East Garrison Specific Plan - Draft Subsequent EIR	
·	
	APPENDIX E: TRAFFIC IMPACT ANALYSIS

Revised Draft

Traffic Impact Study for the East Garrison Development

In Monterey County

September 7, 2004

Prepared by: TJKM Transportation Consultants 5960 Inglewood Drive, Suite 100 Pleasanton CA 94588-8535

Tel: 925.463.0611 Fax: 925.463.3690

J:\Jurisdiction\M\Monterey County\151-018 East Garrison EIR\Report\Reviseddraft_090704.doc

TABLE OF CONTENTS

INTRODUCTION AND SUMMARY	1
Introduction	
LEVEL OF SERVICE ANALYSIS METHODOLOGY	4
SIGNALIZED INTERSECTIONS	
Unsignalized Intersections	
ROADWAY SEGMENTS IMPACT CRITERIA	
STUDY INTERSECTIONS	
EXISTING CONDITIONS	
Existing Roadway System	
LEVEL OF SERVICE ANALYSIS RESULTS (EXISTING CONDITIONS)	
MITIGATION MEASURES FOR EXISTING CONDITIONS	
EXISTING PLUS PROJECT (1,470 HOMES)	15
Project Description	15
MODEL DESCRIPTION	-
PROJECT TRIP GENERATION	
LEVEL OF SERVICE ANALYSIS RESULTS (EXISTING + PROJECT (1,470 HOMES))	
PROJECT FAIR SHARE ANALYSIS (EXISTING PLUS PROJECT CONDITIONS)	
CUMULATIVE (YEAR 2020) CONDITIONS	
METHODOLOGY	
EXISTING AND FUTURE NETWORK ASSUMPTIONS	
MITIGATION MEASURES FOR CUMULATIVE (YEAR 2020) CONDITIONS	
CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) CONDITIONS	
Methodology	
LEVEL OF SERVICE ANALYSIS RESULTS (CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES))	
FORA IMPROVEMENTS FOR CUMULATIVE PLUS PROJECT (1,470 Homes) CONDITIONS	
PROJECT FAIR SHARE ANALYSIS (CUMULATIVE PLUS PROJECT CONDITIONS)	35
CUMULATIVE (YEAR 2020) PLUS FULL PROJECT (2,887 HOMES) CONDITIONS	37
METHODOLOGY	37
LEVEL OF SERVICE ANALYSIS RESULTS (CUMULATIVE (YEAR 2020) PLUS FULL PROJECT (2,887 HOMES)). PEAK HOUR SIGNAL WARRANT ANALYSIS	37
ROADWAY SEGMENT ANALYSIS	
SEGMENT ANALYSIS RESULTS	43
CONCLUSIONS AND RECOMMENDATIONS	62
Project Trip Generation	
EXISTING CONDITIONS	
EXISTING PLUS PROJECT (1,470 HOMES) CONDITIONS.	
CUMULATIVE (YEAR 2020) CONDITIONS	

CUMULATIVE (YEAR 2020) PLUS PROJECT (2,887 HOMES) CONDITIONS	68
PEAK HOUR SIGNAL WARRANTS	
STUDY REFERENCES	69
TJKM Personnel	69
Persons Consulted	69
References	
APPENDIX A – LEVEL OF SERVICE METHODOLOGY APPENDIX B – LEVEL OF SERVICE WORKSHEETS: EXISTING APPENDIX C – LEVEL OF SERVICE WORKSHEETS: EXISTING PLUS PROJECT	's (1,470 Homes)
APPENDIX D – REGIONAL LAND USE DATA, AND EXISTING AND FUTURE ASSUMPTIONS	· · · · · · · · · · · · · · · · · · ·
APPENDIX E - LEVEL OF SERVICE WORKSHEETS: CUMULATIVE YEAR 2020	
APPENDIX F – LEVEL OF SERVICE WORKSHEETS: CUMULATIVE YEAR 2020 HOMES)	PLUS PROJECT (1,470
APPENDIX G - LEVEL OF SERVICE WORKSHEETS: CUMULATIVE YEAR 2020	PLUS PROJECT (2,887
HOMES)	
APPENDIX H – SIGNAL WARRANT ANALYSIS	
APPENDIX I – SEGMENT ANALYSIS	

LIST OF TABLES

TABLE I: EXISTING LEVELS OF SERVICE	3
TABLE II: PROJECT TRIP GENERATION FROM THE MODEL	7
TABLE III: PROJECT LAND USE ASSUMPTIONS	7
TABLE IV: EXISTING PLUS PROJECT (1,470 HOMES) LEVELS OF SERVICE)
TABLE V: PROJECT FAIR SHARE CONTRIBUTION TOWARD INTERSECTION RELATED NON-FORA CIP	
IMPROVEMENTS22	2
TABLE VI: PROJECT FAIR SHARE CONTRIBUTION TOWARD SEGMENT RELATED NON-FORA CIP IMPROVEMENTS	
	2
TABLE VII: CUMULATIVE (YEAR 2020) LEVELS OF SERVICE	5
TABLE VIII: CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) LEVELS OF SERVICE32	2
TABLE IX: PROJECT FAIR SHARE CONTRIBUTION TOWARD INTERSECTION RELATED NON-FORA CIP	
IMPROVEMENTS30	5
TABLE X: PROJECT FAIR SHARE CONTRIBUTION TOWARD SEGMENT RELATED NON-FORA CIP IMPROVEMENTS	
30	5
TABLE XI: CUMULATIVE (YEAR 2020) PLUS PROJECT (2,887 HOMES) LEVELS OF SERVICE39	
TABLE XII: PEAK HOUR SIGNAL WARRANT ANALYSIS	l
TABLE XIII: SEGMENT LOS ANALYSIS—EXISTING CONDITIONS	7
TABLE XIV: SEGMENT LOS ANALYSIS—EXISTING PLUS PROJECT (1,470 HOMES) CONDITIONS49)
TABLE XV: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) CONDITIONS	l
TABLE XVI: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) CONDITIONS	
TABLE XVII: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) PLUS PROJECT (2,887 HOMES) CONDITIONS	S

LIST OF FIGURES

FIGURE 1 - VICINITY MAP	6
FIGURE 2 - INTERSECTION LANE GEOMETRY	
FIGURE 3 - EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES	12
FIGURE 4 - PROJECT SITE PLAN	16
FIGURE 5 - EXISTING + PROJECT (1,470 HOMES) PEAK HOUR TURNING MOVEMENT VOLUMES	18
FIGURE 6 - CUMULATIVE (YEAR 2020) PEAK HOUR TURNING MOVEMENT VOLUMES	29
FIGURE 7 - CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) TURNING MOVEMENT	
FIGURE 8 - CUMULATIVE (YEAR 2020) +PROJECT (2887 HOMES) PEAK HOUR TURNING MOVEMENT VOLUM	ES.38
FIGURE 9: ROADWAY SEGMENTS WITH UNACCEPTABLE LEVELS OF SERVICE—EXISTING CONDITIONS	57
FIGURE 10: ROADWAY SEGMENTS WITH UNACCEPTABLE LEVELS OF SERVICE—EXISTING PLUS PROJECT (1,	470
HOMES) CONDITIONS	58
FIGURE 11: ROADWAY SEGMENTS WITH UNACCEPTABLE LEVELS OF SERVICE—CUMULATIVE (YEAR 2020)	
CONDITIONS	59
FIGURE 12: ROADWAY SEGMENTS WITH UNACCEPTABLE LEVELS OF SERVICE—CUMULATIVE (YEAR 2020)	
PROJECT (1,470 HOMES) CONDITIONS	60
FIGURE 13: ROADWAY SEGMENTS WITH UNACCEPTABLE LEVELS OF SERVICE—CUMULATIVE (YEAR 2020)	PLUS
PROJECT (2,887 HOMES) CONDITIONS	61

INTRODUCTION AND SUMMARY

Introduction

This report presents the results of TJKM's traffic impact analysis of the proposed East Garrison Development, to be located on Reservation Road in Monterey County. The purpose of this traffic study is to evaluate the potential traffic impacts, to determine potential mitigation measures, and to identify any critical traffic issues that should be addressed in the draft Environmental Impact Report (EIR).

Summary

The proposed East Garrison development with 1,470 homes is expected to generate approximately a total of 13,690 daily tips with 1,290 trips occurring during the a.m. peak hour and 1,379 trips occurring during the p.m. peak hour. With an additional 1,417 homes proposed for a total of 2,887 homes, the proposed project is expected to generate approximately a total of 24,480 daily trips with 2,322 trips occurring during the a.m. peak hour and 2,467 trips occurring during the p.m. peak hour.

Existing Conditions

Currently, all the study intersections operate at acceptable levels of service during both the a.m. and p.m. peak hours except for the following five study intersections:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during the a.m. peak hour)

Currently, the following five roadway segments operate at unacceptable levels of service under Existing Conditions:

- Blanco Road between Salinas River Bridge and Reservation Road (LOS E during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E during the a.m. and p.m. peak hours)
- Davis Road between Ambrose and Central Avenue (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D during the p.m. peak hour)
- Highway 183 between Cooper Road and Espinosa Road (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)

Existing plus Project (1,470 Homes) Conditions

Under the Existing plus Project (1,470 Homes) Conditions, the five study intersections that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels.

Under the Existing plus Project (1,470 Homes) Conditions, the five study roadway segments that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels and the corresponding mitigations recommended under Existing Conditions are expected to improve the levels of service to acceptable levels at the same. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Existing plus project Conditions:

- Davis Road between Reservation Road and Salinas River Bridge (LOS D during the p.m. peak hour)
- Reservation Road between Watkin's Gate and Davis Road (LOS D during the p.m. peak hour)

Cumulative (Year 2020) Conditions

Under the Cumulative (Year 2020) Conditions, the following intersections are expected to operate at unacceptable levels of service:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Del Monte Boulevard (LOS E during the p.m. peak hour)
- Reservation Road/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Blanco Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road/"The Bluffs" (LOS F during both the a.m. and p.m. peak hours)
- Highway 68 Westbound Ramps/Reservation Road (LOS F during the p.m. peak hour)
- Highway 1 Southbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Light Fighter Drive/1st Avenue (LOS F during the p.m. peak hour)
- Light Fighter Drive/2nd Avenue (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)

Under the Cumulative (Year 2020) Conditions, the five study roadway segments that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Cumulative (Year 2020) Conditions:

- Davis Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Davis Road (LOS F during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Central Entrance (LOS F during the a.m. and p.m. peak hours)
- Highway 1 between Light Fighter I/C and Freemont I/C) (LOS E during the p.m. peak hour)

Cumulative (Year 2020) plus Project (1,470 Homes) Conditions

Under the Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the study intersections (same as Cumulative (Year 2020) Conditions) are expected to continue to operate at unacceptable service levels. Additionally, the following study intersection is also expected to operate at unacceptable levels of service under Cumulative (Year 2020) Conditions:

• InterGarrison Road/New Collector (LOS F during the p.m. peak hour)

Under the Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the study roadway segments that operate unacceptably under Cumulative (Year 2020) conditions are expected to continue to operate at unacceptable service levels. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions:

- InterGarrison Road between Abrams and 7th Avenue (LOS D during the p.m. peak hour)
- InterGarrison Road between West Camp Road and Abrams (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)

Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions

Under the Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions, the study intersections with unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) are expected to continue to operate unacceptably. The same mitigation measures recommended under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions are expected to improve the levels of service at these intersections to acceptable service levels under Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions.

Under the Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions, the study segments with unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) are expected to continue to operate unacceptably.

The recommended mitigations to improve the intersection and segment levels of service to acceptable service levels under Existing, Existing plus Project (1,470 Homes), Cumulative (Year 2020), Cumulative (Year 2020) plus Project (1,470 Homes), and Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions are provided in this report.

LEVEL OF SERVICE ANALYSIS METHODOLOGY

Level of service 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 (LOS) are given letter designations from "A" to "F," with "A" representing the best operating conditions (free-flow) and "F" the worst (severely congested flow with high delays). Intersections generally dictate traffic conditions on arterial and collector streets.

Signalized Intersections

The operating condition at the signalized study intersections were evaluated using the 2000 Highway Capacity Manual Operations Method as incorporated into the standard traffic engineering software package TRAFFIX. Peak hour intersection conditions are reported as average delay per vehicle with corresponding levels of service for the intersection as a whole. 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.

Unsignalized Intersections

The operating conditions at the study intersections with the minor approaches STOP controlled were evaluated using the 2000 Highway Capacity Manual (HCM) Unsignalized Method, also contained in the standard software package TRAFFIX. For two-way stop controlled intersections, LOS is based on and reported for the worst case turning movement in any one lane. For all-way stop controlled intersections, LOS is based on the average control delay experienced on all approaches. The methods rank level of service on an "A" through "F" scale (similar to that used for signalized intersections) to describe travel delay and congestion. The methodologies for unsignalized intersections are also presented in Appendix A.

Roadway Segments

The traffic conditions on the roadway segments were evaluated using the methodologies provided in the 2000 Highway Capacity Manual (HCM). Levels of service criteria for the multi-lane roadway segments (with more than two lanes) were based on the typical speed-flow, and density-flow relationships provided in Chapter 20 in the 2000 HCM. A density less than or equal to 11 vehicles per mile per lane (vpmpl) corresponds to LOS A indicating free flow conditions and a density greater than or equal to 45 vpmpl corresponds to LOS F indicating severely congested flows with comparatively lower speeds. Levels of service criteria for two-lane roadway segments (subdivided into Class I and Class II highways) were based on the average travel speed of the vehicles and the percent time-spent-following. Class I highways are two-lane highways that are considered major intercity routes, primary arterials connecting major traffic generators, daily commuter routes, or primary links in state or national highway networks. The motorists are expected to travel at relatively high speeds on Class I highways. Class II highways are considered access routes to Class I facilities, serve as scenic or recreational routes that are not primary arterials, or pass through rugged terrain. The motorists are not necessarily expected to travel at high speeds on Class II highways. For Class I highways, where mobility is paramount, LOS is defined in terms of both average travel speed and

percent time-spent-following. For class II highways, mobility is less critical, and LOS is defined only in terms of percent time-spent-following, without consideration of average travel speed. The methodologies used to analyze roadway segments are presented in Appendix A.

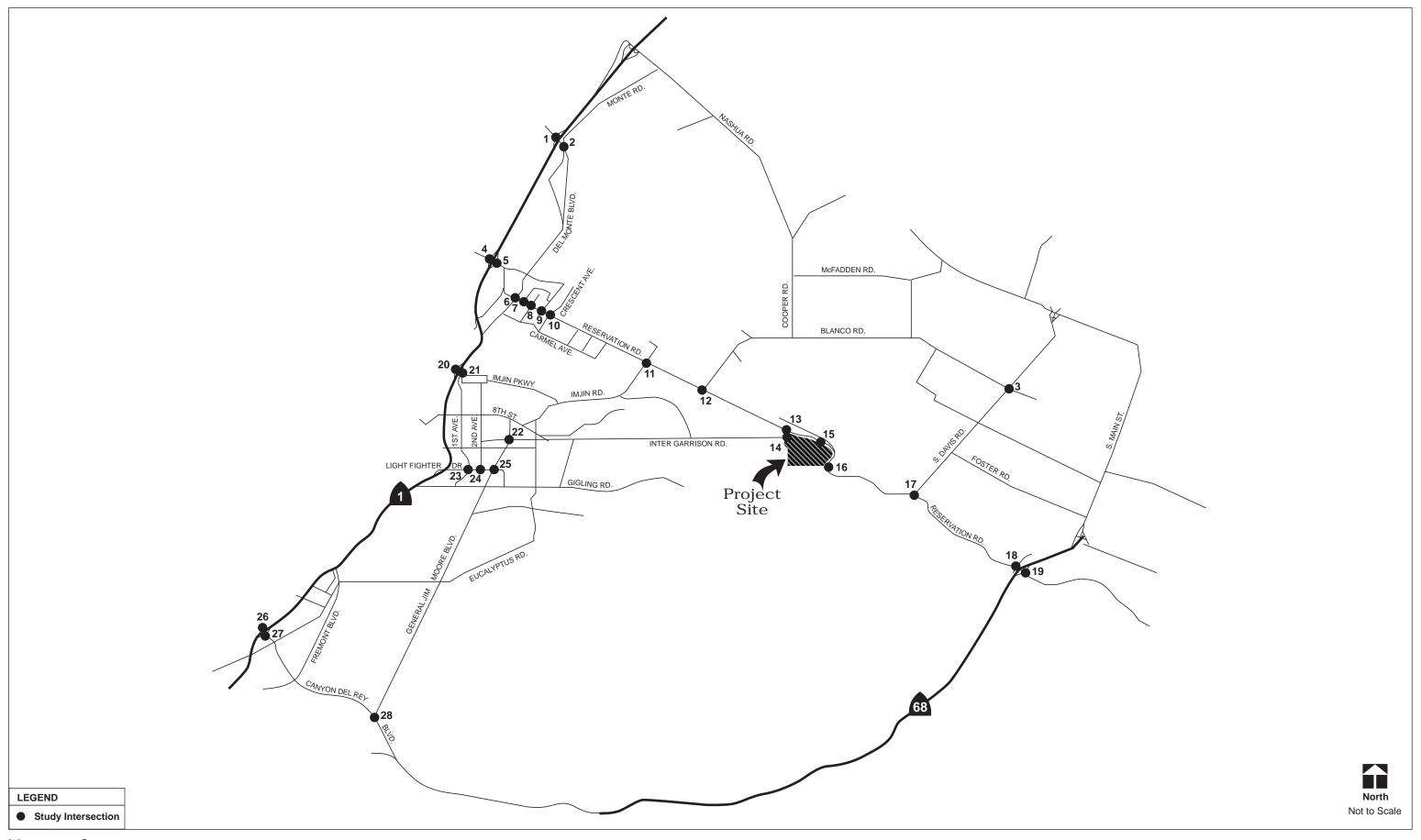
Impact Criteria

The County of Monterey and the City of Seaside consider a peak hour LOS "C" to be the limit of acceptable service for the intersections and roadway segments under its jurisdiction, while the City of Marina and City of Salinas has adopted LOS "D" as the minimum acceptable level of service for city intersections and roadway segments. LOS "D" is the minimum threshold for acceptable operations for freeway ramp intersections and roadway segments within the State (Caltrans) right-of-way. The study intersections that fall below the corresponding service threshold are considered impacted and should be considered for mitigation.

Study Intersections

The study focused on evaluating conditions at 28 study intersections that may potentially be impacted by the proposed project (see Figure 1):

- 1. Highway 1 Southbound Ramps/Del Monte Boulevard (Unsignalized)
- 2. Highway 1 Northbound Ramps/Del Monte Boulevard (Unsignalized)
- 3. South Davis Road/West Blanco Road (Signalized)
- 4. Highway 1 Southbound Ramps/Reservation Road (Unsignalized)
- 5. Highway 1 Northbound Ramps/Reservation Road (Unsignalized)
- 6. Reservation Road/Del Monte Boulevard (Signalized)
- 7. Reservation Road/Vista Del Camino (Signalized)
- 8. Reservation Road/Seacrest Avenue (Signalized)
- 9. Reservation Road/De Forest Road (Signalized)
- 10. Reservation Road/Crescent Avenue (Signalized)
- 11. Reservation Road/Imjin Parkway (Signalized)
- 12. Reservation Road/Blanco Road (Signalized)
- 13. Reservation Road/Western Project Access (Future intersection with a signal)
- 14. Inter-Garrison Road/New Collector that connects with Reservation Road (Future intersection with a roundabout)
- 15. Reservation Road/Central (Main) Project Access (Future intersection with a signal)
- 16. Reservation Road/Eastern Project Access (Future intersection with a signal)
- 17. Reservation Road/South Davis Road/Driveway to "The Bluffs" (Unsignalized)
- 18. Highway 68 Westbound Ramps/Reservation Road (Signalized)
- 19. Highway 68 Eastbound Ramps/Reservation Road (Signalized)
- 20. Highway 1 Southbound Ramps/Imjin Parkway (Unsignalized)
- 21. Highway 1 Northbound Ramps/Imjin Parkway (Unsignalized)
- 22. 3rd Street/4th Avenue (All-way Stop)
- 23. Light Fighter Drive/1st Avenue (Signalized)
- 24. Light Fighter Drive/2nd Avenue (Unsignalized)
- 25. Light Fighter Drive/General Jim Moore Boulevard (Signalized)
- 26. Highway 1 Southbound Ramps/ Canyon Del Rey Boulevard (Unsignalized)
- 27. Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (Unsignalized)
- 28. General Jim Moore Boulevard/Canyon Del Rey Boulevard (Signalized)



Monterey County
East Garrison Development
Vicinity Map

Five analysis scenarios were evaluated as part of this study:

- Existing Conditions Current (2003) traffic volumes and roadway conditions
- Existing plus Project (1,470 Homes) Conditions Existing turning movement volumes with the addition of the trips generated by the proposed project and a funding constrained regional road network.
- *Cumulative (Year 2020) Conditions* Year 2020 buildout traffic volumes based on county-cities land use forecast and a funding constrained regional road network.
- Cumulative (Year 2020) plus Project (1,470 Homes) Conditions Year 2020 buildout traffic volumes with the addition of traffic generated by the proposed project and a funding constrained regional road network.
- Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions Year 2020 buildout traffic volumes with the addition of traffic generated by full buildout of the proposed project and a funding constrained regional road network.

EXISTING CONDITIONS

Existing Roadway System

<u>Reservation Road</u> is a major east-west two-to-four-lane arterial extended westerly from Marina State Beach to Highway 68. It has variable speed limits ranging from 35 miles per hour (mph) in the city setting to 65 mph east of Blanco Road. Reservation Road is fronted by business and commercial centers and a few residential developments from Del Monte Boulevard to Seacrest Avenue and open space and farmlands east of Imjin Parkway to South Davis Road.

During the afternoon peak, cyclists park their vehicles in front of the closed East Garrison Road exit to Reservation Road. Cyclists are only allowed access to Inter Garrison Road through the small gate opening. No equestrian facilities were observed on the Reservation Road corridor. Adequately spaced transit bus stops were observed on both sides of Reservation Road. Monterey County transit and school buses use the Reservation Road.

The relatively low vertical grades and horizontal alignments of Reservation Road segments provide good sight distance to motorists. Sight distance of more than 1000 feet was observed for most roadway segments with design speeds up to 55 mph. However, a substantial vertical curve exists east of the proposed Main Project Access.

<u>Del Monte Boulevard</u> is a north and south four lanes arterial that carry heavy traffic volumes to and from Reservation Road during the morning and afternoon peak periods. Del Monte Boulevard is fronted on the east by small business and commercial properties and on the west by recreational trails and parks. Monterey County transit service operates on Del Monte Boulevard.

<u>Vista Del Camino</u> is a two lane roadway that forms a Tee – Intersection with Reservation Road. The land use along Vista Camino is mainly residential and commercial.

<u>Seacrest Avenue</u> and <u>Crescent Avenue</u> are two lane roadways with residential and commercial adjacent land usage.

Imjin Parkway is bounded on the south by 8th Street and on the north by the Monterey Bay Education Science and Technology Center of U.C. Santa Cruz (UCMBEST) facility. Low traffic volumes were observed to originate from the university facility during most times of the day.

<u>Blanco Road</u> and <u>South Davis Road</u> are two lane rural roadways that provide access between the cities of Salinas and Marina. The land use fronting the two corridors are farmlands and open spaces.

 3^{rd} Street and 4^{th} Avenue are local two lane access streets within the Monterey Bay Campus of California State University. The streets are mainly controlled by stop signs due to the low peak period traffic volumes

<u>Light Fighter Drive</u> serves as a major four-lane collector street that carries moderate traffic to/from the Monterey Bay Campus of California State University and the surrounding land uses. The posted speed limit is 35 mph.

<u>General Jim Moore Boulevard</u> is an undulating two lane roadway bounded on the north by Light Fighter Drive and on the south by Canyon Del Rey Road. The posted speed limit varies from 35 mph to 45 mph. General Jim Moore Boulevard is fronted on the west by a few residential properties and on the east by open space and carries moderate traffic.

<u>Canyon Del Rey Boulevard</u> (State Route 218) is bounded on the north by Highway 1 and merges into Highway 68 on the south. The roadway provides access to Monterey County cities and is fronted by recreational parks and sparse residential developments.

Level of Service Analysis Results (Existing Conditions)

Turning movement counts at all study intersections were collected in June of 2003. Figure 2 shows the intersection lane geometry at the study intersections. Figure 3 illustrates the existing peak hour turning movement volumes at the study intersections. Table I summarizes the results of the intersection analysis under Existing Conditions. The detailed LOS calculations are contained in Appendix B.

Currently, all the study intersections operate at acceptable levels of service during both the a.m. and p.m. peak hours except for the following five study intersections:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road/The Bluffs (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during the a.m. peak hour)

Although the calculations indicate that Highway 1 Southbound ramps/Reservation Road operates at LOS F during the a.m. peak hour, no excessive delays were observed for drivers trying to turn left from the off-ramp (which is stop-controlled) onto eastbound Reservation Road. The adjacent signal to the east at Beach Road/Reservation Road creates gaps in westbound Reservation Road traffic so that drivers can turn left from the Highway 1 southbound off-ramp.

Similarly, although the calculations indicate that Reservation Road/Davis Road/The Bluffs operates at LOS F during the a.m. and p.m. peak hours, no excessive delays were observed for drivers trying to turn left from southbound Davis Road (which is stop-controlled) onto eastbound Reservation Road. The adjacent signal to the east at Highway 68 Westbound Ramps/Reservation Road creates gaps in westbound Reservation Road traffic so that drivers can turn left from Davis Road.

Mitigation Measures for Existing Conditions

Davis Road/Blanco Road

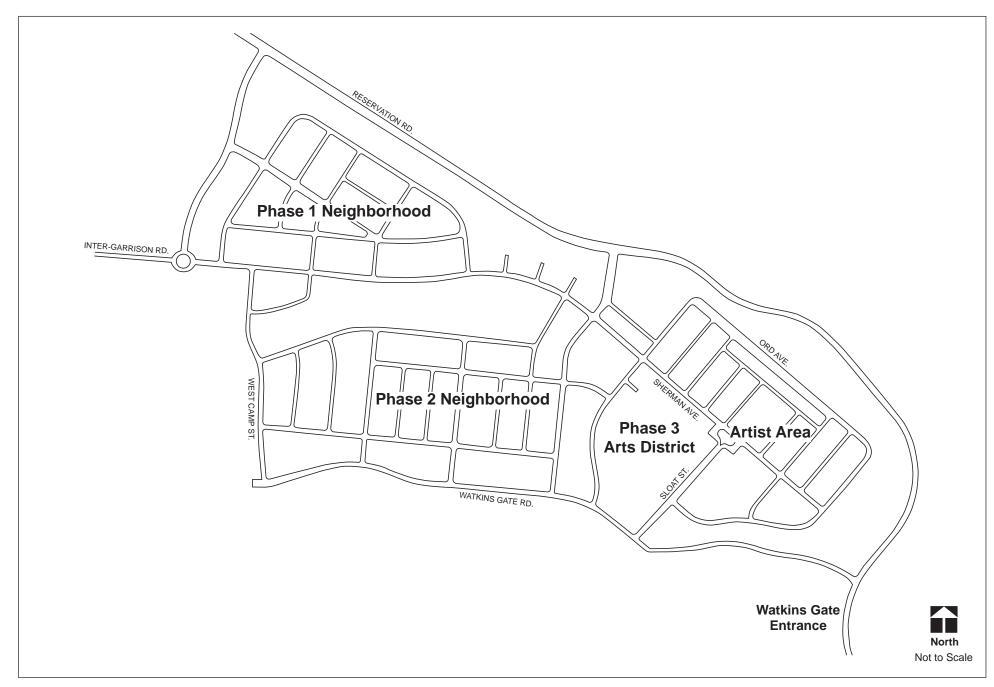
- Add a left turn lane and a right turn lane on the southbound Davis Road approach
- Add a left turn lane on the eastbound Blanco Road approach
- Utilize "Overlap" phasing for right turns from westbound Blanco Road approach and southbound Davis Road approach

Highway 1 Southbound Ramps/Reservation Road

• Install a traffic signal

Reservation Road/Davis Road/"The Bluffs"

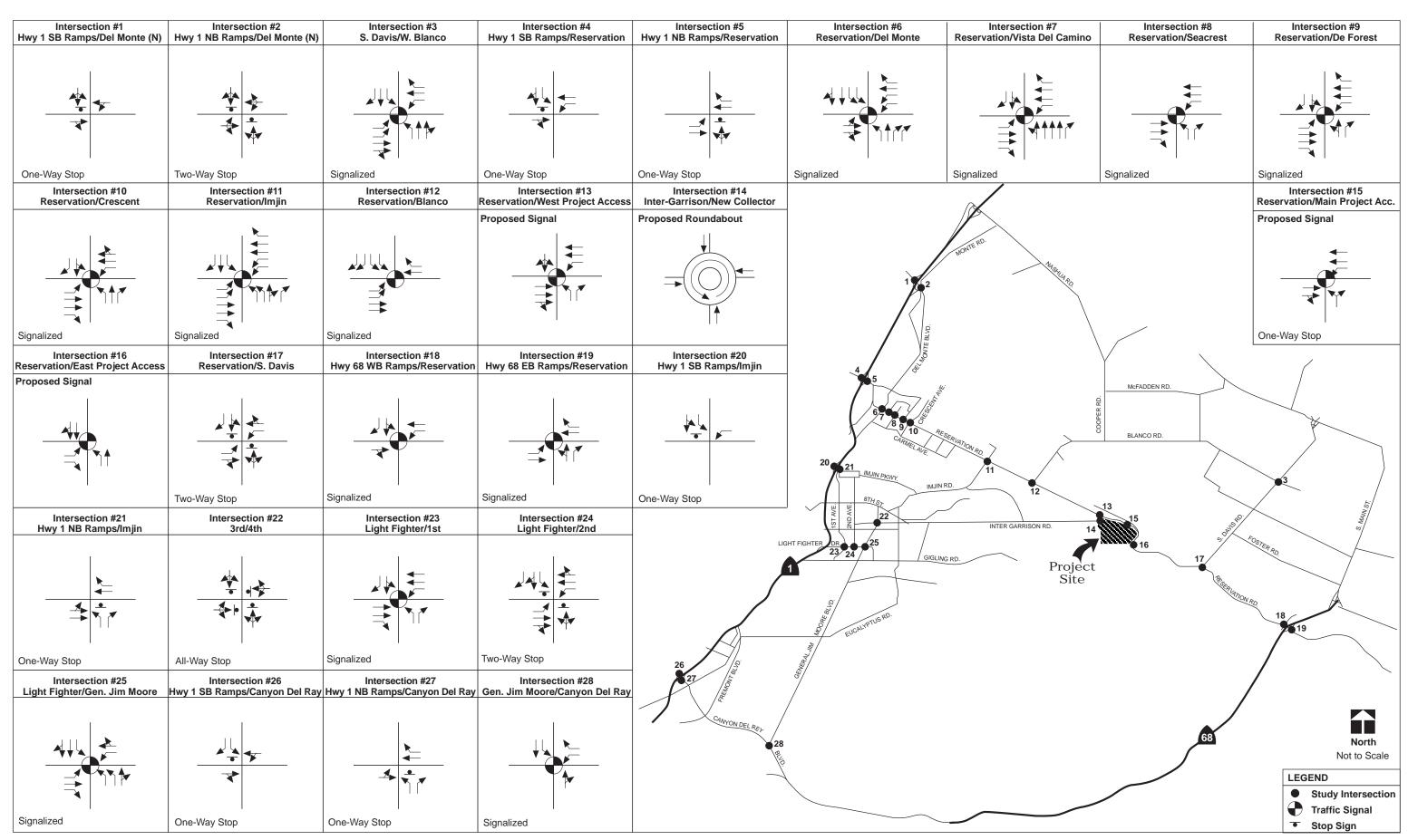
• Install a traffic signal



Monterey County East Garrison Development

Proposed Site Plan





Monterey County East Garrison Development

Intersection Lane Configuration

TABLE I: EXISTING LEVELS OF SERVICE

			A.M.	Peak	P.M. Peak		
	Intersection	Control	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1	Hwy 1 SB Ramps/Del Monte Blvd (N) ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	8.9 (10.3)	A (B)	8.2 (9.8)	A (A)	
2	Hwy 1 NB Ramps/Del Monte Blvd (N) ¹ - SB Monte Road Approach	1-Way STOP	5.3 (13.2)	A (B)	6.3 (16.5)	A (C)	
	Davis Road/Blanco Road ²	Signal	120+	F	102.3	F	
3	Mit: Add a SB LT, a SB RT, a EB LT, and utilize "overlap" for WB RT and SB RT	Signal	34.9	С	29.4	С	
4	Hwy 1 SB Ramps/Reservation Rd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	41.2 (120+)	E (F)	9.6 (18.4)	A (C)	
	Mit: Install a Traffic Signal	Signal	17.0	В	22.9	С	
5	Hwy 1 NB Ramps/Reservation Rd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	1.2 (10.8)	A (B)	3.7 (12.3)	A (B)	
6	Reservation Rd/Del Monte Blvd ³	Signal	25.7	С	27.4	С	
7	Reservation Rd/Vista Del Camino ³	Signal	8.5	А	13.6	В	
8	Reservation Rd/Seacrest Ave ³	Signal	7.9	А	14.6	В	
9	Reservation Rd/De Forest Rd ³	Signal	8.4	А	9.8	А	
10	Reservation Rd/Crescent Ave ³	Signal	11.0	В	12.7	В	
11	Reservation Rd/Imjin Rd ³	Signal	25.4	С	28.2	С	
12	Reservation Rd/Blanco Rd ²	Signal	19.5	В	22.4	С	
13	Reservation Rd/InterGarrison Rd ²	N/A		Future In	tersection		
14	Inter-Garrison Rd/New Collector ²	N/A		Future In	tersection		
15	Reservation Rd/Main Project Access ²	N/A		Future In	tersection		
16	Reservation Rd/Eastern Project Access ²	N/A		Future In	tersection		
17	Reservation Rd/Davis Rd./ "The Bluffs" ² - SB Davis Road Approach	2-Way STOP	38.8 (120+)	E (F)	119.6 (120+)	F (F)	
	Mit: Install a Traffic Signal	Signal	25.2	С	26.2	С	
18	Hwy 68 WB Ramps/Reservation Rd ¹	Signal	13.8	В	30.5	С	
19	Hwy 68 EB Ramps/Reservation Rd ¹	Signal	20.5	С	15.2	В	
20	Hwy 1 SB Ramps/Imjin Pkwy ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	11.4 (13.4)	B (B)	10.1 (10.9)	B (B)	
21	Hwy 1 NB Ramps/Imjin Pkwy ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	0.2 (10.4)	A (B)	0.5 (10.4)	A (B)	
22	3 rd Street/4 th Avenue ³	ALL-Way STOP	8.8	А	10.1	В	
23	Light Fighter Dr/1st Ave3	Signal	7.4	А	9.3	А	
24	Light Fighter Dr/2 nd Ave ³ - NB 2 nd Avenue Approach	2-Way STOP	1.8 (19.7)	A (C)	2.6 (22.9)	A (C)	

25	Light Fighter Dr/Gen. Jim Moore Blvd ³	Signal	17.6	В	21.4	С
26	Hwy 1 SB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	117.2 (120+)	F (F)
	Mit: Construct a Roundabout	Roundabout	4.2	Α	5.4	Α
27	Hwy 1 NB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	3.4 (17.5)	A (C)	6.8 (25.3)	A (D)
20	Gen. Jim Moore Blvd/Canyon Del Rey Blvd ¹	C: 1	80.8	F	37.3	D
28	Mit: Change EB Protected left turn phasing into Permitted left turn phasing	Signal	24.4	С	13.2	В

Notes

Analysis is performed using the software TRAFFIX based on the 2000 Highway Capacity Manual methodologies.

