	290	222	187	394	287	375	3264	430	216	1370	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	280	290	222	187	394	287	375	3264	430	216	1370	171
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.84	0.84	0.84	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	311	322	247	223	469	342	417	3627	478	230	1457	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	322	247	223	469	342	417	3627	478	230	1457	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	322	247	223	469	342	417	3627	478	230	1457	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.65	0.35	2.00	2.67	0.33
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4583	604	3686	4611	576
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.13	0.06	0.13	0.18	0.11	0.79	0.79	0.06	0.32	0.32
Crit Moves:	****					****		****		****		
Green/Cycle:	0.07	0.15	0.15	0.07	0.15	0.15	0.18	0.64	0.64	0.05	0.51	0.51
Volume/Cap:	1.23	0.61	0.88	0.88	0.89	1.23	0.62	1.23	1.23	1.23	0.62	0.62
Uniform Del:	83.8	71.9	75.3	83.1	75.3	76.8	67.7	32.0	32.0	85.4	31.3	31.3
IncremntDel:	131.8	2.0	26.4	28.5	16.4	129.6	1.7	105	104.9	140.0	0.4	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	215.7	73.9	101.7	111.6	91.8	206.5	69.4	137	136.9	225.4	31.7	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	215.7	73.9	101.7	111.6	91.8	206.5	69.4	137	136.9	225.4	31.7	31.7
LOS by Move:	F	E	F	F	F	F	E	F	F	F	C	C
HCM2k95thQ:	520	347	558	264	504	877	414	3443	3443	414	766	766

Note: Queue reported is the distance per lane in feet.

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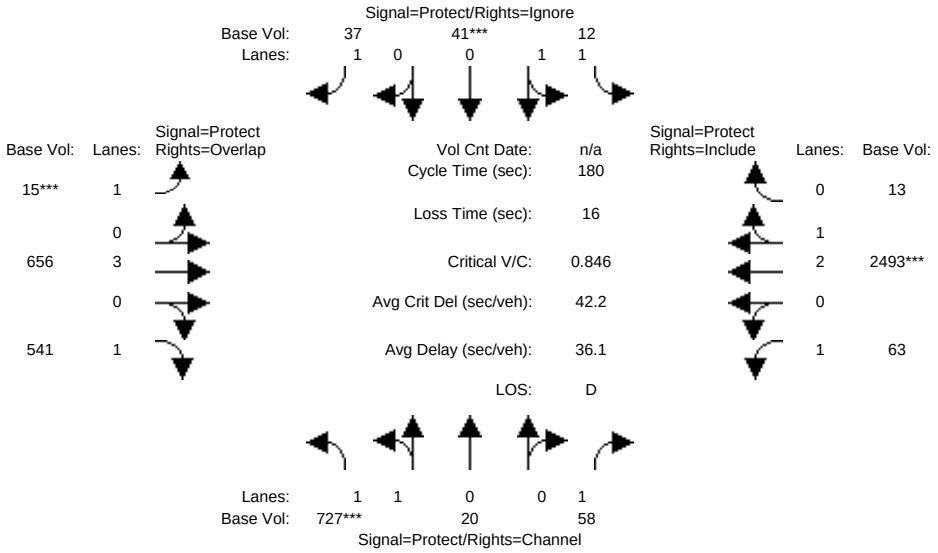
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	727	20	58	12	41	37	15	656	541	63	2493	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	727	20	58	12	41	37	15	656	541	63	2493	13
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.00	0.88	0.88	0.88	0.93	0.93	0.93
PHF Volume:	808	22	64	13	46	0	17	745	615	68	2681	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	808	22	64	13	46	0	17	745	615	68	2681	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	808	22	64	13	46	0	17	745	615	68	2681	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	1.95	0.05	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	2.98	0.02
Final Sat.:	3698	102	1900	1900	1900	1900	1900	5187	1900	1900	5160	27
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.03	0.01	0.02	0.00	0.01	0.14	0.32	0.04	0.52	0.52
Crit Moves:	****				****		****				****	
Green/Cycle:	0.26	0.28	0.28	0.01	0.03	0.00	0.01	0.50	0.76	0.12	0.61	0.61
Volume/Cap:	0.85	0.79	0.12	0.79	0.85	0.00	0.85	0.29	0.43	0.29	0.85	0.85
Uniform Del:	63.4	60.1	48.6	89.0	87.1	0.0	88.9	26.2	7.8	71.6	27.9	27.9
IncremntDel:	6.9	4.0	0.1	41.1	58.2	0.0	129.2	0.1	0.2	0.7	2.3	2.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	70.3	64.1	48.7	130.1	145	0.0	218.1	26.3	8.0	72.3	30.2	30.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.3	64.1	48.7	130.1	145	0.0	218.1	26.3	8.0	72.3	30.2	30.2
LOS by Move:	E	E	D	F	F	A	F	C	A	E	C	C
HCM2k95thQ:	784	744	103	72	166	0	87	314	425	128	1352	1352

Note: Queue reported is the distance per lane in feet.

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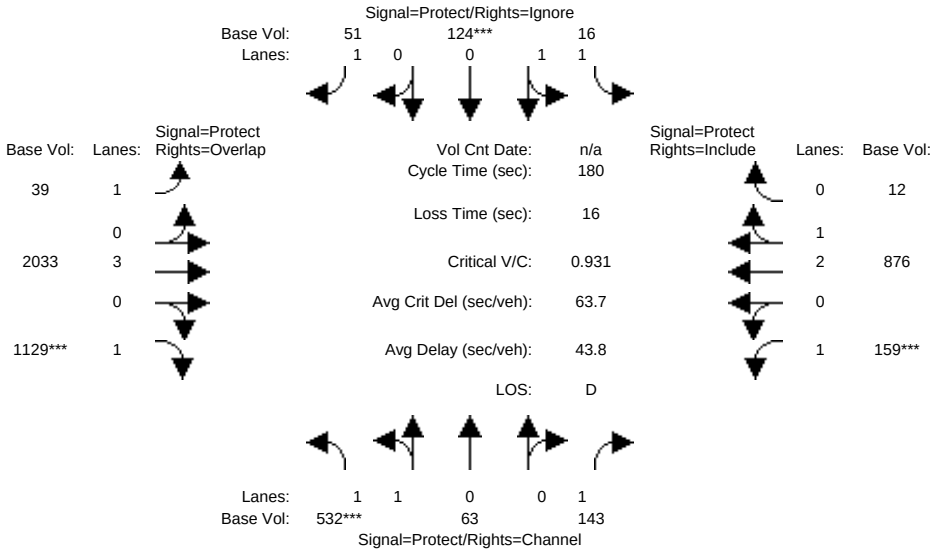
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	63	143	16	124	51	39	2033	1129	159	876	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	63	143	16	124	51	39	2033	1129	159	876	12
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.84	0.84	0.00	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	554	66	149	19	148	0	44	2310	1283	181	995	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	554	66	149	19	148	0	44	2310	1283	181	995	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	554	66	149	19	148	0	44	2310	1283	181	995	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	1.79	0.21	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	2.96	0.04
Final Sat.:	3398	402	1900	1900	1900	1900	1900	5187	1900	1900	5117	70
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.08	0.01	0.08	0.00	0.02	0.45	0.68	0.10	0.19	0.19
Crit Moves:	****				****				****	****		
Green/Cycle:	0.18	0.24	0.24	0.01	0.08	0.00	0.07	0.55	0.73	0.10	0.58	0.58
Volume/Cap:	0.93	0.67	0.32	0.67	0.93	0.00	0.33	0.81	0.93	0.93	0.33	0.33
Uniform Del:	73.2	61.5	55.9	88.2	82.0	0.0	79.7	32.8	20.9	80.2	19.5	19.5
IncremntDel:	19.8	1.9	0.4	6.9	47.6	0.0	1.5	1.8	11.4	45.2	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	92.9	63.4	56.3	95.1	130	0.0	81.2	34.7	32.3	125.4	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	92.9	63.4	56.3	95.1	130	0.0	81.2	34.7	32.3	125.4	19.5	19.5
LOS by Move:	F	E	E	F	F	A	F	C	C	F	B	B
HCM2k95thQ:	685	554	252	82	402	0	105	1196	1891	406	372	372

Note: Queue reported is the distance per lane in feet.

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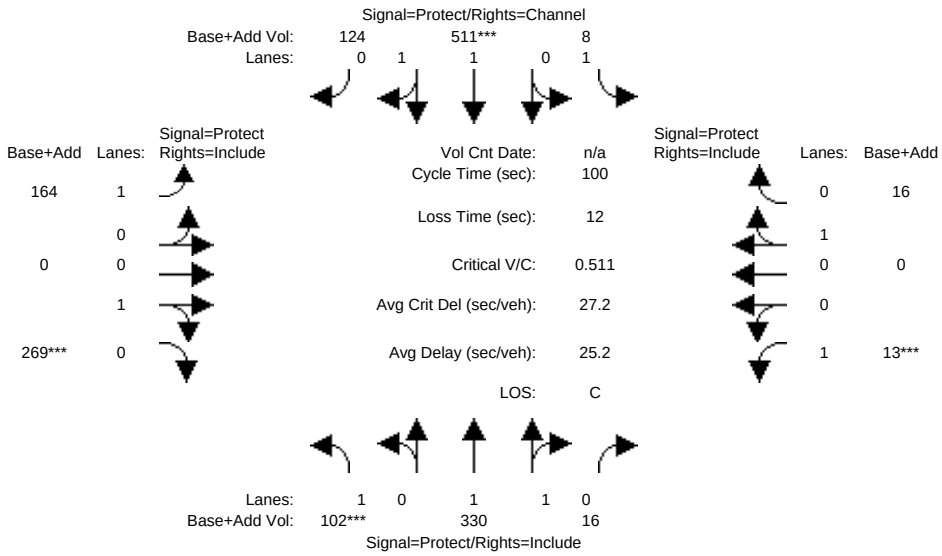
Appendix D – Level of Service Worksheets: Existing plus Project Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	102	330	0	0	511	124	164	0	269	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	330	0	0	511	124	164	0	269	0	0	0
Added Vol:	0	0	16	8	0	0	0	0	0	13	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	330	16	8	511	124	164	0	269	13	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.96	0.96	0.96	0.87	0.87	0.87	1.00	1.00	1.00
PHF Volume:	111	359	17	8	532	129	189	0	309	13	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	359	17	8	532	129	189	0	309	13	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	359	17	8	532	129	189	0	309	13	0	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.92	0.92	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.91	0.09	1.00	1.61	0.39	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1805	3419	166	1805	2819	684	1805	0	1610	1805	0	1607
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.10	0.00	0.19	0.19	0.10	0.00	0.19	0.01	0.00	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.47	0.47	0.02	0.37	0.37	0.36	0.00	0.38	0.01	0.00	0.01
Volume/Cap:	0.51	0.22	0.22	0.22	0.51	0.51	0.29	0.00	0.51	0.51	0.00	0.71
Uniform Del:	41.2	15.7	15.7	48.2	24.5	24.5	23.1	0.0	24.1	49.0	0.0	49.1
IncremntDel:	2.0	0.1	0.1	3.0	0.3	0.3	0.3	0.0	0.7	16.3	0.0	68.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	43.3	15.8	15.8	51.2	24.8	24.8	23.4	0.0	24.8	65.3	0.0	118.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	15.8	15.8	51.2	24.8	24.8	23.4	0.0	24.8	65.3	0.0	118.0
LOS by Move:	D	B	B	D	C	C	C	A	C	E	A	F
HCM2k95thQ:	127	138	138	21	320	319	165	0	290	44	0	62

Note: Queue reported is the distance per lane in feet.

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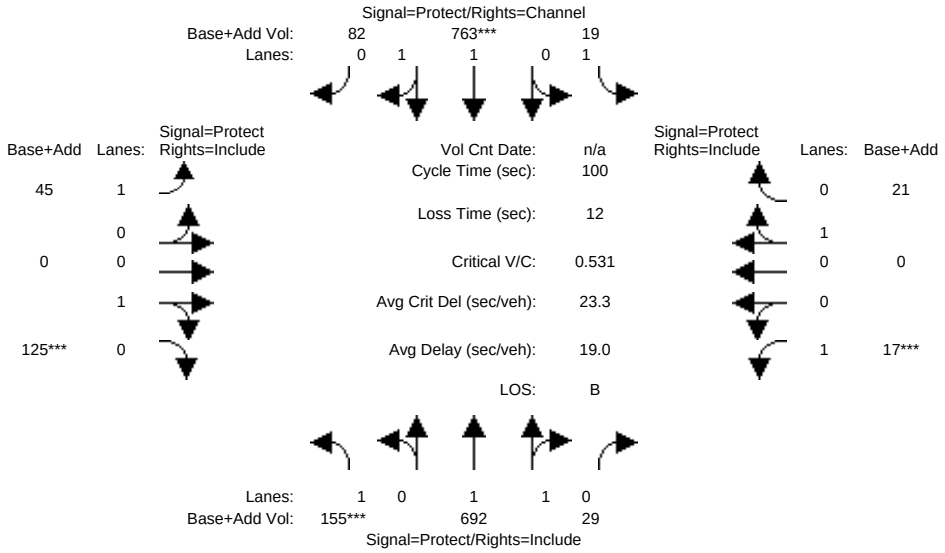
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	692	0	5	763	82	45	0	125	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	692	0	5	763	82	45	0	125	0	0	0
Added Vol:	0	0	29	14	0	0	0	0	0	17	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	692	29	19	763	82	45	0	125	17	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.89	0.89	0.89	0.85	0.85	0.85	1.00	1.00	1.00
PHF Volume:	180	805	34	21	857	92	53	0	147	17	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	805	34	21	857	92	53	0	147	17	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	180	805	34	21	857	92	53	0	147	17	0	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.93	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.92	0.08	1.00	1.81	0.19	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1805	3444	144	1805	3210	345	1805	0	1612	1805	0	1610
Capacity Analysis Module:												
Vol/Sat:	0.10	0.23	0.23	0.01	0.27	0.27	0.03	0.00	0.09	0.01	0.00	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.19	0.66	0.66	0.03	0.50	0.50	0.13	0.00	0.17	0.02	0.00	0.02
Volume/Cap:	0.53	0.36	0.36	0.36	0.53	0.53	0.22	0.00	0.53	0.53	0.00	0.74
Uniform Del:	36.6	7.7	7.7	47.3	16.9	16.9	38.9	0.0	37.8	48.7	0.0	48.9
IncremntDel:	1.6	0.1	0.1	3.6	0.3	0.3	0.5	0.0	2.0	16.0	0.0	66.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	38.2	7.8	7.8	50.9	17.2	17.2	39.4	0.0	39.7	64.7	0.0	115.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.2	7.8	7.8	50.9	17.2	17.2	39.4	0.0	39.7	64.7	0.0	115.4
LOS by Move:	D	A	A	D	B	B	D	A	D	E	A	F
HCM2k95thQ:	193	229	228	45	386	385	66	0	188	52	0	73

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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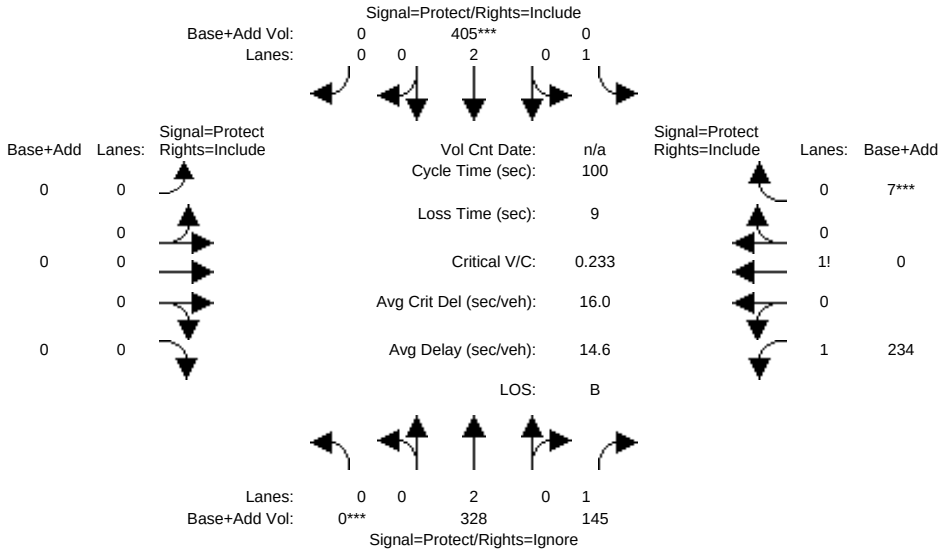
Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	321	136	0	400	0	0	0	0	231	0	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	321	136	0	400	0	0	0	0	231	0	7
Added Vol:	0	7	9	0	5	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	328	145	0	405	0	0	0	0	234	0	7
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.00	0.89	0.89	0.89	1.00	1.00	1.00	0.80	0.80	0.80
PHF Volume:	0	377	0	0	455	0	0	0	0	293	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	377	0	0	455	0	0	0	0	293	0	9
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	377	0	0	455	0	0	0	0	293	0	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.94	0.00	0.06
Final Sat.:	0	3610	1900	1900	3610	0	0	0	0	3509	0	102
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.08	0.00	0.09
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.54	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.37
Volume/Cap:	0.00	0.19	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23	0.00	0.23
Uniform Del:	0.0	11.7	0.0	0.0	12.0	0.0	0.0	0.0	0.0	21.7	0.0	21.8
IncremntDel:	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	11.8	0.0	0.0	12.1	0.0	0.0	0.0	0.0	21.8	0.0	21.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.8	0.0	0.0	12.1	0.0	0.0	0.0	0.0	21.8	0.0	21.9
LOS by Move:	A	B	A	A	B	A	A	A	A	C	A	C
HCM2k95thQ:	0	123	0	0	151	0	0	0	0	127	0	131

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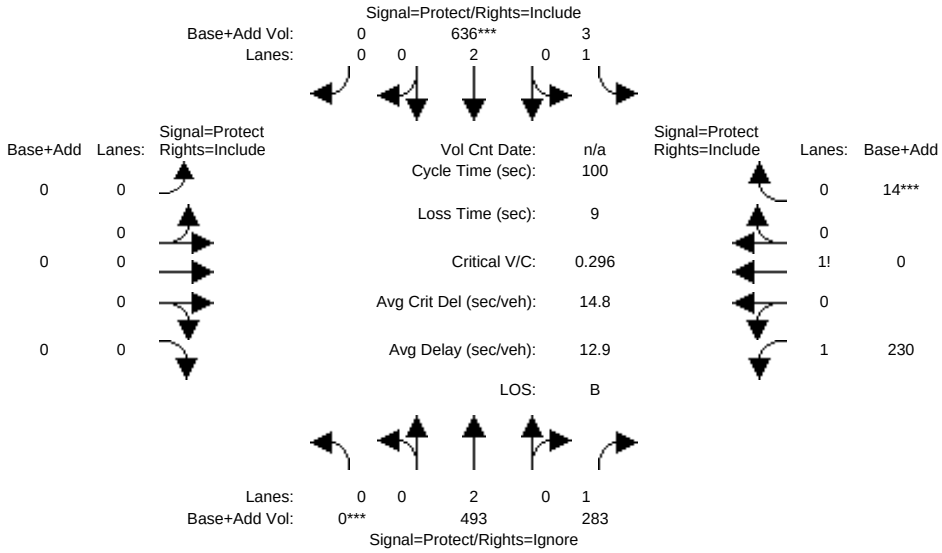
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	484	271	3	627	0	0	0	0	225	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	484	271	3	627	0	0	0	0	225	0	14
Added Vol:	0	9	12	0	9	0	0	0	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	493	283	3	636	0	0	0	0	230	0	14
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.00	0.97	0.97	0.97	1.00	1.00	1.00	0.82	0.82	0.82
PHF Volume:	0	530	0	3	656	0	0	0	0	280	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	530	0	3	656	0	0	0	0	280	0	17
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	530	0	3	656	0	0	0	0	280	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.89	0.00	0.11
Final Sat.:	0	3610	1900	1805	3610	0	0	0	0	3401	0	195
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.08	0.00	0.09
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.61	0.00	0.01	0.61	0.00	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.00	0.24	0.00	0.24	0.30	0.00	0.00	0.00	0.00	0.28	0.00	0.30
Uniform Del:	0.0	9.0	0.0	49.4	9.1	0.0	0.0	0.0	0.0	27.0	0.0	27.2
IncremntDel:	0.0	0.1	0.0	9.6	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.1	0.0	59.0	9.2	0.0	0.0	0.0	0.0	27.2	0.0	27.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.1	0.0	59.0	9.2	0.0	0.0	0.0	0.0	27.2	0.0	27.3
LOS by Move:	A	A	A	E	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	154	0	15	193	0	0	0	0	141	0	150