Unacceptable operations are shown in **Bold**.

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard

• Construct a roundabout instead of a signal because there is a Frontage Road that runs parallel to the Highway 1 Southbound Ramps in the close proximity of the intersection (making it roughly a five-legged intersection)

General Jim Moore Boulevard/Canyon Del Rey Boulevard

 Utilize permitted left turn phasing (currently protected left turn phasing) for vehicles turning left from eastbound Canyon Del Rey Boulevard approach onto northbound General Jim Moore Boulevard.

¹Intersection is under Caltrans jurisdiction (Minimum acceptable level of service = D)

²Monterey County Intersection (Minimum acceptable level of service = C)

³ City of Marina Intersection (Minimum acceptable level of service = D)

EXISTING PLUS PROJECT (1,470 HOMES)

This Scenario is similar to the Existing Conditions, but with the addition of traffic generated by the proposed 1,470 homes in the East Garrison development.

Project Description

Initially, the proposed project is assumed to consist of 1,470 homes. At full buildout, the project is expected to consist of a total of 2,887 homes. The project site is located on the south side of Reservation Road, with the Inter Garrison Road connecting to the western side of the project site (see Figure 1). The project will have three access points on Reservation Road: western project access, main project access, and eastern project access. A street connection is proposed to connect Inter Garrison Road with Reservation Road on the western side of the project. Watkins Gate Road at Reservation Road will be the eastern project access. The main project access is proposed to be located approximately midway between western and eastern project access on Reservation Road. Figure 4 shows the proposed project site plan.

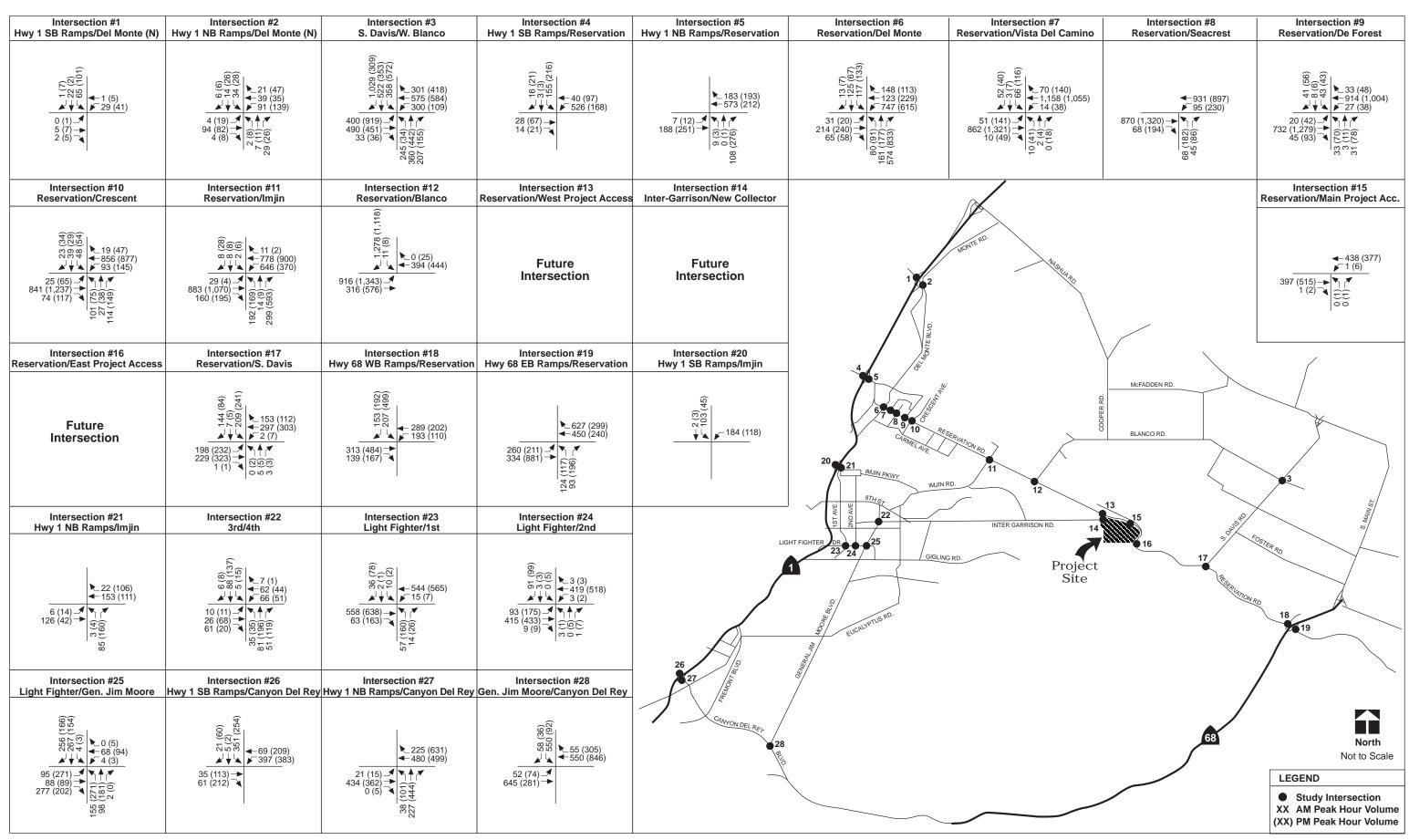
Model Description

The East Garrison modeling and traffic study is based on the regional traffic model that has been used by Caltrans, the Cities of Salinas, Monterey, and Seaside, and Monterey County for corridor and general plan updates. Recently, the model was updated with year 2000 land use and network information in these jurisdictions to better represent the existing conditions and more accurately estimate traffic forecasts. The model's geographic study area spans three counties and the cities of: Monterey, Santa Cruz and San Benito counties.

The traffic model is a set of custom made tools that operates in MINUTP software. The model operates on a desktop computer with Windows 98 or Windows NT. The model uses state of the art enhancements including cross-classification trip generation that uses persons per dwelling unit and income per dwelling unit as independent predictors of trip generation. In the mode choice component, person trips choose between nine modes of travel based on economic criteria. An iterative, capacity constrained traffic assignment is used for AM, PM and off-Peak periods. The traffic model has been used for traffic and land use studies since 1998 including three air quality conformity analyses and four major corridor studies.

Project Trip Generation

The proposed East Garrison development with 1,470 homes is expected to generate a total of approximately 13,692 daily tips with 1,290 trips occurring during the a.m. peak hour and 1,379 trips occurring during the p.m. peak hour. With an additional 1,417 homes proposed for a total of 2,887 homes, the proposed project is expected to generate a total of 24,476 daily trips with 2,322 trips occurring during the a.m. peak hour and 2,467 trips occurring during the p.m. peak hour. Table II summarizes the project trip generation by traffic zones in the model.



Monterey County East Garrison Development

Existing Turning Movement Volumes

Figure

TABLE II: PROJECT TRIP GENERATION FROM THE MODEL

	East Garrison with 1,470 Homes							East C	Garrison w	ith 2,887	Homes	
	AM P		M Peak Hour		PM Peak Hour AM Peak Hour		PM Peak Hou		PM	Peak H	lour	
Zone	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
436	29	53	82	53	33	86	29	53	82	53	33	86
437	46	80	126	80	49	129	46	80	126	80	49	129
438	44	81	125	81	49	130	44	81	125	81	49	130
439	0	0	0	0	0	0	369	663	1,032	678	410	1,088
440	42	73	115	72	44	116	42	73	115	72	44	116
441	41	72	113	72	45	117	41	72	113	72	45	117
442	34	63	97	64	38	102	34	63	97	64	38	102
443	41	70	111	71	45	116	41	70	111	71	45	116
444	46	82	128	83	49	132	46	82	128	83	49	132
445	51	92	143	92	56	148	51	92	143	92	56	148
446	6	2	8	2	6	8	6	2	8	2	6	8
1092	122	120	242	144	151	295	122	120	242	144	151	295
Total	502	788	1,290	814	565	1,379	871	1,451	2,322	1,492	975	2,467

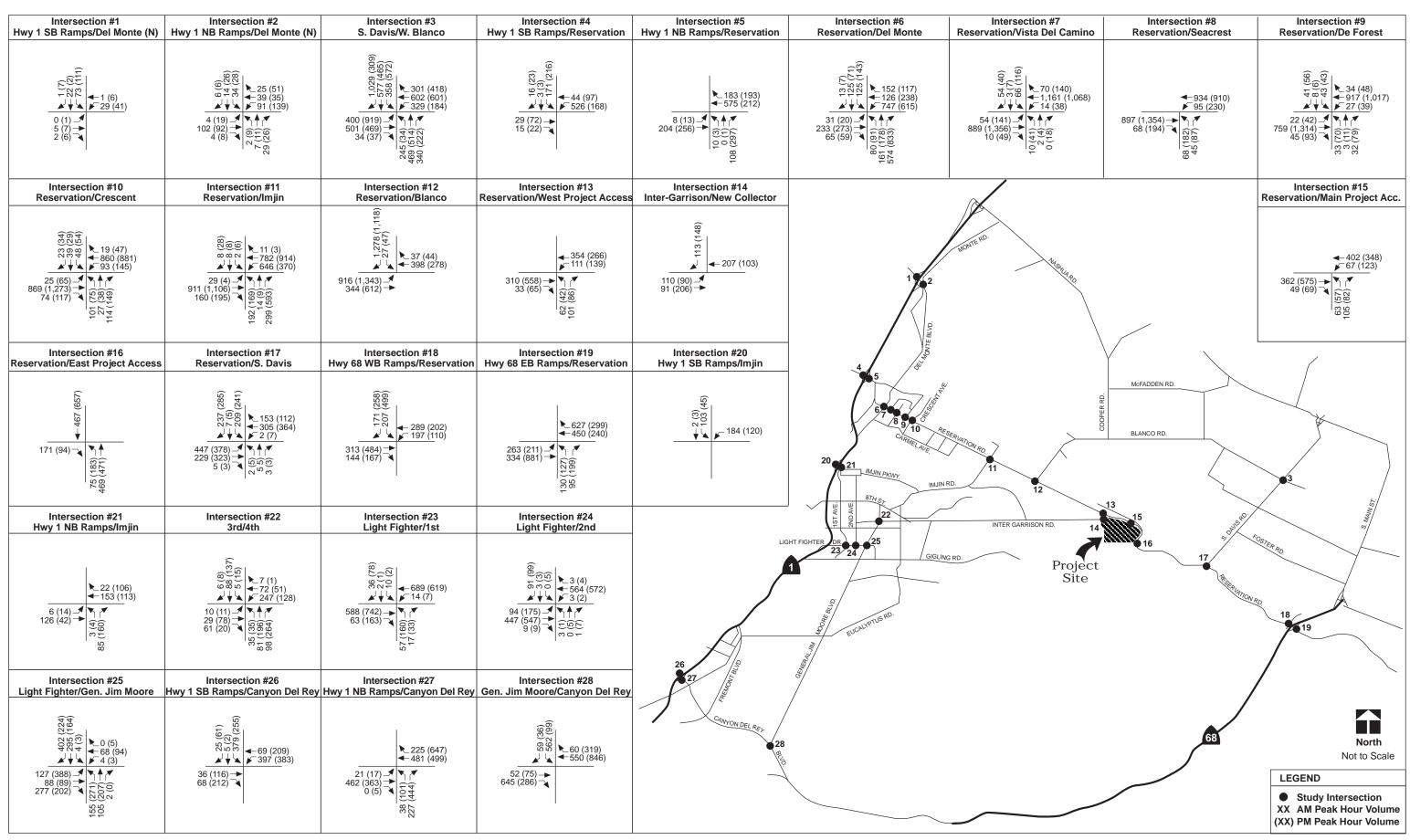
Table III summarizes the various land uses that are proposed for the East Garrison site. In general, the model assumes that the project will house 4,491 people in 1,470 dwelling units and a total of 164 jobs.

TABLE III: PROJECT LAND USE ASSUMPTIONS

Land Use	Acres	Percentage
Residential	111	46%
Commercial	8	3%
Institutional	10	4%
Open Space/Parks	45	18%
Streets and Miscellaneous	70	29%
Total	244	100%

Level of Service Analysis Results (Existing + Project (1,470 Homes))

Project traffic for 1,470 homes was generated by the model and was added to the existing volumes to obtain the expected turning movement volumes for the Existing plus Project (1,470 Homes) scenario. This scenario estimates traffic conditions as if the project would be fully occupied in the very near future, while in reality full occupancy probably would not occur until 2012. Figure 5 shows the forecasted Existing plus Project peak hour turning movement volumes. The LOS analysis results are summarized in Table IV. Detailed calculation sheets are contained in Appendix C.



Monterey County
East Garrison Development

Existing + Project (1470 Homes) Peak Hour Turning Movement Volumes

Figure 5

Table IV: Existing plus Project (1,470 Homes) Levels of Service

			A.M.	Peak	P.M. Peak		
	Intersection	Control	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1	Hwy 1 SB Ramps/Del Monte Blvd (N) ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	9.1 (10.4)	A (B)	8.3 (9.9)	A (A)	
2	Hwy 1 NB Ramps/Del Monte Blvd (N) ¹ - SB Monte Road Approach	1-Way STOP	5.1 (13.3)	A (B)	6.2 (16.8)	A (C)	
	Davis Road/Blanco Road ²	Signal	120+	F	113.0	F	
3	Mit: Add a SB LT, a SB RT, a EB LT, a WB LT, and utilize "overlap" for WB RT and SB RT	Signal	31.5	С	34.5	С	
4	Hwy 1 SB Ramps/Reservation Rd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	53.4 (120+)	F (F)	9.6 (18.5)	A (C)	
	Mit: Same as that of Existing conditions (Install a Traffic Signal)	Signal	17.8	В	23.1	С	
5	Hwy 1 NB Ramps/Reservation Rd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	1.3 (11.0)	A (B)	4.0 (12.7)	A (B)	
6	Reservation Rd/Del Monte Blvd ³	Signal	25.9	С	28.0	С	
7	Reservation Rd/Vista Del Camino ³	Signal	8.5	А	13.5	В	
8	Reservation Rd/Seacrest Ave ³	Signal	7.9	А	14.9	В	
9	Reservation Rd/De Forest Rd ³	Signal	8.5	А	9.9	Α	
10	Reservation Rd/Crescent Ave ³	Signal	11.0	В	12.8	В	
11	Reservation Rd/Imjin Rd ³	Signal	25.9	С	28.8	С	
12	Reservation Rd/Blanco Rd ²	Signal	19.5	В	16.5	В	
13	Reservation Rd/InterGarrison Rd ²	Signal	18.1	В	16.6	В	
14	Inter-Garrison Rd/New Collector ²	Roundabout	3.8	А	3.9	А	
15	Reservation Rd/Main Project Access ²	Signal	18.9	В	17.5	В	
16	Reservation Rd/Eastern Project Access ²	Signal	5.2	А	9.3	Α	
17	Reservation Rd/S. Davis Rd./ "The Bluffs" ² - SB Davis Road Approach	2-Way STOP	120+ (120+)	F (F)	120+ (120+)	F (F)	
17	Mit: Same as that of Existing Conditions (Install a Traffic Signal)	Signal	32.6	С	32.9	С	
18	Hwy 68 WB Ramps/Reservation Rd ¹	Signal	14.1	В	30.3	С	
19	Hwy 68 EB Ramps/Reservation Rd ¹	Signal	20.8	С	15.4	В	
20	Hwy 1 SB Ramps/Imjin Pkwy ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	11.4 (13.4)	B (B)	10.1 (11.0)	B (B)	
21	Hwy 1 NB Ramps/Imjin Pkwy ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	0.2 (10.4)	A (A)	0.5 (10.4)	A (B)	
22	3 rd Street/4 th Avenue ³	ALL-Way STOP	12.0	В	13.9	В	

23	Light Fighter Dr/1st Ave3	Signal	7.2	А	9.7	А
24	Light Fighter Dr/2 nd Ave ³ - NB 2 nd Avenue Approach	2-Way STOP	1.7 (23.1)	A (C)	2.4 (28.2)	A (D)
25	Light Fighter Dr/Gen. Jim Moore Blvd ³	Signal	20.2	С	41.8	D
26	Hwy 1 SB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	119.0 (120+)	F (F)
20	Mit: Same as that of Existing Conditions (Construct a Roundabout)	Roundabout	4.2	А	5.4	А
27	Hwy 1 NB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	3.5 (18.4)	A (C)	6.8 (25.6)	A (D)
	Gen. Jim Moore Blvd/Canyon Del Rey Blvd ¹		85.7	F	40.5	D
28	Mit: Same as that of Exisitng Conditions (Change EB Protected left turn phasing into Permitted left turn phasing	Signal	25.8	С	14.5	В

Notes

Analysis is performed using the software TRAFFIX based on the 2000 Highway Capacity Manual methodologies.

Under the Existing plus Project (1,470 Homes) scenario, the following five study intersections (same as that of Existing Conditions) are expected to continue to operate at unacceptable service levels:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during the a.m. peak hour)

FORA Improvements for Existing plus Project (1,470 Homes) Conditions

Based on the Capital Improvement Program (CIP) on the Fort Ord Reuse Authority (FORA) website, the following improvements are assumed to be included in FORA CIP. The corresponding FORA CIP Project Number is included in parenthesis:

Davis Road/Blanco Road (FORA Project Number 1 and 3b)

- Same set of mitigations recommended under Existing Conditions (see Page 10), and
- Add a left turn lane on the westbound Blanco Road approach

Highway 1 Southbound Ramps/Reservation Road (FO1)

• Same as Existing Conditions (Install a traffic signal)

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (R3)

• Same as Existing Conditions (Construct a roundabout)

¹Intersection is under Caltrans jurisdiction (Minimum acceptable level of service = D)

² Monterey County Intersection (Minimum acceptable level of service = C)

³ City of Marina Intersection (Minimum acceptable level of service = D)

Unacceptable operations are shown in **Bold**.

General Jim Moore Boulevard/Canyon Del Rey Boulevard (R9)

 Same as Existing Conditions (Utilize permitted left turn phasing (currently protected left turn phasing) for vehicles turning left from eastbound Canyon Del Rey Boulevard approach onto northbound General Jim Moore Boulevard)

The project sponsor should get credit for improving the above intersections through payment of the FORA fees for 1,470 homes. However, the signalization needed to improve the intersection of Reservation Road/Davis Road/"The Bluffs" is not included in the FORA CIP. Therefore, the project sponsor should be responsible for paying (in addition to the FORA fees) its fair share (see Table V) to signalize the intersection.

Project Fair Share Analysis (Existing plus Project Conditions)

Prior to the issuance of the first building permit, the project sponsor (in consultation with the Monterey County Public Works Department) is expected to contribute its fair share (in the form of Fort Ord Reuse Authority (FORA) fees for 1,470 homes). These fees will go towards mitigating expected impacts at study intersections and roadway segments that are included in the FORA Capital Improvement Program (CIP). Based on the information provided at the official FORA CIP website (Table 2—Transportation Network and Transit Elements), the following summarizes the estimated schedule for transportation obligations over the CIP horizon (FY 2003/2004 through FY 2021/2022):

- Improvements related to Davis Road and Blanco Road are scheduled for completion in 2017
- Improvements related to General Jim Moore Boulevard are scheduled for completion in 2006
- Improvements related to Reservation Road are scheduled for completion in 2007

Therefore, it may be reasonable to assume that improvements at General Jim Moore Boulevard and at Reservation Road will be completed by 2012, when the project is scheduled to be fully occupied. However, the level-of-service results for the Existing plus Project Conditions do not assume that these improvements are in place.

Tables V and VI list the impacted intersections and roadway segments that are not covered under the FORA CIP, the estimated improvement costs and the project fair share contributions. Based on the Monterey County Public Works Department guidelines, the project fair share analysis was completed using the methodology for calculating equitable mitigation measures. The project's fair share may be conservatively high since there probably will be other future development (between now and 2012) that will generate trips at Reservation Road/Davis Road and the three roadway segments (listed on Table VI) that will also contribute their pro-rata share for improvements, thus lowering the project's fair share.

The project sponsor (in consultation with the Monterey County Public Works Department) is expected to make payments over the course of the construction of different phases of the project except for the improvements at Reservation Road/Davis Road. For this intersection, the project sponsor is expected to pay the entire improvement cost (roughly estimated to be \$750,000) as part of Phase I construction. As part of a reimbursement agreement program with the project sponsor, the Monterey County Public Works Department is expected to reimburse the improvement costs (that are not attributable to the project) after future development make their fair share payments.

TABLE V: PROJECT FAIR SHARE CONTRIBUTION TOWARD INTERSECTION RELATED NON-FORA CIP **IMPROVEMENTS**

Intersection	Project Fair Share (Percent)	Estimated Total Improvement Cost
Reservation Road/Davis Road	23.1	\$750,000

TABLE VI: PROJECT FAIR SHARE CONTRIBUTION TOWARD SEGMENT RELATED NON-FORA CIP **IMPROVEMENTS**

Segments	From	То	Distance (Miles)	Project Fair Share (Percent)	Estimated Total Improvement Cost
Reservation Road	Watkins Gate	Davis Road	1.5	54.3	\$3,400,000
	Highway 68	Portola Drive	<0.1	15.3	\$270,000
Highway 183	Cooper Road	Espinosa Road	5.0	2.2	\$11,700,000

CUMULATIVE (YEAR 2020) CONDITIONS

Methodology

To forecast the traffic volumes in Year 2020, the land use information in the model's trip generation program used housing and population information from the Census 2000 by block and by Census Demographic Profiles (CDP). The employment data were validated to payroll data provided by the Economic Development Department. The household and employment data were organized into traffic analysis zones and validated to CDP and community areas during the County General Plan Update. Appendix D contains the regional land use assumptions data.

Land uses proposed by county and city land use planners for year 2020 were applied to the valid land use data described above. These data were used in place of AMBAG's population and employment forecasts, in consultation with AMBAG. AMBAG's 2000 Census-based land use was not available until March 2004, after this study was near completion. As part of the County General Plan Update, the County has identified five possible growth scenarios that include growth assumptions in county unincorporated areas such as East Garrison.

Appendix D also contains a summary of key land use assumptions that were used to develop 2020 traffic projections for the East Garrison study. The countywide population total was adjusted to include 1,470 dwelling units compared with 3,100 units used in the County General Plan Update. The year 2020 countywide population total with East Garrison adjusted is 585,491 people. The AMBAG 2020 population estimate published in March 2004 for Monterey County was 527,069 people. The Department of Finance estimate for 2020 is 590,000.

Existing and Future Network Assumptions

Existing road and highway network enhancements were made to the existing model to reflect improvements since 1998. The Imjin Parkway, Boronda Road extension and the San Miguel Canyon Interchange at Highway 101 were included in the update of the existing conditions model. Details of recently constructed road and highway projects are provided in Appendix D.

Details about year 2020 future road and highway enhancements used in the three Cumulative scenarios are also described in Appendix D. These lists were developed in consultation with AMBAG and TAMC. They are commonly thought to have funding and subsequently a probability of being built. Many of the FORA improvements described in the FORA Capital Improvement Program (CIP) that have significant financial commitments (at least 50%) were used in the analysis with the exception of Blanco Road extension. Another important assumption in the East Garrison study has Blanco Road as two lanes. On the other hand, internal roadways and connections to Reservation Road and Inter-Garrison Road are opened to traffic when the East Garrison project is built. Also noteworthy is that the Highway 101 Safety and Improvement Project (PIP) was assumed to be constructed in the model's 2020 networks.

Level of Service Analysis Results (Cumulative (Year 2020))

Figure 6 shows the forecasted Cumulative (Year 2020) peak hour turning movement volumes. Table VII illustrates the intersection LOS analysis for the Cumulative (Year 2020) Conditions. Detailed calculation sheets are contained in Appendix E.

Under the Cumulative (Year 2020) Conditions, the following intersections are expected to operate at unacceptable levels of service:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Del Monte Boulevard (LOS E during the p.m. peak hour)
- Reservation Road/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Blanco Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road/"The Bluffs" (LOS F during both the a.m. and p.m. peak hours)
- Highway 68 Westbound Ramps/Reservation Road (LOS F during the p.m. peak hour)
- Highway 1 Southbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Light Fighter Drive/1st Avenue (LOS F during the p.m. peak hour)
- Light Fighter Drive/2nd Avenue (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)

Mitigation Measures for Cumulative (Year 2020) Conditions

Davis Road/Blanco Road

- Same set of mitigations recommended under Existing Conditions (see page 10), and
- Add a through lane and a right turn lane on the southbound Davis Road approach
- Add two through lanes on the northbound Davis Road approach, so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane)
- Add two through lanes on the eastbound Blanco Road approach, so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane)
- Add a left turn lane, a through lane, and a right turn lane on the westbound Blanco Road approach

TABLE VII: CUMULATIVE (YEAR 2020) LEVELS OF SERVICE

Intersection		Control	A.M. Peak		P.M. F	P.M. Peak	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1	Hwy 1 SB Ramps/Del Monte Blvd (N) ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	10.8 (11.9)	B (B)	8.3 (10.1)	A (B)	
2	Hwy 1 NB Ramps/Del Monte Blvd (N) ¹	1-Way	5.0	А	6.3	А	
	- SB Monte Road Approach	STOP	(13.3)	(B)	(17.1)	(C)	
3	Davis Road/Blanco Road ² Mit: Add a SB LT, a SB TH, 2 SB RT, add 2 NB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add 2 EB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add a EB LT, a WB LT, a WB TH, a WB RT, and utilize "overlap" for WB RT and SB RT.	Signal	34.3	FC	34.4	<u></u> Б	
4	Hwy 1 SB Ramps/Reservation Rd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	33.7 (70.6)	D (F)	
•	Mit: Same as that of Existing conditions (Install a Traffic Signal)	Signal	19.3	В	24.2	С	
5	Hwy 1 NB Ramps/Reservation Rd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	1.4 (13.6)	A (B)	4.5 (18.1)	A (C)	
6	Reservation Rd/Del Monte Blvd ³ Mit: Add a NB TH lane.	Signal	31.1 31.0	C C	60.9 32.7	E C	
7	Reservation Rd/Vista Del Camino ³	Signal	8.8	<u>U</u>	13.4	В	
8	Reservation Rd/Seacrest Ave ³	Signal	8.1	А	16.6	В	
9	Reservation Rd/De Forest Rd ³	Signal	9.2	А	10.0	В	
10	Reservation Rd/Crescent Ave ³	Signal	14.0	В	12.8	В	
	Reservation Rd/Imjin Rd ³		120+	F	120+	F	
11	Mit: 1) Restripe WB approach (currently 2 LT, 2 TH, and 1 RT) to have 3 LT, 1 TH, and 1 shared TH-RT, 2) Restripe EB approach (currently 2 LT, 2 TH, and 1 RT) to have 1 LT, 3 TH, and 1 RT, and 3) Make NB RT free.	Signal	42.9	D	27.5	С	
	Reservation Rd/Blanco Rd ²	 Signal	120+	F	28.0	С	
12	Mit: Restripe WB approach (currently 1 TH and 1 RT) to have 1 TH and 1 shared TH- RT lanes.		33.9	С	16.1	В	
13	Reservation Rd/InterGarrison Rd ²	Signal	N/A (No project traffic)				
14	Inter-Garrison Rd/New Collector ²	Roundabout	N/A (No project traffic)				
15	Reservation Rd/Main Project Access ²	Signal	N/A (No project traffic)				
16	Reservation Rd/Eastern Project Access ²	Signal	N/A (No project traffic)				

					I	
17	Reservation Rd/Davis Rd./ "The Bluffs" ²	2-Way STOP	120+	F	120+	F
	Mit: Install a Traffic Signal and add 1 WB TH, 1 EB LT lanes, and make SB RT free.	Signal	28.4	С	29.5	С
18	Hwy 68 WB Ramps/Reservation Rd ¹		14.8	В	120+	F
	Mit: Add 1 SB LT lane and add 1 EB TH lane and modify EB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	13.3	В	36.5	D
	Hwy 68 EB Ramps/Reservation Rd ¹		34.5	С	46.2	D
19	Change EB LT lane into a shared LT-TH and use split phasing to accommodate the additional SB LT lane at Intersection 18.	Signal	44.6	D	46.7	D
20	Hwy 1 SB Ramps/Imjin Pkwy ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+	F	120+	F
	Mit: Install a traffic signal.	Signal	37.6	D	19.2	В
21	Hwy 1 NB Ramps/Imjin Pkwy ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	0.1 (63.5)	A (F)	120+ (120+)	F
	Mit: Install a traffic signal.	Signal	30.5	С	21.7	С
22	3 rd Street/4 th Avenue ³	ALL-Way STOP	10.6	В	11.3	В
00	Light Fighter Dr/1st Ave3	o	46.9	D	109.0	F
23	Mit: Add 1 EB RT and 1 NB LT lanes.	Signal	18.9	В	28.8	С
24	Light Fighter Dr/2 nd Ave ³ - NB 2 nd Avenue Approach	2-Way STOP	79.8 (120+)	F (F)	120+ (120+)	F
	Mit: Install a traffic signal	Signal	28.8	С	52.7	D
25	Light Fighter Dr/Gen. Jim Moore Blvd ³	Signal	18.6	В	26.3	С
26	Hwy 1 SB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	120+ (120+)	F (F)
20	Mit: Same as that of Existing Conditions (Construct a Roundabout)	Roundabout	4.2	А	5.7	А
27	Hwy 1 NB Ramps/Canyon Del Rey Blvd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	15.4 (63.2)	B (F)	25.5 (86.7)	D (F)
	Mit: Add 1 EB TH Lane		5.0 (20.1)	A (C)	9.0 (30.4)	A (D)
28	Gen. Jim Moore Blvd/Canyon Del Rey Blvd ¹		120+	F	120+	F
	Mit: Change EB Protected left turn phasing into Permitted left turn phasing. Add 1 SB LT lane. Add 1 WB TH and modify WB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	43.4	D	14.6	В

Notes:
Analysis is performed using the software TRAFFIX based on the 2000 Highway Capacity Manual methodologies.

Intersection is under Caltrans jurisdiction (Minimum acceptable level of service = D)

Monterey County Intersection (Minimum acceptable level of service = C)

City of Marina Intersection (Minimum acceptable level of service = D)

Unacceptable operations are shown in **Bold**.

Highway 1 Southbound Ramps/Reservation Road

• Same as Existing Conditions (Install a traffic signal)

Reservation Road/Del Monte Boulevard

• Add a through lane on the northbound Del Monte Boulevard approach

Reservation Road/Imjin Parkway

- Restripe westbound Reservation Road approach to have three left turn lanes, one through lane, and one shared through-right turn lane from two left turn lanes, two through lanes, and one right turn lane
- Restripe eastbound Reservation Road approach to have one left turn lane, three through lanes, and one right turn lane from two left turn lanes, two through lanes, and one right turn lane
- Implement "Free" right turns for vehicles turning right onto eastbound Reservation Road from northbound Imjin Parkway

Reservation Road/Blanco Road

• Restripe westbound Reservation Road approach to have one through lane, and one shared through-right turn lane from one through lane, and one right turn lane

Reservation Road/Davis Road/"The Bluffs"

- Install a traffic signal (same as Existing Conditions)
- Add a through lane on the westbound Reservation Road approach
- Add a left turn lane on the eastbound Reservation Road approach
- Implement "Free" right turns for vehicles turning right into westbound Reservation Road from southbound Davis Road

Highway 68 Westbound Ramps/Reservation Road

- Add a left turn lane on the Highway 68 Westbound Off Ramp
- Add a lane on the eastbound Reservation Road approach so that it has one through lane and one right turn lane (instead of one shared through-right turn lane)

Highway 68 Eastbound Ramps/Reservation Road

• To accommodate the additional left turn lane on the Highway 68 Westbound Off Ramp approach at Reservation Road, the left turn lane on the eastbound Reservation Road approach should be restriped to a shared left-through lane at the intersection of Highway 68 Eastbound Ramps/Reservation Road. Also, split phasing will need to be implemented on Reservation Road at Highway 68 Eastbound Ramps and the average intersection delay is expected to increase because of the utilization of split phasing.

Highway 1 Southbound Ramps/Imjin Parkway

• Install a traffic signal

Highway 1 Northbound Ramps/Imjin Parkway

• Install a traffic signal

Light Fighter Drive/1st Avenue

- Add a right turn lane on the eastbound Light Fighter Drive
- Add a left turn lane on the northbound 1st Avenue

Light Fighter Drive/2nd Avenue

• Install a traffic signal

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard

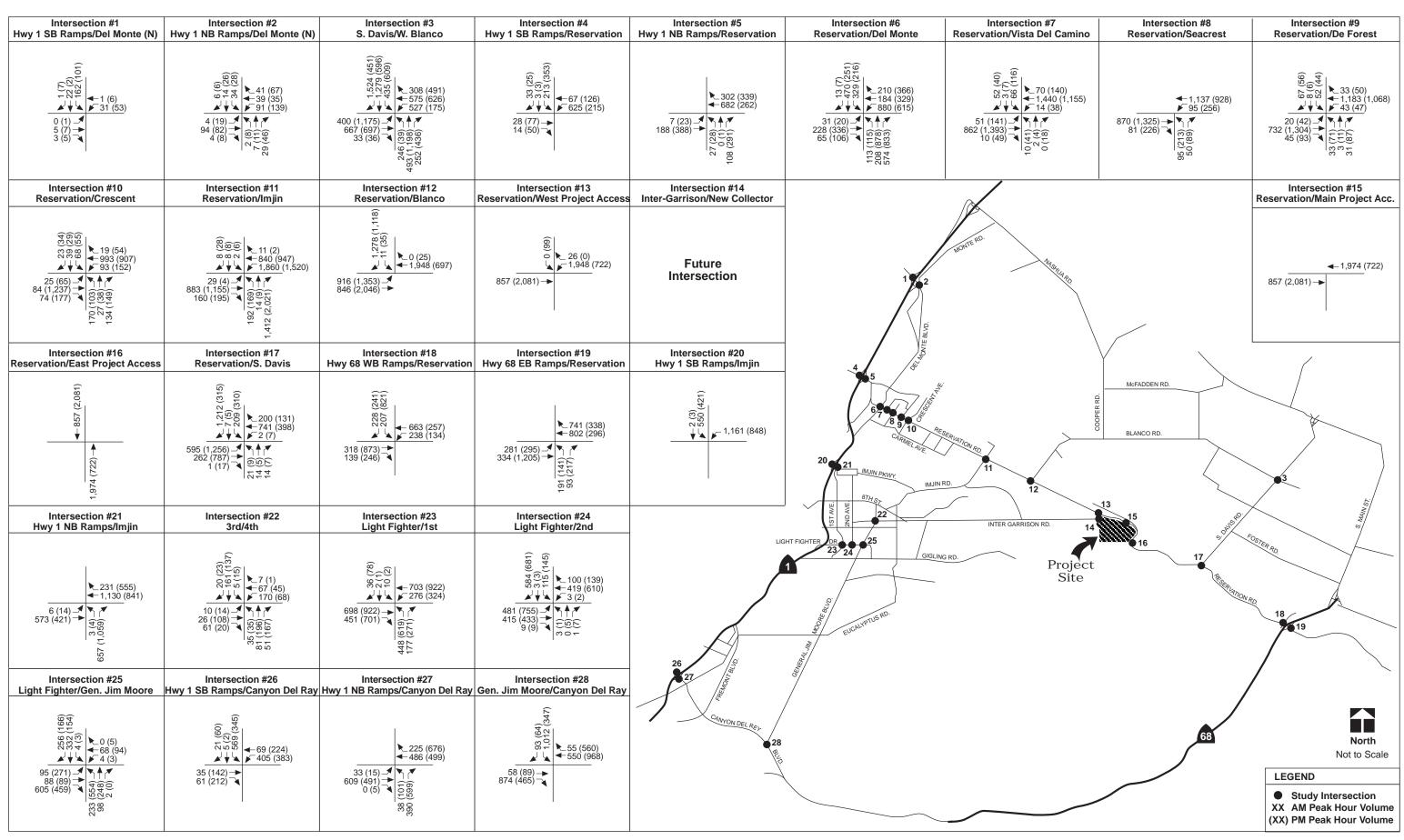
• Same as Existing Conditions (Construct a roundabout)

Highway 1 Northbound Ramps/Canyon Del Rey Boulevard

• Add a through lane on the eastbound Canyon Del Rey approach

General Jim Moore Boulevard/Canyon Del Rey Boulevard

- Utilize permitted left turn phasing for vehicles turning left from eastbound Canyon Del Rey Boulevard approach onto northbound General Jim Moore Boulevard (same as Existing Conditions)
- Add a left turn lane on the southbound General Jim Moore Boulevard approach
- Add a lane on the westbound Canyon Del Rey approach so that it consists of one through lane and one right turn lane (instead of one shared through-right turn lane)



Monterey County **East Garrison Development**

Cumulative (Year 2020) Peak Hour Turning Movement Volumes

Figure

CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) CONDITIONS

Methodology

This scenario is identical to Cumulative (Year 2020) Conditions but with the traffic added from the proposed 1,470 homes as part of the East Garrison development.

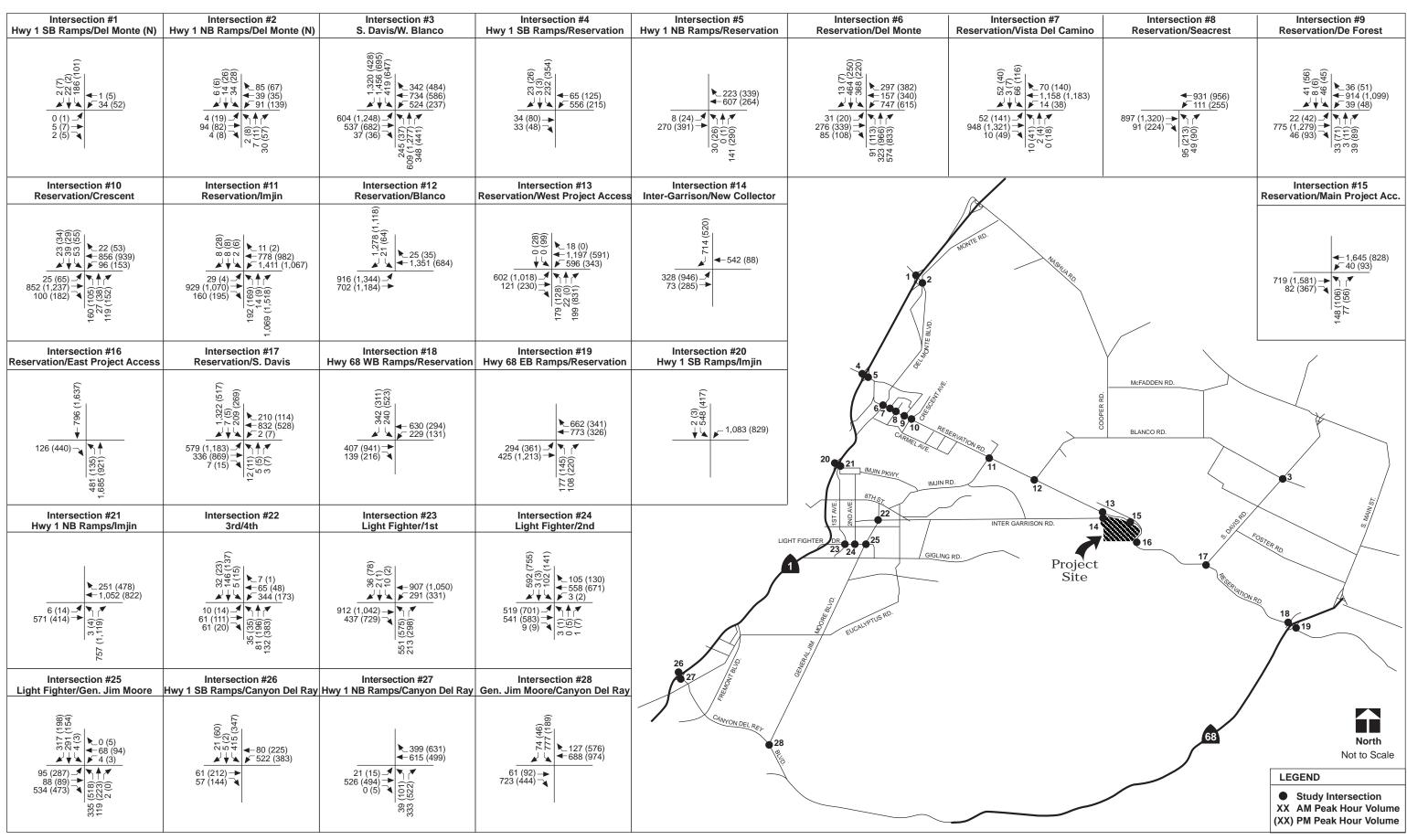
Level of Service Analysis Results (Cumulative (Year 2020) plus Project (1,470 Homes))

Figure 7 shows the Cumulative (Year 2020) plus Project (1,470 Homes) peak hour turning movement volumes at the study intersections. Table VIII summarizes the intersection LOS analysis results. The detailed calculation sheets depicting cumulative traffic operations are contained in Appendix F.

Under the Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the following intersections are expected to operate at unacceptable levels of service:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Del Monte Boulevard (LOS E during the p.m. peak hour)
- Reservation Road/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Blanco Road (LOS F during the a.m. peak hour)
- InterGarrison Road/New Collector (LOS F during the p.m. peak hour)
- Reservation Road/Davis Road/"The Bluffs" (LOS F during both the a.m. and p.m. peak hours)
- Highway 68 Westbound Ramps/Reservation Road (LOS F during the p.m. peak hour)
- Highway 1 Southbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Light Fighter Drive/1st Avenue (LOS E during the a.m. peak hour; LOS F during the p.m. peak hour)
- Light Fighter Drive/2nd Avenue (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (LOS F during the p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)

The above list of 15 intersections consists of the same 14 intersections that are expected to operate unacceptably under Cumulative Conditions (see page 22) with one additional intersection (InterGarrison Road/New Collector).



Monterey County

East Garrison Development

Cumulative (Year 2020) + Project (1470 Homes) Peak Hour Turning Movement Volumes

TABLE VIII: CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) LEVELS OF SERVICE

			A.M.	Peak	P.M. Peak		
	Intersection	Control	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1	Hwy 1 SB Ramps/Del Monte Blvd (N) ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	11.6 (12.7)	B (B)	8.3 (10.1)	A (B)	
2	Hwy 1 NB Ramps/Del Monte Blvd (N) ¹ - SB Monte Road Approach	1-Way STOP	4.5 (13.8)	A (B)	6.4 (17.4)	A (C)	
	Davis Road/Blanco Road ²		120+	F	120+	F	
3	Mit: Add 2 SB LT, a SB TH, 2 SB RT, add 2 NB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add a NB LT, add 2 EB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add a EB LT, a WB LT, a WB TH, a WB RT, and utilize "overlap" for WB RT and SB RT.	Signal	32.4	С	32.3	С	
4	Hwy 1 SB Ramps/Reservation Rd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	34.1 (71.4)	D (F)	
·	Mit: Same as that of Existing conditions (Install a Traffic Signal)	Signal	21.5	С	24.2	С	
5	Hwy 1 NB Ramps/Reservation Rd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	2.0 (14.5)	A (B)	4.4 (17.9)	A (C)	
6	Reservation Rd/Del Monte Blvd ³ Mit: Add a NB TH lane.	Signal	30.5 29.9	C C	76.0 34.3	<u>Е</u> С	
7	Reservation Rd/Vista Del Camino ³	Signal	8.4	A	13.6	В	
8	Reservation Rd/Seacrest Ave ³	Signal	8.5	А	16.4	В	
9	Reservation Rd/De Forest Rd ³	Signal	8.8	А	10.0	В	
10	Reservation Rd/Crescent Ave ³	Signal	12.6	В	12.9	В	
	Reservation Rd/Imjin Rd ³		120+	F	120+	F	
11	Mit: 1) Restripe WB approach (currently 2 LT, 2 TH, and 1 RT) to have 3 LT, 1 TH, and 1 shared TH-RT, 2) Restripe EB approach (currently 2 LT, 2 TH, and 1 RT) to have 1 LT, 3 TH, and 1 RT, and 3) Make NB RT free.	Signal	25.5	С	21.8	С	
	Reservation Rd/Blanco Rd ²		120+	F	31.5	С	
12	Mit: Restripe WB approach (currently 1 TH and 1 RT) to have 1 TH and 1 shared TH-RT lanes.	Signal	26.3	С	18.9	В	
13	Reservation Rd/InterGarrison Rd ²	Signal	20.1	С	34.3	С	
	Inter-Garrison Rd/New Collector ²		14.9	В	52.6	F	
14	Mit: Add 1 EB approach lane and a circulating lane	Roundabout	14.2	В	4.3	А	
15	Reservation Rd/Main Project Access ²	Signal	14.3	В	16.7	В	
16	Reservation Rd/Eastern Project Access ²	Signal	15.3	В	6.0	А	

	Reservation Rd/Davis Rd./ "The Bluffs" ²	2-Way STOP	120+	F	120+	F
17	Mit: Install a Traffic Signal and add 1 WB TH, 1 EB LT lanes, and make SB RT free.	Signal	26.4	С	29.0	С
	Hwy 68 WB Ramps/Reservation Rd ¹		21.8	С	117.6	F
18	Mit: Add 1 SB LT lane and add 1 EB TH lane and modify EB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	16.6	В	34.5	С
	Hwy 68 EB Ramps/Reservation Rd ¹		28.7	С	47.6	D
19	Change EB LT lane into a shared LT-TH and use split phasing to accommodate the additional SB LT lane at Intersection 18.	Signal	42.3	D	53.7	D
20	Hwy 1 SB Ramps/Imjin Pkwy ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+	F	120+	F
	Mit: Install a traffic signal.	Signal	30.2	С	18.9	В
	Hwy 1 NB Ramps/Imjin Pkwy ¹	1-Way	0.1	А	0.3	А
21	- Hwy 1 NB Off-ramp Approach	STOP	(57.0)	(F)	(69.5)	(F)
	Mit: Install a traffic signal.	Signal	25.9	С	20.9	С
22	3 rd Street/4 th Avenue ³	ALL-Way STOP	18.9	С	24.9	С
23	Light Fighter Dr/1st Ave3	Cianal	78.5	E	102.1	F
23	Mit: Add 1 EB RT and 1 NB LT lanes.	Signal	29.4	С	29.6	С
24	Light Fighter Dr/2 nd Ave ³ - NB 2 nd Avenue Approach	2-Way STOP	120+ (120+)	F (F)	120+ (120+)	F
	Mit: Install a traffic signal.	Signal	30.1	С	52.5	D
25	Light Fighter Dr/Gen. Jim Moore Blvd ³	Signal	20.4	С	36.8	D
26	Hwy 1 SB Ramps/Canyon Del Ray Blvd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	120+ (120+)	F (F)
20	Mit: Same as that of Existing Conditions (Install a Roundabout)	Roundabout	5.4	А	5.7	А
	Hwy 1 NB Ramps/Canyon Del Ray Blvd ¹	1-Way	6.1	А	15.3	С
27	- Hwy 1 NB Off-ramp Approach	STOP	(31.2)	(D)	(55.3)	(F)
	Mit: Add 1 EB TH Lane		3.6 (18.2)	A (C)	7.3 (26.3)	A (D)
	Gen. Jim Moore Blvd/Canyon Del Ray Blvd ¹		120+	F	120+	F
28	Mit: Change EB Protected left turn phasing into Permitted left turn phasing. Add 1 SB LT lane. Add 1 WB TH and modify WB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	17.1	В	9.1	А

Notes:
Analysis is performed using the software TRAFFIX based on the 2000 Highway Capacity Manual methodologies.

¹Intersection is under Caltrans jurisdiction (Minimum acceptable level of service = D)

² Monterey County Intersection (Minimum acceptable level of service = C)

³ City of Marina Intersection (Minimum acceptable level of service = D)

Unacceptable operations are shown in **Bold**.

FORA Improvements for Cumulative plus Project (1,470 Homes) Conditions

Based on the CIP on the FORA website, the following improvements are assumed to be included in FORA CIP. The corresponding FORA CIP Project Number is included in parenthesis:

Davis Road/Blanco Road (1 and 3b)

- Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 24)
- Add a left turn lane on the northbound Davis Road approach

Highway 1 Southbound Ramps/Reservation Road (F01)

• Same as Existing, and Cumulative (Year 2020) Conditions (Install a traffic signal)

Reservation Road/Del Monte Boulevard (F01)

• Same as Cumulative (Year 2020) Conditions (Add a through lane on the northbound Del Monte Boulevard approach)

Reservation Road/Imjin Parkway (4b)

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 27)

Reservation Road/Blanco Road (4b)

• Same as Cumulative (Year 2020) Conditions (Restripe westbound Reservation Road approach to have one through lane, and one shared through-right turn lane from one through lane, and one right turn lane)

InterGarrison Road/New Collector (4 and F06)

• Add a lane on the eastbound (new collector) approach, which would also require adding a circulating lane for the roundabout (baseline geometry proposed for the roundabout is to have one approach lane for each approach, and one circulating lane).

Highway 1 Southbound Ramps/Imjin Parkway (F01)

• Same as Cumulative (Year 2020) Conditions (Install a traffic signal)

Highway 1 Northbound Ramps/Imjin Parkway (F01)

• Same as Cumulative (Year 2020) Conditions (Install a traffic signal)

Light Fighter Drive/1st Avenue (F01)

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 27)

Light Fighter Drive/2nd Avenue (F01)

• Same as Cumulative (Year 2020) Conditions (Install a traffic signal)

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (R3)

• Same as Existing Conditions, and Cumulative (Year 2020) Conditions (Construct a roundabout)

Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (R3)

• Same as Cumulative Conditions (Add a through lane on the eastbound Canyon Del Rey approach)

General Jim Moore Boulevard/Canyon Del Rey Boulevard (R9)

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions

The project sponsor should get credit for improving the above intersections through payment of the FORA fees for 1,470 homes. However, the following improvements are not part of the FORA CIP. Therefore, the project sponsor should be responsible for paying (in addition to the FORA fees) its fair share (see Table IX) toward the non-FORA CIP improvements.

Reservation Road/Davis Road/"The Bluffs"

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 27)

Highway 68 Westbound Ramps/Reservation Road

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 27)

Highway 68 Westbound Ramps/Reservation Road

• Same set of mitigations recommended under Cumulative (Year 2020) Conditions (page 27)

Project Fair Share Analysis (Cumulative plus Project Conditions)

Prior to the issuance of the first building permit, the project sponsor (in consultation with the Monterey County Public Works Department) is expected to contribute its fair share (in the form of FORA fees for 1,470 homes). These fees will go towards mitigating expected impacts at study intersections and roadway segments that are included in the FORA CIP. Based on the information provided at the official FORA CIP website (Table 2—Transportation Network and Transit Elements), the following is an estimated schedule of transportation obligations over the CIP horizon (FY 2003/2004 through FY 2021/2022):

- Improvements related to Davis Road and Blanco Road are scheduled for completion in 2017
- Improvements related to General Jim Moore Boulevard are scheduled for completion in 2006
- Improvements related to Reservation Road are scheduled for completion in 2007
- Improvements related to InterGarrison are scheduled for completion in 2008
- Improvements related to Abrams Road are scheduled for completion in 2007

Therefore, it may be reasonable to assume that improvements at General Jim Moore Boulevard, Reservation Road, InterGarrison and Abrams will be completed by 2012, when the project is scheduled to be fully occupied.

Tables IX and X list the impacted intersections and roadway segments that are not covered under the FORA CIP, the estimated improvement costs and the project fair share contributions under the cumulative scenario. The project fair share analysis was based on the methodology presented in the County Public Works Department's *Guide for the Preparation of Traffic Impact Studies* dated

October 2003. As expected, the project's fair share is lower under Cumulative plus Project Conditions than under Existing plus Project Conditions for improvements that are needed under both Conditions.

TABLE IX: PROJECT FAIR SHARE CONTRIBUTION TOWARD INTERSECTION RELATED NON-FORA CIP **IMPROVEMENTS**

Intersections	Cumulative Percent Share	Estimated Total Improvement Cost
Hwy 68 WB Ramps/Reservation Road	3.5	\$500,000
Hwy 68 EB Ramps/Reservation Road	9.2	\$500,000
Reservation Road/Davis Road	7.5	\$750,000

TABLE X: PROJECT FAIR SHARE CONTRIBUTION TOWARD SEGMENT RELATED NON-FORA CIP **IMPROVEMENTS**

Segments	From	То	Distance (Miles)	Cumulative Percent Share	Estimated Total Improvement Cost
Reservation Road	Watkins Gate	Davis Road	1.5	26.4	\$3,400,000
	Highway 68	Portola Drive	<0.1	9.2	\$270,000
Highway 183	Cooper Road	Espinosa Road	5.0	1.8	\$11,700,000

CUMULATIVE (YEAR 2020) PLUS FULL PROJECT (2,887 HOMES) CONDITIONS

Methodology

This scenario is identical to Cumulative (Year 2020) Conditions but with the traffic added from the proposed 2,887 homes representing full buildout of the East Garrison development.

Level of Service Analysis Results (Cumulative (Year 2020) plus Full Project (2,887 Homes))

Figure 8 shows the Cumulative (Year 2020) plus Full Project (2,887 Homes) peak hour turning movement volumes at the study intersections. Table XI summarizes the intersection LOS analysis results. The detailed calculation sheets depicting cumulative traffic operations are contained in Appendix G.

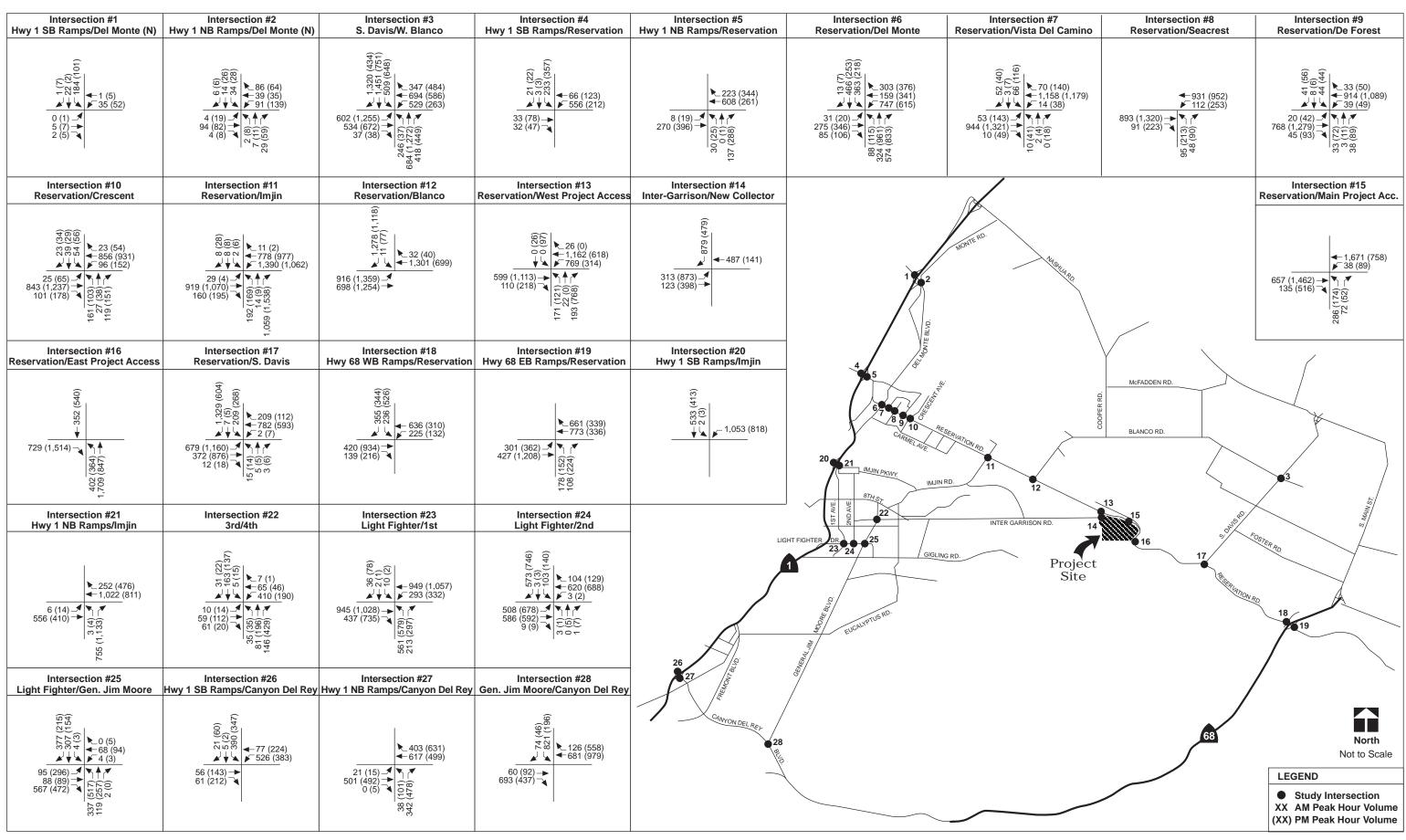
Under the Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions, the study intersections with unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) are expected to continue to operate unacceptably (see page 28). The same mitigation measures recommended under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions (see pages 32 and 33) are expected to improve the levels of service at these intersections to acceptable service levels under Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions.

Peak Hour Signal Warrant Analysis

The justification for the installation of a traffic signal at an intersection is based on the warrants stated in the Caltrans Manual and in the Manual On Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration (FHWA). There is a total of 11 warrants that evaluate the need for a signal based on many reasons including excessive delay to minor street traffic, large pedestrian volumes, school crossing, signal progression, accident experience and excessive delay during the peak hour. When the design speed/85th percentile speed of traffic on the major street exceeds 40 miles per hour in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the location is considered rural. Based on the above criteria, the rural warrants were considered to complete the signal warrant analysis for the five selected study intersections.

The decision to install a signal should not be based solely upon the warrants, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated.

The most congested and critical time of day on a roadway usually occurs during the peak hour at the intersection. Therefore, if a signal is warranted based on the peak hour warrant, it is an indication that there is a need to further investigate the need for a signal based on the other 10 warrants. Table XII shows the peak hour signal warrant analysis for the unsignalized study intersections that are expected to operate unacceptably under different scenarios. Appendix H contains the signal warrant analysis sheets.