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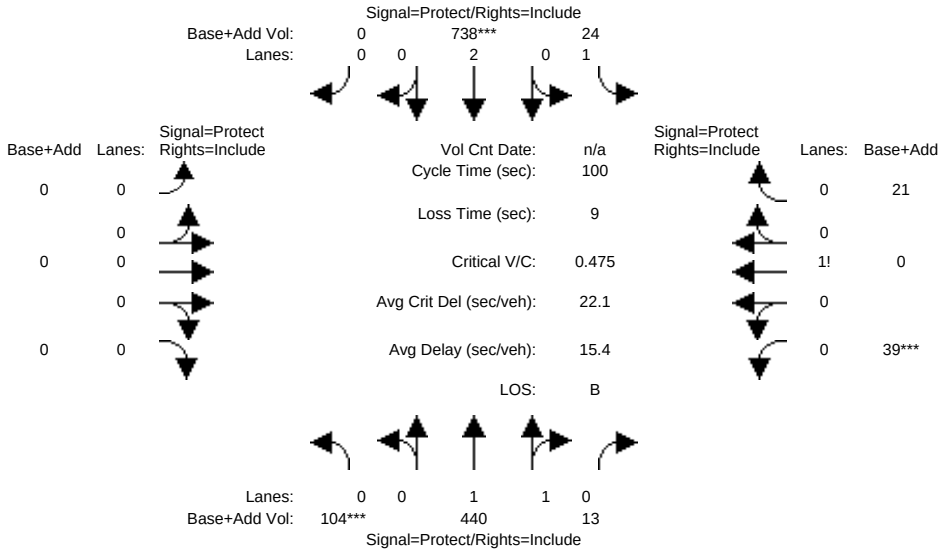
Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	104	424	13	24	725	0	0	0	0	39	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	424	13	24	725	0	0	0	0	39	0	21
Added Vol:	0	16	0	0	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	440	13	24	738	0	0	0	0	39	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.88	0.88	0.88	1.00	1.00	1.00	0.88	0.88	0.88
PHF Volume:	107	454	13	27	839	0	0	0	0	44	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	454	13	27	839	0	0	0	0	44	0	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	454	13	27	839	0	0	0	0	44	0	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.92
Lanes:	0.37	1.58	0.05	1.00	2.00	0.00	0.00	0.00	0.00	0.65	0.00	0.35
Final Sat.:	666	2817	83	1805	3610	0	0	0	0	1138	0	613
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.02	0.23	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green/Cycle:	0.34	0.76	0.76	0.07	0.49	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	0.48	0.21	0.21	0.21	0.48	0.00	0.00	0.00	0.00	0.48	0.00	0.48
Uniform Del:	26.0	3.5	3.5	43.8	17.0	0.0	0.0	0.0	0.0	43.8	0.0	43.8
IncremntDel:	0.3	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	2.5	0.0	2.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	26.3	3.6	3.6	44.6	17.2	0.0	0.0	0.0	0.0	46.3	0.0	46.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.3	3.6	3.6	44.6	17.2	0.0	0.0	0.0	0.0	46.3	0.0	46.3
LOS by Move:	C	A	A	D	B	A	A	A	A	D	A	D
HCM2k95thQ:	284	109	109	32	325	0	0	0	0	107	0	106

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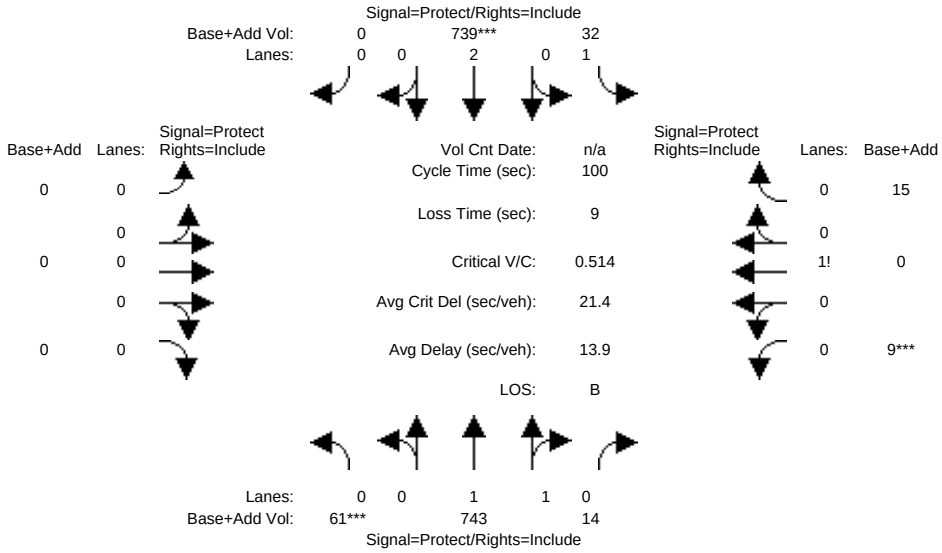
Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	61	714	14	32	722	0	0	0	0	9	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	714	14	32	722	0	0	0	0	9	0	15
Added Vol:	0	29	0	0	17	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	743	14	32	739	0	0	0	0	9	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.96	0.96	0.96	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	63	766	14	33	770	0	0	0	0	12	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	766	14	33	770	0	0	0	0	12	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	766	14	33	770	0	0	0	0	12	0	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.90	1.00	0.89
Lanes:	0.15	1.82	0.03	1.00	2.00	0.00	0.00	0.00	0.00	0.37	0.00	0.63
Final Sat.:	267	3256	61	1805	3610	0	0	0	0	638	0	1063
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.02	0.21	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:	****				****					****		
Green/Cycle:	0.46	0.81	0.81	0.06	0.42	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Volume/Cap:	0.51	0.29	0.29	0.29	0.51	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Uniform Del:	19.2	2.4	2.4	44.7	21.7	0.0	0.0	0.0	0.0	47.3	0.0	47.3
IncremntDel:	0.3	0.1	0.1	1.4	0.3	0.0	0.0	0.0	0.0	7.1	0.0	7.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	19.5	2.4	2.4	46.1	22.0	0.0	0.0	0.0	0.0	54.4	0.0	54.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.5	2.4	2.4	46.1	22.0	0.0	0.0	0.0	0.0	54.4	0.0	54.4
LOS by Move:	B	A	A	D	C	A	A	A	A	D	A	D
HCM2k95thQ:	361	139	138	39	333	0	0	0	0	71	0	71

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Note: Queue reported is the distance per lane in feet.

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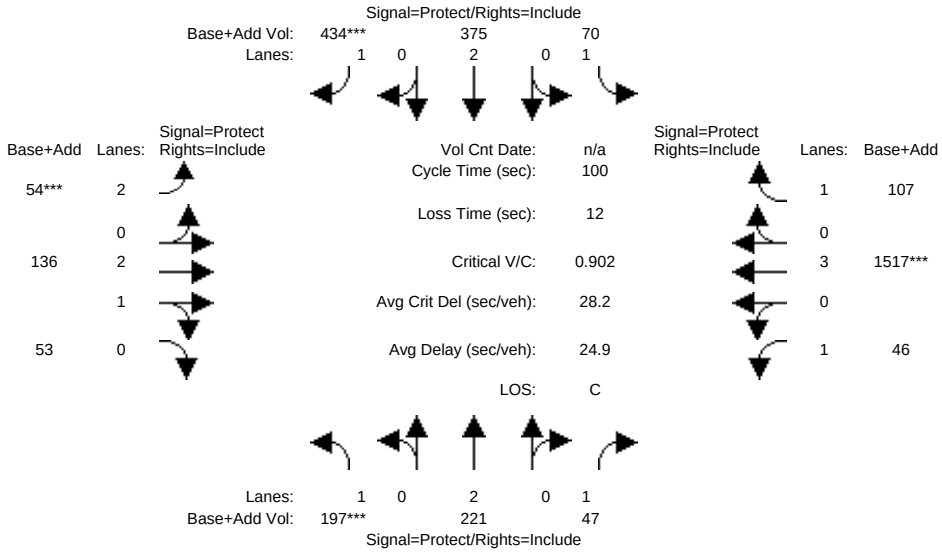
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	191	220	47	70	374	434	54	136	49	46	1517	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	220	47	70	374	434	54	136	49	46	1517	107
Added Vol:	6	1	0	0	1	0	0	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	221	47	70	375	434	54	136	53	46	1517	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.93	0.93	0.93	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	243	273	58	75	403	467	61	153	60	55	1828	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	243	273	58	75	403	467	61	153	60	55	1828	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	243	286	58	75	423	467	62	168	66	55	2010	129
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.16	0.84	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	3938	1534	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.13	0.08	0.04	0.04	0.11	0.29	0.02	0.04	0.04	0.03	0.35	0.08
Crit Moves:	****					****	****				****	
Green/Cycle:	0.15	0.30	0.30	0.17	0.32	0.32	0.02	0.24	0.24	0.17	0.39	0.39
Volume/Cap:	0.90	0.25	0.12	0.25	0.35	0.90	0.90	0.18	0.18	0.18	0.90	0.20
Uniform Del:	31.8	20.0	19.2	27.5	19.8	24.7	37.2	23.0	23.0	26.9	21.8	15.3
IncremntDel:	21.6	0.0	0.0	0.1	0.1	13.5	51.9	0.0	0.0	0.0	4.1	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	48.6	17.0	16.3	23.5	16.9	34.4	83.5	19.6	19.6	22.9	22.6	13.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	17.0	16.3	23.5	16.9	34.4	83.5	19.6	19.6	22.9	22.6	13.0
DesignQueue:	236	113	45	70	164	372	34	66	66	51	490	88

Note: Queue reported is the distance per lane in feet.

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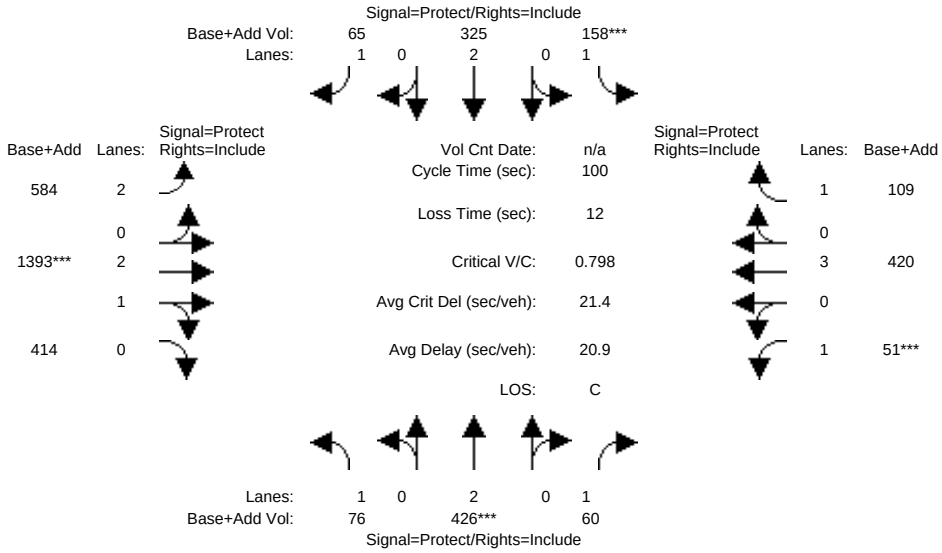
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	68	425	60	158	324	65	584	1393	406	51	420	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	425	60	158	324	65	584	1393	406	51	420	109
Added Vol:	8	1	0	0	1	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	426	60	158	325	65	584	1393	414	51	420	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.68	0.68	0.68	0.82	0.82	0.82	0.94	0.94	0.94	0.78	0.78	0.78
PHF Volume:	112	626	88	193	396	79	621	1482	440	65	538	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	626	88	193	396	79	621	1482	440	65	538	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	112	658	88	193	416	79	640	1630	484	65	592	140
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.31	0.69	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4218	1254	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.05	0.11	0.11	0.05	0.18	0.39	0.39	0.04	0.10	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.22	0.22	0.13	0.22	0.22	0.33	0.48	0.48	0.05	0.20	0.20
Volume/Cap:	0.49	0.80	0.25	0.80	0.49	0.22	0.53	0.80	0.80	0.80	0.53	0.44
Uniform Del:	30.9	28.2	24.7	31.9	25.7	24.1	20.5	16.5	16.5	35.9	27.4	26.9
IncremntDel:	1.3	3.9	0.1	11.5	0.4	0.1	0.4	1.3	1.3	26.7	0.4	0.7
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	27.6	27.9	21.0	38.6	22.2	20.5	17.8	15.3	15.3	57.2	23.7	23.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.6	27.9	21.0	38.6	22.2	20.5	17.8	15.3	15.3	57.2	23.7	23.5
DesignQueue:	110	297	78	190	184	69	246	438	438	70	180	127

Note: Queue reported is the distance per lane in feet.

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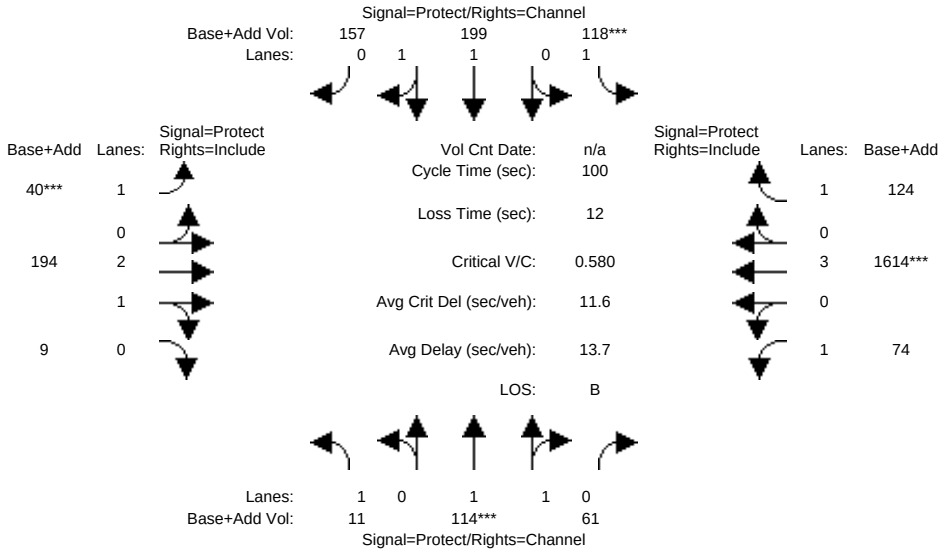
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	11	113	53	118	198	157	40	194	9	72	1614	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	113	53	118	198	157	40	194	9	72	1614	124
Added Vol:	0	1	8	0	1	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	114	61	118	199	157	40	194	9	74	1614	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.90	0.90	0.90	0.78	0.78	0.78	0.91	0.91	0.91
PHF Volume:	14	150	80	131	221	174	51	249	12	81	1774	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	150	80	131	221	174	51	249	12	81	1774	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	14	158	84	131	232	183	51	274	13	81	1951	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.93	0.93	0.95	0.99	0.99	0.95	1.00	0.85
Lanes:	1.00	1.30	0.70	1.00	1.12	0.88	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	1805	2352	1258	1805	1975	1559	1805	5393	250	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.07	0.07	0.12	0.12	0.03	0.05	0.05	0.05	0.34	0.08
Crit Moves:		****		****			****				****	
Green/Cycle:	0.02	0.12	0.12	0.13	0.23	0.23	0.05	0.34	0.34	0.30	0.59	0.59
Volume/Cap:	0.52	0.58	0.58	0.58	0.52	0.52	0.58	0.15	0.15	0.15	0.58	0.14
Uniform Del:	37.1	31.9	31.9	31.4	25.8	25.8	35.4	17.5	17.5	19.5	9.7	7.0
IncremntDel:	11.7	1.5	1.5	2.7	0.5	0.5	6.4	0.0	0.0	0.0	0.2	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	43.3	28.6	28.6	29.3	22.5	22.5	36.5	14.9	14.9	16.6	8.4	5.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	28.6	28.6	29.3	22.5	22.5	36.5	14.9	14.9	16.6	8.4	5.9
DesignQueue:	16	120	120	129	183	183	54	71	71	64	319	63

Note: Queue reported is the distance per lane in feet.

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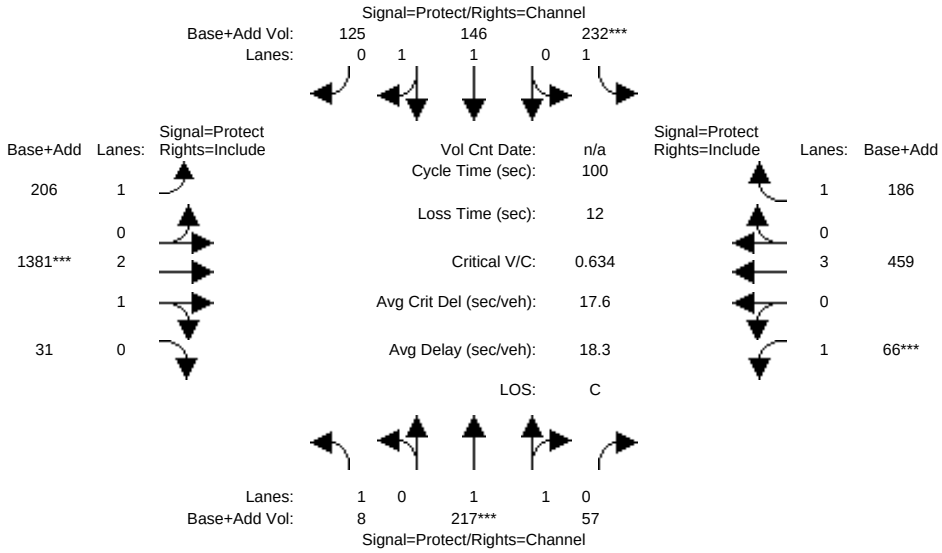
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	216	46	232	145	125	206	1381	31	62	459	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	216	46	232	145	125	206	1381	31	62	459	186
Added Vol:	0	1	11	0	1	0	0	0	0	4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	217	57	232	146	125	206	1381	31	66	459	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.87	0.87	0.87	0.95	0.95	0.95	0.97	0.97	0.97
PHF Volume:	9	238	63	267	168	144	217	1454	33	68	473	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	238	63	267	168	144	217	1454	33	68	473	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	9	250	66	267	176	151	217	1599	36	68	521	192
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	0.93	0.93	0.95	1.00	1.00	0.95	1.00	0.84
Lanes:	1.00	1.58	0.42	1.00	1.08	0.92	1.00	2.93	0.07	1.00	3.00	1.00
Final Sat.:	1805	2919	767	1805	1904	1630	1805	5575	125	1805	5700	1596
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.15	0.09	0.09	0.12	0.29	0.29	0.04	0.09	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.02	0.14	0.14	0.23	0.35	0.35	0.26	0.45	0.45	0.06	0.26	0.26
Volume/Cap:	0.26	0.63	0.63	0.63	0.26	0.26	0.47	0.63	0.63	0.63	0.36	0.47
Uniform Del:	36.8	31.1	31.1	26.2	17.7	17.7	23.9	16.0	16.0	34.9	23.2	23.9
IncremntDel:	1.0	1.9	1.9	2.2	0.0	0.0	0.6	0.4	0.4	7.8	0.1	0.7
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	32.3	28.3	28.3	24.5	15.1	15.1	20.9	14.0	14.0	37.5	19.7	21.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.3	28.3	28.3	24.5	15.1	15.1	20.9	14.0	14.0	37.5	19.7	21.0
DesignQueue:	10	155	155	234	120	120	184	353	353	72	146	162

Note: Queue reported is the distance per lane in feet.