Monterey County

East Garrison Development

Cumulative (Year 2020) + Project (2887 Homes) Peak Hour Turning Movement Volumes



TABLE XI: CUMULATIVE (YEAR 2020) PLUS PROJECT (2,887 HOMES) LEVELS OF SERVICE

			A.M.	Peak	P.M. Peak		
	Intersection	Control	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1	Hwy 1 SB Ramps/Del Monte Blvd (N) ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	11.6 (12.7)	B (B)	8.3 (10.1)	A (B)	
2	Hwy 1 NB Ramps/Del Monte Blvd (N) ¹ - SB Monte Road Approach	1-Way STOP	4.5 (13.8)	A (B)	6.5 (17.3)	A (C)	
3	Davis Road/Blanco Road ² Mit: Add 2 SB LT, a SB TH, 2 SB RT, add 2 NB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add a NB LT, add 2 EB TH and restripe to have 3 TH and 1 RT from 1 TH and 1 shared TH-RT, add a EB LT, a WB LT, a WB TH, a WB RT, and utilize "overlap" for WB RT and SB RT.	Signal	30.7	F C	31.5	F C	
4	Hwy 1 SB Ramps/Reservation Rd ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+ (120+)	F (F)	33.6 (69.6)	D (F)	
	Mit: Same as that of Existing conditions (Install a Traffic Signal)	Signal	21.4	С	24.1	С	
5	Hwy 1 NB Ramps/Reservation Rd ¹ - Hwy 1 NB Off-ramp Approach	1-Way STOP	2.0 (14.5)	A (B)	4.3 (17.8)	A (C)	
6	Reservation Rd/Del Monte Blvd ³ Mit: Add a NB TH lane.	Signal	30.5 29.8	C	75.0 34.1	<u>Е</u> С	
7	Reservation Rd/Vista Del Camino ³	Signal	8.5	А	13.7	В	
8	Reservation Rd/Seacrest Ave ³	Signal	8.5	А	16.4	В	
9	Reservation Rd/De Forest Rd ³	Signal	8.8	А	10.0	В	
10	Reservation Rd/Crescent Ave ³	Signal	12.6	В	12.9	В	
	Reservation Rd/Imjin Rd ³		120+	F	120+	F	
11	Mit: 1) Restripe WB approach (currently 2 LT, 2 TH, and 1 RT) to have 3 LT, 1 TH, and 1 shared TH-RT, 2) Restripe EB approach (currently 2 LT, 2 TH, and 1 RT) to have 1 LT, 3 TH, and 1 RT, and 3) Make NB RT free.	Signal	25.0	С	21.8	С	
	Reservation Rd/Blanco Rd ²		120+	F	33.2	С	
12	Mit: Restripe WB approach (currently 1 TH and 1 RT) to have 1 TH and 1 shared TH-RT lanes.	Signal	25.2	С	19.1	В	
13	Reservation Rd/InterGarrison Road ²	Signal	22.0	С	31.6	С	
	Inter-Garrison Rd/New Collector ²		31.6	D	61.9	F	
14	Mit: Add 1 EB approach lane and a circulating lane	Roundabout	30.9	D	4.3	А	
15	Reservation Rd/Main Project Access ²	Signal	23.1	С	25.3	С	

16	Reservation Rd/Eastern Project Access ²	Signal	16.2	В	13.7	В
17	Reservation Rd/Davis Rd./ "The Bluffs" ²	2-Way STOP	120+	F	120+	F
17	Mit: Install a Traffic Signal and add 1 WB TH, 1 EB LT lanes, and make SB RT free.	Signal	27.8	С	33.4	С
	Hwy 68 WB Ramps/Reservation Rd ¹		23.1	С	116.9	F
18	Mit: Add 1 SB LT lane and add 1 EB TH lane and modify EB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	17.3	В	37.4	D
	Hwy 68 EB Ramps/Reservation Rd ¹		29.3	С	46.8	D
19	Change EB LT lane into a shared LT-TH and use split phasing to accommodate the additional SB LT lane at Intersection 18.	Signal	43.0	D	54.2	D
20	Hwy 1 SB Ramps/Imjin Pkwy ¹ - Hwy 1 SB Off-ramp Approach	1-Way STOP	120+	F	120+	F
	Mit: Install a traffic signal.	Signal	27.6	С	18.7	В
	Hwy 1 NB Ramps/Imjin Pkwy ¹	1-Way	0.1	Α	0.3	Α
21	- Hwy 1 NB Off-ramp Approach	STOP	(53.3)	(F)	(67.3)	(F)
	Mit: Install a traffic signal.	Signal	27.3	С	22.9	С
22	3 rd Street/4 th Avenue ³	ALL-Way STOP	30.5	D	34.2	D
23	Light Fighter Dr/1st Ave3	Cianal	85.8	F	103.7	F
23	Mit: Add 1 EB RT and 1 NB LT lanes.	Signal	29.7	С	32.2	С
24	Light Fighter Dr/2 nd Ave ³ - NB 2 nd Avenue Approach	2-Way STOP	120+ (120+)	F (F)	120+ (120+)	F
	Mit: Install a traffic signal.	Signal	29.9	С	49.8	D
25	Light Fighter Dr/Gen. Jim Moore Blvd ³	Signal	22.1	С	39.1	D
	Hwy 1 SB Ramps/Canyon Del Ray Blvd ¹	1-Way	120+	F	120+	F
26	- Hwy 1 SB Off-ramp Approach	STOP	(120+)	(F)	(120+)	(F)
20	Mit: Same as that of Existing Conditions (Install a Roundabout)	Roundabout	5.4	A	5.7	А
	Hwy 1 NB Ramps/Canyon Del Ray Blvd ¹	1-Way	6.0	Α	11.5	В
27	- Hwy 1 NB Off-ramp Approach	STOP	(29.7)	(D)	(43.9)	(E)
	Mit: Add 1 EB TH Lane		3.6 (17.7)	A (C)	6.6 (25.1)	A (D)
	Gen. Jim Moore Blvd/Canyon Del Ray Blvd ¹		120+	F	120+	F
28	Mit: Change EB Protected left turn phasing into Permitted left turn phasing. Add 1 SB LT lane. Add 1 WB TH and modify WB approach (currently 1 shared TH-RT) to have 1 TH and 1 RT lanes.	Signal	17.6	В	9.4	A

Notes:
Analysis is performed using the software TRAFFIX based on the 2000 Highway Capacity Manual methodologies.

Intersection is under Caltrans jurisdiction (Minimum acceptable level of service = D)

² Monterey County Intersection (Minimum acceptable level of service = C)
³ City of Marina Intersection (Minimum acceptable level of service = D)

TABLE XII: PEAK HOUR SIGNAL WARRANT ANALYSIS

Existing Intersection Control		Scenarios where a signal is recommended as a mitigation	Rural Peak-Hour Warrant met?	
4	Hwy 1 SB Ramps/Reservation Road	1-Way Stop	Ex, Ex+Prj, Cumulative (Year 2020), Cumulative+Prj (1,470 Homes), Cumulative+Prj (2,887 Homes)	NO, NO, YES, YES, YES
17	Reservation Rd./Davis Rd./The Bluffs	2-Way Stop	Ex, Ex+Prj, Cumulative (Year 2020), Cumulative+Prj (1,470 Homes), Cumulative+Prj (2,887 Homes)	YES, YES, YES, YES, YES
20	Hwy 1 SB Ramps/Imjin Pkwy.	1-Way Stop	Cumulative (Year 2020), Cumulative+Prj (1,470 Homes), Cumulative+Prj (2,887 Homes)	YES, YES, YES
21	Hwy 1 NB Ramps/Imjin Pkwy.	1-Way Stop	Cumulative (Year 2020), Cumulative+Prj (1,470 Homes), Cumulative+Prj (2,887 Homes)	YES, YES, YES
24	Light Fighter Dr./2 nd Ave.	2-Way Stop	Cumulative (Year 2020), Cumulative+Prj (1,470 Homes), Cumulative+Prj (2,887 Homes)	YES, YES, YES

Ex=Existing Conditions
Ex+Prj=Existing plus Project Conditions
Cumulative+Prj=Cumulative plus Project Conditions

ROADWAY SEGMENT ANALYSIS

Chapters 20 and 21 from Highway Capacity Manual (HCM) 2000 were used to analyze multi-lane and two-lane roadway segments. The following roadway segments were analyzed under Existing, Existing plus Project, Cumulative (Year 2020), Cumulative (Year 2020) plus Project (1,470 Homes), and Cumulative (Year 2020) plus Full Project (2887 Homes) Conditions:

- Abbott Road between Salinas City Limits (C.L) and Harris Road (currently, a four-lane north-south (N-S) roadway)
- Blanco Road between Reservation Road and Salinas River Badge (currently, a two-lane E-W roadway)
- Blanco Road between Salinas River Bridge and Davis Road (currently, a two-lane east-west (E-W) roadway)
- Blanco Road between Davis Road and W.Alisal Street (currently, a three-lane roadway with two westbound lanes and one eastbound lane)
- Highway 1 between Canyon Del Ray and Del Monte (currently, a four-lane N-S roadway)
- Highway 68 between Portola Interchange (I/C) and River Road I/C (currently a four-lane E-W roadway)
- Reservation Road between Imjin Parkway and Blanco Road (currently, a four-lane E-W roadway)
- Imjin Parkway between Preston Park and Abrams (currently, a four-lane E-W roadway)
- West Laurel Drive between Highway 101 and Davis Road (currently a six-lane E-W roadway)
- West Market Street between Davis Road and Clark Street (currently, a four-lane E-W roadway)
- West Alisal Street between Blanco Road and Acacia Street (currently, a four-lane E-W roadway)
- Blanco Road between South Main and Pajaro Street (currently, a four-lane E-W roadway)
- General Jim Moore Boulevard between Lightfighter Drive and Engineer Drive (currently, a four-lane N-S roadway)
- Reservation Road between Salinas Road and Imjin Parkway (currently, a four-lane E-W roadway)
- Davis Road between Market Street and Rossi Street (currently, a four-lane N-S roadway)
- Highway 101 between Laurel I/C and Boronda I/C (currently, a four-lane N-S roadway)
- Highway 1 between Lightfighter I/C and Fremont I/C (currently, a six-lane N-S roadway)
- Highway 68 between River Road I/C and Spreckles I/C (currently, a four-lane E-W roadway)
- Cooper Road between Blanco Road and Highway 183 (currently, a two-lane N-S roadway)
- Davis Road between Reservation Road and the Salinas River Bridge (currently, a two-lane N-S roadway)
- Davis Road between Ambrose and Central Avenue (currently, a two-lane N-S roadway)
- Reservation Road between Main Project Access and Watkin's Gate (currently, a two-lane E-W roadway)
- Reservation Road between Watkin's Gate and Davis Road (currently, a two-lane E-W roadway)
- Reservation Road between Portola Drive and Highway 68 (currently, a two-lane E-W roadway)
- Spreckles Boulevard between Highway 68 and Spreckles (currently, a two-lane E-W roadway)
- Highway 183 between Cooper Road and Espinosa Road (currently, a two-lane N-S roadway)

- General Jim Moore Boulevard between Broadway and Boundary Road (currently, a two-lane N-S roadway)
- General Jim Moore Boulevard between Giggling and Normandy (currently, a two-lane N-S roadway)
- InterGarrison Road between West Camp and Abrams (currently, a two-lane E-W roadway)
- InterGarrison Road between Abrams and 7th Avenue (currently, a two-lane E-W roadway)

Segment Analysis Results

The traffic conditions on the roadway segments were evaluated using the methodologies provided in the 2000 Highway Capacity Manual (HCM). Levels of service criteria for the multi-lane roadway segments (with more than two lanes) were based on the typical speed-flow, and density-flow relationships provided in Chapter 20 in the 2000 HCM. Levels of service criteria for two-lane roadway segments were based on the average travel speed of the vehicles and the percent time-spent-following. For class I highways, where mobility is paramount, LOS is defined in terms of both average travel speed and percent time-spent-following. Tables XIII through XVII at the end of this Chapter summarize the segment level of service analysis for the five scenarios analyzed. Figures 9 through 13 at the end of this Chapter show the roadway segments that are operating/expected to operate at unacceptable levels of service under five scenarios. Appendix I contains the detailed calculations of the segment level of service analysis.

Existing Conditions

Currently, the following roadway segments operate at unacceptable levels of service under Existing Conditions:

- Blanco Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E during the a.m. and p.m. peak hours)
- Davis Road between Ambrose and Central Avenue (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D during the p.m. peak hour)
- Highway 183 between Cooper Road and Espinosa Road (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)

During the morning and afternoon commute periods, the model accurately indicates that significant traffic delay and congestion is occurring on these segments. As select roadways in the East Garrison study area reach their generalized capacity, additional trips generated in the traffic model, will begin to use alternative, circuitous, routes. Trips that seek alternative routes because of congestion are referred to as diverted trips. Congestion in the existing conditions implicates future trips and their trip routing in the East Garrison study area.

Mitigation

Adding a lane in each direction on the roadway segments listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Existing Conditions.

Existing plus Project Conditions

Under Existing plus Project Conditions, the following roadway segments (same as Existing Conditions) are expected to continue to operate at unacceptable levels of service:

- Blanco Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E during the a.m. and p.m. peak hours)
- Davis Road between Ambrose and Central Avenue (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D during the p.m. peak hour)
- Highway 183 between Cooper Road and Espinosa Road (LOS E during the a.m. and p.m. peak hours)

Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Existing plus Project Conditions:

- Davis Road between Reservation Road and Salinas River Bridge (LOS D during the p.m. peak hour)
- Reservation Road between Watkin's Gate and Davis Road (LOS D during the p.m. peak hour)

Mitigation

Adding a lane in each direction on the roadway segments listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Existing plus Project Conditions.

Cumulative (Year 2020) Conditions

The 2020 no build scenario assumes no development at East Garrison. It also assumes no collector street network on site and it assumes that the InterGarrison gate is still closed. Without the opportunity for diverted trips to use the Davis-Inter-garrison corridor, this analysis shows that trips could increase on Reservation Road between Blanco Road and the Imjin Parkway, the Imjin Parkway itself, and Highway 1 between Light Fighter and the 12th Street Interchange.

Under Cumulative (Year 2020) Conditions, the following roadway segments (same as exiting Conditions) are expected to continue to operate at unacceptable levels of service:

- Blanco Road between Reservation Road and Salinas River Bridge (LOS F during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E and LOS F during the a.m. and p.m. peak hours, respectively)
- Davis Road between Ambrose and Central Avenue (LOS F during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)
- Highway 183 between Cooper Road and Espinosa Road (LOS E during the a.m. and p.m. peak hours)

- Davis Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Davis Road (LOS F during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Central Entrance (LOS F during the a.m. and p.m. peak hours)
- Highway 1 between Light Fighter I/C and Fremont I/C) (LOS E during the p.m. peak hour)

Mitigation

Adding a lane in each direction on the roadway segments listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Cumulative (Year 2020) Conditions. For the freeway segment, adding a northbound high occupancy vehicle (HOV) lane on Highway 1 between Light Fighter I/C and Fremont I/C is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) Conditions.

Cumulative (Year 2020) plus Project (1,470 Homes) Conditions

The occurrence of additional, regional, land use in this scenario increases traffic throughout the East Garrison study area. Key segments are significantly impacted by "background" traffic—traffic that is not directly related to East Garrison development. In addition to the network segments listed above, the cumulative effect of East Garrison and background traffic, increases the number of segments that are expected to operate unacceptably.

The rural segment of Davis Road between Reservation road and Blanco Road will be impacted because trips that may otherwise use the Blanco-Imjin corridor can no longer use it because congestion levels will peak and the Davis-InterGarrison corridor will become their best alternative route. East Garrison trips, in particular, may prefer the Davis Rpad corridor because of their proximity of origin to Salinas compared with the Blanco Road corridor. Reservation Road between Watkins's Gate and Davis Road is expected to experience high volume increases and poor level of service for the same reason. Traffic flow on Reservation Road (a two lane facility) between Watkins's Gate and the Main Project Access (a two lane facility) is expected to have a poor level of service in the uphill (westbound) direction.

Trips going to Salinas that typically use Blanco Road but can't, due to congestion, may pass through the East Garrison property from Inter-garrison Road to Reservation Road to Davis Road and use the same corresponding routes on their return to or from Monterey Peninsula cities. Reservation Road between Highway 68 and Portola may also be impacted because of diverted trips from Blanco Road; however, increased population in the Salinas Valley and increased employment in the Peninsula cities could also cause additional traffic along Reservation Road and River Road. Inter-Garrison Road could become congested near Abrams Drive due to the combination of East Garrison trips and trips diverted off the Blanco Road corridor. Traffic flow in the Highway 101 corridor north of Salinas will further degrade without additional capacity even though safety and operational improvements are planned for construction in 2012 under the (PIP).

Again, the proposed network in East Garrison includes construction of three connections to Reservation Road. The proposed InterGarrison-Davis Road corridor could provide additional timesavings for trips between the City of Salinas and Monterey Peninsula cities. In this manner, the Davis Road-InterGarrison corridor may help to reduce trips in the Blanco-Imjin-Reservation and Highway 68 corridors. Moreover, this analysis shows that trips using Reservation Road west of Blanco Road, Imjin Parkway, and Highway 1 north of Light fighter, could decline in favor of the Davis–Inter-garrison Road corridor.

In summary, under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the following roadway segments are expected to continue to operate at unacceptable levels of service:

- Blanco Road between Salinas River Bridge and Reservation Road (LOS F during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E and LOS F during the a.m. and p.m. peak hours, respectively)
- Davis Road between Ambrose and Central Avenue (LOS F during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)
- Highway 183 between Cooper Road and Espinosa Road (LOS E during the a.m. and p.m. peak hours)
- Davis Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Main Project Access and Watkin's Gate (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Davis Road (LOS F during the a.m. and p.m. peak hours)
- Highway 1 between Lightfighter I/C and Freemont I/C) (LOS E during the p.m. peak hour)

In addition to the nine segments listed above, the following two segments along InterGarrison Road are expected to operate unacceptably:

- InterGarrison Road between Abrams and 7th Avenue (LOS D during the p.m. peak hour)
- InterGarrison Road between West Camp Road and Abrams (LOS D during the a.m. and p.m. peak hours)

Mitigation

Same as Cumulative Conditions, except for InterGarrison Road which is expected to need an additional westbound lane between Abrams and 7th Avenue. Also, adding a lane in each direction on InterGarrison Road between West Camp Road and Abrams is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions.

Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions

East Garrison in 2020 with 2,887 homes would intensify the traffic patterns described above. Diverted trips could increase more so and become more circuitous in their travel patterns. Additional traffic moving from the final phase of East Garrison to Watkin's Gate Road and on to Reservation Road could degrade traffic flow on Reservation Road, causing blockages and alternative path routing

by some trips. The need for more capacity to serve east-west trips, on Blanco Road, Davis Road and Highway 68, becomes more apparent in this scenario.

However, under Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions, the same 11 roadway segments identified under Cumulative plus Project Conditions are expected to continue to operate at unacceptable levels of service.

Mitigation

Implementing the same measures as proposed for Cumulative plus Project Conditions is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) plus Full Project (2,887 Homes) Conditions.

TABLE XIII: SEGMENT LOS ANALYSIS—EXISTING CONDITIONS

Roadway Segment	Roadway Direction	Lanes	A.M. LOS	P.M. LOS
Abbott Road between Salinas City Limits and Harris Road ⁶	N-S	4	A-A	A-A
2. Blanco Road between Reservation Road and Salinas River Bridge ³	E \\/	2	E	Е
Mit:: Add a lane in each direction	E-W	4	A-A	B-A
3. Blanco Road between Salinas River Bridge and Davis Road ³	Γ \\/	2	E	E
Mit:: Add a lane in each direction	E-W	4	A-A	A-A
4. Blanco Road between Davis Road and West Alisal Street ⁴	E-W	31	B-A	B-A
5. Highway 1 between Canyon Del Rey and Del Monte Boulevard ²	N-S	4	C-D	D-C
6. Highway 68 between Portola Interchange and River Road Interchange ²	E-W	4	A-A	A-A
7. Reservation Road between Imjin Parkway and Blanco Road ⁴	E-W	4	B-B	B-B
8. Imjin Parkway between Preston Park and Abrams ⁴	E-W	4	A-A	A-A
9. West Laurel Drive between Highway 101 and Davis Road ⁴	E-W	6	B-B	B-B
10. West Market Street between Davis Road and Clark Street ⁴	E-W	4	A-A	A-A
11. West Alisal Street between Blanco Road and Acacia Street ⁴	E-W	4	A-A	A-A
12. Blanco Road between South Main and Pajaro Street ⁴	E-W	4	A-A	A-A
13. General Jim Moore Boulevard between Light Fighter and Engineer ⁵	N-S	4	A-A	A-A
14. Reservation Road between Salinas Road and Imjin Parkway ⁴	E-W	4	A-A	B-A
15. Davis Road between Market Street and Rossi Street ⁴	N-S	4	A-B	B-B
16. Highway 101 between Laurel Interchange and Boronda Interchange ²	N-S	4	B-C	C-B
17. Highway 1 between Light Fighter Interchange & Fremont Interchange ²	N-S	6	B-C	C-B
18. Highway 68 between River Road Interchange & Spreckles Interchange ²	E-W	4	A-A	A-B
19. Cooper Road between Blanco Road and Highway 1833	N-S	2	В	В

20. Davis Road between Reservation Road and Salinas River Bridge ³	N-S	2	С	С
21. Davis Road between Ambrose and Central Avenue ³	N-S	2	E	E
Mit:: Add a lane in each direction	IV-3	4	A-B	B-B
22. Reservation Road between Main Project Access and Watkin's Gate ³	E-W	2	С	С
23. Reservation Road between Watkin's Gate and Davis Road ³	E-W	2	С	С
24. Reservation Road between Portola Drive and Highway 683	E 144	2	С	D
Mit:: Add a lane in each direction	E-W	4	A-A	A-A
25. Spreckles Boulevard between Highway 68 and the City of Spreckles ³	E-W	2	С	С
26. Highway 183 between Cooper Road and Espinosa Road ²	N-S	2	D	E
Mit:: Add a lane in each direction	IV-3	4	A-A	A-A
27. General Jim Moore Boulevard between Broadway and Boundary Rd.5	N-S	2	D	D
28. General Jim Moore Boulevard between Gigling and Normandy ⁵	N-S	2	С	С
29. Inter-Garrison Road between West Camp and Abrams ³	E-W	2	No Projec	ct Traffic
30. Inter-Garrison Road between Abrams and 7th Avenue3	E-W	2	В	В

 $N-S \rightarrow North-South$

E-W → East-West

1 → Two westbound lanes and one eastbound lane

X-X → Directional LOS for multi-lane roadway segments (>2 lanes), and X → Overall LOS for two lane roadway segments

2 Segment is under Caltrans jurisdiction (Minimum acceptable level of service = D)

3 Segment in Monterey County (Minimum acceptable level of service = C)

4 Segment in the City of Marina (Minimum acceptable level of service = D)

5 Segment in the City of Seaside (Minimum acceptable level of service = C)

6 Segment in the City of Salinas (Minimum acceptable level of service = D)

E-W → East-West

TABLE XIV: SEGMENT LOS ANALYSIS—EXISTING PLUS PROJECT (1,470 HOMES) CONDITIONS

			A.M.	P.M.
Roadway Segment	Roadway Direction	Lanes	LOS	LOS
1. Abbott Road between Salinas City Limits and Harris Road ⁶	N-S	4	A-A	A-A
2. Blanco Road between Reservation Road and Salinas River Bridge ³	E-W	2	E	Е
Mit:: Add a lane in each direction	L-VV	4	A-A	B-A
3. Blanco Road between Salinas River Bridge and Davis Road ³	E-W	2	E	E
Mit:: Add a lane in each direction	L-VV	4	A-A	A-A
4. Blanco Road between Davis Road and West Alisal Street ⁴	E-W	31	B-A	B-A
5. Highway 1 between Canyon Del Rey and Del Monte Boulevard ²	N-S	4	C-D	D-C
6. Highway 68 between Portola Interchange and River Road Interchange ²	E-W	4	A-A	A-A
7. Reservation Road between Imjin Parkway and Blanco Road ⁴	E-W	4	B-B	B-B
8. Imjin Parkway between Preston Park and Abrams ⁴	E-W	4	A-A	A-A
9. West Laurel Drive between Highway 101 and Davis Road ⁴	E-W	6	B-B	B-B
10. West Market Street between Davis Road and Clark Street ⁴	E-W	4	A-A	A-A
11. West Alisal Street between Blanco Road and Acacia Street ⁴	E-W	4	A-A	A-A
12. Blanco Road between South Main and Pajaro Street ⁴	E-W	4	A-A	A-A
13. General Jim Moore Boulevard between Light Fighter and Engineer ⁵	N-S	4	A-A	A-A
14. Reservation Road between Salinas Road and Imjin Parkway ⁴	E-W	4	A-A	B-A
15. Davis Road between Market Street and Rossi Street ⁴	N-S	4	B-B	B-B
16. Highway 101 between Laurel Interchange and Boronda Interchange ²	N-S	4	B-C	С-В
17. Highway 1 between Light Fighter Interchange & Fremont Interchange ²	N-S	6	B-C	С-В
18. Highway 68 between River Road Interchange & Spreckles Interchange ²	E-W	4	A-A	A-B
19. Cooper Road between Blanco Road and Highway 1833	N-S	2	В	В
20. Davis Road between Reservation Road and Salinas River Bridge ³	N.C	2	С	D
Mit:: Add a lane in each direction	N-S	4	A-A	A-A
21. Davis Road between Ambrose and Central Avenue ³	N.C	2	Е	E
Mit:: Add a lane in each direction	N-S	4	B-B	В-В
22. Reservation Road between Main Project Access and Watkin's Gate ³	E-W	2	С	С
23. Reservation Road between Watkin's Gate and Davis Road ³	E 147	2	С	D
Mit:: Add a lane in each direction	E-W	4	A-A	A-A
24. Reservation Road between Portola Drive and Highway 683	E-W	2	С	D

Mit:: Add a lane in each direction		4	A-A	A-A
25. Spreckles Boulevard between Highway 68 and the City of Spreckles ³	E-W	2	С	С
26. Highway 183 between Cooper Road and Espinosa Road ²	N-S	2	E	E
Mit:: Add a lane in each direction		4	A-A	A-A
27. General Jim Moore Boulevard between Broadway and Boundary Rd.5	N-S	2	D	D
28. General Jim Moore Boulevard between Gigling and Normandy ⁵	N-S	2	С	С
29. Inter-Garrison Road between West Camp and Abrams ³	E-W	2	В	В
30. Inter-Garrison Road between Abrams and 7th Avenue ³	E-W	2	С	С

E-W → East-West

 $^{^{1}}$ \rightarrow Two westbound lanes and one eastbound lane

X-X → Directional LOS for multi-lane roadway segments (>2 lanes), and X → Overall LOS for two lane roadway segments

² Segment is under Caltrans jurisdiction (Minimum acceptable level of service = D)

³ Segment in Monterey County (Minimum acceptable level of service = C)

⁴ Segment in the City of Marina (Minimum acceptable level of service = D)

⁵ Segment in the City of Seaside (Minimum acceptable level of service = C)

⁶ Segment in the City of Salinas (Minimum acceptable level of service = D)

TABLE XV: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) CONDITIONS

Roadway Segment	Roadway Direction	Lanes	A.M. LOS	P.M. LOS
1. Abbott Road between Salinas City Limits and Harris Road ⁶	N-S	4	A-A	A-A
2. Blanco Road between Reservation Road and Salinas River Bridge ³	E-W	2	F	F
Mit:: Add a lane in each direction		4	В-В	В-В
3. Blanco Road between Salinas River Bridge and Davis Road ³	E \\\	2	E	F
Mit:: Add a lane in each direction	E-W	4	A-B	В-А
4. Blanco Road between Davis Road and West Alisal Street ⁴	E-W	31	B-A	C-A
5. Highway 1 between Canyon Del Rey and Del Monte Boulevard ²	N-S	4	C-D	D-D
6. Highway 68 between Portola Interchange and River Road Interchange ²	E-W	4	B-B	В-В
7. Reservation Road between Imjin Parkway and Blanco Road ⁴	E-W	4	C-D	D-D
8. Imjin Parkway between Preston Park and Abrams ⁴	E-W	4	С-В	C-C
9. West Laurel Drive between Highway 101 and Davis Road ⁴	E-W	6	B-C	С-В
10. West Market Street between Davis Road and Clark Street ⁴	E-W	4	A-A	A-A
11. West Alisal Street between Blanco Road and Acacia Street ⁴	E-W	4	A-A	A-A
12. Blanco Road between South Main and Pajaro Street ⁴	E-W	4	A-A	B-B
13. General Jim Moore Boulevard between Light Fighter and Engineer ⁵	N-S	4	A-A	A-A
14. Reservation Road between Salinas Road and Imjin Parkway ⁴	E-W	4	A-A	B-A
15. Davis Road between Market Street and Rossi Street ⁴	N-S	4	B-C	С-В
16. Highway 101 between Laurel Interchange and Boronda Interchange ²	N-S	4	C-D	D-D
17. Highway 1 between Light Fighter Interchange & Fremont Interchange ²	··· N-S	6	C-D	E -C
Mit: Add a Northbound HOV lane	IN-S	7	B-D	D-C
18. Highway 68 between River Road Interchange & Spreckles Interchange ²	E-W	4	B-B	B-B
19. Cooper Road between Blanco Road and Highway 1833	N-S	2	С	С
20. Davis Road between Reservation Road and Salinas River Bridge ³	N C	2	Е	E
Mit:: Add a lane in each direction	N-S	4	A-A	A-A
21. Davis Road between Ambrose and Central Avenue ³	N.C	2	F	F
Mit:: Add a lane in each direction	N-S	4	B-C	С-В
22. Reservation Road between Main Project Access and Watkin's Gate ³	E ///	2	F	F
Mit:: Add a lane in each direction	E-W	4	A-C	C-A
23. Reservation Road between Watkin's Gate and Davis Road ³	E-W	2	F	F

Mit:: Add a lane in each direction		4	A-B	В-А
24. Reservation Road between Portola Drive and Highway 683	E-W	2	D	E
Mit:: Add a lane in each direction		4	A-A	A-A
25. Spreckles Boulevard between Highway 68 and the City of Spreckles ³	E-W	2	С	С
26. Highway 183 between Cooper Road and Espinosa Road ²	N-S	2	E	E
Mit:: Add a lane in each direction		4	A-A	A-A
27. General Jim Moore Boulevard between Broadway and Boundary Rd.5	N-S	2	D	D
28. General Jim Moore Boulevard between Gigling and Normandy ⁵	N-S	2	D	D
29. Inter-Garrison Road between West Camp and Abrams ³	E-W	2	No Project Traffic	
30. Inter-Garrison Road between Abrams and 7 th Avenue ³	E-W	2	А	А

E-W → East-West

 $[\]xrightarrow{1}$ Two westbound lanes and one eastbound lane

X-X → Directional LOS for multi-lane roadway segments (>2 lanes), and X → Overall LOS for two lane roadway segments

² Segment is under Caltrans jurisdiction (Minimum acceptable level of service = D)

³ Segment in Monterey County (Minimum acceptable level of service = C)

⁴ Segment in the City of Marina (Minimum acceptable level of service = D)

⁵ Segment in the City of Seaside (Minimum acceptable level of service = C)

⁶ Segment in the City of Salinas (Minimum acceptable level of service = D)

TABLE XVI: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) PLUS PROJECT (1,470 HOMES) CONDITIONS

Roadway Segment	Roadway Direction	Lanes	A.M. LOS	P.M. LOS
Abbott Road between Salinas City Limits and Harris Road ⁶	N-S	4	A-A	A-A
2. Blanco Road between Reservation Road and Salinas River Bridge ³	E-W	2	F	F
Mit:: Add a lane in each direction		4	B-B	B-B
3. Blanco Road between Salinas River Bridge and Davis Road ³	F 14/	2	E	F
Mit:: Add a lane in each direction	E-W	4	A-B	B-A
4. Blanco Road between Davis Road and West Alisal Street ⁴	E-W	31	C-A	C-A
5. Highway 1 between Canyon Del Rey and Del Monte Boulevard ²	N-S	4	C-D	D-D
6. Highway 68 between Portola Interchange and River Road Interchange ²	E-W	4	B-B	B-B
7. Reservation Road between Imjin Parkway and Blanco Road ⁴	E-W	4	C-D	D-D
8. Imjin Parkway between Preston Park and Abrams ⁴	E-W	4	С-В	C-C
9. West Laurel Drive between Highway 101 and Davis Road4	E-W	6	B-C	С-В
10. West Market Street between Davis Road and Clark Street4	E-W	4	A-A	B-A
11. West Alisal Street between Blanco Road and Acacia Street ⁴	E-W	4	A-A	A-A
12. Blanco Road between South Main and Pajaro Street ⁴	E-W	4	A-A	B-B
13. General Jim Moore Boulevard between Light Fighter and Engineer ⁵	N-S	4	A-A	A-A
14. Reservation Road between Salinas Road and Imjin Parkway ⁴	E-W	4	A-A	A-A
15. Davis Road between Market Street and Rossi Street ⁴	N-S	4	B-C	С-В
16. Highway 101 between Laurel Interchange and Boronda Interchange ²	N-S	4	C-D	D-D
17. Highway 1 between Light Fighter Interchange & Fremont Interchange ²	N-S	6	C-D	E-C
Mit: Add a Northbound HOV lane	" IN-3	7	B-D	C-C
18. Highway 68 between River Road Interchange & Spreckles Interchange ²	E-W	4	B-B	B-B
19. Cooper Road between Blanco Road and Highway 1833	N-S	2	С	С
20. Davis Road between Reservation Road and Salinas River Bridge ³	- N-S	2	Е	E
Mit:: Add a lane in each direction		4	A-B	A-A
21. Davis Road between Ambrose and Central Avenue ³	- N-S	2	F	F
Mit:: Add a lane in each direction		4	B-C	С-В
22. Reservation Road between Main Project Access and Watkin's Gate ³	E-W	2	Е	Е
Mit:: Add a lane in each direction	E-VV	4	A-B	B-A

23. Reservation Road between Watkin's Gate and Davis Road ³	E-W	2	F	F
Mit:: Add a lane in each direction		4	A-B	B-A
24. Reservation Road between Portola Drive and Highway 683	E-W	2	D	E
Mit:: Add a lane in each direction		4	A-A	A-A
25. Spreckles Boulevard between Highway 68 and the City of Spreckles ³	E-W	2	С	С
26. Highway 183 between Cooper Road and Espinosa Road ²	N-S	2	E	E
Mit:: Add a lane in each direction	IN-5	4	A-A	A-A
27. General Jim Moore Boulevard between Broadway and Boundary Rd.5	N-S	2	D	D
28. General Jim Moore Boulevard between Gigling and Normandy ⁵	N-S	2	D	D
29. Inter-Garrison Road between West Camp and Abrams ³	E-W	2	D	D
Mit:: Add a lane in each direction		4	A-B	B-A
30. Inter-Garrison Road between Abrams and 7th Avenue3	E-W	2	С	D
Mit: Add a Westbound lane		3	B-A	A-B

E-W → East-West

X-X → Directional LOS for multi-lane roadway segments (>2 lanes), and X → Overall LOS for two lane roadway segments

² Segment is under Caltrans jurisdiction (Minimum acceptable level of service = D)

³ Segment in Monterey County (Minimum acceptable level of service = C)

⁴ Segment in the City of Marina (Minimum acceptable level of service = D)

⁵ Segment in the City of Seaside (Minimum acceptable level of service = C)

 $^{^{1}}$ \rightarrow Two westbound lanes and one eastbound lane

⁶ Segment in the City of Salinas (Minimum acceptable level of service = D)

TABLE XVII: SEGMENT LOS ANALYSIS—CUMULATIVE (YEAR 2020) PLUS PROJECT (2,887 HOMES) CONDITIONS

Roadway Segment	Roadway Direction	Lanes	A.M. LOS	P.M. LOS
1. Abbott Road between Salinas City Limits and Harris Road ⁶	N-S	4	A-A	A-A
2. Blanco Road between Reservation Road and Salinas River Bridge ³	F.W.	2	F	F
Mit:: Add a lane in each direction	E-W	4	B-B	B-B
3. Blanco Road between Salinas River Bridge and Davis Road ³	E-W	2	Е	F
Mit:: Add a lane in each direction		4	A-B	B-A
4. Blanco Road between Davis Road and West Alisal Street ⁴	E-W	31	C-A	C-A
5. Highway 1 between Canyon Del Rey and Del Monte Boulevard ²	N-S	4	C-D	D-D
6. Highway 68 between Portola Interchange and River Road Interchange ²	E-W	4	B-B	B-B
7. Reservation Road between Imjin Parkway and Blanco Road ⁴	E-W	4	C-D	D-D
8. Imjin Parkway between Preston Park and Abrams ⁴	E-W	4	С-В	C-C
9. West Laurel Drive between Highway 101 and Davis Road⁴	E-W	6	B-C	С-В
10. West Market Street between Davis Road and Clark Street4	E-W	4	A-A	B-A
11. West Alisal Street between Blanco Road and Acacia Street ⁴	E-W	4	A-A	A-A
12. Blanco Road between South Main and Pajaro Street ⁴	E-W	4	A-A	B-B
13. General Jim Moore Boulevard between Light Fighter and Engineer ⁵	N-S	4	A-A	A-A
14. Reservation Road between Salinas Road and Imjin Parkway ⁴	E-W	4	A-A	A-A
15. Davis Road between Market Street and Rossi Street ⁴	N-S	4	B-C	C-B
16. Highway 101 between Laurel Interchange and Boronda Interchange ²	N-S	4	C-D	D-D
17. Highway 1 between Light Fighter Interchange & Fremont Interchange ²	N-S	6	C-D	E-C
Mit: Add a Northbound HOV lane	111-3	7	B-D	D-C
18. Highway 68 between River Road Interchange & Spreckles Interchange ²	E-W	4	B-B	B-B
19. Cooper Road between Blanco Road and Highway 1833	N-S	2	С	С
20. Davis Road between Reservation Road and Salinas River Bridge ³	N-S	2	Е	Е
Mit:: Add a lane in each direction		4	A-B	A-A
21. Davis Road between Ambrose and Central Avenue ³	N-S	2	F	F
Mit:: Add a lane in each direction		4	B-C	С-В
22. Reservation Road between Main Project Access and Watkin's Gate ³	E-W	2	E	E
Mit:: Add a lane in each direction	□ □-VV	4	A-B	B-A

23. Reservation Road between Watkin's Gate and Davis Road ³	E-W	2	F	F
Mit:: Add a lane in each direction		4	A-B	B-A
24. Reservation Road between Portola Drive and Highway 683	E-W	2	D	E
Mit:: Add a lane in each direction		4	A-A	A-A
25. Spreckles Boulevard between Highway 68 and the City of Spreckles ³	E-W	2	С	С
26. Highway 183 between Cooper Road and Espinosa Road ²	N C	2	E	E
Mit:: Add a lane in each direction	N-S	4	A-A	A-A
27. General Jim Moore Boulevard between Broadway and Boundary Rd.5	N-S	2	D	D
28. General Jim Moore Boulevard between Gigling and Normandy ⁵	N-S	2	D	D
29. Inter-Garrison Road between West Camp and Abrams ³	E-W	2	D	E
Mit:: Add a lane in each direction		4	A-B	B-A
30. Inter-Garrison Road between Abrams and 7th Avenue3	E-W	2	С	D
Mit: Add a Westbound lane		3	B-A	A-B

E-W → East-West

X-X → Directional LOS for multi-lane roadway segments (>2 lanes), and X → Overall LOS for two lane roadway segments

² Segment is under Caltrans jurisdiction (Minimum acceptable level of service = D)

³ Segment in Monterey County (Minimum acceptable level of service = C)

⁴ Segment in the City of Marina (Minimum acceptable level of service = D)

⁵ Segment in the City of Seaside (Minimum acceptable level of service = C)

 $^{^{1}}$ \rightarrow Two westbound lanes and one eastbound lane

⁶ Segment in the City of Salinas (Minimum acceptable level of service = D)

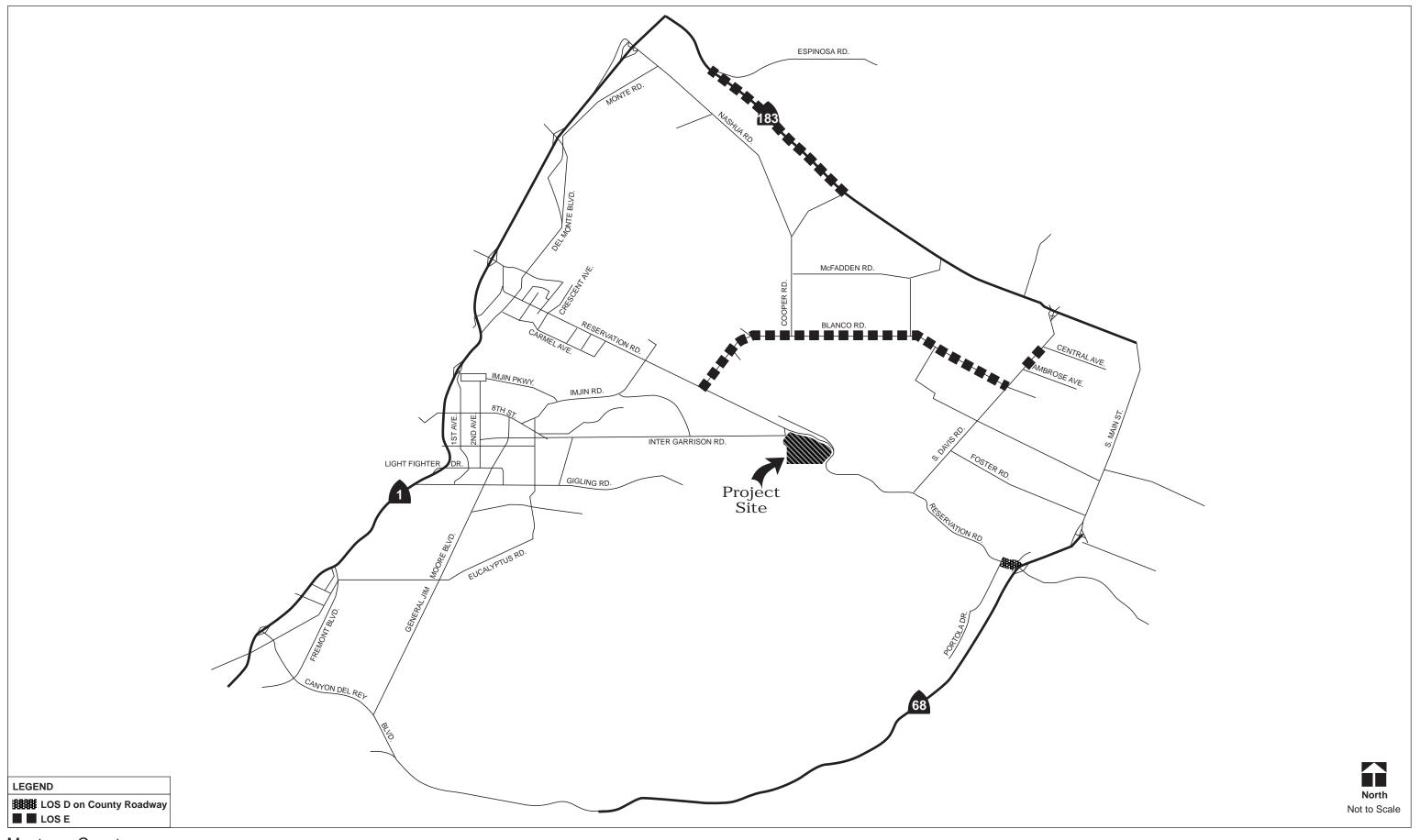


Figure TJKM

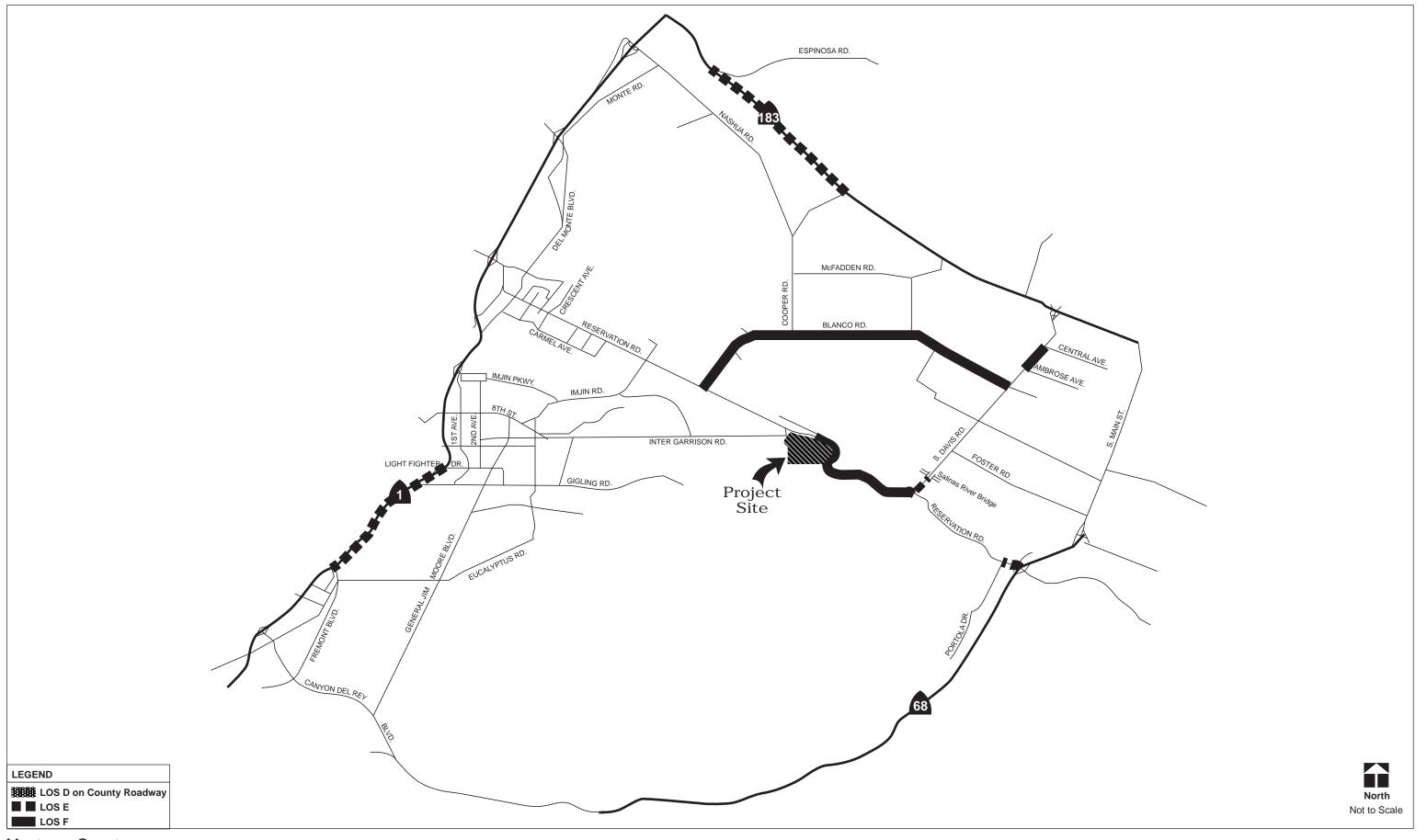


Figure 1

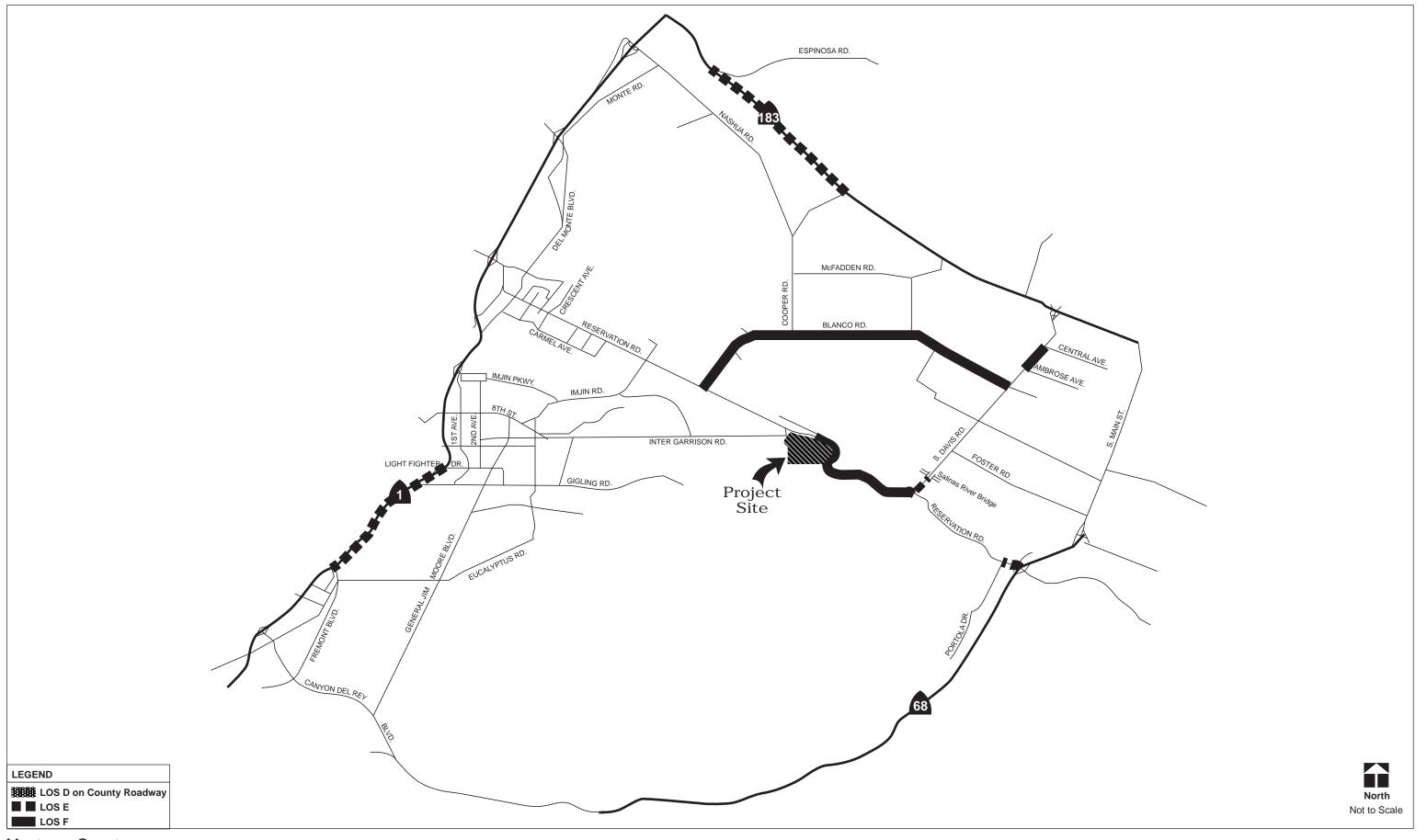
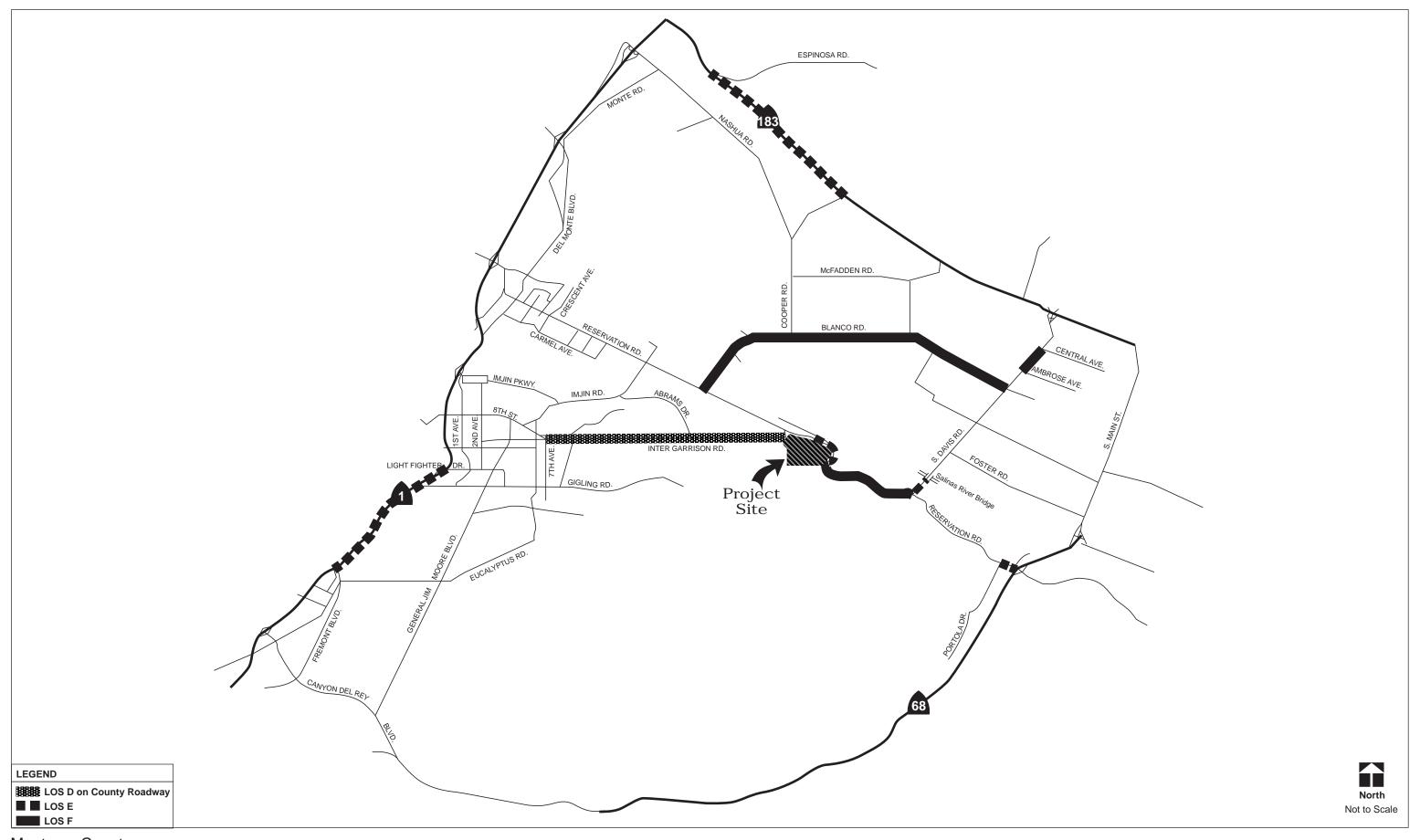


Figure 1



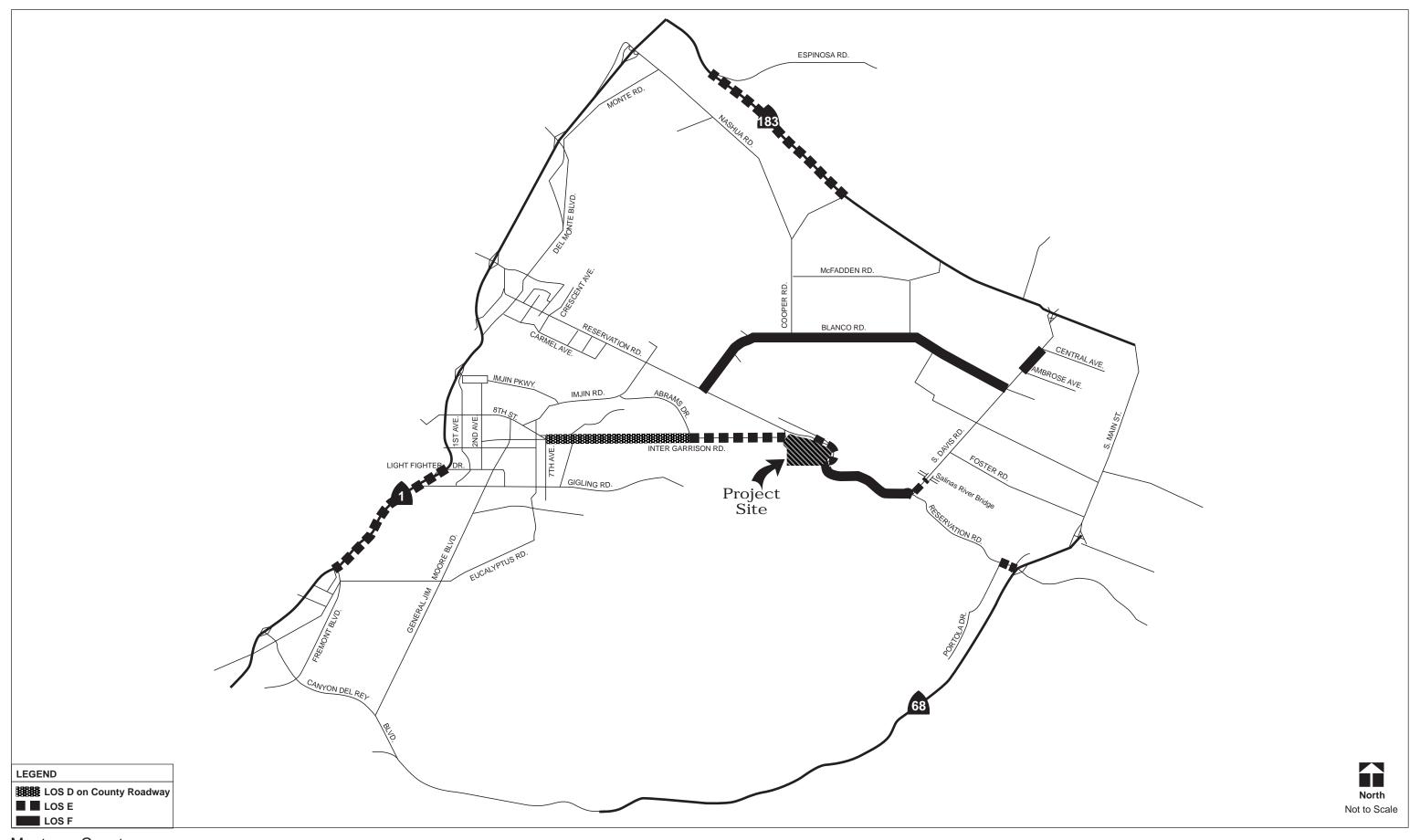


Figure TJKM

Roadway Segments with Unacceptable Levels of Service-Cumulative (Year 2020) plus Project (2,887 Homes) Conditions

CONCLUSIONS AND RECOMMENDATIONS

TJKM has reached the following conclusions regarding the proposed East Garrison development:

Project Trip Generation

The proposed East Garrison development with 1,470 homes is expected to generate approximately a total of 13,690 daily tips with 1,290 trips occurring during the a.m. peak hour and 1,379 trips occurring during the p.m. peak hour. With an additional 1,417 homes proposed for a total of 2,887 homes, the proposed project is expected to generate approximately a total of 24,480 daily trips with 2,322 trips occurring during the a.m. peak hour and 2,467 trips occurring during the p.m. peak hour.

Existing Conditions

Intersection Analysis

Currently, all the study intersections operate at acceptable levels of service during both the a.m. and p.m. peak hours except for the following five study intersections:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during the a.m. peak hour)

Recommended Mitigation Measures

Davis Road/Blanco Road

- Add a left turn lane and a right turn lane on the southbound Davis Road approach
- Add a left turn lane on the eastbound Blanco Road approach
- Utilize "Overlap" phasing for right turns from westbound Blanco Road approach and southbound Davis Road approach

Highway 1 Southbound Ramps/Reservation Road

• Install a traffic signal

Reservation Road/Davis Road/"The Bluffs"

• Install a traffic signal

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard

• Construct a roundabout (This is recommended over installing a signal because there is a Frontage Road that runs parallel to the Highway 1 Southbound Ramps in the close proximity of the intersection (making it roughly a five-legged intersection), which might require complex signal design and operations)

General Jim Moore Boulevard/Canyon Del Rey Boulevard

 Utilize permitted left turn phasing (currently protected left turn phasing) for vehicles turning left from eastbound Canyon Del Rey Boulevard approach into northbound General Jim Moore Boulevard.

Segment Analysis

Currently, the following five roadway segments operate at unacceptable levels of service under Existing Conditions:

- Blanco Road between Salinas River Bridge and Reservation Road (LOS E during the a.m. and p.m. peak hours)
- Blanco Road between Salinas River Bridge and Davis Road (LOS E during the a.m. and p.m. peak hours)
- Davis Road between Ambrose and Central Avenue (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Portola Drive and Highway 68 (LOS D during the p.m. peak hour)
- Highway 183 between Cooper Road and Espinosa Road (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)

Recommended Mitigation Measures

Adding a lane in each direction on the roadway segments listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Existing Conditions.

Existing plus Project (1,470 Homes) Conditions

Intersection Analysis

Under the Existing plus Project (1,470 Homes) Conditions, the five study intersections that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels.

Recommended Mitigation Measures

Same as Existing Conditions for all the five study intersections except for Davis Road/Blanco Road which would require a left turn lane on the westbound Blanco Road approach in addition to the set mitigations recommended under Existing Conditions.

Segment Analysis

Under the Existing plus Project (1,470 Homes) Conditions, the five study roadway segments that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels and the corresponding mitigations recommended under Existing Conditions are expected to improve the levels of service to acceptable levels at the same. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Existing plus project Conditions:

• Davis Road between Reservation Road and Salinas River Bridge (LOS D during the p.m. peak hour)

• Reservation Road between Watkin's Gate and Davis Road (LOS D during the p.m. peak hour)

Recommended Mitigation Measures

Adding a lane in each direction on the roadway segments listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Existing plus Project Conditions.