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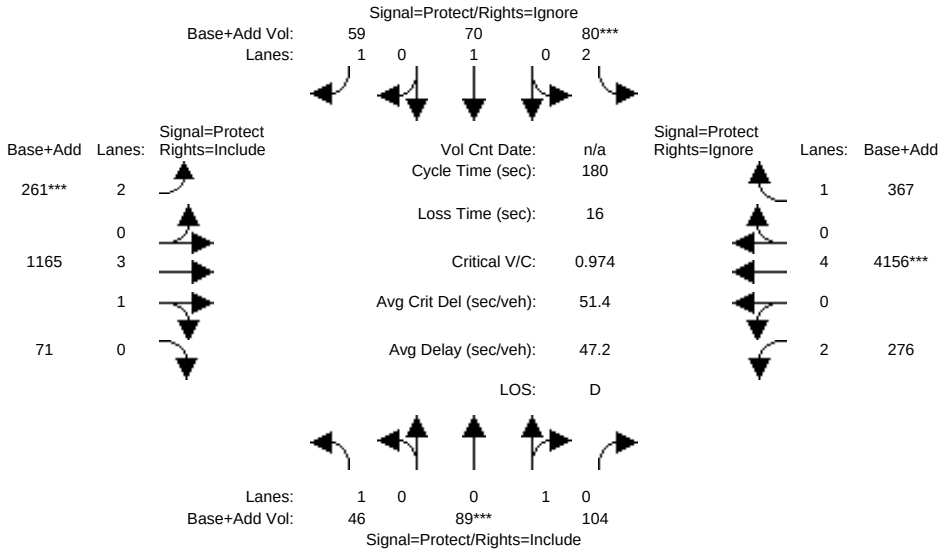
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr

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Street Name:O'Toole Avenue/McCarthy Boulevard        Montague Expressway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      46   89   104    80   70    59   261 1162    71   276 4153   367
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   46   89   104    80   70    59   261 1162    71   276 4153   367
Added Vol:      0    0     0     0    0     0     0    3     0     0    3     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   46   89   104    80   70    59   261 1165    71   276 4156   367
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     0.65 0.65  0.65  0.89 0.89  0.00  0.88 0.88  0.88  0.96 0.96  0.00
PHF Volume:    71  137   160    90   79     0   297 1324    81   288 4329     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   71  137   160    90   79     0   297 1324    81   288 4329     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   71  137   160    90   79     0   297 1324    81   288 4329     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.97 1.00  1.00  0.97 0.91  0.91  0.97 0.91  1.00
Lanes:       1.00 0.46  0.54  2.00 1.00  1.00  2.00 3.77  0.23  2.00 4.00  1.00
Final Sat.:  1900  876  1024  3686 1900  1900  3686 6519   397  3686 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.16  0.16  0.02 0.04  0.00  0.08 0.20  0.20  0.08 0.63  0.00
Crit Moves:       ****        ****              ****                   ****
Green/Cycle: 0.09 0.16  0.16  0.03 0.10  0.00  0.08 0.52  0.52  0.20 0.64  0.00
Volume/Cap:  0.42 0.97  0.97  0.97 0.42  0.00  0.97 0.39  0.39  0.39 0.97  0.00
Uniform Del: 77.8 75.2  75.2  87.7 76.4   0.0  82.4 25.6  25.6  62.3 30.7   0.0
IncremntDel:  1.7 44.2  44.2  84.7  1.6   0.0  44.2  0.1   0.1   0.3  8.4   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
Delay/Veh:   79.5  119 119.4 172.4 78.0   0.0 126.6 25.6  25.6  62.6 39.1   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  79.5  119 119.4 172.4 78.0   0.0 126.6 25.6  25.6  62.6 39.1   0.0
LOS by Move:    E    F     F     F    E     A     F    C     C     E    D     A
HCM2k95thQ:   160  690   690   182  173     0   426  439   439   268 2033     0
```


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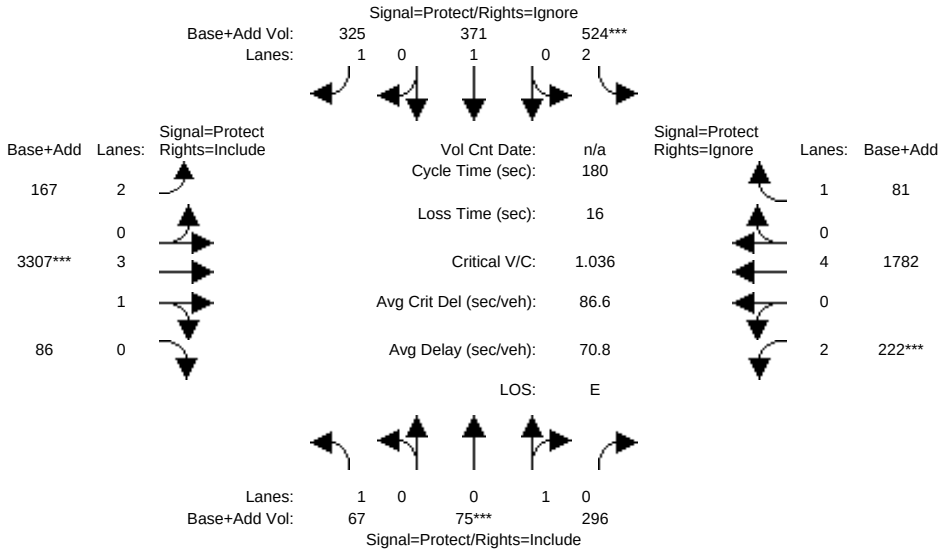
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:	O'Toole Avenue/McCarthy Boulevard						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	67	75	296	524	371	325	167	3302	86	222	1777	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	75	296	524	371	325	167	3302	86	222	1777	81
Added Vol:	0	0	0	0	0	0	0	5	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	75	296	524	371	325	167	3307	86	222	1782	81
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.91	0.91	0.00	0.96	0.96	0.96	0.85	0.85	0.00
PHF Volume:	71	79	312	576	408	0	174	3445	90	261	2096	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	79	312	576	408	0	174	3445	90	261	2096	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	79	312	576	408	0	174	3445	90	261	2096	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	3.90	0.10	2.00	4.00	1.00
Final Sat.:	1900	384	1516	3686	1900	1900	3686	6741	175	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.16	0.21	0.00	0.05	0.51	0.51	0.07	0.30	0.00
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.20	0.20	0.15	0.30	0.00	0.08	0.49	0.49	0.07	0.49	0.00
Volume/Cap:	0.72	1.04	1.04	1.04	0.72	0.00	0.62	1.04	1.04	1.04	0.62	0.00
Uniform Del:	84.1	72.1	72.1	76.4	56.5	0.0	80.7	45.6	45.6	83.8	34.1	0.0
IncremntDel:	22.8	55.9	55.9	47.7	4.5	0.0	4.4	25.7	25.7	66.3	0.4	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	106.9	128	128.0	124.1	61.0	0.0	85.1	71.2	71.2	150.1	34.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.9	128	128.0	124.1	61.0	0.0	85.1	71.2	71.2	150.1	34.5	0.0
LOS by Move:	F	F	F	F	E	A	F	E	E	F	C	A
HCM2k95thQ:	202	894	894	726	695	0	222	1880	1880	406	762	0

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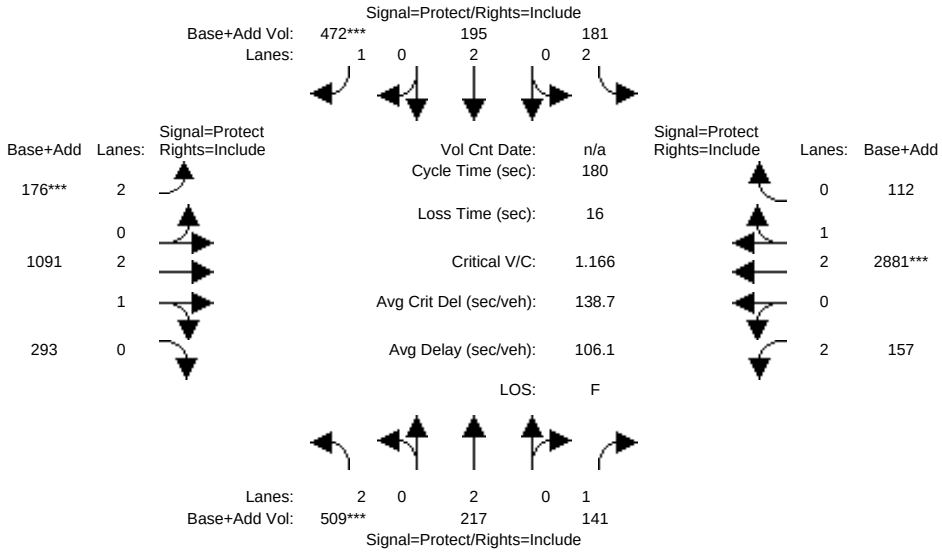
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	509	215	141	177	193	465	170	1091	293	157	2881	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	509	215	141	177	193	465	170	1091	293	157	2881	104
Added Vol:	0	2	0	4	2	7	6	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	509	217	141	181	195	472	176	1091	293	157	2881	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	547	233	152	201	217	524	180	1113	299	160	2940	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	547	233	152	201	217	524	180	1113	299	160	2940	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	547	233	152	201	217	524	180	1113	299	160	2940	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.36	0.64	2.00	2.89	0.11
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4089	1098	3686	4993	194
Capacity Analysis Module:												
Vol/Sat:	0.15	0.06	0.08	0.05	0.06	0.28	0.05	0.27	0.27	0.04	0.59	0.59
Crit Moves:	****					****	****				****	
Green/Cycle:	0.13	0.22	0.22	0.15	0.24	0.24	0.04	0.47	0.47	0.08	0.51	0.51
Volume/Cap:	1.17	0.30	0.37	0.37	0.25	1.17	1.17	0.58	0.58	0.58	1.17	1.17
Uniform Del:	78.5	59.1	60.1	69.1	55.8	68.7	86.2	34.5	34.5	80.5	44.5	44.5
IncremntDel:	95.6	0.2	0.6	0.4	0.2	96.3	124.0	0.3	0.3	3.0	79.1	79.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	174.1	59.3	60.6	69.5	55.9	165.0	210.2	34.9	34.9	83.5	124	123.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	174.1	59.3	60.6	69.5	55.9	165.0	210.2	34.9	34.9	83.5	124	123.6
LOS by Move:	F	E	E	E	E	F	F	C	C	F	F	F
HCM2k95thQ:	769	216	268	204	194	1258	334	682	682	202	2450	2450

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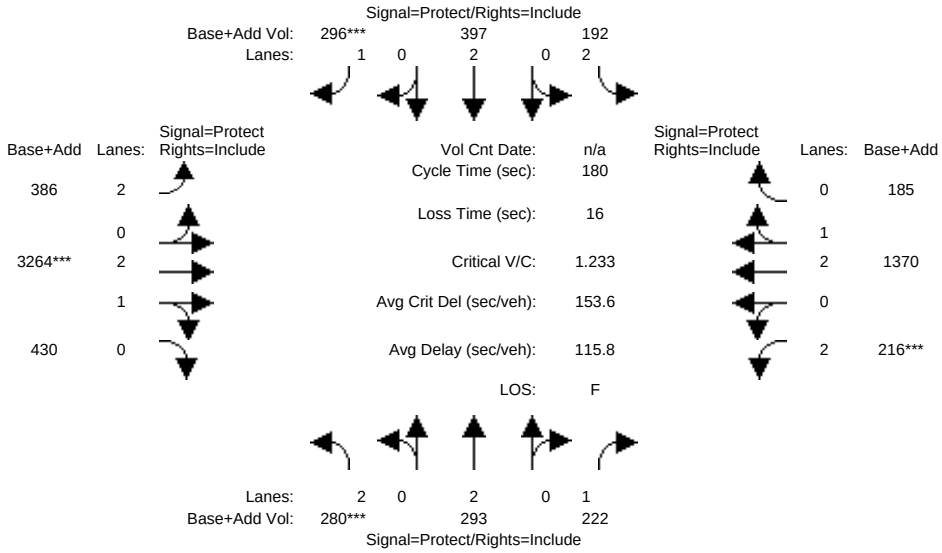
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	280	290	222	187	394	287	375	3264	430	216	1370	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	280	290	222	187	394	287	375	3264	430	216	1370	171
Added Vol:	0	3	0	5	3	9	11	0	0	0	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	280	293	222	192	397	296	386	3264	430	216	1370	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.84	0.84	0.84	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	311	326	247	229	473	352	429	3627	478	230	1457	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	326	247	229	473	352	429	3627	478	230	1457	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	326	247	229	473	352	429	3627	478	230	1457	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.65	0.35	2.00	2.64	0.36
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4583	604	3686	4570	617
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.13	0.06	0.13	0.19	0.12	0.79	0.79	0.06	0.32	0.32
Crit Moves:	****					****		****		****		
Green/Cycle:	0.07	0.15	0.15	0.07	0.15	0.15	0.19	0.64	0.64	0.05	0.51	0.51
Volume/Cap:	1.23	0.61	0.88	0.88	0.87	1.23	0.63	1.23	1.23	1.23	0.63	0.63
Uniform Del:	83.8	71.8	75.1	82.9	74.7	76.5	67.6	32.2	32.2	85.5	32.1	32.1
IncremntDel:	134.4	2.0	25.1	26.6	14.2	131.5	1.9	108	107.7	142.5	0.5	0.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	218.2	73.8	100.2	109.5	88.9	207.9	69.5	140	139.9	228.0	32.6	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	218.2	73.8	100.2	109.5	88.9	207.9	69.5	140	139.9	228.0	32.6	32.6
LOS by Move:	F	E	F	F	F	F	E	F	F	F	C	C
HCM2k95thQ:	521	350	555	328	555	957	426	3464	3464	415	783	783

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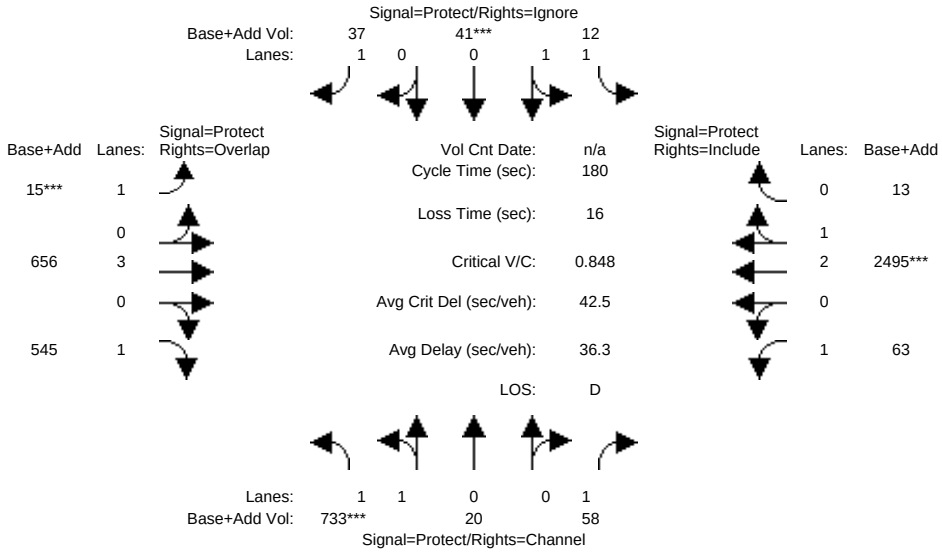
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	727	20	58	12	41	37	15	656	541	63	2493	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	727	20	58	12	41	37	15	656	541	63	2493	13
Added Vol:	6	0	0	0	0	0	0	0	4	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	733	20	58	12	41	37	15	656	545	63	2495	13
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.00	0.88	0.88	0.88	0.93	0.93	0.93
PHF Volume:	814	22	64	13	46	0	17	745	619	68	2683	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	814	22	64	13	46	0	17	745	619	68	2683	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	814	22	64	13	46	0	17	745	619	68	2683	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	1.95	0.05	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	2.98	0.02
Final Sat.:	3699	101	1900	1900	1900	1900	1900	5187	1900	1900	5160	27
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.03	0.01	0.02	0.00	0.01	0.14	0.33	0.04	0.52	0.52
Crit Moves:	****				****		****				****	
Green/Cycle:	0.26	0.28	0.28	0.01	0.03	0.00	0.01	0.50	0.76	0.12	0.61	0.61
Volume/Cap:	0.85	0.79	0.12	0.79	0.85	0.00	0.85	0.29	0.43	0.29	0.85	0.85
Uniform Del:	63.3	60.0	48.4	89.0	87.1	0.0	88.9	26.3	7.8	71.6	28.1	28.1
IncremntDel:	7.0	4.1	0.1	41.8	59.0	0.0	130.5	0.1	0.2	0.7	2.3	2.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	70.3	64.1	48.5	130.8	146	0.0	219.4	26.4	8.0	72.3	30.4	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.3	64.1	48.5	130.8	146	0.0	219.4	26.4	8.0	72.3	30.4	30.4
LOS by Move:	E	E	D	F	F	A	F	C	A	E	C	C
HCM2k95thQ:	790	750	103	72	166	0	87	315	428	124	1263	1263

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Note: Queue reported is the distance per lane in feet.

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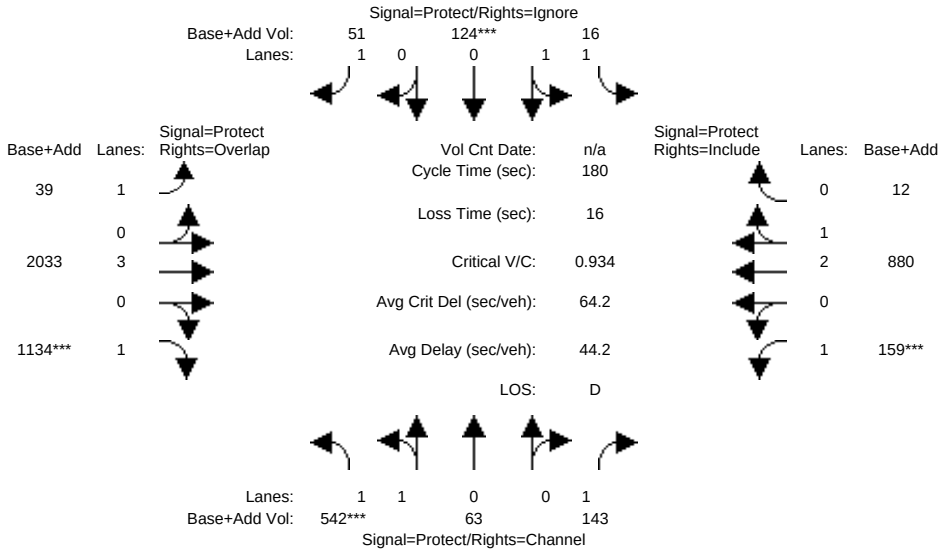
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	63	143	16	124	51	39	2033	1129	159	876	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	63	143	16	124	51	39	2033	1129	159	876	12
Added Vol:	10	0	0	0	0	0	0	0	5	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	542	63	143	16	124	51	39	2033	1134	159	880	12
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.84	0.84	0.00	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	565	66	149	19	148	0	44	2310	1289	181	1000	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	565	66	149	19	148	0	44	2310	1289	181	1000	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	565	66	149	19	148	0	44	2310	1289	181	1000	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	1.79	0.21	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	2.96	0.04
Final Sat.:	3404	396	1900	1900	1900	1900	1900	5187	1900	1900	5117	70
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.08	0.01	0.08	0.00	0.02	0.45	0.68	0.10	0.20	0.20
Crit Moves:	****				****				****	****		
Green/Cycle:	0.18	0.25	0.25	0.01	0.08	0.00	0.07	0.55	0.73	0.10	0.58	0.58
Volume/Cap:	0.93	0.67	0.32	0.67	0.93	0.00	0.34	0.81	0.93	0.93	0.34	0.34
Uniform Del:	73.0	61.4	55.5	88.2	82.0	0.0	79.8	33.1	21.0	80.2	19.6	19.6
IncremntDel:	20.1	2.0	0.4	7.2	48.5	0.0	1.5	1.9	11.8	46.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	93.1	63.3	55.9	95.4	131	0.0	81.3	34.9	32.8	126.4	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.1	63.3	55.9	95.4	131	0.0	81.3	34.9	32.8	126.4	19.7	19.7
LOS by Move:	F	E	E	F	F	A	F	C	C	F	B	B
HCM2k95thQ:	696	563	251	82	403	0	105	1200	1915	348	360	360

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Note: Queue reported is the distance per lane in feet.

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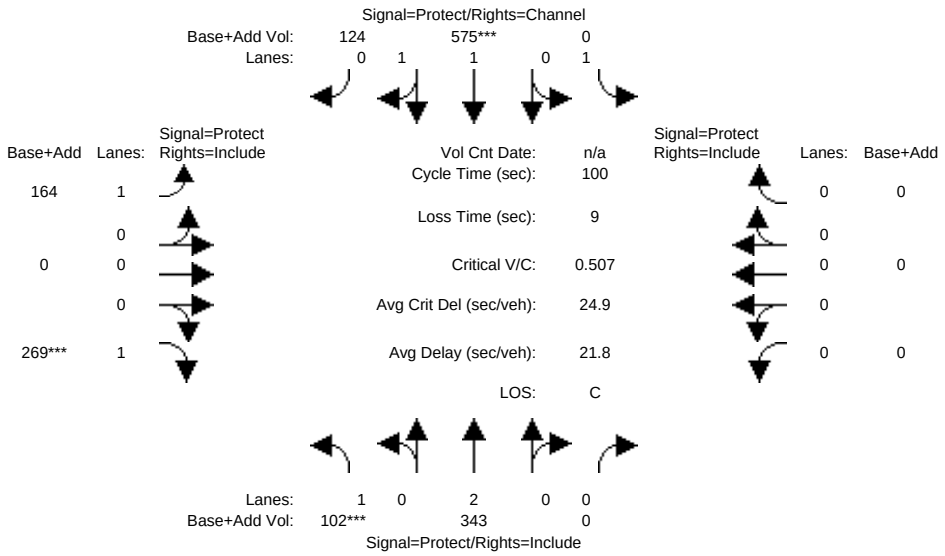
Appendix E – Level of Service Worksheets: Background Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	102	330	0	0	511	124	164	0	269	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	330	0	0	511	124	164	0	269	0	0	0
Added Vol:	0	13	0	0	64	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	343	0	0	575	124	164	0	269	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.96	0.96	0.96	0.87	0.87	0.87	1.00	1.00	1.00
PHF Volume:	111	373	0	0	599	129	189	0	309	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	373	0	0	599	129	189	0	309	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	373	0	0	599	129	189	0	309	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.92	0.92	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.64	0.36	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	1900	2887	623	1805	0	1610	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.00	0.00	0.21	0.21	0.10	0.00	0.19	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.53	0.00	0.00	0.41	0.41	0.38	0.00	0.38	0.00	0.00	0.00
Volume/Cap:	0.51	0.19	0.00	0.00	0.51	0.51	0.28	0.00	0.51	0.00	0.00	0.00
Uniform Del:	41.1	12.3	0.0	0.0	22.0	22.0	21.5	0.0	23.8	0.0	0.0	0.0
IncremntDel:	1.9	0.0	0.0	0.0	0.3	0.3	0.2	0.0	0.7	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	43.1	12.3	0.0	0.0	22.3	22.3	21.7	0.0	24.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	12.3	0.0	0.0	22.3	22.3	21.7	0.0	24.5	0.0	0.0	0.0
LOS by Move:	D	B	A	A	C	C	C	A	C	A	A	A
HCM2k95thQ:	127	122	0	0	334	332	159	0	288	0	0	0

Note: Queue reported is the distance per lane in feet.

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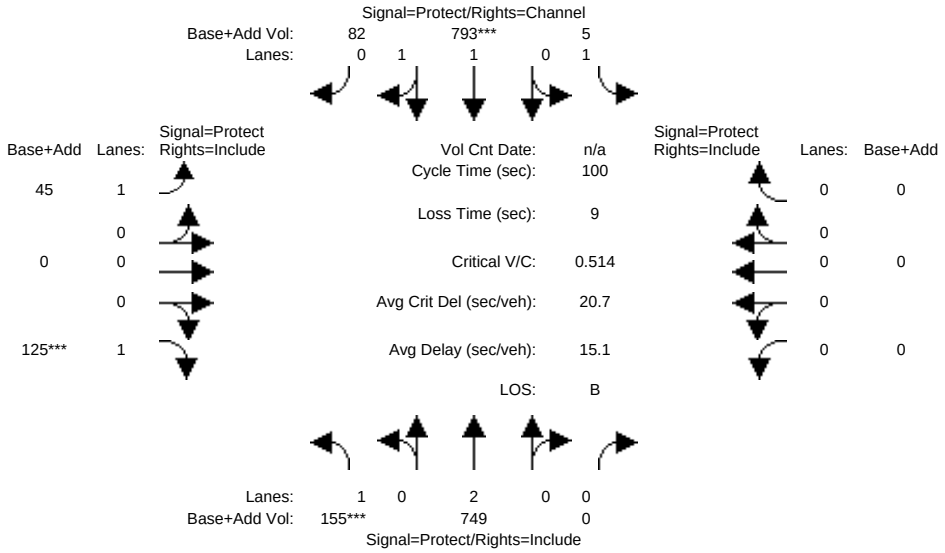
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	692	0	5	763	82	45	0	125	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	692	0	5	763	82	45	0	125	0	0	0
Added Vol:	0	57	0	0	30	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	749	0	5	793	82	45	0	125	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.89	0.89	0.89	0.85	0.85	0.85	1.00	1.00	1.00
PHF Volume:	180	871	0	6	891	92	53	0	147	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	871	0	6	891	92	53	0	147	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	180	871	0	6	891	92	53	0	147	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.94	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.81	0.19	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	1805	3225	333	1805	0	1612	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.24	0.00	0.00	0.28	0.28	0.03	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.19	0.72	0.00	0.01	0.54	0.54	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.51	0.33	0.00	0.33	0.51	0.51	0.17	0.00	0.51	0.00	0.00	0.00
Uniform Del:	36.0	5.1	0.0	49.2	14.7	14.7	34.8	0.0	37.2	0.0	0.0	0.0