Cumulative (Year 2020) Conditions

Intersection Analysis

Under the Cumulative (Year 2020) Conditions, the following intersections are expected to operate at unacceptable levels of service:

- Davis Road/Blanco Road (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Reservation Road (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Del Monte Boulevard (LOS E during the p.m. peak hour)
- Reservation Road/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Reservation Road/Blanco Road (LOS F during the a.m. peak hour)
- Reservation Road/Davis Road/"The Bluffs" (LOS F during both the a.m. and p.m. peak hours)
- Highway 68 Westbound Ramps/Reservation Road (LOS F during the p.m. peak hour)
- Highway 1 Southbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Imjin Parkway (LOS F during both the a.m. and p.m. peak hours)
- Light Fighter Drive/1st Avenue (LOS F during the p.m. peak hour)
- Light Fighter Drive/2nd Avenue (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Southbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- Highway 1 Northbound Ramps/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)
- General Jim Moore Boulevard/Canyon Del Rey Boulevard (LOS F during both the a.m. and p.m. peak hours)

Mitigation Measures

Davis Road/Blanco Road

- Same set of mitigations recommended under Existing Conditions, and
- Add a through lane and a right turn lane on the southbound Davis Road approach
- Add two through lanes on the northbound Davis Road approach, so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane)
- Add two through lanes on the eastbound Blanco Road approach, so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane)

• Add a left turn lane, a through lane, and a right turn lane on the westbound Blanco Road approach

Highway 1 Southbound Ramps/Reservation Road

• Same as Existing Conditions (Install a traffic signal)

Reservation Road/Del Monte Boulevard

• Add a through lane on the northbound Del Monte Boulevard approach

Reservation Road/Imjin Parkway

- Restripe westbound Reservation Road approach to have three left turn lanes, one through lane, and one shared through-right turn lane from two left turn lanes, two through lanes, and one right turn lane
- Restripe eastbound Reservation Road approach to have one left turn lane, three through lanes, and one right turn lane from two left turn lanes, two through lanes, and one right turn lane
- Implement "Free" right turns for vehicles turning right into eastbound Reservation Road from northbound Imjin Parkway

Reservation Road/Blanco Road

• Restripe westbound Reservation Road approach to have one through lane, and one shared through-right turn lane from one through lane, and one right turn lane

Reservation Road/Davis Road/"The Bluffs"

- Install a traffic signal (same as Existing Conditions), and
- Add a through lane on the westbound Reservation Road approach
- Add a left turn lane on the eastbound Reservation Road approach
- Implement "Free" right turns for vehicles turning right into westbound Reservation Road from southbound Davis Road

Highway 68 Westbound Ramps/Reservation Road

- Add a left turn lane on the Highway 68 Westbound Off Ramp
- Add a through lane on the eastbound Reservation Road approach and restripe to have one through lane, and one right turn lane from one shared through-right turn lane.
- To accommodate the additional left turn lane on the Highway 68 Westbound Off Ramp approach, the left turn lane on the eastbound Reservation Road approach should be restriped to a shared left-through lane at the intersection of Highway 68 Eastbound Ramps/Reservation Road with the utilization of east-west split phasing at the same

Highway 1 Southbound Ramps/Imjin Parkway

• Install a traffic signal

Highway 1 Northbound Ramps/Imjin Parkway

• Install a traffic signal

Light Fighter Drive/1st Avenue

- Add a right turn lane on the eastbound Light Fighter Drive
- Add a left turn lane on the northbound 1st Avenue

Light fighter Drive/2nd Avenue

• Install a traffic signal

Highway 1 Southbound Ramps/Canyon Del Rey Boulevard

• Same as Existing Conditions (Construct a roundabout)

Highway 1 Northbound Ramps/Canyon Del Rey Boulevard

• Add a through lane on the eastbound Canyon Del Rey approach

General Jim Moore Boulevard/Canyon Del Rey Boulevard

- Utilize permitted left turn phasing for vehicles turning left from eastbound Canyon Del Rey Boulevard approach into northbound General Jim Moore Boulevard (same as Existing Conditions), and
- Add a left turn lane on the southbound General Jim Moore Boulevard approach
- Add a lane on the westbound Canyon Del Rey approach so that it consists of one through lane and one right turn lane (instead of one shared through-right turn lane)

Segment Analysis

Under the Cumulative (Year 2020) Conditions, the five study roadway segments that operate unacceptably under Existing conditions are expected to continue to operate at unacceptable service levels and the corresponding mitigations recommended under Existing Conditions are expected to improve the levels of service to acceptable levels at the same. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Cumulative (Year 2020) Conditions:

- Davis Road between Reservation Road and Salinas River Bridge (LOS E during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Davis Road (LOS F during the a.m. and p.m. peak hours)
- Reservation Road between Watkin's Gate and Main Project Access (LOS F during the a.m. and p.m. peak hours)
- Highway 1 between Light Fighter I/C and Fremont I/C) (LOS E during the p.m. peak hour)

Recommended Mitigation Measures

Adding a lane in each direction on the roadway segments on Davis Road and Reservation Road listed above is expected to improve the levels of service at these roadway segments to acceptable service levels under Cumulative (Year 2020) Conditions. Adding a northbound high occupancy vehicle (HOV) lane on Highway 1 between Light Fighter I/C and Fremont I/C is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) Conditions.

Cumulative (Year 2020) plus Project (1,470 Homes) Conditions

Intersection Analysis

Under the Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the study intersections (same as Cumulative (Year 2020) Conditions) are expected to continue to operate at unacceptable service levels. Additionally, the following study intersections are also expected to operate at unacceptable levels of service under Cumulative (Year 2020) Conditions:

- Reservation Road/InterGarrison Road (LOS F during the p.m. peak hour)
- InterGarrison Road/New Collector (LOS F during the p.m. peak hour)

Mitigation Measures

Same as Cumulative (Year 2020) Conditions for all the study intersections except for the intersections of Davis Road/Blanco Road, Reservation Road/InterGarrison Road, and InterGarrison Road/New Collector.

Davis Road/Blanco Road

- Same set of mitigations recommended under Cumulative (Year 2020) Conditions, and
- Add a left turn lane on the northbound Davis Road approach

Reservation Road/InterGarrison Road

• Utilize "Overlap" phasing for right turns from northbound InterGarrison Road approach

InterGarrison Road/New Collector

• Add a lane on the eastbound (new collector) approach, which would also require adding a circulating lane for the roundabout (baseline geometry proposed for the roundabout is to have one approach lane for each approach, and one circulating lane).

Segment Analysis

Under the Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, the study roadway segments that operate unacceptably under Cumulative (Year 2020) conditions are expected to continue to operate at unacceptable service levels and the corresponding mitigations recommended under Cumulative (Year 2020) Conditions are expected to improve the levels of service to acceptable levels at the same. Additionally, the following roadway segments are also expected to operate at unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions:

- InterGarrison Road between Abrams and 7th Avenue (LOS D during the p.m. peak hour)
- InterGarrison Road between West Camp Road and Abrams (LOS D and LOS E during the a.m. and p.m. peak hours, respectively)

Mitigation Measures

Adding a westbound lane on InterGarrison Road between Abrams and 7th Avenue is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions. Adding a lane in each direction on InterGarrison Road between West Camp Road and Abrams is expected to improve the level of service at the same to acceptable service level under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions.

Cumulative (Year 2020) plus Project (2,887 Homes) Conditions

Intersection Analysis and Mitigation Measures

Under the Cumulative (Year 2020) plus Project (2,887 Homes) Conditions, the study intersections with unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) are expected to continue to operate unacceptably. The same mitigation measures recommended under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions are expected to improve the levels of service at these intersections to acceptable service levels under Cumulative (Year 2020) plus Project (2,887 Homes) Conditions.

Segment Analysis and Mitigation Measures

Under the Cumulative (Year 2020) plus Project (2,887 Homes) Conditions, the study segments with unacceptable levels of service under Cumulative (Year 2020) plus Project (1,470 Homes) are expected to continue to operate unacceptably. The same mitigation measures recommended under Cumulative (Year 2020) plus Project (1,470 Homes) Conditions are expected to improve the levels of service at these segments to acceptable service levels under Cumulative (Year 2020) plus Project (2,887 Homes) Conditions.

Peak Hour Signal Warrants

The intersection of Highway 1 Southbound Ramps/Reservation Road does not meet the requirements of peak hour signal warrants under Existing, and Existing plus Project (1,470 Homes) scenarios but meets the requirements of peak hour signal warrants under Cumulative (Year 2020), Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, and Cumulative (Year 2020) plus Project (2,887 Homes) Conditions. The intersection of Reservation Road/Davis Road/The "Bluffs" meets the requirements of peak hour signal warrants under all five scenarios. The intersections of Highway 1 Southbound Ramps/Imjin Parkway, Highway 1 Northbound Ramps/Imjin Parkway, and Light Fighter Drive/2nd Avenue, all require signalization only under Cumulative (Year 2020) Conditions, Cumulative (Year 2020) plus Project (1,470 Homes) Conditions, and Cumulative (Year 2020) plus Project (2,887 Homes) Conditions and meet the requirements of peak hour signal warrants.

STUDY REFERENCES

TJKM Personnel

Gordon Lum, Senior Associate Arun Gajendran, Transportation Engineer Pratyush Bhatia, Transportation Engineer Geri Foley, Graphic Designer

Persons Consulted

Jim Schoeffling, Higgins Associates George Divine, Monterey County Public Works Department Enrique Saavedra, Monterey County Public Works Department Mike Novo, Monterey County Planning Department Jason Brandman, Michael Brandman Associates Katrina Hardt, Michael Brandman Associates

References

Highway Capacity Manual, Transportation Research Board, 2000 Guide for the Preparation of Traffic Impact Studies, Monterey County Public Works Department, October 2003

The Following Appendices to TJKM Transportation Consultants Traffic Impact Study Are Available for Review at the Monterey County Planning and Building Inspection Department:

Appendix A: Level of Service Methodology

Appendix B: Level of Service Worksheets: Existing

Appendix C: Level of Service Worksheets: Existing Plus

Projects (1,470 Homes)

Appendix D: Regional Land Use Data, And Existing and

Future Network Assumptions

Appendix E: Level of Service Worksheets: Cumulative

Year 2020

Appendix F: Level of Service Worksheets Cumulative

Year 2020 Plus Project (1,470 Homes)

Appendix G: Level of Service Worksheets: Cumulative

Year 2020 Plus Project (2,887 Homes)

Appendix H: Signal Warrant Analysis

Appendix I: Segment Analysis

Appendices

Traffic Impact Study for the East Garrison Development

In Monterey County

September 7, 2004



I. INTRODUCTION

SCOPE OF THE METHODOLOGY

This chapter contains a methodology for analyzing the capacity and level of service (LOS) of signalized intersections. The analysis must consider a wide variety of prevailing conditions, including the amount and distribution of traffic movements, traffic composition, geometric characteristics, and details of intersection signalization. The methodology focuses on the determination of LOS for known or projected conditions.

The methodology addresses the capacity, LOS, and other performance measures for lane groups and intersection approaches and the LOS for the intersection as a whole. Capacity is evaluated in terms of the ratio of demand flow rate to capacity (v/c ratio), whereas LOS is evaluated on the basis of control delay per vehicle (in seconds per vehicle). Control delay is the portion of the total delay attributed to traffic signal operation for signalized intersections. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Appendix A presents a method for observing intersection control delay in the field. Exhibit 10-9 provides definitions of the basic terms used in this chapter.

Each lane group is analyzed separately. Equations in this chapter use the subscript i to indicate each lane group. The capacity of the intersection as a whole is not addressed because both the design and the signalization of intersections focus on the accommodation of traffic movement on approaches to the intersection.

The capacity analysis methodology for signalized intersections is based on known or projected signalization plans. Two procedures are available to assist the analyst in establishing signalization plans. The first is the quick estimation method, which produces estimates of the cycle length and green times that can be considered to constitute a reasonable and effective signal timing plan. The quick estimation method requires minimal field data and relies instead on default values for the required traffic and control parameters. It is described and documented in Chapter 10.

A more detailed procedure is provided in Appendix B of this chapter for estimating the timing plan at both pretimed and traffic-actuated signals. The procedure for pretimed signals provides the basis for the design of signal timing plans that equalize the degree of saturation on the critical approaches for each phase of the signal sequence. This procedure does not, however, provide for optimal operation.

The methodology in this chapter is based in part on the results of a National Cooperative Highway Research Program (NCHRP) study (1, 2). Critical movement capacity analysis techniques have been developed in the United States (3-5), Australia (6), Great Britain (7), and Sweden (8). Background for delay estimation procedures was developed in Great Britain (7), Australia (9, 10), and the United States (11). Updates to the original methodology were developed subsequently (12-24).

LIMITATIONS TO THE METHODOLOGY

The methodology does not take into account the potential impact of downstream congestion on intersection operation. Nor does the methodology detect and adjust for the impacts of turn-pocket overflows on through traffic and intersection operation.

II. METHODOLOGY

Exhibit 16-1 shows the input and the basic computation order for the method. The primary output of the method is level of service (LOS). This methodology covers a wide range of operational configurations, including combinations of phase plans, lane

Background and underlying concepts for this chapter are in Chapter 10

A lane group is indicated in formulas by the subscript i

See Chapter 10 for description of quick estimation method

utilization, and left-turn treatment alternatives. It is important to note that some of these configurations may be considered unacceptable by some operating agencies from a traffic safety point of view. The safety aspect of signalized intersections cannot be ignored, and the provision in this chapter of a capacity and LOS analysis methodology for a specific operational configuration does not imply an endorsement of the suitability for application of such a configuration.

Input Parameters - Geometric - Traffic - Signal Lane Grouping and Demand Saturation Flow Rate Flow Rate - Basic equation - Lane grouping - Adjustment factors - PHF - RTOR Capacity and v/c - Capacity - v/c Performance Measures - Delay - Progression adjustment - LOS Back of queue

EXHIBIT 16-1. SIGNALIZED INTERSECTION METHODOLOGY

LOS

The average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. LOS is directly related to the control delay value. The criteria are listed in Exhibit 16-2.

EXHIBIT 16-2. LOS CRITERIA FOR SIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)
Α	≤ 10
В	> 10–20
C	> 20–35
D	> 35–55
E	> 55–80
 	> 80

LOS criteria

PREFACE

OVERVIEW

The procedures in this chapter can be used to analyze the capacity and level of service, lane requirements, and effects of traffic and design features of two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. In addition, a procedure for estimating capacity of roundabouts is presented.

Each type of unsignalized intersection (TWSC, AWSC, and roundabout) is addressed in a separate part of this chapter. TWSC intersections are covered in Part A, AWSC intersections are covered in Part B, and information on roundabouts is provided in Part C. References for all parts are found in Part D. Example problems that demonstrate the calculations and results achieved by applying the procedures are also found in Part D.

LIMITATIONS OF THE METHODOLOGY

This chapter does not include a detailed method for estimating delay for yield sign-controlled intersections. However, with appropriate changes in the values of key parameters, the analyst could apply the TWSC method to yield-controlled intersections.

All of the methods are for steady-state conditions (i.e., the demand and capacity conditions are constant during the analysis period); the methods are not designed to evaluate how fast or how often the facility transitions from one demand/capacity state to another. Analysts interested in that kind of information should consider applying simulation models.

PART A. TWO-WAY STOP-CONTROLLED INTERSECTIONS

I. INTRODUCTION - PART A

In this section a methodology for analyzing capacity and level of service of two-way stop-controlled (TWSC) intersections is presented.

II. METHODOLOGY - PART A

Capacity analysis at TWSC intersections depends on a clear description and understanding of the interaction of drivers on the minor or stop-controlled approach with drivers on the major street. Both gap acceptance and empirical models have been developed to describe this interaction. Procedures described in this chapter rely on a gap acceptance model developed and refined in Germany (1). The concepts from this model are described in Chapter 10. Exhibit 17-1 illustrates input to and the basic computation order of the method described in this chapter.

LEVEL-OF-SERVICE CRITERIA

Level of service (LOS) for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS is not defined for the intersection as a whole. LOS criteria are given in Exhibit 17-2.

Background and concepts for TWSC intersections are in Chapter 10

Both theoretical and empirical approaches have been used to arrive at a methodology

LOS is not defined for the overall intersection

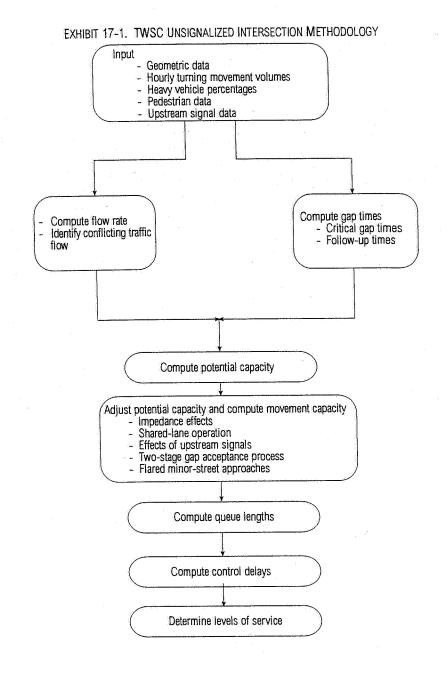


EXHIBIT 17-2. LEVEL-OF-SERVICE CRITERIA FOR TWSC INTERSECTIONS

Level of Service	Average Control Delay (s/veh)
A	0-10
В	> 10–15
C	> 1525
D .	> 25–35 > 35–50
E *	> 35–50
F	> 50

should be computed before proceeding to Step 2. For a four-leg intersection, use Steps 1, 2, 3, and 4, and for T-intersections, use Steps 1, 2, and 5.

Two-Stage Gap Acceptance (Worksheet 7)

Worksheets 7a and 7b are used in place of Steps 3 and 4 in Worksheet 6 to compute the potential capacity when a two-stage gap acceptance process exists. The sequence of calculations is similar to that described for Worksheet 6, except that there are now three parts, two for the two-stage process and one for the single-stage process. The conflicting flow for the single stage is the sum of those for Stages I and II of the two-stage process. Parameters a and y are computed using Equations 17-30 and 17-31; Equation 17-32 or 17-33 is used to compute the two-stage movement capacity.

Shared-Lane Capacity (Worksheet 8)

Equation 17-15 is used to compute shared-lane capacity on Worksheet 8.

Effect of Flared Minor-Street Approaches (Worksheet 9)

Worksheet 9 is used to compute the effect of minor-street flared approaches. Whereas three columns are provided on the worksheet (for all minor movements), only movements that share the right lane on the subject approach are included in the computation.

Control Delay, Queue Length, Level of Service (Worksheet 10)

Worksheet 10 is used to compute control delay, average queue length, and level of service. Control delay for each movement can be estimated from Exhibit 17-20 or Equation 17-38. The 95th-percentile queue length is determined from Exhibit 17-19 or Equation 17-37. LOS is then determined from Exhibit 17-2.

Delay to Rank 1 Vehicles (Worksheet 11)

Worksheet 11 is used to compute the delay to Rank 1 vehicles using Equation 17-39.

PLANNING AND DESIGN APPLICATIONS

This chapter provides a detailed means of evaluating the performance of a TWSC intersection. An analyst may desire to estimate the LOS for a future time horizon. Typically, only a limited amount of input data are available.

A planning analysis requires geometric and traffic flow data. The base values of critical gap and follow-up time from Exhibit 17-5 are used. The effects of upstream signals, two-stage gap acceptance, and flared right-turn approaches are normally not accounted for in a planning analysis. However, if these data are available, they can be included.

The planning analysis uses the same worksheets as a detailed analysis, with some exceptions as noted below.

- Worksheet 1 is used to describe basic conditions.
- Worksheet 2 is used to summarize the vehicle volumes. Pedestrian volumes are generally not used.
- Worksheet 3 is used to note the lane designation for each movement. Generally, the corrections for flared minor-street approach, median storage, and upstream signals are not included.
- Worksheet 4 is generally not used, since the base values from Exhibit 17-4 are used without adjustment.
- Worksheet 5 is not used, since the effect of upstream signals is generally not included in a planning analysis.
 - · Worksheet 6 is used to compute the movement capacities.
- Worksheet 7 is used to include the effects of two-stage gap acceptance when there is a divided roadway or TWLTL on the major street.

- Worksheet 8 is used to compute shared-lane capacities, if more than one
 movement shares the same minor-street approach.
- Worksheet 9 is not used, since the effect of flared minor-street approaches is generally not included.
- Worksheet 10 is not used, since the impedance and delay for the major through movements are not accounted for in a planning analysis.
 - · Worksheet 11 is used to compute capacity, delay, and LOS.

The detailed analysis procedure described earlier in this chapter is normally not used for design purposes. However, through iteration, the analyst can use a given set of traffic flow data to determine the number of lanes that would be required to produce a given level of service.

PART B. ALL-WAY STOP-CONTROLLED INTERSECTIONS

I. INTRODUCTION - PART B

This section of Chapter 17 presents procedures for analyzing all-way stop-controlled (AWSC) intersections (1). A glossary of symbols, including those used for AWSC intersections, is found in Chapter 6.

II. METHODOLOGY - PART B

LEVEL-OF-SERVICE CRITERIA

The level-of-service criteria are given in Exhibit 17-22. The criteria for AWSC intersections have different threshold values than do those for signalized intersections primarily because drivers expect different levels of performance from distinct types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same LOS.

EXHIBIT 17-22. LEVEL-OF-SERVICE CRITERIA FOR AWSC INTERSECTIONS

Level of Service	Control Delay (s/veh)
A	0–10
В	> 10–15
C	> 15–25
*D	> 25–35
E	> 35–50
· · · · · · · · · · · · · · · · · · ·	> 50

OVERVIEW OF METHODOLOGY

The methodology analyzes each intersection approach independently. The approach under study is called the subject approach. The opposing approach and the conflicting approaches create conflicts with vehicles on the subject approach.

AWSC intersections require drivers on all approaches to stop before proceeding into the intersection. While giving priority to the driver on the right is a recognized rule in

Background and concepts for AWSC intersections are given in Chapter 10

LOS thresholds for AWSC intersections differ from those for signalized intersections to reflect different driver expectations

I. INTRODUCTION

This chapter presents a comprehensive study of two-lane highway operation (1). The development of the methodology used microscopic simulation, field data, and theoretical concepts. Analytical procedures are provided for two applications, operational and planning. Chapter 12, "Highway Concepts," presents definitions of basic parameters and important concepts related to the methodology. Appendix A also covers design treatments not addressed by the methodology.

SCOPE OF THE METHODOLOGY

This chapter presents operational analysis for two-way and directional segments of two-lane highways. Two-way segments may include longer sections of two-lane highway with homogeneous cross sections and relatively constant demand volumes and vehicle mixes over the length of the segment. Two-way segments may be located in level or rolling terrain. Two-lane highways in mountainous terrain or with grades of 3 percent or more for lengths of 0.6 mi or more cannot be analyzed as two-lane segments. Instead, they are analyzed as specific upgrades or downgrades. Performance measures for the two-way segment methodology apply to both directions of travel combined.

Directional segments carry one direction of travel on a two-lane highway with homogeneous cross sections and relatively constant demand volume and vehicle mix. Any roadway segment can be evaluated with the directional segment procedure, but separate analysis by direction of travel is particularly appropriate for steep grades and for segments containing passing lanes.

The types of directional segments addressed by the operational applications include directional segments in level or rolling terrain, specific upgrades, and specific downgrades. When only one direction of travel on a two-way segment is analyzed, the procedure for directional segments in level and rolling terrain is used. All directional segments in mountainous terrain and all grades of 3 percent or more with a length of 0.6 mi or more must be analyzed as specific upgrades or downgrades.

For analysis of specific upgrades or downgrades, the length of grade is its tangent length plus a portion of the vertical curves at its beginning and end. About one-fourth of the length of the vertical curves at the beginning and end of a grade are included. If two grades (in the same direction) are joined by a vertical curve, one-half the length of the curve is included in each grade segment. The performance measures determined by the directional segment methodology apply only to the direction of travel being analyzed. However, the traffic performance measures for the analysis direction are influenced by the flow rate and traffic characteristics in the opposing direction.

The objective of operational analysis is to determine the level of service (LOS) for an existing or proposed facility operating under current or projected traffic demand. Operational analysis also may be used to determine the capacity of a two-lane highway segment, or the service flow rate that can be accommodated at any given LOS.

LIMITATIONS OF THE METHODOLOGY

Some two-lane highways—particularly those that involve interactions among several passing or climbing lanes—are too complex to be addressed with the procedures of this chapter. For analytical problems beyond the scope of this chapter, see Part V of this manual, which describes the application of simulation modeling to two-lane highway analyses. Several design treatments discussed in Appendix A are not accounted for by the methodology.

The operational analysis methodologies in this chapter do not address two-lane highways with signalized intersections. Isolated signalized intersections on two-lane highways can be evaluated with the methodology in Chapter 16, "Signalized Intersections." Two-lane highways in urban and suburban areas with multiple signalized

For background and concepts, see Chapter 12, "Highway Concepts"

The analysis can consider two directions combined or only one direction

intersections at spacings of 2.0 mi or less can be evaluated with the methodology of Chapter 15, "Urban Streets."

II. METHODOLOGY

The following discussion presents estimates of two-lane highway capacity, defines the LOS for two-lane highways, and documents the methodology for operational and for planning applications. Exhibit 20-1 summarizes the basic methodology for two-lane highways.

EXHIBIT 20-1. TWO-LANE HIGHWAY METHODOLOGY Input - Geometric data - Demand volume Field-measured speed (S_{FM}) or base free-flow speed (BFFS) Percent time-spent-Average travel speed following If BFFS If SEM BFFS adjustment Field-measured speed adjustment - Flow rate - Lane width - Heavy vehicle - Shoulder width - Access-point density Compute free-flow speed Demand volume adjustment for Demand volume adjustment for percent time-spent-following average speed - Peak-hour factor - Peak-hour factor - Heavy vehicle - Heavy vehicle - Grade Grade Compute flow rates Compute flow rates Compute average travel Compute percent timespent-following speed Determine LOS and other performance measures

20-2

CAPACITY

The capacity of a two-lane highway is 1,700 pc/h for each direction of travel. The capacity is nearly independent of the directional distribution of traffic on the facility, except that for extended lengths of two-lane highway, the capacity will not exceed 3,200 pc/h for both directions of travel combined. For short lengths of two-lane highway—such as tunnels or bridges—a capacity of 3,200 to 3,400 pc/h for both directions of travel combined may be attained but cannot be expected for an extended length.

LEVELS OF SERVICE

The service measures for a two-lane highway are defined in Chapter 12, "Highway Concepts." On Class I highways, efficient mobility is paramount, and LOS is defined in terms of both percent time-spent-following and average travel speed. On Class II highways, mobility is less critical, and LOS is defined only in terms of percent time-spent-following, without consideration of average travel speed. Drivers will tolerate higher levels of percent time-spent-following on a Class II facility than on a Class I facility, because Class II facilities usually serve shorter trips and different trip purposes.

LOS criteria for two-lane highways in Classes I and II are presented in Exhibits 20-2, 20-3, and 20-4. Exhibit 20-2 reflects the maximum values of percent time-spent-following and average travel speed for each LOS for Class I highways. A segment of a Class I highway must meet the criteria for both the percent time-spent-following and the average travel speed shown in Exhibit 20-2 to be classified in any particular LOS. Exhibit 20-3 illustrates the LOS criteria for Class I highways. For example, a Class I two-lane highway with percent time-spent-following equal to 45 percent and an average travel speed of 40 mi/h would be classified as LOS D based on Exhibit 20-2. However, a Class II highway with the same conditions would be classified as LOS B based on Exhibit 20-4. The difference between these LOS assessments represents the difference in motorist expectations for Class I and II facilities.

The LOS criteria in Exhibits 20-2 through 20-4 apply to all types of two-lane highways, including extended two-way segments, extended directional segments, specific upgrades, and specific downgrades.

TWO-WAY SEGMENTS

The two-way segment methodology estimates measures of traffic operation along a section of highway, based on terrain, geometric design, and traffic conditions. Terrain is classified as level or rolling, as described below. Mountainous terrain is addressed in the operational analysis of specific upgrades and downgrades, presented below. This methodology typically is applied to highway sections of at least 2.0 mi.

Traffic data needed to apply the two-way segment methodology include the two-way hourly volume, a peak-hour factor (PHF), and the directional distribution of traffic flow. The PHF may be computed from field data, or appropriate default values may be selected from the tabulated values presented in Chapter 12. Traffic data also include the proportion of trucks and recreational vehicles (RVs) in the traffic stream. The operational analysis of extended two-way segments for a two-lane highway involves several steps, described in the following sections.

EXHIBIT 20-2. LOS CRITERIA FOR TWO-LANE HIGHWAYS IN CLASS I

LOS	Percent Time-Spent-Following	Average Travel Speed (mi/h)
A	≤ 35	> 55
В	> 35–50	> 50–55
C	> 50–65	> 45–50
D	> 65–80	> 40–45
Ë	> 80	≤ 40

Note:

LOS F applies whenever the flow rate exceeds the segment capacity.

Capacity = 1,700 pc/h for each direction, and 3,200 for both directions combined

For definitions of the service measures for two-lane highways, percent time-spentfollowing, and average travel speed, see Chapter 12, "Highway Concepts"

For definitions of Class I and II highways, also see Chapter 12

EXHIBIT 20-3. LOS CRITERIA (GRAPHICAL) FOR TWO-LANE HIGHWAYS IN CLASS I 100 Ε 90 80 70 C 60 50 В 40 30 Α 20 10 60 65 55 50 40 35 30 Average Travel Speed (mi/h)

Percent Time-Spent-Following (%)

EXHIBIT 20-4. LOS CRITERIA FOR TWO-LANE HIGHWAYS IN CLASS II

LOS	Percent Time-Spent-Following
Δ	≤ 40
0	> 40–55
D	> 55–70
n	> 70–85
	> 85

LOS F applies whenever the flow rate exceeds the segment capacity.

Determining Free-Flow Speed

A key step in the assessment of the LOS of a two-lane highway is to determine the free-flow speed (FFS). The FFS is measured using the mean speed of traffic under low flow conditions (up to two-way flows of 200 pc/h). If field measurements must be made with two-way flow rates of more than 200 pc/h, a volume adjustment must be made in determining FFS. This volume adjustment is discussed below.

Two general methods can be used to determine the FFS for a two-lane highway: field measurement and estimation with the guidelines provided in this chapter. The fieldmeasurement procedure assists in gathering these data directly or incorporating the measurements into a speed monitoring program. However, field measurements are not necessary for an operational analysis—the FFS can be estimated from field data and user knowledge of conditions on the highway.

Field Measurement

The FFS of a highway can be determined directly from a speed study conducted in the field. No adjustments are made to the field-measured data. The speed study should be conducted at a representative location within the highway segment being evaluated; for example, a site on a short upgrade should not be selected within a segment that is generally level. Any speed measurement technique acceptable for other types of traffic engineering speed studies may be used. The field study should be conducted in periods of low traffic flow (up to a two-way flow of 200 pc/h) and should measure the speeds of all vehicles or of a systematic sampling (e.g., of every 10th vehicle). A representative sample of the speeds of at least 100 vehicles, impeded or unimpeded, should be obtained.

Free-flow speed occurs at two-way flows of 200 pc/h or less

INTRODUCTION

The procedures in this chapter are used to analyze the capacity, level of service (LOS), lane requirements, and impacts of traffic and design features of rural and suburban multilane highways.

The methodology in this chapter is based on the results of a National Cooperative Highway Research study (1). The study used additional references in developing the original methodology (2-6), which subsequently has been updated (7).

BASE CONDITIONS FOR MULTILANE HIGHWAYS

The procedures in this chapter determine the reduction in travel speed that occurs for less-than-base conditions. Under base conditions, the full speed and capacity of a multilane highway are achieved. These conditions include good weather, good visibility, and no incidents or accidents.

Studies of the flow characteristics of multilane highways have defined base conditions for developing flow relationships and adjustments to speed. The base conditions for multilane highways are as follows:

- · 12-ft minimum lane widths;
- 12-ft minimum total lateral clearance in the direction of travel—this represents the total lateral clearances from the edge of the traveled lanes to obstructions along the edge of the road and in the median (in computations, lateral clearances greater than 6 ft are considered in computations to be equal to 6 ft);
 - Only passenger cars in the traffic stream;
 - · No direct access points along the roadway;
 - · A divided highway; and
 - Free-flow speed (FFS) higher than 60 mi/h.

These base conditions represent the highest operating level of multilane rural and suburban highways.

LIMITATIONS OF THE METHODOLOGY

The methodology in this chapter does not take into account the following conditions:

- Transitory blockages caused by construction, accidents, or railroad crossings;
- · Interference caused by parking on the shoulders (such as in the vicinity of a country store, flea market, or tourist attraction);
 - · Three-lane cross sections;
 - The effect of lane drops and additions at beginning or end of segments;
- · Possible queuing delays when transitions from a multilane segment into a two-lane segment are neglected;
 - · Differences between median barriers and two-way left-turn lanes; and
 - FFS below 45 mi/h or above 60 mi/h.

II. METHODOLOGY

The methodology described in this chapter is intended for analysis of uninterrupted-flow highway segments. Chapter 15 presents the methodology for analyzing urban streets that have one or more of the following characteristics:

- · Flow significantly influenced by other signals (i.e., a signal spacing less than or equal to 2.0 mi),
 - · Significant presence of on-street parking,
 - · Presence of bus stops that have significant use, or
 - Significant pedestrian activity.

For background and concepts, see Chapter 12, "Highway Concepts"

Methodology applies to signal spacing greater than 2.0 mi

Exhibit 21-1 illustrates the inputs and the basic computational order for the method described in this chapter. The primary output is LOS.

Uninterrupted-flow facilities that allow access solely through a system of on-ramps and off-ramps from grade separations or service roads are considered freeways and should be evaluated using the methodology presented in Chapter 23.

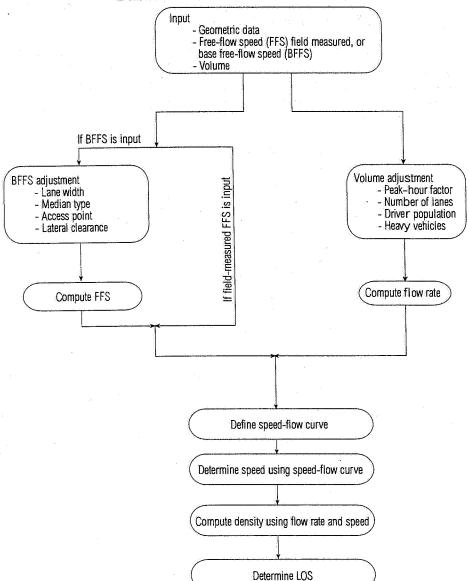


EXHIBIT 21-1. MULTILANE HIGHWAY METHODOLOGY

LOS

Although speed is a major concern of drivers, freedom to maneuver within the traffic stream and the proximity to other vehicles are also important. LOS criteria are listed in Exhibit 21-2. The criteria are based on the typical speed-flow and density-flow relationships shown in Exhibits 12-1 and 12-2. Exhibit 21-3 shows LOS boundaries as sloped lines, each corresponding to a constant value of density.

EXHIBIT 21-2. LOS CRITERIA FOR MULTILANE HIGHWAYS

i		LOS									
Free-Flow Speed	Criteria	Α	В	С	D	E					
60 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	40					
00 1111/11	Average speed (mi/h)	60.0	60.0	59.4	56.7	55.0					
	Maximum volume to capacity ratio	0.30	0.49	0.70	0.90	1.00					
	(v/c)										
	Maximum service flow rate (pc/h/ln)	660	1080	1550	1980	2200					
55 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	41					
00	Average speed (mi/h)	55.0	55.0	54.9	52.9	51.2					
	Maximum v/c	0.29	0.47	0.68	0.88	1.00					
	Maximum service flow rate (pc/h/ln)	600	990	1430	1850	2100					
50 mi/h	Maximum density (pc/mi/in)	11	18	26	35	43					
90 ans	Average speed (mi/h)	50.0	50.0	50.0	48.9	47.5					
	Maximum v/c	0.28	0.45	0.65	0.86	1.00					
	Maximum service flow rate (pc/h/ln)	550	900	1300	1710	2000					
45 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	45					
**************************************	Average speed (mi/h)	45.0	45.0	45.0	44.4	42.2					
	Maximum v/c	0.26	0.43	0.62	0.82	1.00					
	Maximum service flow rate (pc/h/ln)	490	810	1170	1550	1900					

The exact mathematical relationship between density and volume to capacity ratio (v/c) has not always been maintained at LOS boundaries because of the use of rounded values. Density is the primary determinant of LOS. LOS F is characterized by highly unstable and variable traffic flow. Prediction of accurate flow rate, density, and speed at LOS F is difficult

The LOS criteria reflect the shape of the speed-flow and density-flow curves, particularly as speed remains relatively constant across LOS A to D but is reduced as capacity is approached. For FFS of 60, 55, 50, and 45 mi/h, Exhibit 21-2 gives the average speed, the maximum value of v/c, the maximum density, and the corresponding maximum service flow rate for each LOS.

As with other LOS criteria, the maximum service flow rates in Exhibit 21-2 are stated in terms of flow rate based on the peak 15-min volume. Demand or forecast hourly volumes generally are divided by the peak-hour factor (PHF) to reflect a maximum hourly flow rate before comparison with the criteria of Exhibit 21-2. Using the basic speed-flow curves (see Exhibit 21-3), the relationships between LOS, flow, and speed can be analyzed.

DETERMINING FFS

FFS is measured using the mean speed of passenger cars operating in low-tomoderate flow conditions (up to 1,400 pc/h/ln). Mean speed is virtually constant across this range of flow rates. Field measurement and estimation with guidelines provided in this chapter are methods that can be used to determine FFS.

The field measurement procedure is for those who prefer to gather data directly or to incorporate the measurements into a speed-monitoring program. However, field measurements are not necessary to apply the method.

The FFS of a highway can be determined directly from a speed study conducted in the field. If field-measured data are used, no adjustments need to be made to FFS. The speed study should be conducted along a reasonable length of highway within the segment under evaluation; for example, an upgrade should not be selected within a site that is generally level. Any speed measurement technique acceptable for other types of traffic engineering speed studies can be used.

The field study should be conducted in the more stable regime of low-to-moderate flow conditions (up to 1,400 pc/h/ln). If the speed study must be conducted at a flow rate of more than 1,400 pc/h/ln, the FFS can be found by using the model speed-flow curve, assuming that data on traffic volumes are recorded at the same time.

FFS occurs at flow rates ≤ 1,400 pc/h/ln

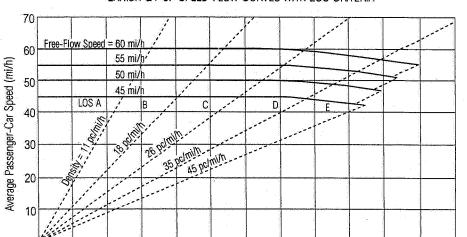


EXHIBIT 21-3. SPEED-FLOW CURVES WITH LOS CRITERIA

0

Maximum densities for LOS E occur at a v/c ratio of 1.0. They are 40, 41, 43, and 45 pc/mi/ln at FFS of 60, 55, 50, and 45 mi/h, respectively. Capacity varies by FFS. Capacity is 2,200, 2,100, 2,000, and 1,900 pc/h/ln at FFS of 60, 55, 50, and 45 mi/h, respectively.

1200

Flow Rate (pc/h/in)

1600

2000

2400

For flow rate (v_p) , $v_p > 1400$ and $55 < FFS \le 60$ then

$$S = FFS - \left[\left(\frac{3}{10} FFS - 13 \right) \left(\frac{v_p - 1,400}{28 FFS - 880} \right)^{131} \right]$$

400

800

For $v_p > 1,400$ and

50 < FFS ≤ 55 then

$$S = FFS - \left[\left(\frac{34}{205} FFS - \frac{219}{41} \right) \left(\frac{v_p - 1,400}{\frac{171}{5} FFS - 1181} \right)^{131} \right]$$

For v₀ > 1,400 and

45 < FFS ≤ 50 then

$$S = FFS - \left[\left(\frac{10}{43} FFS - \frac{350}{43} \right) \left(\frac{v_p - 1,400}{33FFS - 1050} \right)^{131} \right]$$

For v_p > 1,400 and

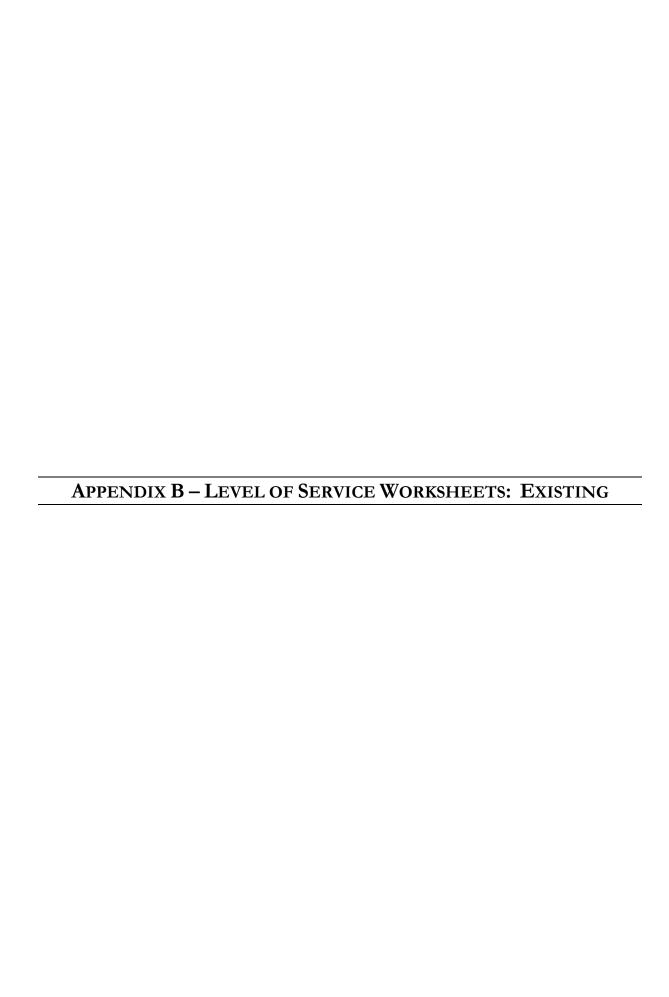
FFS = 45 then

$$S = FFS - \left[\left(\frac{1}{5} FFS - \frac{56}{9} \right) \left(\frac{v_p - 1,400}{36FFS - 1,120} \right)^{131} \right]$$

For $v_p \le 1,400$, then S = FFS

The speed study should measure the speeds of all passenger cars or of a systematic sampling of passenger cars (e.g., of every 10th passenger car). The speed study not only should measure speeds for unimpeded vehicles but also should include representative numbers of impeded vehicles. A sample should obtain at least 100 passenger-car speeds. Further guidance on the conduct of speed studies is available in standard traffic engineering publications, such as the Manual of Traffic Engineering Studies, published by the Institute of Transportation Engineers (6).

The average passenger-car speed under low-volume conditions can be used as the free-flow speed if the field measurements were made at flow rates at or below 1,400 pc/h/ln. This FFS reflects the net effects of all conditions at the site that influence speed, including those identified in this procedure (lane width, lateral clearance, type of median,



Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd ********************************** Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[13.3] ******************************** Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Movement: _____ Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module: 4 102 4 91 39 6 2 7 29 34 14 Base Vol: 34 14 6 4 102 4 91 39 25 Initial Bse: 2 7 29 PHF Ad: 2 9 36 42 17 7 5 126 5 112 48 31 PHF Volume: Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 2 9 36 42 17 7 5 126 5 112 48 0 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 439 442 128 449 429 Potent Cap.: 532 513 927 524 521 Move Cap.: 480 469 927 464 477 64 79 xxxx xxxxx 131 xxxx xxxxx 524 521 1007 1532 xxxx xxxxx 1467 xxxx xxxxx 464 477 1007 1532 xxxx xxxxx 1467 xxxx xxxxx Move Cap.: 480 469 Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxx xxxx 0.08 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * A * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * B * * B * * * * * * * * ApproachDel: 10.1 13.3 xxxxxx xxxxxx В В ApproachLOS:

Level Of Service Computation Report													
2000 HCM Unsignalized Method (Base Volume Alternative)											di.		
Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd ***********************************													
Average Delay (sec/veh): 6.2 Worst Case Level Of Service: C[16.8]													
Approach: North Bound South Bound East Bound West Bound											*		
Movement:	L	- T	- R	$^{\circ}$ L $^{\circ}$	- T	- R	L ·	- T	- R	L	- T	- R	
:													1
Control:	S	top S	ign	S	top S	ign	Und	contr	olled	Un	contr	olled	
Rights:		Incl	ude		Incl	ıde		Incl	ude		Incl		
Lanes:	. 10 1) 1!	0 0	(0) 1!	0 0	0 (0 1!	0 0		1!		
TriboM omer Col7						-,	1						1
Volume Module Base Vol:	e: 9	11	26	28	26	ć	1.0	0.0	0	100	2.5		
Growth Adj:	1.00		1.00		1.00	6 1.00		92 1.00		139	35	51	
Initial Bse:	9	11	26	28	26	1.00	19	92	1.00	139	1.00	1.00	
User Adj:		1.00	1.00	-	1.00	1.00		1.00	1.00			51	
PHF Adj:	0.81	-	0.81		0.81	0.81		0.81	0.81		1.00	1.00	
PHF Volume:	11	14	32	35	32	7		114	10	172	43	0.81 63	
Reduct Vol:	0	0	0	0	0	ó	2.0	114	10		40	.03	
Final Vol.:	11	14	32	3.5	32	7		114	10	172	4.3	63	
Critical Gap	1			1 1			1 1			1.1			1
Critical Gp:		6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3						xxxxx			XXXXX	
													1
Capacity Modu	ıle:												
Cnflict Vol:	603	615	119	606	588	75	106	xxxx	xxxxx	123	XXXX	XXXXX	
Potent Cap.:	414	409	939	412	424	992	1498	xxxx	xxxxx	1476	xxxx	xxxxx	
Move Cap.:	342	351	939	344	363	992	1498	xxxx	xxxxx			xxxxx	
Volume/Cap:		0.04	0.03		0.09				XXXX			XXXX	
]			1
Level Of Ser													
			XXXXX						XXXXX			XXXXX	
Stopped Del:									xxxxx			XXXXX	
LOS by Move:	*	*	*	*	*		2.1	*	*	A	*	*	
Movement:			- RT			- RT			- RT		- LTR		
Shared Cap.:												XXXXX	
SharedQueue:									xxxxx				
Shrd StpDel:	*****			xxxxx *		xxxxx *		xxxx *	****	****	XXXX	****	
Shared LOS:	*	.B		*	C 16.8	·*						*	
ApproachDel:		12.5					X.	****		X	XXXXX *		
ApproachLOS:		B			C						**		

Page 2-1

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ********************************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd *********************** Average Delay (sec/veh): 9.1 Worst Case Level Of Service: B[10.4] ************************** North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Approach: Movement: _____| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 0 1! 0 0 0 0 0 1 0 0 1 0 0 ______ Volume Module: Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 114 116 2 xxxx xxxx xxxx 12 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 887 778 1088 xxxx xxxx xxxx 1620 xxxx xxxx XXXX Move Cap.: xxxx xxxx xxxx 865 753 1088 xxxx xxxx xxxx 1620 xxxx xxxx Volume/Cap: xxxx xxxx xxxx 0.15 0.05 0.00 xxxx xxxx xxxx 0.03 xxxx xxxx _____ Level Of Service Module: LOS by Move: * * * * * * * * * * * * * Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.4 xxxxx xxxxx xxxx xxxx 7.3 xxxx xxxxx Shared LOS: * * * * B * * * * A * *
ApproachDel: xxxxxx 10.4 xxxxxx xxxxx В ApproachLOS:

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

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd ************************************												
Average Delay (sec/veh): 8.3 Worst Case Level Of Service: A[9.9]												
Approach: North Bound South Bound East Bound West Bound												
Movement:			- R			- R			- R			- R
				1		1	1					
Control:									olled			
Rights:			ıde		Incli	ide		Incl	ıde	0110	Incl	
Lanes:			0 0							0 1		
Volume Module	•			•					'	1		
Base Vol:	0	0	0	111	2	7	1	7	:6	41	6	0
Growth Adj:	1.00		1.00	1.00	1.00	1.00	1.00		1.00		1.00	
Initial Bse:	0	.0	0	111	2	7	1	7	6	41	6	- 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:	0.85		0.85	0.85		0.85		0.85	0.85		0.85	0.85
PHF Volume:	0	0	0	131	2	8	1	8	7	48	7	0
Reduct Vol:	0	0	0	.0	0	0	.0	0	0	0	0	0
Final Vol.:	0	0	0	131	2	8	1	8	7	4.8	7	.0
										1	والمتيم شماسترستارت	
Critical Gap	Modu.	le:	•				.,			•		,
Critical Gp:			xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:				3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
											, .	
Capacity Mod	ule:									•		
Cnflict Vol:		xxxx	xxxxx	118	121	7	7	xxxx	xxxxx	15	xxxx	XXXXX
Potent Cap.:	xxxx	xxxx	xxxxx	883	773		1627	xxxx	xxxxx	1616	xxxx	xxxxx
Move Cap.:				862	749	1081	1627	xxxx	xxxxx			xxxxx
Volume/Cap:				0.15	0.00	0.01	0.00	xxxx	xxxx	0.03	xxxx	XXXX
]								
Level Of Ser	vice D	Modul	e:									
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	XXXXX
Stopped Del:	xxxxx	xxxx	xxxxx	XXXXX	xxxx	xxxxx	7.2	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:		*	*			*	A	*	*	Α	*	*
Movement:	LT ·	- LTR	- RT	LT -	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	870	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:						xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	XXXXX
Shared LOS:	*	*	*	*	Α	* -	*	*	*	Α	*	*
ApproachDel:	X	xxxxx			9.9		X	xxxxx		X	xxxxx	
ApproachLOS:		*			Α			*			*	

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #3 S. Davis Rd/W. Blanco Rd ***************** Cycle (sec): 130 Critical Vol./Cap. (X): 1.295 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 125.4
Optimal Cycle: 180 Level Of Service: F Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 7 10 10 7 10 10
 7 10 10 10 7 10 10
 7 10 10 10 7 10 10

 Lanes:
 1 0 1 1 0 1 0 1 0 1 2 0 1 1 0 1 0 2 0 1
 _____| Volume Module: Final Vol.: 261 499 362 381 614 1095 426 533 36 350 640 320 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.14 0.25 0.25 0.21 0.32 0.68 0.12 0.16 0.16 0.19 0.18 0.20 *** **** Crit Moves: **** Green/Cycle: 0.11 0.35 0.35 0.29 0.52 0.52 0.10 0.12 0.12 0.15 0.17 0.17 Volume/Cap: 1.29 0.73 0.73 0.62 1.29 1.17 1.29 1.29 1.29 1.05 1.17 Uniform Del: 57.8 37.2 37.2 41.8 21.8 31.0 58.3 57.0 57.0 55.3 54.0 54.0 IncremntDel:164.4 2.4 2.4 5.3 1.2 141.5 103.1 149 148.8 157.4 50.0 109.4 Delay/Veh: 222.2 39.6 39.6 47.1 23.0 172.5 161.3 206 205.8 212.6 104 163.5 AdjDel/Veh: 222.2 39.6 39.6 47.1 23.0 172.5 161.3 206 205.8 212.6 104 163.5 HCM2kAvg: 21 16 16 15 17 75 16 22 22 27 19 21

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 65 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.5
Optimal Cycle:OPTIMIZED Level Of Service: C Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Protected Protected Protected Protected Rights: Include Ovl Include Ovl Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 Lanes: 1 0 1 1 0 2 0 1 0 2 3 0 1 1 0 2 0 2 0 1 Volume Module: Base Vol: 245 469 340 358 577 1029 400 501 34 329 602 Initial Bse: 245 469 340 358 577 1029 400 501 34 329 602 PHF Adj: PHF Volume: 261 499 362 381 614 1095 426 533 36 350 640 320 Saturation Flow Module: Adjustment: 0.95 0.89 0.89 0.92 1.00 0.75 0.92 0.94 0.94 0.92 0.95 0.85 Lanes: 1.00 1.16 0.84 2.00 1.00 2.00 3.00 1.87 0.13 2.00 2.00 1.00 Final Sat.: 1805 1961 1422 3502 1900 2842 5253 3347 227 3502 3610 1615 Capacity Analysis Module: Vol/Sat: 0.14 0.25 0.25 0.11 0.32 0.39 0.08 0.16 0.16 0.10 0.18 0.20 Crit Moves: **** **** Green/Cycle: 0.16 0.36 0.36 0.15 0.35 0.46 0.11 0.19 0.19 0.11 0.19 0.35 AdjDel/Veh: 58.0 19.8 19.8 30.5 36.6 20.0 33.8 32.6 32.6 57.6 41.7 18.6 HCM2kAvg: 9 9 9 5 16 13 5 8 8 7 10 6 ***********************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 125 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 180 Level Of Service: Optimal Cycle: F Approach: North Bound South Bound East Bound L-T-R L-T-R L-T-R Movement: L - T - R Control: Protected Protected Protected Protected

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 7
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 -----| Volume Module: Base Vol: 34 514 222 572 465 309 919 469 37 184 601 418 Initial Bse: 34 514 222 572 465 309 919 469 37 184 601 418 PHF Volume: 36 547 236 609 495 329 978 499 39 196 639 445 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 36 547 236 609 495 329 978 499 39 196 639 445 MLF Adj: Final Vol.: 36 547 236 609 495 329 978 499 39 196 639 445 Saturation Flow Module: Adjustment: 0.95 0.91 0.91 0.95 1.00 0.85 0.92 0.94 0.94 0.95 0.95 0.85 Lanes: 1.00 1.40 0.60 1.00 1.00 1.00 2.00 1.85 0.15 1.00 2.00 1.00 Final Sat.: 1805 2408 1040 1805 1900 1615 3502 3309 261 1805 3610 1615 ______|____|_____| Capacity Analysis Module: Vol/Sat: 0.02 0.23 0.23 0.34 0.26 0.20 0.28 0.15 0.15 0.11 0.18 0.28 Crit Moves: **** **** **** Green/Cycle: 0.06 0.18 0.18 0.27 0.40 0.40 0.23 0.26 0.26 0.19 0.22 0.22 Volume/Cap: 0.36 1.24 1.24 1.24 0.65 0.51 1.24 0.58 0.58 0.58 0.80 1.24 Uniform Del: 56.8 51.0 51.0 45.5 30.4 28.3 48.4 40.2 40.2 46.3 45.9 48.6 59.0 171 171.1 168.9 32.4 28.9 166.1 41.1 41.1 48.8 51.5 177.2 Delay/Veh: AdjDel/Veh: 59.0 171 171.1 168.9 32.4 28.9 166.1 41.1 41.1 48.8 51.5 177.2 HCM2kAvg: 2 27 27 42 16 10 34 9 9 8 14 30

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)												
*****	2000 *****	****	***** berarr	*****	*****	(Base *****	*****	*****	ernativ ******	'e) ****	****	*****

Cycle (sec): 70 Critical Vol./Cap. (X): 0.922												
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.5												
Optimal Cycle	e:OPTI	MIZED	•		1	Level C	f Serv	rice:				C

Approach: Movement:		tn Bo				ound - R					est Bo	
Movement:									– R		- T	
Control:		otect			rotect			oteci			rotect	
Rights:		Inclu			Ovl			Incl			Ovl	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:		1				0 2		1		_		0 1
	,						1			1	وسنو جيد سراسر	
Volume Module		ir a is	0.00	F 77 0	4.65	200	010	400	0.5			
Base Vol:	34	514	222	572	465	309		469	37	184	601	418
Growth Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	34 1.00	514	222 1.00	572	465	309 1.00	919	469	37	184	601	418
User Adj:	0.94		0.94		0.94	0.94		1.00	$\frac{1.00}{0.94}$		1.00	1.00
PHF Adj: PHF Volume:	36	547	236	609	495	329	978	499	39	196	0.94	0.94 445
Reduct Vol:	.0	0	230	0.09	493	0	0	499	0	196	039	445
Reduced Vol:	36	547	236	609	495	329	978	499	39	196	639	445
PCE Adj:	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
Final Vol.:		547	236	609	495	329	978	499	39	196	639	445
				1		1]			
Saturation F.	low Mo	dule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.92	1.00	0.75	0.92	0.94	0.94	0.92	0.95	0.85
Lanes:	1.00		0.60		1.00			1.85			2.00	1.00
Final Sat.:			1040		1900			3309	261		3610	1615
							1			1		
Capacity Ana.	-			0 17	0.26	A 12	0 10	0.15	A 1E	0 06	0 10	0 00
Vol/Sat: Crit Moves:	0.02	****	0.23	U.1/ ****	0.20	0.12	****	0.15	0.15	0.06	0.18	0.28
Green/Cycle:			0.25		0.33	0.54		0.29	0.29	0 10	0.19	0.38
Volume/Cap:	0.10		0.23		0.78	0.22		0.29	0.29		0.19	0.36
Uniform Del:			25.7		20.9	8.5		20.5	20.5		27.8	18.5
IncremntDel:	0.5		15.3	18.5	6.1	0.1	12.9	0.4	0.4		17.9	4.3
Delay Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Delay/Veh:	29.5		41.0		27.0	8.6		21.0	21.0		45.6	22.8
User DelAdj:			1.00		1.00	1.00	-	1.00			1.00	1.00
AdjDel/Veh:			41.0		27.0	8.6		21.0	21.0		45.6	22.8
HCM2kAva:	1	13	13	11	12	2	12		5	3	11	10

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd ************* Average Delay (sec/veh): 53.4 Worst Case Level Of Service: F[202.2] ************************* North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: ______ Volume Module: Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 1218 1226 47 xxxx xxxx xxxx 47 xxxx xxxxx Potent Cap.: xxxx xxxx xxxxx 201 180 1028 xxxx xxxx xxxxx 1573 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 145 115 1028 xxxx xxxx xxxx 1573 xxxx xxxx Volume/Cap: xxxx xxxx xxxx 1.27 0.03 0.02 xxxx xxxx xxxx 0.36 xxxx xxxx Level Of Service Module: LOS by Move: * * * * F * * * * * * * A * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT A * * SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx 13.2 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx ApproachLOS: * F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 34 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement: Control: Protected Protected Protected Protected Rights: Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 1 0 0 Volume Module: 0 0 171 3 0 29 15 Base Vol: 0 16 526 44 User Adj: PHF Adj: 0 n Final Vol.: 0 0 0 184 3 17 0 31 16 566 47 0 _____| Saturation Flow Module: Capacity Analysis Module: Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.49 0.05 0.05 0.00 0.49 0.49 0.49 0.04 0.00 Uniform Del: 0.0 0.0 0.0 33.9 30.5 30.5 0.0 46.1 46.1 9.8 5.1 IncremntDel: 0.0 0.0 0.0 1.0 0.1 0.1 0.0 4.0 4.0 0.3 0.0 Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************** Intersection #4 Hwy 1 SB Ramps/Reservation Rd ******************* Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 26 Level Of Service: Approach: North Bound South Bound East Bound L-T-R L-T-R L-T-R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< Volume Module: Base Vol: 0 0 0 216 3 23 0 72 22 168 97 Initial Bse: 0 0 0 216 3 23 0 72 22 168 97 0 PHF Volume: 0 0 0 223 3 24 0 74 23 173 100 0 Final Vol.: 0 0 0 223 3 24 0 74 23 173 100 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.14 0.02 0.02 0.00 0.05 0.05 0.10 0.05 0.00 Crit Moves: **** AdjDel/Veh: 0.0 0.0 0.0 18.8 16.3 16.3 0.0 37.0 37.0 26.8 14.5 0.0 HCM2kAvg: 0 0 0 5 0 0 0 3 3 4 2 0 HCM2kAvg: ********************************

_____ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #4 Hwy 1 SB Ramps/Reservation Rd ********************************* Average Delay (sec/veh): 9.6 Worst Case Level Of Service: North Bound South Bound East Bound West Bound Approach: L - T - R L - T - R L - T - R Movement: _____| Stop Sign Stop Sign Uncontrolled Uncontrolled Include Include Include Control: Include Rights: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0 Lanes: _____| Volume Module: 0 72 97 0 0 0 216 3 23 22 168 Base Vol: .9/ /4 23 0 PHF Volume: 0 0 0 223 3 24 0 74 23 173 100 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 223 3 24 0 74 23 173 100 n Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx _____| Capacity Module: Cnflict Vol: xxxx xxxx xxxx 532 543 100 xxxx xxxx xxxxx 97 xxxx xxxxx Potent Cap.: xxxx xxxx xxxxx 512 449 961 xxxx xxxx xxxxx 1509 xxxx xxxxx Move Cap.: xxxx xxxx xxxxx 467 398 961 xxxx xxxx xxxxx 1509 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.48 0.01 0.02 xxxx xxxx xxxx 0.11 xxxx xxxx ______| Level Of Service Module: Oueue: xxxxx xxxx xxxx Stopped Del:xxxxx xxxx xxxxx 19.6 xxxx xxxxx xxxxx xxxx xxxx 7.7 xxxx xxxxx LOS by Move: * * * C * * * * * A * * LT - LTR - RT Movement: A * * * * * Shared LOS: * * * * 18.5 ApproachDel: xxxxxx XXXXXX xxxxxx C. ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #5 Hwy 1 NB Ramps/Reservation Rd ***************** Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[11.0] Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T + RStop Sign Stop Sign Uncontrolled Uncontrolled Include Include Include ____ Volume Module: 0 Ō 8 204 0 0 575 108 0 10 .0 Base Vol: 10 0 Initial Bse: PHF Adj: PHF Volume: 11 0 114 0 0 0 8 215 0 0 605 193 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 11 0 114 0 0 0 8 215 0 0 605 193 Critical Gap Module: Capacity Module: 798 xxxx xxxxx xxxx xxxx xxxx 215 xxxx xxxx xxxxx Cnflict Vol: 933 xxxx Potent Cap.: 298 xxxx Move Cap.: 296 xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx A * * * * LOS by Move: * * * * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * B * * * * * * * * * XXXXXX XXXXXX XXXXXX 11.0 ApproachDel: В ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************************** Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[12.7] ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R______| Volume Module: Base Vol: 3 1 297 0 0 13 256 0 0 212 193 Critical Gap Module: Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxxx xxxxx FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx _____| Capacity Module: Level Of Service Module: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: * * * * * A * * * * * Movement: LT - LTR - RT В ApproachLOS:

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #6 Reservation Rd/Del Monte Blvd Critical Vol./Cap. (X): 0.722 Cvcle (sec): 67 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 56 Level Of Service: 25.9 ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10 10
 10 10 10 10 10

 Lanes:
 1 0 1 0 2 2 0 1 1 0 0 1 0 1 0 1 0 10
 2 0 1 0 1
 Volume Module: Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.94 0.94 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.81 0.19 0.19 1.42 0.39 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3224 335 328 2468 688 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.05 0.09 0.22 0.04 0.04 0.04 0.10 0.10 0.10 0.23 0.07 0.10 Crit Moves: **** **** Crit Moves: Green/Cycle: 0.16 0.28 0.28 0.10 0.22 0.22 0.15 0.15 0.15 0.29 0.29 0.29 Volume/Cap: 0.31 0.33 0.80 0.37 0.19 0.19 0.69 0.69 0.69 0.69 0.80 0.25 0.35 Uniform Del: 25.0 19.4 22.5 28.0 21.1 21.1 27.0 27.0 27.0 21.9 18.1 18.7 IncremntDel: 0.6 0.4 5.7 0.6 0.1 0.1 3.9 3.9 3.9 4.4 0.2 0.5 HCM2kAvg: 2 3 8 2 1 1 5 5 5 11 2 3 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************** Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 75 Critical Vol./Cap. (X):
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 60 Level Of Service: Critical Vol./Cap. (X): 0.741 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10 10
 10 10 10 10