IncremntDel:	1.3	0.1	0.0	11.3	0.2	0.2	0.2	0.0	1.6	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	37.3	5.1	0.0	60.6	15.0	15.0	35.1	0.0	38.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.3	5.1	0.0	60.6	15.0	15.0	35.1	0.0	38.8	0.0	0.0	0.0
LOS by Move:	D	A	A	E	B	B	D	A	D	A	A	A
HCM2k95thQ:	191	198	0	23	376	375	59	0	184	0	0	0

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Note: Queue reported is the distance per lane in feet.

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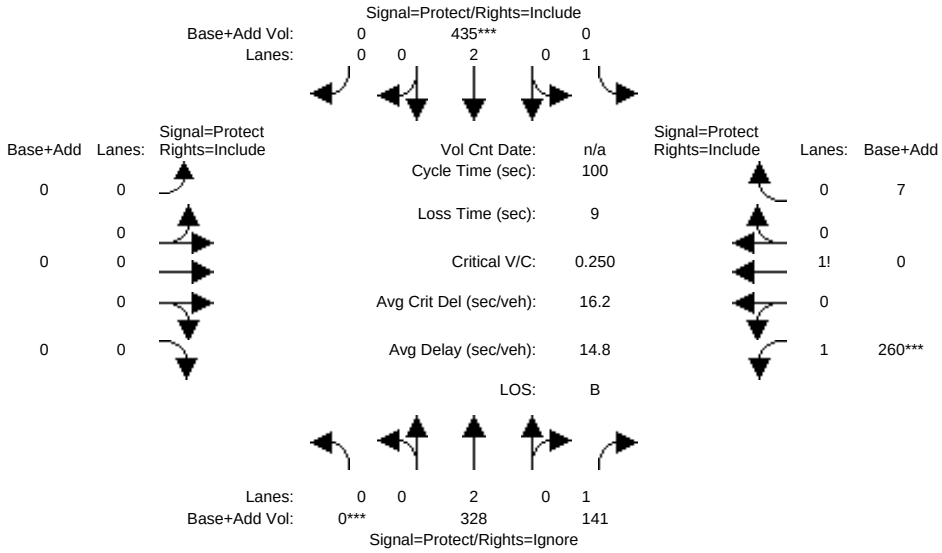
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	321	136	0	400	0	0	0	0	231	0	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	321	136	0	400	0	0	0	0	231	0	7
Added Vol:	0	7	5	0	35	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	328	141	0	435	0	0	0	0	260	0	7
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.00	0.89	0.89	0.89	1.00	1.00	1.00	0.80	0.80	0.80
PHF Volume:	0	377	0	0	489	0	0	0	0	325	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	377	0	0	489	0	0	0	0	325	0	9
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	377	0	0	489	0	0	0	0	325	0	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3610	1900	1900	3610	0	0	0	0	3518	0	92
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.09	0.00	0.09
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.54	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.37
Volume/Cap:	0.00	0.19	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.26
Uniform Del:	0.0	11.8	0.0	0.0	12.2	0.0	0.0	0.0	0.0	21.9	0.0	22.0
IncremntDel:	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	11.8	0.0	0.0	12.3	0.0	0.0	0.0	0.0	22.0	0.0	22.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.8	0.0	0.0	12.3	0.0	0.0	0.0	0.0	22.0	0.0	22.1
LOS by Move:	A	B	A	A	B	A	A	A	A	C	A	C
HCM2k95thQ:	0	123	0	0	163	0	0	0	0	142	0	146

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Note: Queue reported is the distance per lane in feet.

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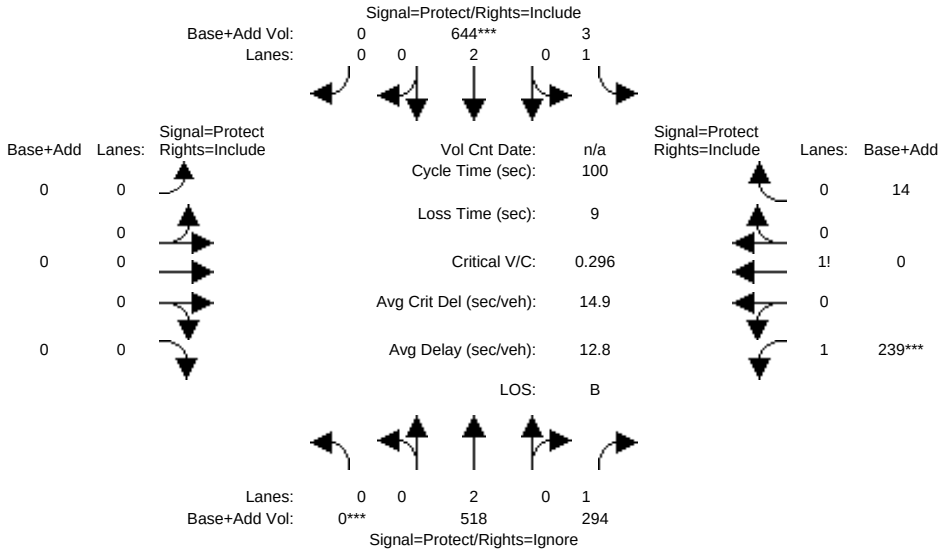
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	484	271	3	627	0	0	0	0	225	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	484	271	3	627	0	0	0	0	225	0	14
Added Vol:	0	34	23	0	17	0	0	0	0	14	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	518	294	3	644	0	0	0	0	239	0	14
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.00	0.97	0.97	0.97	1.00	1.00	1.00	0.82	0.82	0.82
PHF Volume:	0	557	0	3	664	0	0	0	0	291	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	557	0	3	664	0	0	0	0	291	0	17
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	557	0	3	664	0	0	0	0	291	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.90	0.00	0.10
Final Sat.:	0	3610	1900	1805	3610	0	0	0	0	3411	0	189
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.09	0.00	0.09
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.61	0.00	0.01	0.62	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.00	0.25	0.00	0.25	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.31
Uniform Del:	0.0	8.8	0.0	49.4	8.8	0.0	0.0	0.0	0.0	27.7	0.0	27.8
IncremntDel:	0.0	0.1	0.0	10.5	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	8.8	0.0	59.9	8.9	0.0	0.0	0.0	0.0	27.8	0.0	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.8	0.0	59.9	8.9	0.0	0.0	0.0	0.0	27.8	0.0	28.0
LOS by Move:	A	A	A	E	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	160	0	15	193	0	0	0	0	149	0	158

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Note: Queue reported is the distance per lane in feet.

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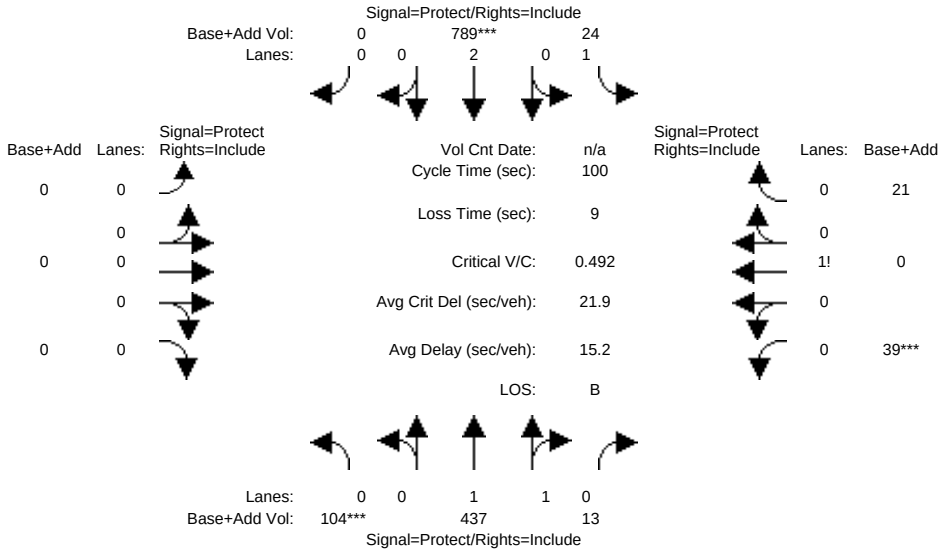
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	104	424	13	24	725	0	0	0	0	39	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	424	13	24	725	0	0	0	0	39	0	21
Added Vol:	0	13	0	0	64	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	437	13	24	789	0	0	0	0	39	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.88	0.88	0.88	1.00	1.00	1.00	0.88	0.88	0.88
PHF Volume:	107	451	13	27	897	0	0	0	0	44	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	451	13	27	897	0	0	0	0	44	0	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	451	13	27	897	0	0	0	0	44	0	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.92
Lanes:	0.37	1.58	0.05	1.00	2.00	0.00	0.00	0.00	0.00	0.65	0.00	0.35
Final Sat.:	670	2813	84	1805	3610	0	0	0	0	1138	0	613
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.02	0.25	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green/Cycle:	0.33	0.76	0.76	0.07	0.51	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	0.49	0.21	0.21	0.21	0.49	0.00	0.00	0.00	0.00	0.49	0.00	0.49
Uniform Del:	27.1	3.5	3.5	43.8	16.3	0.0	0.0	0.0	0.0	44.1	0.0	44.1
IncremntDel:	0.3	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	2.7	0.0	2.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	27.4	3.5	3.5	44.6	16.5	0.0	0.0	0.0	0.0	46.8	0.0	46.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.4	3.5	3.5	44.6	16.5	0.0	0.0	0.0	0.0	46.8	0.0	46.8
LOS by Move:	C	A	A	D	B	A	A	A	A	D	A	D
HCM2k95thQ:	289	107	107	32	343	0	0	0	0	109	0	108

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Note: Queue reported is the distance per lane in feet.

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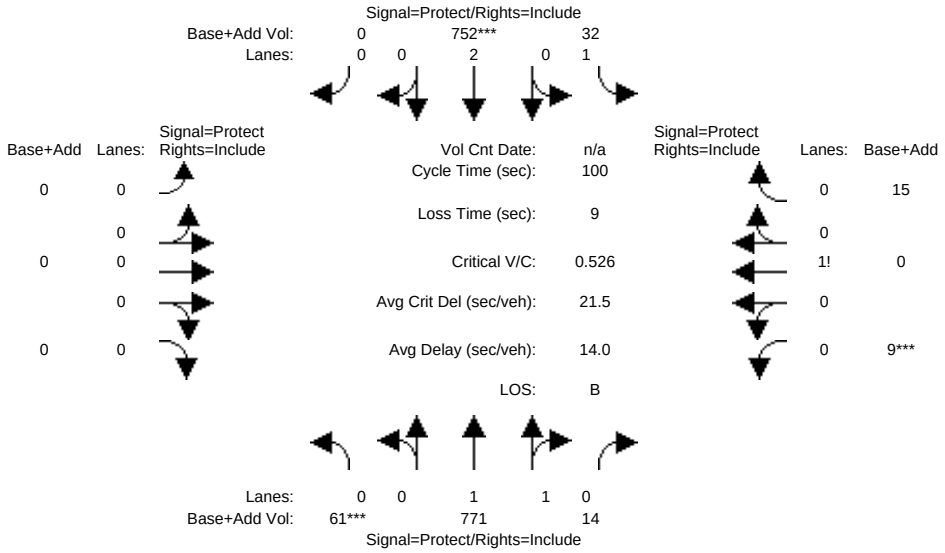
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	61	714	14	32	722	0	0	0	0	9	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	714	14	32	722	0	0	0	0	9	0	15
Added Vol:	0	57	0	0	30	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	771	14	32	752	0	0	0	0	9	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.96	0.96	0.96	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	63	795	14	33	783	0	0	0	0	12	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	795	14	33	783	0	0	0	0	12	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	795	14	33	783	0	0	0	0	12	0	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.90	1.00	0.89
Lanes:	0.14	1.83	0.03	1.00	2.00	0.00	0.00	0.00	0.00	0.37	0.00	0.63
Final Sat.:	258	3267	59	1805	3610	0	0	0	0	638	0	1063
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.02	0.22	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:	****				****					****		
Green/Cycle:	0.46	0.81	0.81	0.06	0.41	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Volume/Cap:	0.53	0.30	0.30	0.30	0.53	0.00	0.00	0.00	0.00	0.53	0.00	0.53
Uniform Del:	19.1	2.3	2.3	44.9	22.1	0.0	0.0	0.0	0.0	47.4	0.0	47.4
IncremntDel:	0.3	0.1	0.1	1.5	0.4	0.0	0.0	0.0	0.0	8.3	0.0	8.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	19.4	2.4	2.4	46.4	22.4	0.0	0.0	0.0	0.0	55.7	0.0	55.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.4	2.4	2.4	46.4	22.4	0.0	0.0	0.0	0.0	55.7	0.0	55.7
LOS by Move:	B	A	A	D	C	A	A	A	A	E	A	E
HCM2k95thQ:	374	143	143	40	342	0	0	0	0	72	0	72

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Note: Queue reported is the distance per lane in feet.

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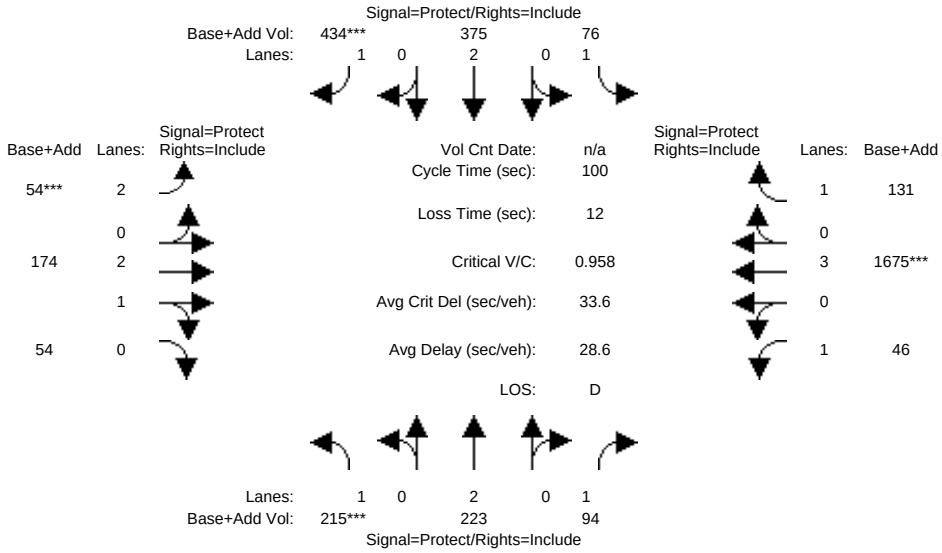
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	191	220	47	70	374	434	54	136	49	46	1517	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	220	47	70	374	434	54	136	49	46	1517	107
Added Vol:	24	3	47	6	1	0	0	38	5	0	158	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	223	94	76	375	434	54	174	54	46	1675	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.93	0.93	0.93	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	265	275	116	82	403	467	61	196	61	55	2018	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	265	275	116	82	403	467	61	196	61	55	2018	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	265	289	116	82	423	467	62	215	67	55	2220	158
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.29	0.71	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4176	1296	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.15	0.08	0.07	0.05	0.11	0.29	0.02	0.05	0.05	0.03	0.39	0.10
Crit Moves:	****					****	****				****	
Green/Cycle:	0.15	0.29	0.29	0.17	0.30	0.30	0.02	0.27	0.27	0.16	0.41	0.41
Volume/Cap:	0.96	0.27	0.25	0.27	0.37	0.96	0.96	0.19	0.19	0.19	0.96	0.24
Uniform Del:	31.9	21.0	20.9	27.4	20.9	26.1	37.3	21.6	21.6	27.8	21.9	14.8
IncremntDel:	31.2	0.0	0.1	0.1	0.1	22.2	70.5	0.0	0.0	0.0	7.8	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	58.3	17.9	17.8	23.4	17.8	44.4	102.2	18.4	18.4	23.6	26.5	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.3	17.9	17.8	23.4	17.8	44.4	102.2	18.4	18.4	23.6	26.5	12.6
DesignQueue:	257	117	93	76	168	382	34	77	77	52	532	106

Note: Queue reported is the distance per lane in feet.

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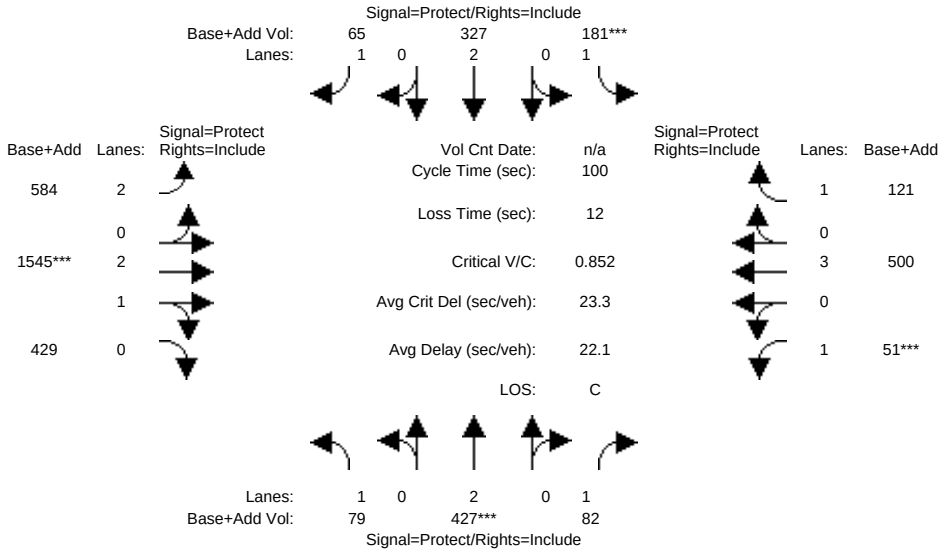
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	68	425	60	158	324	65	584	1393	406	51	420	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	425	60	158	324	65	584	1393	406	51	420	109
Added Vol:	11	2	22	23	3	0	0	152	23	0	80	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	427	82	181	327	65	584	1545	429	51	500	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.68	0.68	0.68	0.82	0.82	0.82	0.94	0.94	0.94	0.78	0.78	0.78
PHF Volume:	116	628	121	221	399	79	621	1644	456	65	641	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	628	121	221	399	79	621	1644	456	65	641	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	116	659	121	221	419	79	640	1808	502	65	705	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.97	0.97	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.35	0.65	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4327	1202	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.07	0.12	0.11	0.05	0.18	0.42	0.42	0.04	0.12	0.10
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.20	0.20	0.14	0.22	0.22	0.31	0.49	0.49	0.04	0.22	0.22
Volume/Cap:	0.50	0.85	0.37	0.85	0.50	0.22	0.56	0.85	0.85	0.85	0.56	0.44
Uniform Del:	30.9	29.2	26.0	31.8	26.0	24.4	21.7	17.0	17.0	36.1	26.4	25.6
IncremntDel:	1.5	6.4	0.3	15.7	0.4	0.1	0.5	2.0	2.0	37.5	0.5	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	27.7	31.2	22.5	42.7	22.6	20.8	19.0	16.4	16.4	68.3	22.9	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.7	31.2	22.5	42.7	22.6	20.8	19.0	16.4	16.4	68.3	22.9	22.4
DesignQueue:	114	303	108	215	186	69	253	477	477	70	209	137

Note: Queue reported is the distance per lane in feet.

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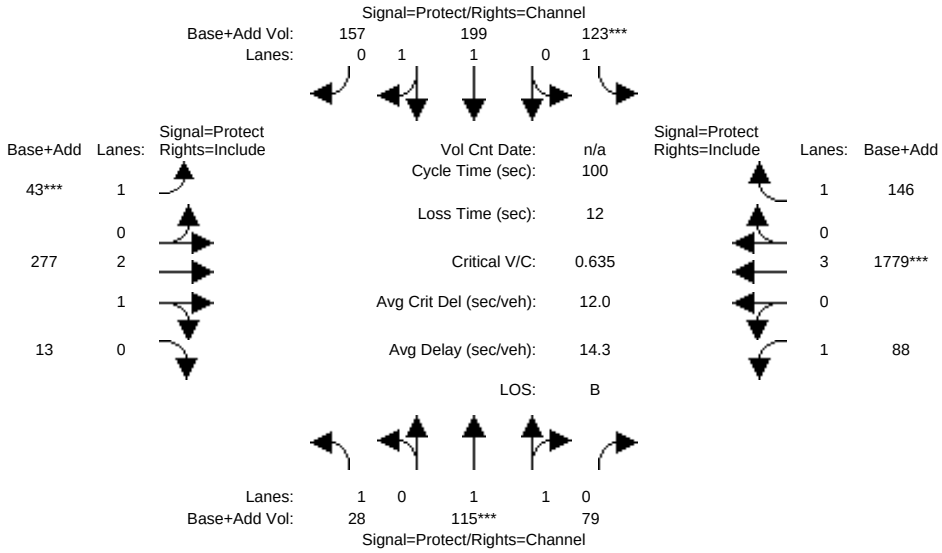
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	11	113	53	118	198	157	40	194	9	72	1614	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	113	53	118	198	157	40	194	9	72	1614	124
Added Vol:	17	2	26	5	1	0	3	83	4	16	165	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	115	79	123	199	157	43	277	13	88	1779	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.90	0.90	0.90	0.78	0.78	0.78	0.91	0.91	0.91
PHF Volume:	37	151	104	137	221	174	55	355	17	97	1955	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	151	104	137	221	174	55	355	17	97	1955	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	37	159	109	137	232	183	55	391	18	97	2150	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.93	0.95	0.99	0.99	0.95	1.00	0.85
Lanes:	1.00	1.19	0.81	1.00	1.12	0.88	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	1805	2117	1455	1805	1975	1559	1805	5390	253	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.08	0.08	0.08	0.12	0.12	0.03	0.07	0.07	0.05	0.38	0.10
Crit Moves:		****		****			****				****	
Green/Cycle:	0.04	0.12	0.12	0.12	0.20	0.20	0.05	0.37	0.37	0.27	0.59	0.59
Volume/Cap:	0.58	0.63	0.63	0.63	0.58	0.58	0.63	0.20	0.20	0.20	0.63	0.17
Uniform Del:	36.1	31.9	31.9	31.9	27.4	27.4	35.5	16.3	16.3	21.2	10.0	6.9
IncremntDel:	8.7	2.2	2.2	4.2	0.9	0.9	9.4	0.0	0.0	0.0	0.3	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	39.4	29.4	29.4	31.3	24.2	24.2	39.6	13.9	13.9	18.1	8.8	5.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.4	29.4	29.4	31.3	24.2	24.2	39.6	13.9	13.9	18.1	8.8	5.9
DesignQueue:	40	133	133	136	188	188	59	97	97	79	351	74

Note: Queue reported is the distance per lane in feet.

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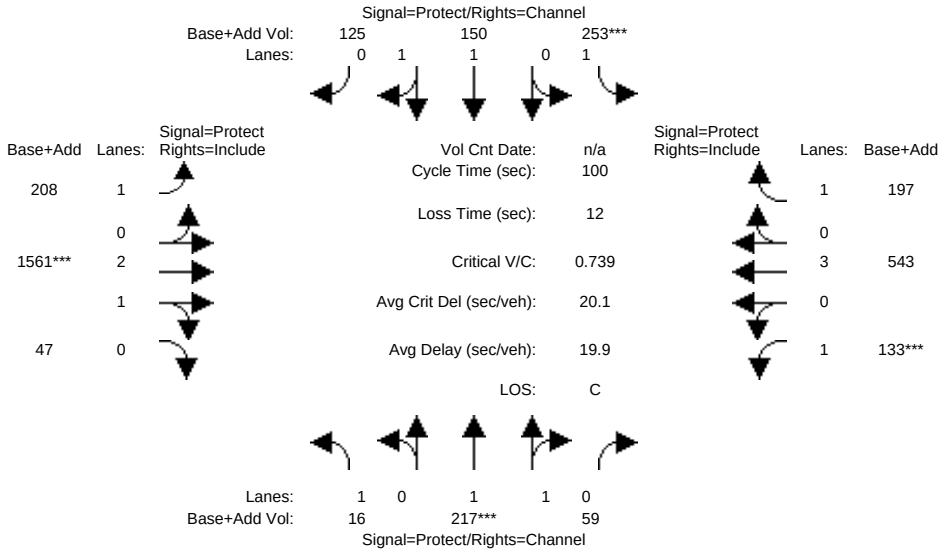
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	216	46	232	145	125	206	1381	31	62	459	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	216	46	232	145	125	206	1381	31	62	459	186
Added Vol:	8	1	13	21	5	0	2	180	16	71	84	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	217	59	253	150	125	208	1561	47	133	543	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.87	0.87	0.87	0.95	0.95	0.95	0.97	0.97	0.97
PHF Volume:	18	238	65	291	172	144	219	1643	49	137	560	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	238	65	291	172	144	219	1643	49	137	560	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	18	250	68	291	181	151	219	1807	54	137	616	203
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	0.93	0.93	0.95	1.00	1.00	0.95	1.00	0.84
Lanes:	1.00	1.57	0.43	1.00	1.09	0.91	1.00	2.91	0.09	1.00	3.00	1.00
Final Sat.:	1805	2898	788	1805	1928	1606	1805	5533	167	1805	5700	1596
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.16	0.09	0.09	0.12	0.33	0.33	0.08	0.11	0.13
Crit Moves:		****		****				****		****		
Green/Cycle:	0.03	0.12	0.12	0.22	0.30	0.30	0.27	0.44	0.44	0.10	0.28	0.28
Volume/Cap:	0.31	0.74	0.74	0.74	0.31	0.31	0.46	0.74	0.74	0.74	0.39	0.46
Uniform Del:	36.0	32.4	32.4	27.7	20.3	20.3	23.3	17.6	17.6	33.1	22.1	22.6
IncremntDel:	1.0	4.5	4.5	4.9	0.1	0.1	0.5	0.8	0.8	9.6	0.1	0.5
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	31.6	32.1	32.1	28.5	17.3	17.3	20.3	15.8	15.8	37.8	18.9	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.6	32.1	32.1	28.5	17.3	17.3	20.3	15.8	15.8	37.8	18.9	19.8
DesignQueue:	19	159	159	261	131	131	183	413	413	139	168	166

Note: Queue reported is the distance per lane in feet.

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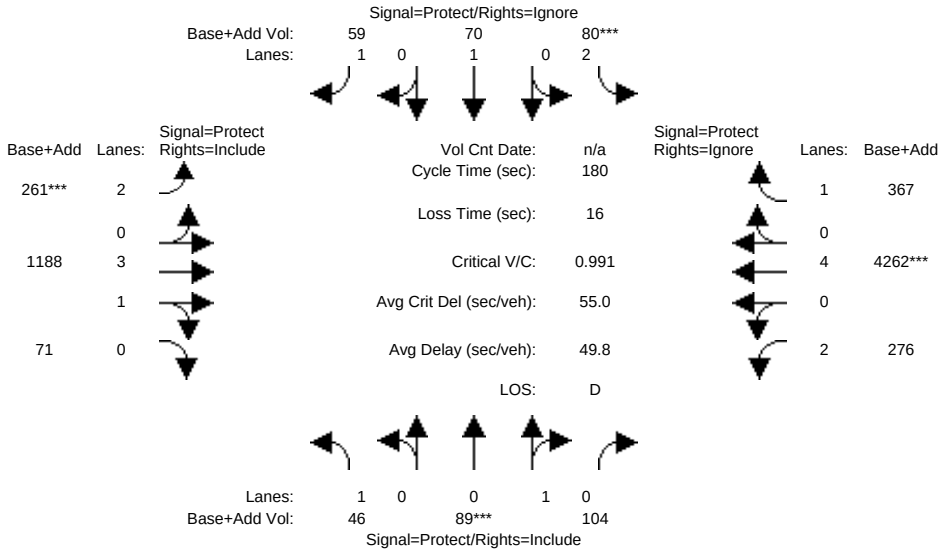
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr




```
Street Name:O'Toole Avenue/McCarthy Boulevard        Montague Expressway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      46   89   104    80   70    59   261 1162    71   276 4153   367
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   46   89   104    80   70    59   261 1162    71   276 4153   367
Added Vol:      0    0     0     0    0     0     0   26     0     0  109     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   46   89   104    80   70    59   261 1188    71   276 4262   367
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     0.65 0.65  0.65  0.89 0.89  0.00  0.88 0.88  0.88  0.96 0.96  0.00
PHF Volume:    71  137   160    90   79     0   297 1350    81   288 4440     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   71  137   160    90   79     0   297 1350    81   288 4440     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   71  137   160    90   79     0   297 1350    81   288 4440     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.97 1.00  1.00  0.97 0.91  0.91  0.97 0.91  1.00
Lanes:       1.00 0.46  0.54  2.00 1.00  1.00  2.00 3.77  0.23  2.00 4.00  1.00
Final Sat.:  1900  876  1024  3686 1900  1900  3686 6526   390  3686 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.16  0.16  0.02 0.04  0.00  0.08 0.21  0.21  0.08 0.64  0.00
Crit Moves:       ****        ****              ****                   ****
Green/Cycle: 0.09 0.16  0.16  0.02 0.10  0.00  0.08 0.53  0.53  0.20 0.65  0.00
Volume/Cap:  0.43 0.99  0.99  0.99 0.43  0.00  0.99 0.39  0.39  0.39 0.99  0.00
Uniform Del: 78.0 75.7  75.7  87.8 76.7   0.0  82.6 25.1  25.1  62.5 31.2   0.0
IncremntDel:  1.8 49.4  49.4  91.5  1.6   0.0  49.5  0.1   0.1   0.3 11.5   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
Delay/Veh:   79.9  125 125.1 179.2 78.4   0.0 132.1 25.2  25.2  62.9 42.7   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  79.9  125 125.1 179.2 78.4   0.0 132.1 25.2  25.2  62.9 42.7   0.0
LOS by Move:    E    F     F     F    E     A     F    C     C     E    D     A
HCM2k95thQ:   161  701   701   184  174     0   432  444   444   269 2167     0
```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Note: Queue reported is the distance per lane in feet.

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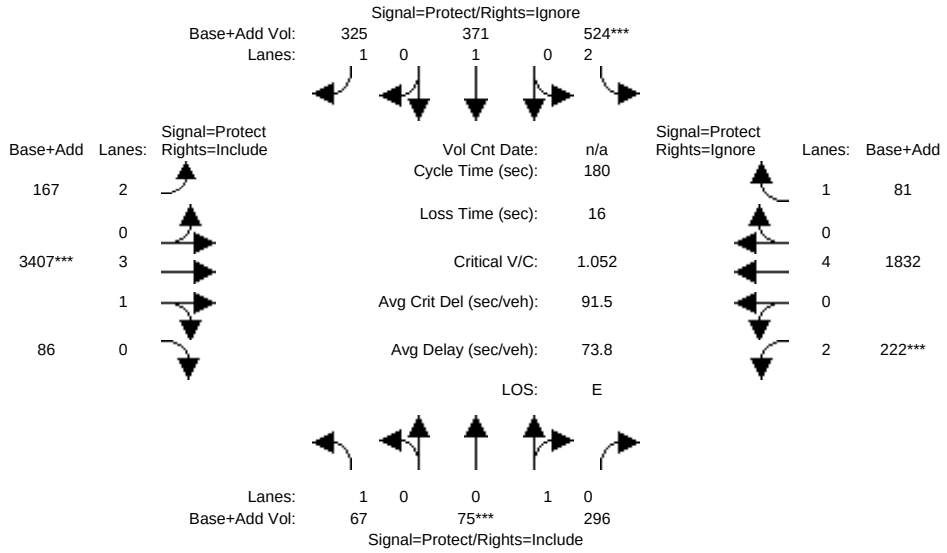
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:	O'Toole Avenue/McCarthy Boulevard						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	67	75	296	524	371	325	167	3302	86	222	1777	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	75	296	524	371	325	167	3302	86	222	1777	81
Added Vol:	0	0	0	0	0	0	0	105	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	75	296	524	371	325	167	3407	86	222	1832	81
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.91	0.91	0.00	0.96	0.96	0.96	0.85	0.85	0.00
PHF Volume:	71	79	312	576	408	0	174	3549	90	261	2155	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	79	312	576	408	0	174	3549	90	261	2155	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	79	312	576	408	0	174	3549	90	261	2155	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	3.90	0.10	2.00	4.00	1.00
Final Sat.:	1900	384	1516	3686	1900	1900	3686	6746	170	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.16	0.21	0.00	0.05	0.53	0.53	0.07	0.31	0.00
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.20	0.20	0.15	0.29	0.00	0.07	0.50	0.50	0.07	0.49	0.00
Volume/Cap:	0.73	1.05	1.05	1.05	0.73	0.00	0.63	1.05	1.05	1.05	0.63	0.00
Uniform Del:	84.2	72.4	72.4	76.6	57.3	0.0	80.9	45.0	45.0	83.9	33.6	0.0
IncremntDel:	24.8	61.1	61.1	52.9	5.0	0.0	4.7	31.4	31.4	71.5	0.4	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	109.0	134	133.5	129.6	62.2	0.0	85.6	76.4	76.4	155.5	34.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	109.0	134	133.5	129.6	62.2	0.0	85.6	76.4	76.4	155.5	34.0	0.0
LOS by Move:	F	F	F	F	E	A	F	E	E	F	C	A
HCM2k95thQ:	204	906	906	736	702	0	223	1962	1962	410	781	0

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Note: Queue reported is the distance per lane in feet.

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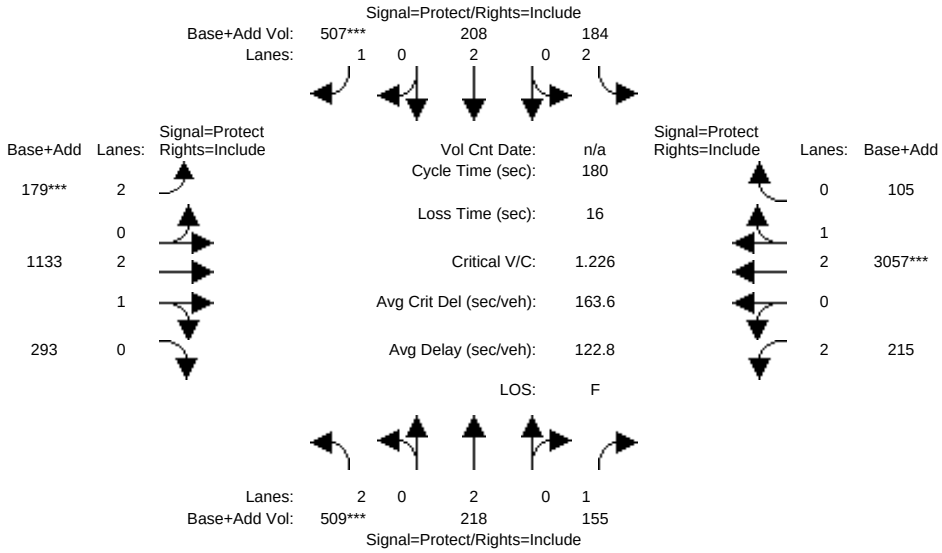
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	509	215	141	177	193	465	170	1091	293	157	2881	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	509	215	141	177	193	465	170	1091	293	157	2881	104
Added Vol:	0	3	14	7	15	42	9	42	0	58	176	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	509	218	155	184	208	507	179	1133	293	215	3057	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	547	234	167	204	231	563	183	1156	299	219	3119	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	547	234	167	204	231	563	183	1156	299	219	3119	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	547	234	167	204	231	563	183	1156	299	219	3119	107
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.38	0.62	2.00	2.90	0.10
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4121	1066	3686	5015	172
Capacity Analysis Module:												
Vol/Sat:	0.15	0.06	0.09	0.06	0.06	0.30	0.05	0.28	0.28	0.06	0.62	0.62
Crit Moves:	****					****	****				****	
Green/Cycle:	0.12	0.22	0.22	0.14	0.24	0.24	0.04	0.45	0.45	0.10	0.51	0.51
Volume/Cap:	1.23	0.29	0.39	0.39	0.26	1.23	1.23	0.62	0.62	0.62	1.23	1.23
Uniform Del:	79.1	58.2	59.6	70.4	55.3	68.2	86.4	37.6	37.6	78.2	44.3	44.3
IncremntDel:	120.0	0.2	0.6	0.5	0.2	119.5	146.8	0.5	0.5	3.4	105	105.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	199.1	58.4	60.3	70.9	55.4	187.8	233.2	38.1	38.1	81.6	149	149.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	199.1	58.4	60.3	70.9	55.4	187.8	233.2	38.1	38.1	81.6	149	149.4
LOS by Move:	F	E	E	E	E	F	F	D	D	F	F	F
HCM2k95thQ:	799	215	293	211	206	1401	349	734	734	261	2735	2735

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Note: Queue reported is the distance per lane in feet.

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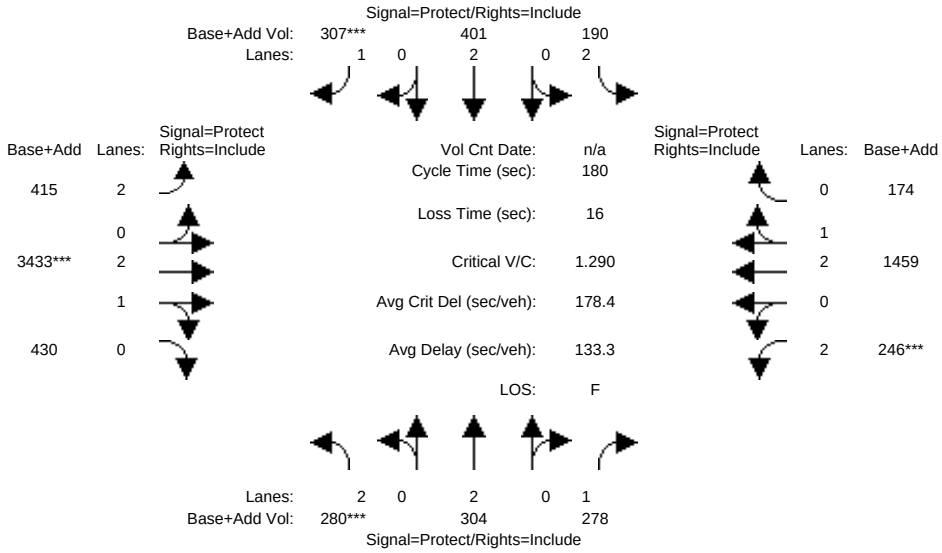
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	280	290	222	187	394	287	375	3264	430	216	1370	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	280	290	222	187	394	287	375	3264	430	216	1370	171
Added Vol:	0	14	56	3	7	20	40	169	0	30	89	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	280	304	278	190	401	307	415	3433	430	246	1459	174
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.84	0.84	0.84	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	311	338	309	226	477	365	461	3814	478	262	1552	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	338	309	226	477	365	461	3814	478	262	1552	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	338	309	226	477	365	461	3814	478	262	1552	185
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.67	0.33	2.00	2.68	0.32
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4610	577	3686	4634	553
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.16	0.06	0.13	0.19	0.13	0.83	0.83	0.07	0.33	0.33
Crit Moves:	****					****		****		****		
Green/Cycle:	0.07	0.16	0.16	0.06	0.15	0.15	0.19	0.64	0.64	0.06	0.51	0.51
Volume/Cap:	1.29	0.60	1.04	1.04	0.89	1.29	0.66	1.29	1.29	1.29	0.66	0.66
Uniform Del:	84.1	70.8	76.0	84.7	75.1	76.6	67.6	32.3	32.3	85.0	32.9	32.9
IncremntDel:	157.9	1.8	64.2	73.1	16.3	154.4	2.4	133	132.8	162.2	0.6	0.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	242.0	72.6	140.2	157.8	91.3	230.9	69.9	165	165.1	247.3	33.5	33.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	242.0	72.6	140.2	157.8	91.3	230.9	69.9	165	165.1	247.3	33.5	33.5
LOS by Move:	F	E	F	F	F	F	E	F	F	F	C	C
HCM2k95thQ:	537	357	753	368	567	1022	458	3807	3807	471	837	837

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Note: Queue reported is the distance per lane in feet.

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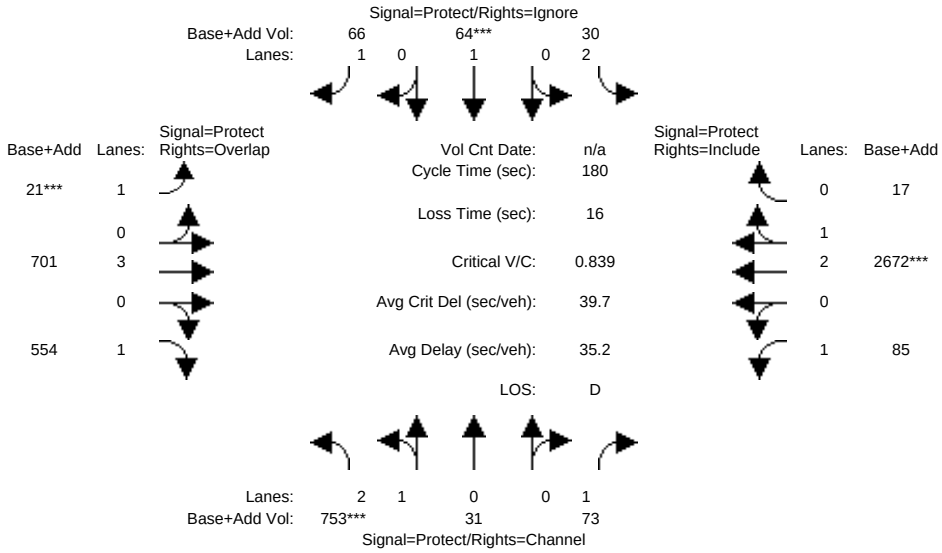
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) AM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	727	20	58	12	41	37	15	656	541	63	2493	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	727	20	58	12	41	37	15	656	541	63	2493	13
Added Vol:	26	11	15	18	23	29	6	45	13	22	179	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	753	31	73	30	64	66	21	701	554	85	2672	17
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.00	0.88	0.88	0.88	0.93	0.93	0.93
PHF Volume:	837	34	81	33	71	0	24	797	630	91	2873	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	837	34	81	33	71	0	24	797	630	91	2873	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	837	34	81	33	71	0	24	797	630	91	2873	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	2.88	0.12	1.00	2.00	1.00	1.00	1.00	3.00	1.00	1.00	2.98	0.02
Final Sat.:	5317	219	1900	3686	1900	1900	1900	5187	1900	1900	5154	33
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.04	0.01	0.04	0.00	0.01	0.15	0.33	0.05	0.56	0.56
Crit Moves:	****				****		****				****	
Green/Cycle:	0.19	0.22	0.22	0.01	0.04	0.00	0.01	0.53	0.72	0.15	0.66	0.66
Volume/Cap:	0.84	0.72	0.19	0.72	0.84	0.00	0.84	0.29	0.46	0.33	0.84	0.84
Uniform Del:	70.5	65.1	57.3	88.5	85.3	0.0	88.4	23.3	10.6	68.8	22.9	22.9
IncremntDel:	6.2	2.1	0.2	41.7	49.1	0.0	102.0	0.1	0.2	0.7	2.0	2.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	76.7	67.2	57.5	130.2	134	0.0	190.4	23.4	10.8	69.5	24.9	24.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.7	67.2	57.5	130.2	134	0.0	190.4	23.4	10.8	69.5	24.9	24.9
LOS by Move:	E	E	E	F	F	A	F	C	B	E	C	C
HCM2k95thQ:	617	561	141	80	224	0	107	318	499	163	1273	1273

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Note: Queue reported is the distance per lane in feet.

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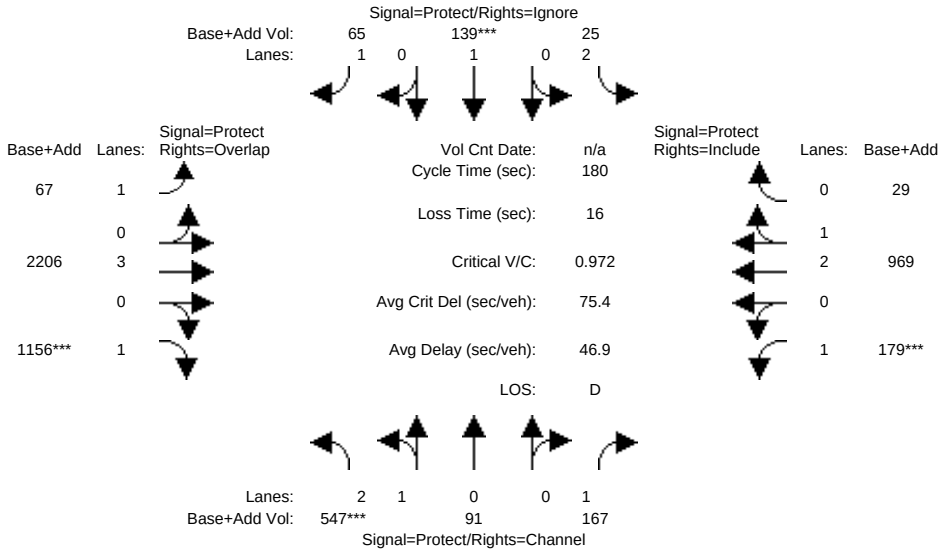
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Approved (Background) PM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	63	143	16	124	51	39	2033	1129	159	876	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	63	143	16	124	51	39	2033	1129	159	876	12
Added Vol:	15	28	24	9	15	14	28	173	27	20	93	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	547	91	167	25	139	65	67	2206	1156	179	969	29
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.84	0.84	0.00	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	570	95	174	30	165	0	76	2507	1314	203	1101	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	570	95	174	30	165	0	76	2507	1314	203	1101	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	570	95	174	30	165	0	76	2507	1314	203	1101	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	2.58	0.42	1.00	2.00	1.00	1.00	1.00	3.00	1.00	1.00	2.91	0.09
Final Sat.:	4761	792	1900	3686	1900	1900	1900	5187	1900	1900	5036	151
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.09	0.01	0.09	0.00	0.04	0.48	0.69	0.11	0.22	0.22
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.20	0.20	0.01	0.09	0.00	0.11	0.59	0.71	0.11	0.59	0.59
Volume/Cap:	0.97	0.60	0.46	0.60	0.97	0.00	0.37	0.82	0.97	0.97	0.37	0.37
Uniform Del:	78.6	65.5	63.5	88.3	81.7	0.0	74.6	29.5	24.3	79.8	19.3	19.3
IncremntDel:	27.4	0.9	0.9	18.8	60.4	0.0	1.1	1.9	18.1	54.0	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	106.0	66.5	64.4	107.1	142	0.0	75.7	31.4	42.4	133.8	19.4	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.0	66.5	64.4	107.1	142	0.0	75.7	31.4	42.4	133.8	19.4	19.4
LOS by Move:	F	E	E	F	F	A	E	C	D	F	B	B
HCM2k95thQ:	567	426	318	68	450	0	162	1268	2179	395	400	400

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Note: Queue reported is the distance per lane in feet.

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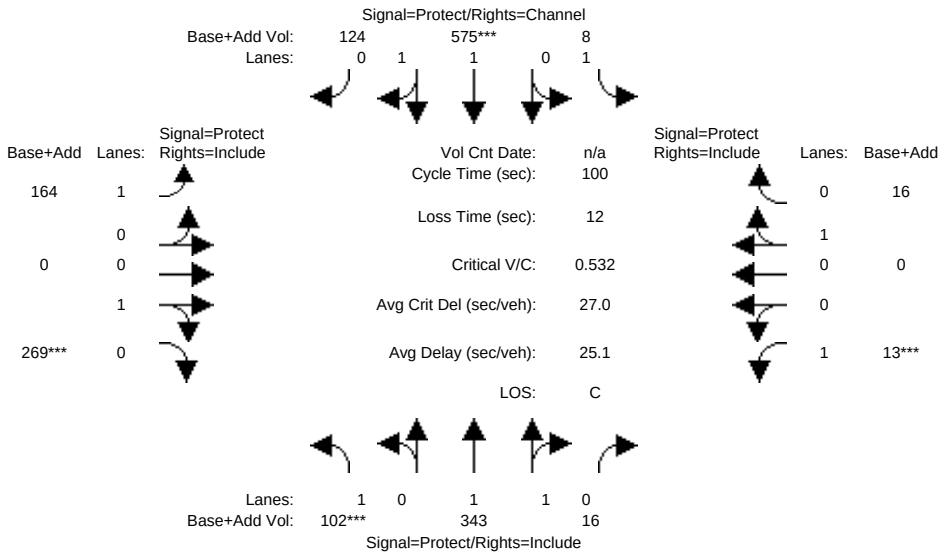
Appendix F – Level of Service Worksheets: Background plus Project Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	102	330	0	0	511	124	164	0	269	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	330	0	0	511	124	164	0	269	0	0	0
Added Vol:	0	13	16	8	64	0	0	0	0	13	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	343	16	8	575	124	164	0	269	13	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.96	0.96	0.96	0.87	0.87	0.87	1.00	1.00	1.00
PHF Volume:	111	373	17	8	599	129	189	0	309	13	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	373	17	8	599	129	189	0	309	13	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	373	17	8	599	129	189	0	309	13	0	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.92	0.92	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.91	0.09	1.00	1.64	0.36	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1805	3425	160	1805	2888	623	1805	0	1610	1805	0	1607
Capacity Analysis Module:												
Vol/Sat:	0.06	0.11	0.11	0.00	0.21	0.21	0.10	0.00	0.19	0.01	0.00	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.48	0.48	0.02	0.39	0.39	0.34	0.00	0.36	0.01	0.00	0.01
Volume/Cap:	0.53	0.22	0.22	0.22	0.53	0.53	0.31	0.00	0.53	0.53	0.00	0.74
Uniform Del:	41.7	14.9	14.9	48.2	23.5	23.5	24.2	0.0	25.3	49.0	0.0	49.1
IncremntDel:	2.6	0.1	0.1	3.1	0.4	0.4	0.3	0.0	0.9	20.7	0.0	80.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	44.3	15.0	15.0	51.3	23.9	23.9	24.5	0.0	26.2	69.7	0.0	129.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.3	15.0	15.0	51.3	23.9	23.9	24.5	0.0	26.2	69.7	0.0	129.9
LOS by Move:	D	B	B	D	C	C	C	A	C	E	A	F
HCM2k95thQ:	129	139	139	21	346	345	169	0	298	46	0	63

Note: Queue reported is the distance per lane in feet.

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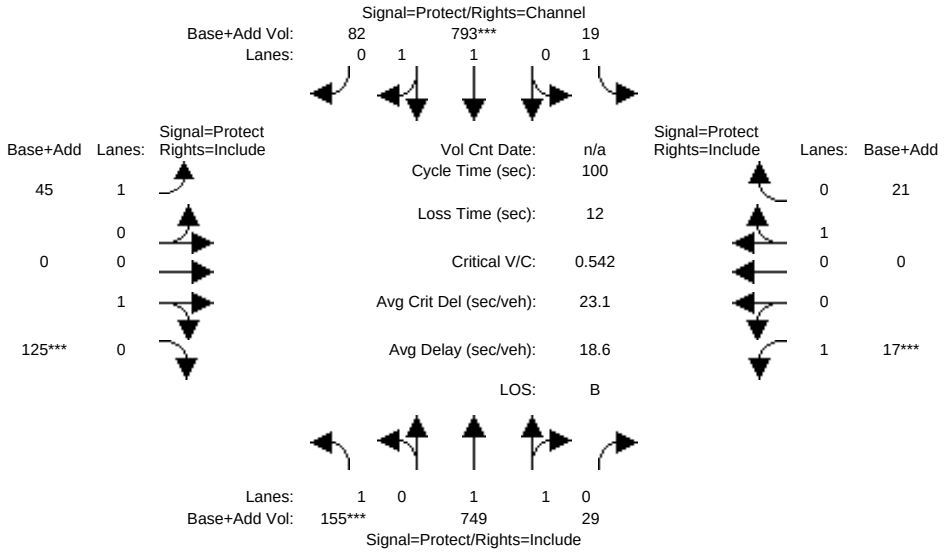
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #1: South Main Street/Cedar Way/Project Driveway



Street Name:	S Main Street						Cedar Way/Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	692	0	5	763	82	45	0	125	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	692	0	5	763	82	45	0	125	0	0	0
Added Vol:	0	57	29	14	30	0	0	0	0	17	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	749	29	19	793	82	45	0	125	17	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.89	0.89	0.89	0.85	0.85	0.85	1.00	1.00	1.00
PHF Volume:	180	871	34	21	891	92	53	0	147	17	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	871	34	21	891	92	53	0	147	17	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	180	871	34	21	891	92	53	0	147	17	0	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.93	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.93	0.07	1.00	1.81	0.19	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1805	3454	134	1805	3225	333	1805	0	1612	1805	0	1610
Capacity Analysis Module:												
Vol/Sat:	0.10	0.25	0.25	0.01	0.28	0.28	0.03	0.00	0.09	0.01	0.00	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.18	0.66	0.66	0.03	0.51	0.51	0.13	0.00	0.17	0.02	0.00	0.02
Volume/Cap:	0.54	0.38	0.38	0.38	0.54	0.54	0.23	0.00	0.54	0.54	0.00	0.75
Uniform Del:	37.0	7.6	7.6	47.5	16.6	16.6	39.1	0.0	38.1	48.7	0.0	48.9
IncremntDel:	1.8	0.1	0.1	4.3	0.3	0.3	0.5	0.0	2.2	17.9	0.0	72.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	38.8	7.7	7.7	51.8	16.9	16.9	39.6	0.0	40.3	66.6	0.0	120.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.8	7.7	7.7	51.8	16.9	16.9	39.6	0.0	40.3	66.6	0.0	120.9
LOS by Move:	D	A	A	D	B	B	D	A	D	E	A	F
HCM2k95thQ:	194	248	247	46	398	397	66	0	190	53	0	74

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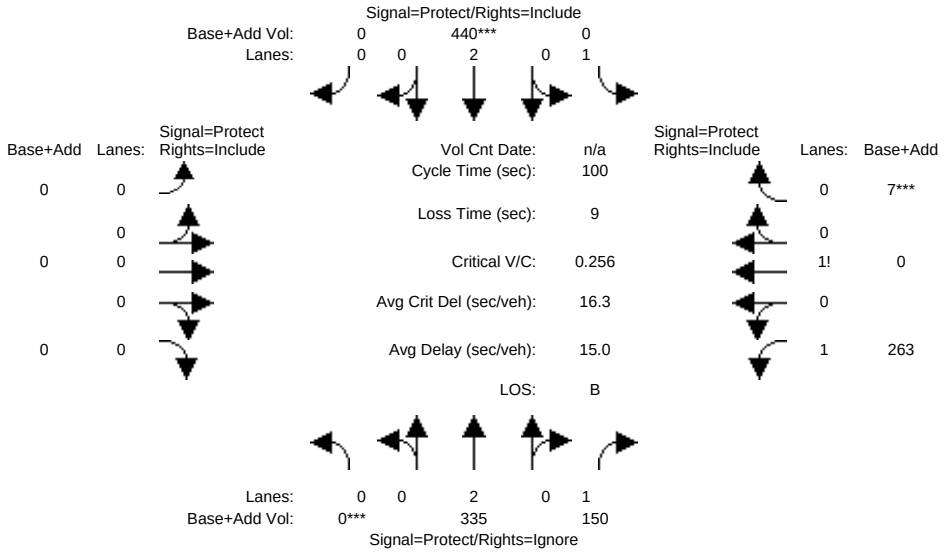
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	321	136	0	400	0	0	0	0	231	0	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	321	136	0	400	0	0	0	0	231	0	7
Added Vol:	0	14	14	0	40	0	0	0	0	32	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	335	150	0	440	0	0	0	0	263	0	7
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.00	0.89	0.89	0.89	1.00	1.00	1.00	0.80	0.80	0.80
PHF Volume:	0	385	0	0	494	0	0	0	0	329	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	385	0	0	494	0	0	0	0	329	0	9
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	385	0	0	494	0	0	0	0	329	0	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3610	1900	1900	3610	0	0	0	0	3519	0	91
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.09	0.00	0.10
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.54	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.37
Volume/Cap:	0.00	0.20	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.25	0.00	0.26
Uniform Del:	0.0	12.1	0.0	0.0	12.5	0.0	0.0	0.0	0.0	21.6	0.0	21.6
IncremntDel:	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	12.1	0.0	0.0	12.6	0.0	0.0	0.0	0.0	21.7	0.0	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.1	0.0	0.0	12.6	0.0	0.0	0.0	0.0	21.7	0.0	21.7
LOS by Move:	A	B	A	A	B	A	A	A	A	C	A	C
HCM2k95thQ:	0	127	0	0	167	0	0	0	0	142	0	146

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Level Of Service Computation Report
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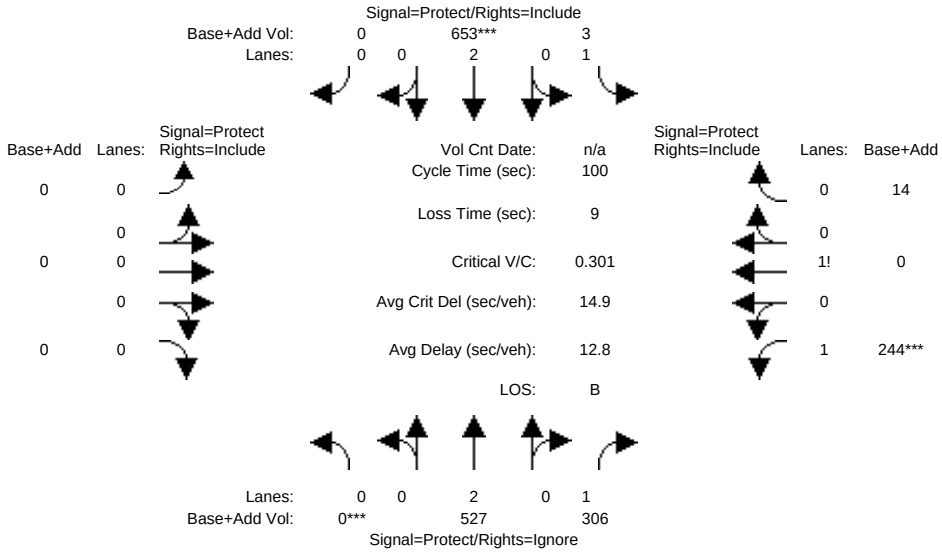
Intersection #2: South Main Street/South Abel Street



Street Name:	South Main Street						South Abel Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	484	271	3	627	0	0	0	0	225	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	484	271	3	627	0	0	0	0	225	0	14
Added Vol:	0	43	35	0	26	0	0	0	0	19	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	527	306	3	653	0	0	0	0	244	0	14
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.00	0.97	0.97	0.97	1.00	1.00	1.00	0.82	0.82	0.82
PHF Volume:	0	567	0	3	673	0	0	0	0	298	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	567	0	3	673	0	0	0	0	298	0	17
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	567	0	3	673	0	0	0	0	298	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.90	0.00	0.10
Final Sat.:	0	3610	1900	1805	3610	0	0	0	0	3415	0	185
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.09	0.00	0.09
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.61	0.00	0.01	0.62	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.00	0.26	0.00	0.26	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.32
Uniform Del:	0.0	8.9	0.0	49.4	8.9	0.0	0.0	0.0	0.0	27.6	0.0	27.8
IncremntDel:	0.0	0.1	0.0	10.9	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	8.9	0.0	60.3	8.9	0.0	0.0	0.0	0.0	27.8	0.0	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.9	0.0	60.3	8.9	0.0	0.0	0.0	0.0	27.8	0.0	28.0
LOS by Move:	A	A	A	E	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	164	0	15	196	0	0	0	0	152	0	161

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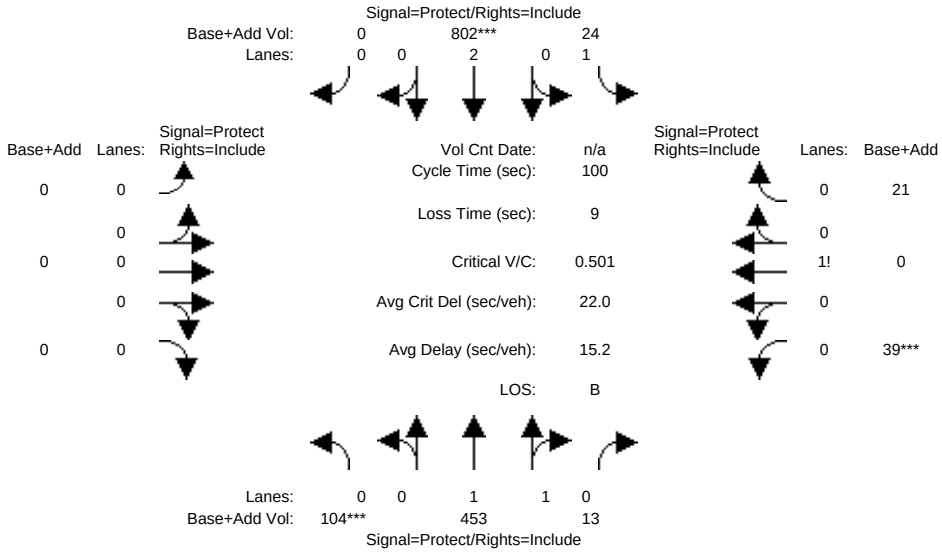
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	104	424	13	24	725	0	0	0	0	39	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	424	13	24	725	0	0	0	0	39	0	21
Added Vol:	0	29	0	0	77	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	453	13	24	802	0	0	0	0	39	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.88	0.88	0.88	1.00	1.00	1.00	0.88	0.88	0.88
PHF Volume:	107	467	13	27	911	0	0	0	0	44	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	467	13	27	911	0	0	0	0	44	0	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	467	13	27	911	0	0	0	0	44	0	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.92
Lanes:	0.36	1.59	0.05	1.00	2.00	0.00	0.00	0.00	0.00	0.65	0.00	0.35
Final Sat.:	651	2834	81	1805	3610	0	0	0	0	1138	0	613
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.02	0.25	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green/Cycle:	0.33	0.76	0.76	0.07	0.50	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	0.50	0.22	0.22	0.22	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Uniform Del:	27.0	3.4	3.4	43.9	16.5	0.0	0.0	0.0	0.0	44.3	0.0	44.3
IncremntDel:	0.3	0.0	0.0	0.9	0.2	0.0	0.0	0.0	0.0	2.9	0.0	2.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	27.3	3.4	3.4	44.8	16.7	0.0	0.0	0.0	0.0	47.2	0.0	47.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.3	3.4	3.4	44.8	16.7	0.0	0.0	0.0	0.0	47.2	0.0	47.2
LOS by Move:	C	A	A	D	B	A	A	A	A	D	A	D
HCM2k95thQ:	298	110	109	32	350	0	0	0	0	110	0	110

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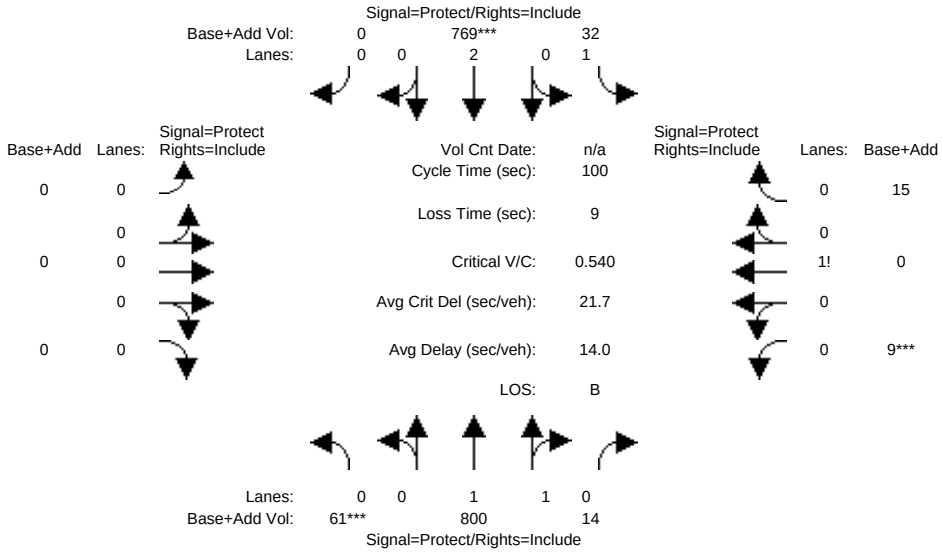
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #3: South Main Street / Mihalakis Dr



Street Name:	South Main Street						Mihalakis Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	61	714	14	32	722	0	0	0	0	9	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	714	14	32	722	0	0	0	0	9	0	15
Added Vol:	0	86	0	0	47	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	800	14	32	769	0	0	0	0	9	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.96	0.96	0.96	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	63	825	14	33	801	0	0	0	0	12	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	825	14	33	801	0	0	0	0	12	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	825	14	33	801	0	0	0	0	12	0	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.90	1.00	0.89
Lanes:	0.14	1.83	0.03	1.00	2.00	0.00	0.00	0.00	0.00	0.37	0.00	0.63
Final Sat.:	250	3284	57	1805	3610	0	0	0	0	638	0	1063
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.25	0.02	0.22	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:	****				****					****		
Green/Cycle:	0.46	0.82	0.82	0.06	0.41	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.54	0.31	0.31	0.31	0.54	0.00	0.00	0.00	0.00	0.54	0.00	0.54
Uniform Del:	19.1	2.3	2.3	45.0	22.3	0.0	0.0	0.0	0.0	47.5	0.0	47.5
IncremntDel:	0.4	0.1	0.1	1.6	0.4	0.0	0.0	0.0	0.0	9.7	0.0	9.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	19.5	2.3	2.3	46.6	22.7	0.0	0.0	0.0	0.0	57.2	0.0	57.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.5	2.3	2.3	46.6	22.7	0.0	0.0	0.0	0.0	57.2	0.0	57.2
LOS by Move:	B	A	A	D	C	A	A	A	A	E	A	E
HCM2k95thQ:	388	147	147	40	351	0	0	0	0	74	0	73

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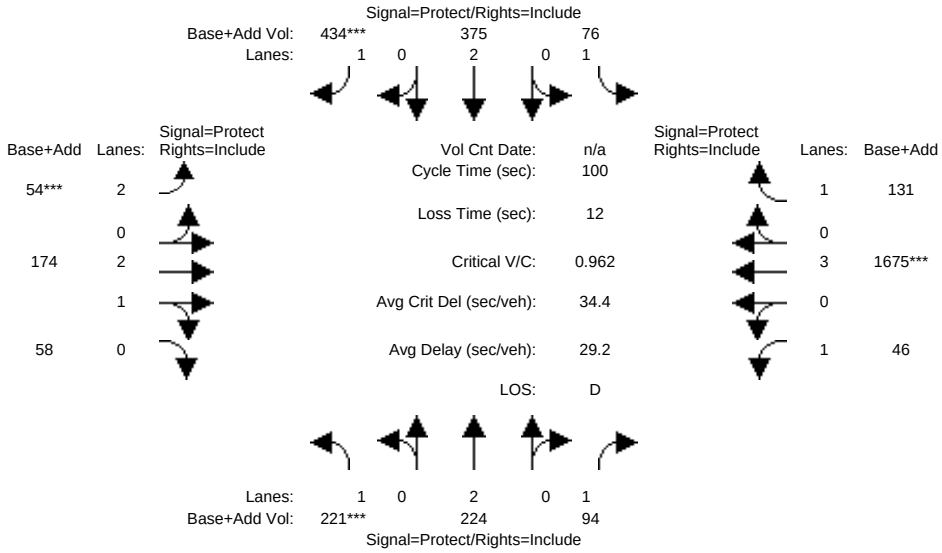
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	191	220	47	70	374	434	54	136	49	46	1517	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	220	47	70	374	434	54	136	49	46	1517	107
Added Vol:	30	4	47	6	1	0	0	38	9	0	158	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	224	94	76	375	434	54	174	58	46	1675	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.93	0.93	0.93	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	273	277	116	82	403	467	61	196	65	55	2018	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	277	116	82	403	467	61	196	65	55	2018	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	273	290	116	82	423	467	62	215	72	55	2220	158
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.96	0.96	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.25	0.75	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4104	1368	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.15	0.08	0.07	0.05	0.11	0.29	0.02	0.05	0.05	0.03	0.39	0.10
Crit Moves:	****					****	****				****	
Green/Cycle:	0.16	0.29	0.29	0.17	0.30	0.30	0.02	0.27	0.27	0.16	0.40	0.40
Volume/Cap:	0.96	0.27	0.25	0.27	0.37	0.96	0.96	0.20	0.20	0.20	0.96	0.24
Uniform Del:	31.8	20.9	20.8	27.4	20.9	26.2	37.3	21.6	21.6	27.9	22.1	14.9
IncremntDel:	31.8	0.0	0.1	0.1	0.1	23.2	72.2	0.0	0.0	0.0	8.4	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	58.8	17.8	17.7	23.4	17.9	45.4	103.9	18.3	18.3	23.8	27.1	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.8	17.8	17.7	23.4	17.9	45.4	103.9	18.3	18.3	23.8	27.1	12.7
DesignQueue:	264	117	93	76	169	383	34	79	79	52	533	106

Note: Queue reported is the distance per lane in feet.

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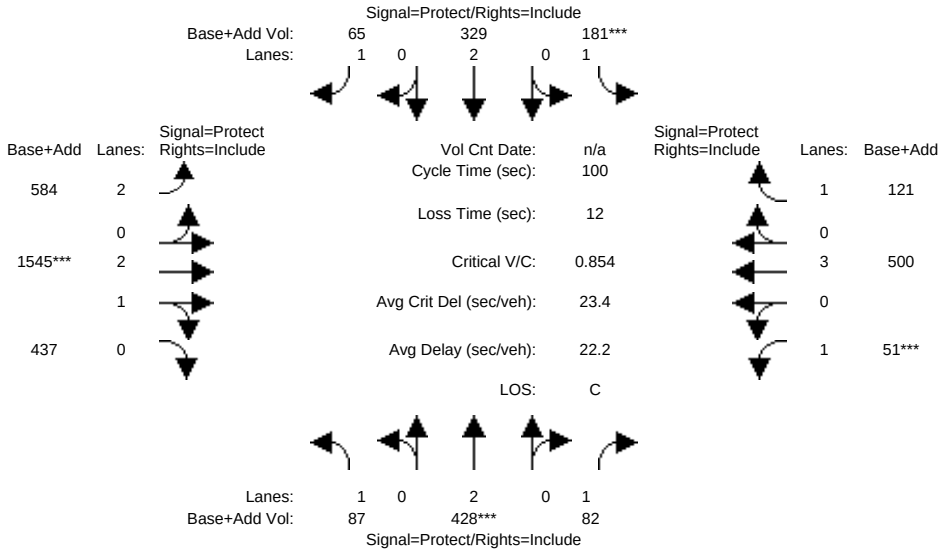
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #4: Great Mall and Abel



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	68	425	60	158	324	65	584	1393	406	51	420	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	425	60	158	324	65	584	1393	406	51	420	109
Added Vol:	19	3	22	23	5	0	0	152	31	0	80	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	428	82	181	329	65	584	1545	437	51	500	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.68	0.68	0.68	0.82	0.82	0.82	0.94	0.94	0.94	0.78	0.78	0.78
PHF Volume:	128	629	121	221	401	79	621	1644	465	65	641	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	629	121	221	401	79	621	1644	465	65	641	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.03	1.10	1.10	1.00	1.10	1.00
FinalVolume:	128	661	121	221	421	79	640	1808	511	65	705	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.97	0.97	0.95	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.34	0.66	1.00	3.00	1.00
Final Sat.:	1805	3800	1615	1805	3800	1615	3610	4310	1219	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.07	0.12	0.11	0.05	0.18	0.42	0.42	0.04	0.12	0.10
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.20	0.20	0.14	0.21	0.21	0.31	0.49	0.49	0.04	0.22	0.22
Volume/Cap:	0.52	0.85	0.37	0.85	0.52	0.23	0.56	0.85	0.85	0.85	0.56	0.44
Uniform Del:	30.6	29.2	26.1	31.8	26.6	24.8	21.7	17.0	17.0	36.2	26.4	25.6
IncremntDel:	1.7	6.5	0.3	16.0	0.5	0.1	0.5	2.1	2.1	38.1	0.5	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	27.7	31.3	22.5	43.0	23.1	21.2	19.0	16.5	16.5	68.8	22.9	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.7	31.3	22.5	43.0	23.1	21.2	19.0	16.5	16.5	68.8	22.9	22.4
DesignQueue:	125	304	108	215	189	70	253	478	478	70	209	137

Note: Queue reported is the distance per lane in feet.

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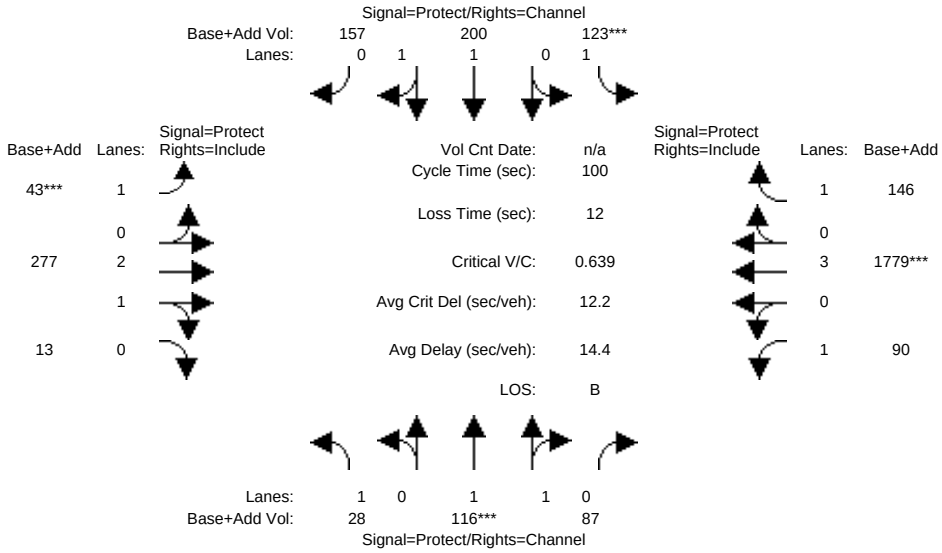
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	11	113	53	118	198	157	40	194	9	72	1614	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	113	53	118	198	157	40	194	9	72	1614	124
Added Vol:	17	3	34	5	2	0	3	83	4	18	165	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	116	87	123	200	157	43	277	13	90	1779	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.90	0.90	0.90	0.78	0.78	0.78	0.91	0.91	0.91
PHF Volume:	37	153	114	137	222	174	55	355	17	99	1955	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	153	114	137	222	174	55	355	17	99	1955	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	37	160	120	137	233	183	55	391	18	99	2150	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.93	0.95	0.99	0.99	0.95	1.00	0.85
Lanes:	1.00	1.14	0.86	1.00	1.12	0.88	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	1805	2041	1531	1805	1980	1554	1805	5390	253	1805	5700	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.08	0.08	0.08	0.12	0.12	0.03	0.07	0.07	0.05	0.38	0.10
Crit Moves:		****		****			****				****	
Green/Cycle:	0.04	0.12	0.12	0.12	0.21	0.21	0.05	0.36	0.36	0.27	0.59	0.59
Volume/Cap:	0.57	0.64	0.64	0.64	0.57	0.57	0.64	0.20	0.20	0.20	0.64	0.17
Uniform Del:	36.1	31.7	31.7	31.9	27.2	27.2	35.5	16.6	16.6	21.1	10.2	7.1
IncremntDel:	8.1	2.2	2.2	4.3	0.8	0.8	9.7	0.0	0.0	0.0	0.3	0.0
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	38.8	29.1	29.1	31.5	23.9	23.9	39.9	14.1	14.1	18.0	9.0	6.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.8	29.1	29.1	31.5	23.9	23.9	39.9	14.1	14.1	18.0	9.0	6.0
DesignQueue:	40	139	139	136	188	188	59	98	98	81	354	74

Note: Queue reported is the distance per lane in feet.

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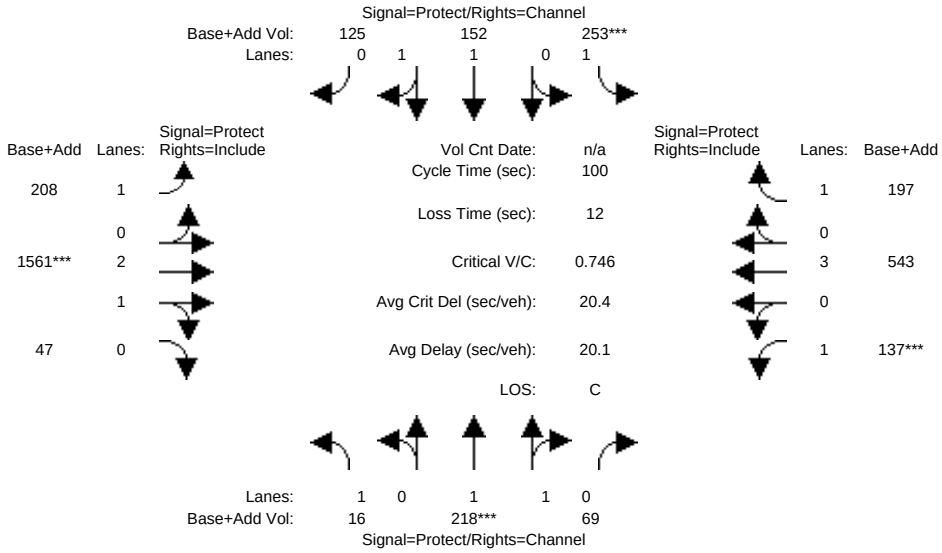
Level Of Service Computation Report
1994 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #5: Great Mall & South Main



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	216	46	232	145	125	206	1381	31	62	459	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	216	46	232	145	125	206	1381	31	62	459	186
Added Vol:	8	2	23	21	7	0	2	180	16	75	84	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	218	69	253	152	125	208	1561	47	137	543	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.87	0.87	0.87	0.95	0.95	0.95	0.97	0.97	0.97
PHF Volume:	18	240	76	291	175	144	219	1643	49	141	560	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	240	76	291	175	144	219	1643	49	141	560	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.05	1.00	1.05	1.05	1.00	1.10	1.10	1.00	1.10	1.00
FinalVolume:	18	252	80	291	183	151	219	1807	54	141	616	203
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.96	0.96	0.95	0.93	0.93	0.95	1.00	1.00	0.95	1.00	0.84
Lanes:	1.00	1.52	0.48	1.00	1.10	0.90	1.00	2.91	0.09	1.00	3.00	1.00
Final Sat.:	1805	2771	877	1805	1939	1595	1805	5533	167	1805	5700	1596
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.16	0.09	0.09	0.12	0.33	0.33	0.08	0.11	0.13
Crit Moves:		****		****				****		****		
Green/Cycle:	0.03	0.12	0.12	0.22	0.31	0.31	0.26	0.44	0.44	0.10	0.28	0.28
Volume/Cap:	0.31	0.75	0.75	0.75	0.31	0.31	0.46	0.75	0.75	0.75	0.39	0.46
Uniform Del:	36.0	32.2	32.2	27.9	20.2	20.2	23.4	17.8	17.8	33.0	22.2	22.7
IncremntDel:	1.0	4.7	4.7	5.3	0.1	0.1	0.5	0.9	0.9	10.0	0.1	0.5
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	31.6	32.1	32.1	28.9	17.2	17.2	20.4	16.1	16.1	38.0	19.0	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.6	32.1	32.1	28.9	17.2	17.2	20.4	16.1	16.1	38.0	19.0	19.9
DesignQueue:	19	165	165	262	131	131	183	417	417	143	169	167

Note: Queue reported is the distance per lane in feet.

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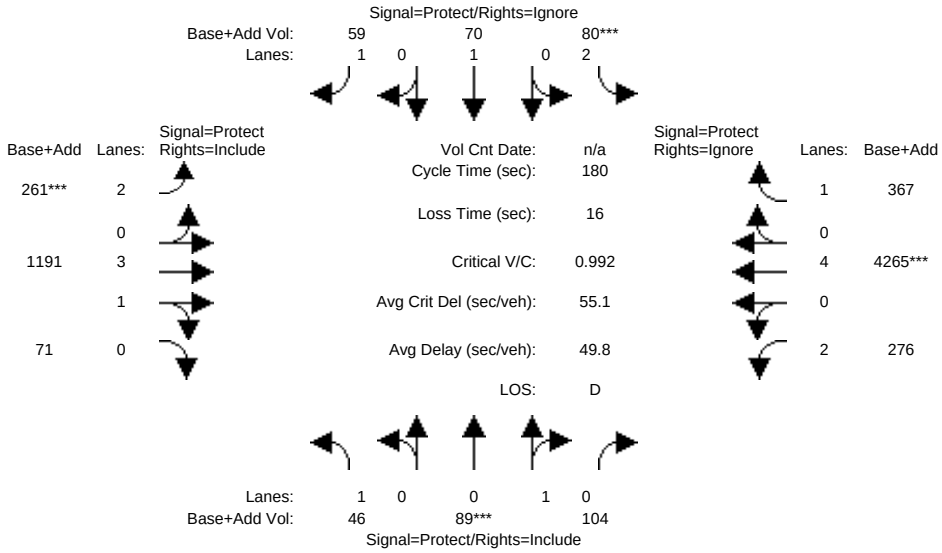
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:	O'Toole Avenue/McCarthy Boulevard						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	46	89	104	80	70	59	261	1162	71	276	4153	367
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	89	104	80	70	59	261	1162	71	276	4153	367
Added Vol:	0	0	0	0	0	0	0	29	0	0	112	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	89	104	80	70	59	261	1191	71	276	4265	367
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.65	0.65	0.65	0.89	0.89	0.00	0.88	0.88	0.88	0.96	0.96	0.00
PHF Volume:	71	137	160	90	79	0	297	1353	81	288	4443	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	137	160	90	79	0	297	1353	81	288	4443	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	137	160	90	79	0	297	1353	81	288	4443	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.46	0.54	2.00	1.00	1.00	2.00	3.77	0.23	2.00	4.00	1.00
Final Sat.:	1900	876	1024	3686	1900	1900	3686	6527	389	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.02	0.04	0.00	0.08	0.21	0.21	0.08	0.64	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.09	0.16	0.16	0.02	0.10	0.00	0.08	0.53	0.53	0.20	0.65	0.00
Volume/Cap:	0.43	0.99	0.99	0.99	0.43	0.00	0.99	0.39	0.39	0.39	0.99	0.00
Uniform Del:	78.0	75.7	75.7	87.8	76.7	0.0	82.6	25.1	25.1	62.6	31.2	0.0
IncremntDel:	1.8	49.6	49.6	91.6	1.6	0.0	49.6	0.1	0.1	0.3	11.6	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	79.9	125	125.3	179.4	78.4	0.0	132.3	25.2	25.2	62.9	42.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.9	125	125.3	179.4	78.4	0.0	132.3	25.2	25.2	62.9	42.8	0.0
LOS by Move:	E	F	F	F	E	A	F	C	C	E	D	A
HCM2k95thQ:	161	701	701	184	174	0	432	444	444	269	2171	0

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Note: Queue reported is the distance per lane in feet.

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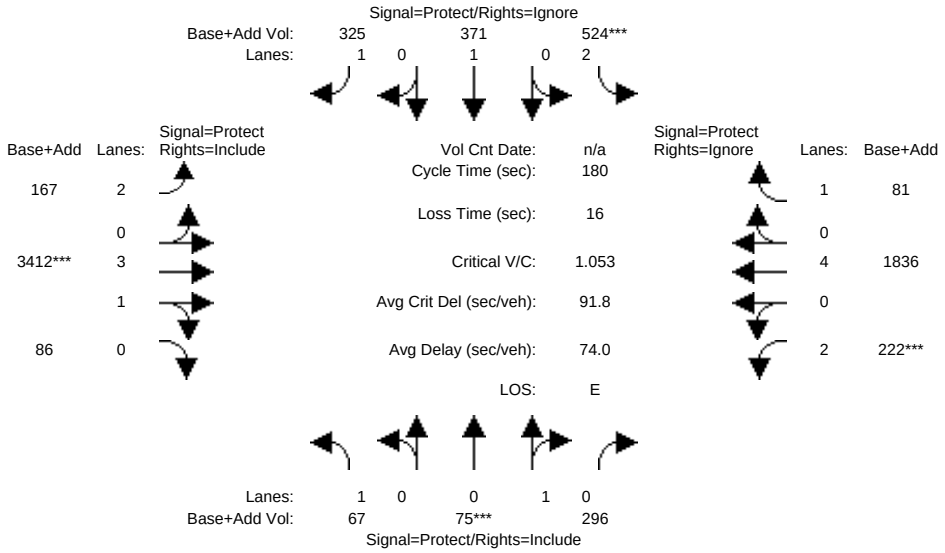
2000 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #6: O'Toole Ave/ McCarthy Blvd & Montague Expr



Street Name:	O'Toole Avenue/McCarthy Boulevard						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	67	75	296	524	371	325	167	3302	86	222	1777	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	75	296	524	371	325	167	3302	86	222	1777	81
Added Vol:	0	0	0	0	0	0	0	110	0	0	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	75	296	524	371	325	167	3412	86	222	1836	81
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.91	0.91	0.00	0.96	0.96	0.96	0.85	0.85	0.00
PHF Volume:	71	79	312	576	408	0	174	3554	90	261	2160	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	79	312	576	408	0	174	3554	90	261	2160	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	71	79	312	576	408	0	174	3554	90	261	2160	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.97	1.00	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	3.90	0.10	2.00	4.00	1.00
Final Sat.:	1900	384	1516	3686	1900	1900	3686	6746	170	3686	6916	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.16	0.21	0.00	0.05	0.53	0.53	0.07	0.31	0.00
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.20	0.20	0.15	0.29	0.00	0.07	0.50	0.50	0.07	0.49	0.00
Volume/Cap:	0.73	1.05	1.05	1.05	0.73	0.00	0.63	1.05	1.05	1.05	0.63	0.00
Uniform Del:	84.2	72.4	72.4	76.6	57.3	0.0	80.9	45.0	45.0	83.9	33.6	0.0
IncremntDel:	24.9	61.4	61.4	53.2	5.0	0.0	4.8	31.7	31.7	71.8	0.4	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	109.1	134	133.8	129.9	62.3	0.0	85.7	76.6	76.6	155.7	34.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	109.1	134	133.8	129.9	62.3	0.0	85.7	76.6	76.6	155.7	34.0	0.0
LOS by Move:	F	F	F	F	E	A	F	E	E	F	C	A
HCM2k95thQ:	204	907	907	736	702	0	223	1966	1966	411	782	0

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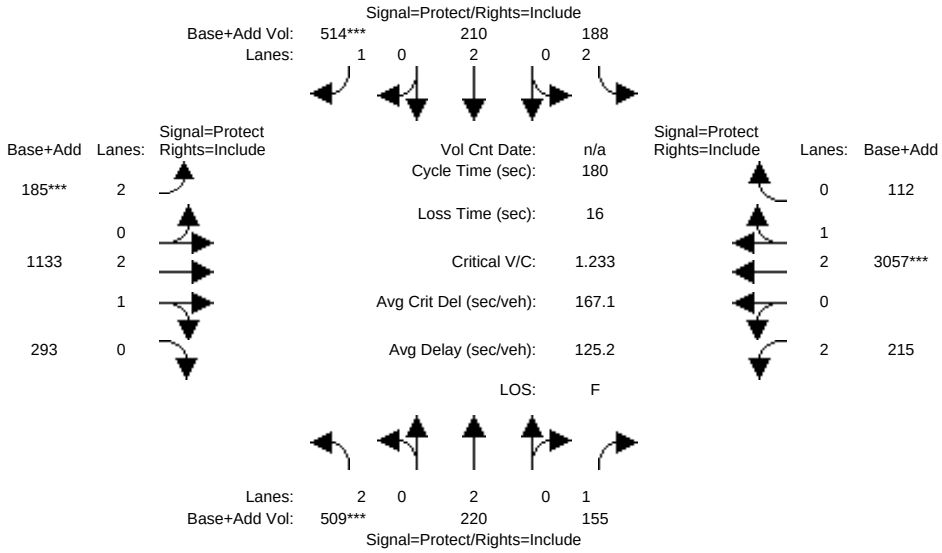
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	509	215	141	177	193	465	170	1091	293	157	2881	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	509	215	141	177	193	465	170	1091	293	157	2881	104
Added Vol:	0	5	14	11	17	49	15	42	0	58	176	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	509	220	155	188	210	514	185	1133	293	215	3057	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	547	237	167	209	233	571	189	1156	299	219	3119	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	547	237	167	209	233	571	189	1156	299	219	3119	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	547	237	167	209	233	571	189	1156	299	219	3119	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.38	0.62	2.00	2.89	0.11
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4121	1066	3686	5004	183
Capacity Analysis Module:												
Vol/Sat:	0.15	0.07	0.09	0.06	0.06	0.30	0.05	0.28	0.28	0.06	0.62	0.62
Crit Moves:	****					****	****				****	
Green/Cycle:	0.12	0.22	0.22	0.14	0.24	0.24	0.04	0.45	0.45	0.10	0.51	0.51
Volume/Cap:	1.23	0.30	0.40	0.40	0.27	1.23	1.23	0.62	0.62	0.62	1.23	1.23
Uniform Del:	79.2	58.4	59.8	70.1	55.0	68.1	86.3	37.7	37.7	78.2	44.5	44.5
IncremntDel:	123.3	0.2	0.6	0.5	0.2	122.6	148.8	0.5	0.5	3.4	109	108.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	202.4	58.6	60.5	70.6	55.2	190.7	235.1	38.2	38.2	81.7	153	153.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	202.4	58.6	60.5	70.6	55.2	190.7	235.1	38.2	38.2	81.7	153	153.0
LOS by Move:	F	E	E	E	E	F	F	D	D	F	F	F
HCM2k95thQ:	803	217	293	215	207	1426	359	735	735	262	2760	2760

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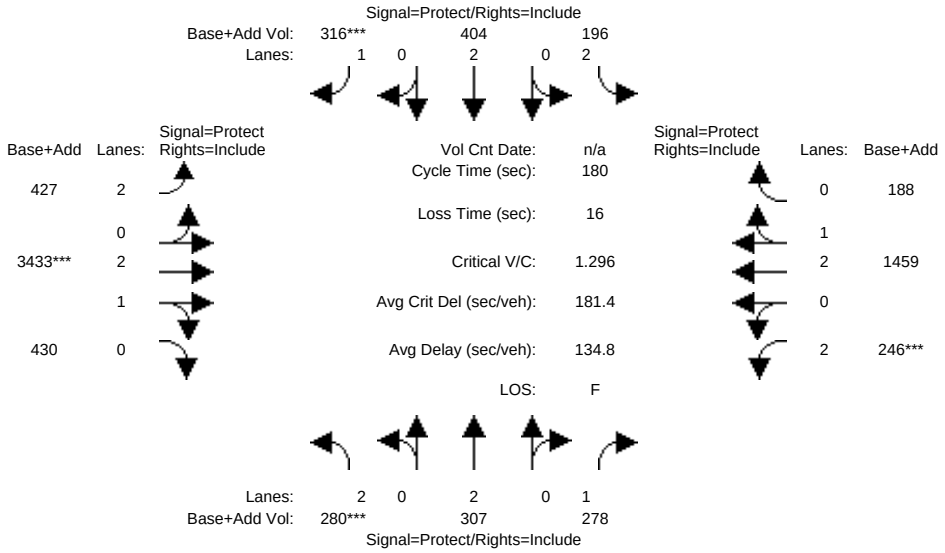
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #7: S Main St/Oakland Road & Montague Expr



Street Name:	S Main Street/Oakland Road						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	280	290	222	187	394	287	375	3264	430	216	1370	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	280	290	222	187	394	287	375	3264	430	216	1370	171
Added Vol:	0	17	56	9	10	29	52	169	0	30	89	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	280	307	278	196	404	316	427	3433	430	246	1459	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.84	0.84	0.84	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	311	341	309	233	481	376	474	3814	478	262	1552	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	341	309	233	481	376	474	3814	478	262	1552	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	341	309	233	481	376	474	3814	478	262	1552	200
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	0.91
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.67	0.33	2.00	2.66	0.34
Final Sat.:	3686	3610	1900	3686	3610	1900	3686	4610	577	3686	4595	592
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.16	0.06	0.13	0.20	0.13	0.83	0.83	0.07	0.34	0.34
Crit Moves:	****					****		****		****		
Green/Cycle:	0.07	0.16	0.16	0.06	0.15	0.15	0.19	0.64	0.64	0.05	0.50	0.50
Volume/Cap:	1.30	0.60	1.04	1.04	0.87	1.30	0.67	1.30	1.30	1.30	0.67	0.67
Uniform Del:	84.1	70.7	75.9	84.5	74.5	76.3	67.6	32.5	32.5	85.1	33.7	33.7
IncremntDel:	160.5	1.8	62.0	69.9	14.2	156.4	2.6	136	135.6	164.8	0.7	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	244.6	72.5	137.9	154.4	88.7	232.6	70.1	168	168.1	249.9	34.4	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	244.6	72.5	137.9	154.4	88.7	232.6	70.1	168	168.1	249.9	34.4	34.4
LOS by Move:	F	E	F	F	F	F	E	F	F	F	C	C
HCM2k95thQ:	539	360	749	374	563	1050	472	3827	3827	472	856	856

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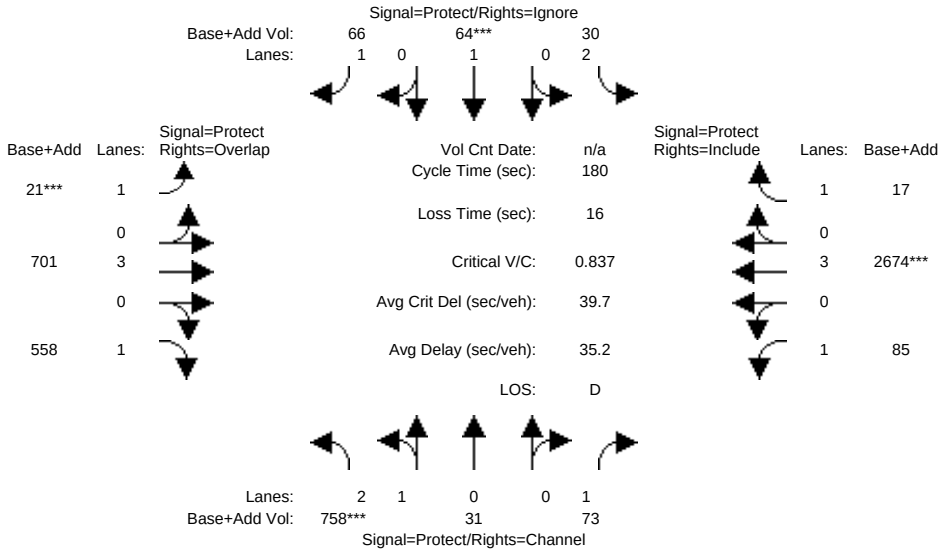
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	727	20	58	12	41	37	15	656	541	63	2493	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	727	20	58	12	41	37	15	656	541	63	2493	13
Added Vol:	31	11	15	18	23	29	6	45	17	22	181	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	758	31	73	30	64	66	21	701	558	85	2674	17
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.00	0.88	0.88	0.88	0.93	0.93	0.93
PHF Volume:	842	34	81	33	71	0	24	797	634	91	2875	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	842	34	81	33	71	0	24	797	634	91	2875	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	842	34	81	33	71	0	24	797	634	91	2875	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	2.89	0.11	1.00	2.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	5318	217	1900	3686	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.04	0.01	0.04	0.00	0.01	0.15	0.33	0.05	0.55	0.01
Crit Moves:	****				****		****				****	
Green/Cycle:	0.19	0.22	0.22	0.01	0.04	0.00	0.02	0.53	0.72	0.15	0.66	0.66
Volume/Cap:	0.84	0.72	0.19	0.72	0.84	0.00	0.84	0.29	0.46	0.33	0.84	0.01
Uniform Del:	70.3	64.8	57.0	88.5	85.3	0.0	88.4	23.3	10.5	69.0	23.0	10.4
IncremntDel:	6.0	2.0	0.2	41.3	48.5	0.0	100.9	0.1	0.2	0.7	1.9	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	76.3	66.9	57.2	129.9	134	0.0	189.4	23.4	10.8	69.7	25.0	10.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.3	66.9	57.2	129.9	134	0.0	189.4	23.4	10.8	69.7	25.0	10.4
LOS by Move:	E	E	E	F	F	A	F	C	B	E	C	B
HCM2k95thQ:	619	562	141	80	223	0	107	318	502	163	1265	13

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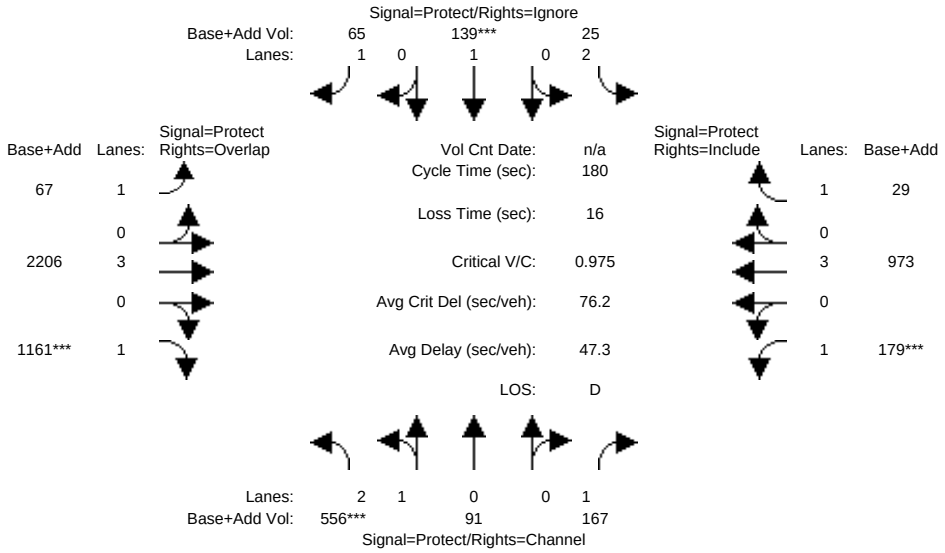
Intersection #8: McCandless DrZone Blvd & Montague Expr



Street Name:	Trade Zone Blvd/McCandless Dr						Montague Expressway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	63	143	16	124	51	39	2033	1129	159	876	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	63	143	16	124	51	39	2033	1129	159	876	12
Added Vol:	24	28	24	9	15	14	28	173	32	20	97	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	556	91	167	25	139	65	67	2206	1161	179	973	29
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.84	0.84	0.00	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	579	95	174	30	165	0	76	2507	1319	203	1106	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	579	95	174	30	165	0	76	2507	1319	203	1106	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	579	95	174	30	165	0	76	2507	1319	203	1106	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	2.59	0.41	1.00	2.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	4771	781	1900	3686	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.09	0.01	0.09	0.00	0.04	0.48	0.69	0.11	0.21	0.02
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.20	0.20	0.01	0.09	0.00	0.11	0.59	0.71	0.11	0.59	0.59
Volume/Cap:	0.98	0.61	0.46	0.61	0.98	0.00	0.36	0.82	0.98	0.98	0.36	0.03
Uniform Del:	78.5	65.5	63.3	88.3	81.8	0.0	74.2	29.6	24.4	79.9	19.5	15.6
IncremntDel:	28.0	1.0	0.9	19.7	61.5	0.0	1.1	1.9	18.8	55.0	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	106.5	66.4	64.2	108.0	143	0.0	75.3	31.5	43.2	134.9	19.6	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.5	66.4	64.2	108.0	143	0.0	75.3	31.5	43.2	134.9	19.6	15.6
LOS by Move:	F	E	E	F	F	A	E	C	D	F	B	B
HCM2k95thQ:	574	431	318	68	451	0	161	1270	2207	396	391	29

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Note: Queue reported is the distance per lane in feet.

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