 Lanes:
 1 0 1 0 2 2 0 1 1 0 0 1 0 1 0 2 0 1 0 1
 1 0 1 0 1 0 10
 1 0 1 0 1 0 10
 Volume Module: Base Vol: 91 178 833 143 71 7 20 273 59 615 238 117 Final Vol.: 93 182 850 146 72 7 20 279 60 628 243 119 ______| Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.94 0.94 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.82 0.18 0.11 1.55 0.34 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3243 320 199 2722 588 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.05 0.10 0.30 0.04 0.02 0.02 0.10 0.10 0.10 0.18 0.13 0.07 **** *** Crit Moves: Green/Cycle: 0.20 0.38 0.38 0.09 0.28 0.28 0.13 0.13 0.13 0.23 0.23 0.23 Volume/Cap: 0.26 0.25 0.78 0.45 0.08 0.08 0.77 0.77 0.77 0.78 0.56 0.32 Uniform Del: 25.5 15.8 20.3 32.2 19.9 19.9 31.4 31.4 31.4 27.1 25.5 24.0 IncremntDel: 0.4 0.2 3.7 1.0 0.0 0.0 7.5 7.5 7.5 4.9 1.6 0.5 Delay/Veh: 25.9 15.9 24.0 33.1 19.9 19.9 38.9 38.9 38.9 32.0 27.1 24.5 AdjDel/Veh: 25.9 15.9 24.0 33.1 19.9 19.9 38.9 38.9 38.9 32.0 27.1 24.5 HCM2kAvg: 2 3 11 2 1 1 6 6 6 9 6 3

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #7 Reservation Rd/Vista Del Camino **************** Cycle (sec): 90 Critical Vol./Cap. (X): 0.481 9 (Y+R = 4 sec) Average Delay (sec/veh): 8.5
36 Level Of Service: A Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R West Bound L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 Volume Module: Base Vol: 10 2 0 66 3 54 54 889 10 14 1161 70 Initial Bse: 10 2 0 66 3 54 54 889 10 14 1161 70 PHF Volume: 11 2 0 71 3 58 58 956 11 15 1248 Saturation Flow Module: Adjustment: 0.80 0.80 1.00 0.71 0.71 0.85 0.95 0.95 0.85 0.95 0.95 0.85 Lanes: 0.83 0.17 1.00 0.96 0.04 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1273 255 1900 1296 59 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.00 0.05 0.05 0.04 0.03 0.26 0.01 0.01 0.35 0.05 **** **** Crit Moves: Green/Cycle: 0.11 0.11 0.00 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.08 0.08 0.00 0.49 0.49 0.32 0.41 0.37 0.01 0.11 0.49 0.07 Uniform Del: 35.8 35.8 0.0 37.5 37.5 36.8 39.5 5.2 3.8 38.6 5.8 4.0 2.0 0.1 0.0 0.3 0.1 2.4 2.4 1.0 0.0 0.0 40.0 40.0 37.8 41.5 5.2 3.8 38.9 5.9 4.0 35.9 35.9 Delay/Veh: AdjDel/Veh: 35.9 35.9 0.0 40.0 40.0 37.8 41.5 5.2 3.8 38.9 5.9 4.0 HCM2kAvg: 0 0 0 3 3 2 2 5 0 0 8 1 ************************* Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #7 Reservation Rd/Vista Del Camino Cycle (sec): 90 Critical Vol./Cap. (X): 0.561 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 38 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 Volume Module: Base Vol: 41 4 18 116 7 40 141 1356 49 38 1068 140 Initial Bse: 41 4 18 116 7 40 141 1356 49 38 1068 Saturation Flow Module: Adjustment: 0.70 0.70 0.85 0.69 0.69 0.85 0.95 0.95 0.85 0.95 0.95 0.95 Lanes: 0.91 0.09 1.00 0.94 0.06 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1210 118 1615 1244 75 1615 1805 3610 1615 1805 3610 1615 _____| Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.01 0.10 0.10 0.03 0.08 0.39 0.03 0.02 0.30 0.09 **** Crit Moves: Green/Cycle: 0.16 0.16 0.16 0.16 0.16 0.16 0.15 0.66 0.66 0.08 0.58 0.58 Volume/Cap: 0.21 0.21 0.07 0.59 0.59 0.16 0.52 0.59 0.05 0.28 0.52 0.15 Uniform Del: 32.6 32.6 31.8 34.8 34.8 32.3 35.0 8.6 5.4 39.1 11.3 8.6 1.8 0.4 0.0 IncremntDel: 0.5 0.5 4.2 4.2 0.1 0.3 1.1 0.2 Delay/Veh: 33.1 33.1 32.0 39.0 39.0 32.6 36.9 8.9 5.4 40.2 11.5 8.7 AdjDel/Veh: 33.1 33.1 32.0 39.0 39.0 32.6 36.9 8.9 5.4 40.2 11.5 8.7 HCM2kAvg: 2 2 0 6 6 1 5 11 0 1 9 ***********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************** Intersection #8 Reservation Rd/Seacrest Ave **************** Cycle (sec): 60 Critical Vol./Cap. (X): 0.443 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 36 Level Of Service: ************************** South Bound East Bound West Bound Approach: North Bound L-T-R L-T-R L-T-R Movement:
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10 0 10 0 0 0 0 0 0 10 10 7 10 0
 10 7 10 0

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0
 Volume Module: 0 45 0 0 0 0 897 68 95 934 Base Vol: 68 Initial Bse: 68 0 45 0 0 0 0 897 68 95 934 0 PHF Volume: 76 0 50 0 0 0 997 76 106 1038 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.04 0.00 0.03 0.00 0.00 0.00 0.00 0.28 0.05 0.06 0.29 0.00 Crit Moves: **** **** Green/Cycle: 0.17 0.00 0.17 0.00 0.00 0.00 0.00 0.56 0.56 0.12 0.68 0.00 Volume/Cap: 0.25 0.00 0.19 0.00 0.00 0.00 0.00 0.49 0.08 0.49 0.42 0.00 Uniform Del: 21.7 0.0 21.5 0.0 0.0 0.0 0.0 7.9

IncremntDel: 0.4 0.0 0.3 0.0 0.0 0.0 0.0 0.2 6.0 24.7 4.2 0.0 1.7 0.1 1.7 0.1 IncremntDel: 0.4 0.0 0.3 0.0 0.0 0.0 ·***

Level Of Service Computation Report	******												
Intersection #8 Reservation Rd/Seacrest Ave		0000	I	evel (of Ser	vice (Computa	tion 1	Repor	t			
Cycle (sec):	*****	2000	HCM ()perati	ons M	ethod *****	(Base	Volume	e Alt	ernativ	e)	e Ste Steam on	9 9 1 1 1 2 2 2 2
Cycle (sec):	Intersection	#8 R	eserva	ation F	Rd/Sea	crest	Ave						
Approach: North Bound Movement: L - T - R L T - T R L - T - R L L - T - R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L T - T R L	Criata (ana).		C 0	•			and the same	ৰ জল ব	1:~			0.7	9.6
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Optimal Cycle	∋:	5.9	•		I	⊿evel C	f Ser	vice:				В
Movement: L - T - R													
Control: Split Phase Tinclude Tinclu					L -	- T	- R	L	- T	- R	L -	- Т	- R
Min. Green: 10 0 10 0 0 0 0 0 10 10 7 10 7 10 0 Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 10 10 7 10 7 1	Control:	Sp.	lit Ph	nase	Sp	lit Ph	nase	P	rotec	ted			
Lanes:		10									_		
Volume Module: Base Vol: 182 0 87 0 0 0 0 1354 194 230 910 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1 (0 0	0 1	0 (0 0	0 0	0 (0 2	0 1	1 0) 2	
Base Vol: 182 0 87 0 0 0 0 1354 194 230 910 0 100 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					ļ						1		
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			-0	87	0	.0	Λ	'n	1354	10/	230	010	. 0
Initial Bse: 182 0 87 0 0 0 0 1354 194 230 910 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													=
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
PHF Adj:		1.00	1.00		1.00								_
PHF Volume: 207 0 99 0 0 0 1539 220 261 1034 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7	207	0	99	0	0	0						
Reduced Vol: 207 0 99 0 0 0 0 1539 220 261 1034 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0	0	0	0	0	0						
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	207	0	99	0	0	0	0					
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PCE Adi:	1.00	1.00	1.00	1.00	1.00	1.00						
Final Vol.: 207 0 99 0 0 0 0 1539 220 261 1034 0	MLF Adi:	1.00	1.00	1.00	1.00	1.00	1.00						
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	Final Vol.:	207	0	99	0	0	0						
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190		•		3	1		1				1		1
Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.95 0.85 0.95 0.95 1.00 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1													
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1										-		,	
Final Sat.: 1805 0 1615 0 0 0 0 0 3610 1615 1805 3610 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_												
Capacity Analysis Module: Vol/Sat: 0.11 0.00 0.06 0.00 0.00 0.00 0.00 0.43 0.14 0.14 0.29 0.00 Crit Moves: **** Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.53 0.53 0.18 0.71 0.00 Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 HCM2kAvg: 6 0 2 0 0 0 0 15.3 8.5 39.4 4.0 0.0													
Capacity Analysis Module: Vol/Sat: 0.11 0.00 0.06 0.00 0.00 0.00 0.00 0.43 0.14 0.14 0.29 0.00 Crit Moves: **** Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.53 0.53 0.18 0.71 0.00 Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Vol/Sat: 0.11 0.00 0.06 0.00 0.00 0.00 0.00 0.00 0.43 0.14 0.14 0.29 0.00 Crit Moves: **** **** **** **** **** **** Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.00					1			1			1		
Crit Moves: **** Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.53 0.53 0.18 0.71 0.00 Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	·-	-			0.00	0.00	0.00	0.00	0.43	0 14	0 14	0 29	0.00
Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.53 0.53 0.18 0.71 0.00 Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0								0.00		0.11		0.25	.0 • .0 0
Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.53	0.53	0.18	0 71	0 00
Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												-	
IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 0.00 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0									- San - Contract - Con				-
Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	-												
AdjDel/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 HCM2kAvg: 6 0 2 0 0 0 0 15 3 8 4 0	-												
HCM2kAvg: 6 0 2 0 0 0 0 15 3 8 4 0													
	-												
			*****	*****	****					-	-	-	

_____ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************ Intersection #9 Reservation Rd/De Forest Rd ************************* 90 Critical Vol./Cap. (X): Cycle (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 36 Level Of Service: 8.5 Loss Time (sec): Optimal Cycle: Approach: North Bound South Bound East Bound Movement: Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10 Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1 Volume Module: Base Vol: 33 3 32 43 -8 41 22 759 45 27 917 PHF Adj: MLF Adj: Final Vol.: 34 3 33 44 8 42 23 782 46 28 945 35 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.02 0.04 0.04 0.03 0.01 0.22 0.03 0.02 0.26 0.02 *** Crit Moves: Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.24 0.24 0.18 0.34 0.34 0.24 0.16 0.30 0.04 0.20 0.37 0.03 Uniform Del: 36.5 36.5 36.3 36.9 36.9 36.5 38.8 4.8 3.9 38.9 5.1 3.8 IncremntDel: 0.8 0.8 0.5 1.3 1.3 0.7 0.5 0.1 0.0 0.7 0.1 0.0 ************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #9 Reservation Rd/De Forest Rd Cycle (sec): 80 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 0
 1
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 Volume Module: Base Vol: 70 11 79 43 6 56 42 1314 93 39 1017 Initial Bse: 70 11 79 43 6 56 42 1314 93 39 1017 PHF Adj: PHF Volume: 72 11 81 44 6 58 43 1355 96 40 1048 49 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 72 11 81 44 6 58 43 1355 96 40 1048 49 0 0 43 1355 0 0 0 96 40 1048 49 Final Vol.: 72 11 81 44 6 58 43 1355 96 40 1048 49 Saturation Flow Module: Adjustment: 0.71 0.71 0.85 0.71 0.71 0.85 0.95 0.95 0.95 0.95 0.95 0.95 Lanes: 0.86 0.14 1.00 0.88 0.12 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1164 183 1615 1180 165 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.06 0.06 0.05 0.04 0.04 0.04 0.02 0.38 0.06 0.02 0.29 0.03 *** **** Crit Moves: Green/Cycle: 0.13 0.13 0.13 0.13 0.13 0.13 0.09 0.67 0.67 0.09 0.67 0.67 Volume/Cap: 0.50 0.50 0.40 0.30 0.30 0.29 0.27 0.56 0.09 0.25 0.43 0.05 Uniform Del: 32.6 32.6 32.3 31.8 31.8 31.8 34.1 6.8 4.5 34.1 6.0 IncremntDel: 2.3 2.3 1.3 1.0 1.0 0.8 0.9 0.3 0.0 0.9 0.1 Delay/Veh: 34.9 34.9 33.6 32.8 32.8 32.5 35.1 7.0 4.5 34.9 6.1 AdjDel/Veh: 34.9 34.9 33.6 32.8 32.8 32.5 35.1 7.0 4.5 34.9 6.1 4.4 HCM2kAvq: 3 3 2 2 2 1 9 1 1 6

ے ہے کہ باتے کے بیان کے لیے بات کے بات ک Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #10 Reservation Rd/Crescent Ave ************* Critical Vol./Cap. (X): 0.469 Cycle (sec): 55 11.0 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss Time (sec): 9 (1+k = 4 sec) Average Delay (sec/ven):
Optimal Cycle: 36 Level Of Service: B North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: North Bound Movement:
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10 10 10 10 10 10 7 10 7 10 7 10 10
 7 10 10 7 10 10

 Lanes:
 1 0 1 0 1 0 1 0 0 1 1 0 2 0 1 1 0 1 0
 Volume Module: 25 869 74 93 860 19 48 39 23 Base Vol: 101 27 114 48 39 23 25 869 74 93 860 19 Initial Bse: 101 27 114 PHF Adj: PHF Volume: 107 29 121 51 41 24 27 924 79 99 915 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 107 29 121 51 41 24 27 924 79 99 915 2.0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.08 0.02 0.08 0.06 0.06 0.02 0.01 0.26 0.05 0.05 0.26 0.26 Crit Moves: **** Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.13 0.53 0.53 0.13 0.53 0.53 Volume/Cap: 0.45 0.08 0.41 0.32 0.32 0.08 0.12 0.49 0.09 0.43 0.49 0.49 6.5 22.2 8.3 8.3 Uniform Del: 20.0 18.7 19.9 19.6 19.6 18.7 21.3 8.3 AdjDel/Veh: 21.4 18.8 20.8 20.2 20.2 18.8 21.5 8.5 6.5 23.5 8.5 8.5 HCM2kAvg: 3 0 2 2 2 0 1 5 1 2 6 6 ************* *****

		Level (
*****	2000 HCM	[Operati	ons Me	ethod	(Base	Volume	e Alt∈	ernativ	e)	
Intersection						****	*****	*****	*****	****
*******				****	*****					*****
Cycle (sec):		5.5		(Critica	1 Vol.	./Cap.	(X):	0.6	75
Loss Time (se			= 4 5						12	
Optimal Cycle		43			evel C					В
Approach: Movement:		Bound - R			una - R			ound	West E	
Movement:	<u>_</u>	- K	- up -	- T	- K	- بلا 		- R	L - T	
Control:					ted				Protec	
Rights:		lude		Inclu		1.3	Incl		Incl	
Min. Green:		0 10	10		10	7	10	10	7 10	
Lanes:	1 0 1			. 0			2			
Volume Module									•	
Base Vol:	75 3	8 149	54	29	34	65	1273	117	145 881	47
Growth Adj:	1.00 1.0	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00
Initial Bse:	7.5 3	8 149	54	29	34	65	1273	117	145 881	47
User Adj:	1.00 1.0	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00
PHF Adj:	0.93 0.9	3 0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93 0.93	0.93
PHF Volume:	81 4	1 160	58	31	37	70	1369	126	156 947	51
Reduct Vol:	0	0 0	0	.0	.0	0	0	0	0 0	0
Reduced Vol:	81 4	1 160	58	31	37	70	1369	126	156 947	51
PCE Adj:	1.00 1.0		1.00		1.00	1.00	1.00	1.00	1.00 1.00	1.00
MLF Adj:	1.00 1.0	0 1.00	1.00	1.00	1.00		1.00	1.00	1.00 1.00	1.00
Final Vol.:	-	1 160	58	31	37		1369	126	156 947	51
Saturation F.]							
Sat/Lane:	1900 190		1900	1900	1900	1900	1900	1900	1900 1900	1900
Adjustment:	0.70 1.0		0.79		0.85		0.95	0.85	0.95 0.94	
Lanes:	1.00 1.0		0.65		1.00		2.00	1.00	1.00 1.90	
Final Sat.:	1326 190			526	1615		3610	1615	1805 3400	
Capacity Ana.	lysis Mod	lu1e:								
Vol/Sat:	0.06 0.0	0.10	0.06	0.06	0.02	0.04	0.38	0.08	0.09 0.28	0.28
Crit Moves:		***					***		****	
Green/Cycle:	0.18 0.1	8 0.18	0.18	0.18	0.18	0.13	0.53	0.53	0.13 0.53	0.53
Volume/Cap:	0.33 0.1	2 0.55	0.33	0.33	0.12	0.30	0.72	0.15	0.68 0.53	0.53
Uniform Del:	19.6 18.	8 20.4	19.6	19.6	18.8	21.8	9.9	6.7	22.9 8.5	8.5
IncremntDel:			0.7	0.7	0.2	0.8	1.4	0.1	7.9 0.3	
Delay Adj:	1.00 1.0			1.00	1.00		1.00	1.00	1.00 1.00	
Delay/Veh:			20.3		19.0		11.3	6.7	30.9 8.8	
User DelAdj:			1.00		1.00		1.00	1.00	1.00 1.00	
AdjDel/Veh:				20.3	19.0		11.3	6.7	30.9 8.8	
HCM2kAvg:	2 1		2	2	1	1		1	4 6	6
*****	*****	*****	****	****	*****	****	****	*****	*****	****

		Le	vel Of	Serv:	ce Co	mputat	ion K	eport	mn n + 1 + 1	~ A		
*******	2000 1	HCM Op	eratic	ns Mei	inoa	(Base)	*****	A1LE	rnativ	=) * * * * * * *	*****	*****
Intersection *******	#II R	eserva	TION F	(d/ III)	* * * * * * *	****	*****	****	****	****	****	****
	K . A . A . A . A .	70				ritica					0.743	
Cycle (sec):	~\.	10	/VID =	- 1 s					/veh):		25.9	9
Loss Time (se		59		5,	T.,	evel O	f Serv	ice:	,, .		(3
Optimal Cycle	****	ر *****	*****	***	****	****	****	****	*****	****	****	****
Approach:		th Bou			th Bo			st Bo			st Bo	
Merromont:	T	ेंग <i>-</i> -	- R	L -	T	- R		T			T	
Movement.						1						
Control:			ed		otect	ed	Pr	otect	ed	Pr	otect	ed
Rights:		Includ			Inclu			Inclu			Inclu	de
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Tanes:	2 0	0 1	1 1	1 0				2		2 0		0 1
							1		1	1		1
Volume Module												
Base Vol:	192	14	299	2	8	8	29	911	160	646	782	11
	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Initial Bse:	192	14	299	2	8	8	29	911	160	646	782	11
User Adj:	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00
PHF Adj:	0.87	0.87	0.87	0.87		0.87	0.87		0.87	0.87		0.87
PHF Volume:	221	16	344	2	9	9		1047	184		899	13
Reduct Vol:	0	0	0	.0	0	0	-0	0	0	0	0	10
Reduced Vol:	221	16	344	. 2	-9	9		1047	184	743	899	13 1.00
PCE Adj:	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	1.00 743	899	13
Final Vol.:	221	16	344	2		9		1047	184		899	
	•						1			.,		
Saturation F			4000	1.000	1.000	1.000	1.000	1900	1900	1900	1900	1900
Sat/Lane:		1900	1900	1900		1900		0.95	0.85		0.95	0.85
Adjustment:	0.92		0.86		1.00	1.00		2.00	1.00		2.00	1.00
Lanes:	2.00		1.91		1.00	1615		3610	1615		3610	1615
Final Sat.:	3502		3111		1900							
				1			1.1					,
Capacity Ana			e: 0.11	0 00	0.00	0.01	0.01	0.29	0.11	0.21	0.25	0.01
Vol/Sat:	0.06	0.11	0.11	****	0.00	0.01	0.01	****	• •	****		
Crit Moves:	0 10		0.14	0 10	0.14	0.14	0.10	0.34	0.34	0.25	0.49	0.49
Green/Cycle:		0.77	0.77		0.03	0.04		0.86	0.34	0.86	0.51	0.02
Volume/Cap: Uniform Del:			28.9		25.8	25.9		21.6	17.3	25.2	12.3	9.3
			7.9	0.0		0.1	0.1		0.4	8.5	0.3	0.0
IncremntDel:		1.00	1.00	-	1.00	1.00		1.00	1.00		1.00	1.00
Delay Adj: Delay/Veh:		36.8	36.8		25.9	25.9	28.7	27.8	17.7		12.6	9.3
User DelAdj:			1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:		36.8	36.8		25.9	25.9	28.7	27.8			12.6	9.3
********	Э/	6	6	Λ	n	0	0	14	3	11	7	0
HCMZKAVG:	****	****	****	****	****	****	****	****	*****	*****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 75 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 66 Level Of Service: 28.8 Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement:
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< Volume Module: Base Vol: 169 9 593 8 28 195 370 914 6 4 1106 3 Initial Bse: 169 9 593 28 6 8 4 1106 195 370 914 3 PHF Volume: 184 10 645 7 9 4 1202 30 212 402 993 3 MLF Adj: Final Vol.: 184 10 645 7 9 30 4 1202 212 402 993 3 Saturation Flow Module: Adjustment: 0.92 0.85 0.85 0.95 1.00 0.85 0.92 0.95 0.85 0.92 0.95 0.85 _____| Capacity Analysis Module: Vol/Sat: 0.05 0.20 0.20 0.00 0.00 0.02 0.00 0.33 0.13 0.11 0.28 0.00 Crit Moves: **** **** **** Green/Cycle: 0.13 0.23 0.23 0.09 0.19 0.19 0.09 0.38 0.38 0.13 0.42 0.42 Volume/Cap: 0.39 0.87 0.87 0.04 0.02 0.10 0.01 0.87 0.34 0.87 0.65 0.00 Uniform Del: 29.7 27.7 27.7 30.9 24.6 25.0 30.9 21.4 16.5 31.9 17.3 12.6 IncremntDel: 0.5 10.8 10.8 0.1 0.0 0.1 0.0 6.3 0.3 16.2 1.0 Delay/Veh: 30.2 38.5 38.5 31.0 24.7 25.1 30.9 27.7 16.8 48.2 18.4 12.6 HCM2kAvg: 2 11 11 0 0 1 0 16 4 8 10 0 **********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #12 Reservation Rd/Blanco Rd ******************************* Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 40 Level Of Service: B ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 0
 10
 7
 10
 10
 0
 10

 Lanes:
 0
 0
 0
 0
 2
 0
 0
 0
 0
 0
 1
 0
 Volume Module: Base Vol: 0 0 0 27 0 1278 916 344 0 0 398 Initial Bse: 0 0 0 27 0 1278 916 344 0 0 398 37 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 4102 3502 3610 0 0 1900 1615 _____| Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.29 0.11 0.00 0.00 0.23 0.03 Crit Moves: AdjDel/Veh: 0.0 0.0 0.0 38.5 0.0 0.0 21.7 2.1 0.0 0.0 28.0 20.3 HCM2kAvg: ********************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #12 Reservation Rd/Blanco Rd Cycle (sec): 110 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 44 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______ ______ Volume Module: Base Vol: 0 0 0 47 0 1118 1343 612 0 0 278 Initial Bse: 0 0 0 47 0 1118 1343 612 0 0 278 44 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 4102 3502 3610 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.41 0.18 0.00 0.00 0.16 0.03 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.60 0.83 0.00 0.00 0.23 0.23 0.0 4.4 Delay Adj: Delay/Veh: 0.0 0.0 0.0 46.3 0.0 0.0 15.9 2.0 0.0 0.0 43.2 33.9 AdjDel/Veh: 0.0 0.0 0.0 46.3 0.0 0.0 15.9 2.0 0.0 0.0 43.2 33.9 HCM2kAvg: 0 0 0 1 0 0 18 2 0 0 10 1 *******************

						مواضات کے جو بند						
		Le	vel Of	Servi	ice Co	mputat	ion Re	port				
2	2000 I	HCM Op	eratio	ns Met	thod (Base V	olume	Alter	native	E) Talan arabasan	. a. a. a. a. a. a.	مقاملة بالأماك بالأم
\ **********								****	*****	****	****	
Intersection #	‡13 Re	eserva	ition R	d/West	t Prj	Access	;					
**********	****	****	*****	****	*****	*****	****	****	*****	*****	****	****
Cycle (sec):		100			Cı	ritical	. Vol.,	/Cap.	(X):		0.228	3
Loss Time (sec	: (:	9	(Y+R =	4 s	ec) Av	rerage	Delay	(sec/	veh):		19.5	5
		26			T.2	NO 1 Of	Serv	ce:			E	
Optimal Cycle	• ****	****	****	****	****	*****	****	*****	*****	*****	****	****
		th Bou			th Boı			st Bou		Wes	st Bou	ınd
Approach:	т _	т -	- R	т. —	ф.	- R	L -	Т -	- R	L -	Ť -	- R
Movement:	— شاب	Д.	- ,1X 1 1			1						
				Ð	ermit	ted	Pr	otect	ed .	Pro	otecte	ed
Control:		ermitt			Inclu			Inclu			Inclu	
Rights:		Includ				0	0		10	7	10	0
Min. Green:	10	.0	10	0						1 0		0 0
Lanes:	1 0	0 (0 1	0 0	13 4	0 0	. 0 0					1
		·							!	1		
Volume Module	:				_	~		21.0	2.5	1-1-1	354	0
Base Vol:	62	0	101	0	0	0	0	310	33	111		
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	-	1.00
Initial Bse:	62	0	101	0	-0	0	0	310	33	111	354	.0
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
0001 1100	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	67	0	110	0	0	0	0	337	36	121	385	. 0
 -	0	ō	.0	0	0	0	.0	0	0	-0	0	10
Reduct Vol:	67	0	110	ő	0	0	0	337	36	121	385	0
Reduced Vol:			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
	1.00			1.00		1.00	1.00		1.00	1.00	1.00	1.00
MLF Adj:	1.00		1.00			0		337	36	121	385	0
Final Vol.:	67	0	110	0	10		1	ا در. دستاسات		1		
							1		1	4		'
Saturation Fl				- 0.00	1000	1000	1000	1000	1900	1900	1900	1900
Sat/Lane:		1900	1900		1900	1900	1900		0.90	0.95		1.00
Adjustment:	0.80		0.85		1.00	1.00	1.00					0.00
Lanes:	1.00	0.00	1.00		1.00	0.00	0.00		0.29	1.00		0.00
Final Sat.:	1524	0	1615		1900	0		4622	492	1805		
)		1
Capacity Anal	lysis	Modu1	e:							0 0	0 11	0 00
Vol/Sat:	0.04	0.00	0.07	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.11	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.32	0.32	0.29		0.00
Volume/Cap:		0.00	0.23		0.00	0.00	0.00	0.23	0.23	0.23	0.17	0.00
Uniform Del:			26.5	0.0		0.0	0.0	25.0	25.0	26.8	8.4	
			0.2	0.0		0.0	0.0	0.1	0.1	0.2	0.0	0.0
IncremntDel:			1.00		0.00	0.00		1.00	1.00		1.00	0.00
Delay Adj:		0.00	26.7	0.00		0.0		25.1	25.1	27.0	8.5	0.0
Delay/Veh:	25.9				1.00	1.00		1.00	1.00		1.00	1.00
User DelAdj:			1.00			0.0		25.1	25.1	27.0	8.5	0.0
AdjDe1/Veh:			26.7	0.0		0.0	0.0	3	3	3	3	0
HCM2kAvg:	2	0	.3	0	0						-	*****
#*******	****	****	****	****	****	***	^ ~ ~ ~ ~ ~					

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

Intersection #13 Reservation Rd/West Prj Access
Cycle (sec): 100 Critical Vol./Cap. (X): 0.301
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 36 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: $L - T - R$ $L - T - R$ $L - T - R$
Control: Permitted Permitted Protected Protected
Rights: Include Include
Lanes: 1 0 0 0 1 0 0 1! 0 0 0 0 2 1 0 1 0 2 0 0
Volume Module:
Base Vol: 42 0 86 0 0 0 0 558 65 139 266 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 42 0 86 0 0 0 0 558 65 139 266 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 46 0 93 0 0 0 0 607 71 151 289 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 46 0 93 0 0 0 0 607 71 151 289 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Final Vol.: 46 0 93 0 0 0 0 607 71 151 289 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190
Adjustment: 0.81 1.00 0.85 1.00 1.00 1.00 1.00 0.90 0.90 0.95 0.95 1.00
Lanes: 1.00 0.00 1.00 0.00 1.00 0.00 2.69 0.31 1.00 2.00 0.00
Final Sat.: 1539 0 1615 0 1900 0 0 4571 533 1805 3610 0
Capacity Analysis Module:
Vol/Sat: 0.03 0.00 0.06 0.00 0.00 0.00 0.13 0.13 0.08 0.08 0.00 Crit Moves: ****
0116 110 05.
Green/Cycle: 0.19 0.00 0.19 0.00 0.00 0.00 0.00 0.44 0.44 0.28 0.72 0.00
Volume/Cap: 0.15 0.00 0.30 0.00 0.00 0.00 0.30 0.30 0.3
Uniform Del: 33.6 0.0 34.6 0.0 0.0 0.0 0.0 18.1 18.1 28.5 4.3 0.0
IncremntDel: 0.2 0.0 0.5 0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.0
Delay/Veh: 33.9 0.0 35.2 0.0 0.0 0.0 18.1 18.1 28.8 4.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
AdjDel/Veh: 33.9 0.0 35.2 0.0 0.0 0.0 18.1 18.1 28.8 4.3 0.0 HCM2kAvg: 1 0 3 0 0 0 4 4 4 1 0
HCM2kAvg: 1 0 3 0 0 0 4 4 1 0 *************************

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 3.8 Level Of Service: A Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 Volume Module: Base Vol: 0 0 0 0 113 110 91 0 0 207 0 0 113 110 91 0 0 207 0 Final Vol.: 0 0 0 0 123 120 99 0 0 225 0 AutoPCE: 0 0 0 0 0 123 120 99 0 0 225
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 0 0 123 120 99 0 0 225 PCE Module: Delay Module: >> Time Period: 0.25 hours << CircVolume: 218 225 0

MaxVolume: xxxxxx 1079 1200

PedVolume: 0 0 0

AdjMaxVol: xxxxxx 1079 1200 120 1135 0 1079 0 1135 218 123 225 ApproachVol: xxxxxx 4.0 3.8 0.4 3.7 0.7 ApproachDel: xxxxxx 0.7 XXXX Queue:

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 3.9 Level Of Service: A Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 Volume Module: Base Vol: 0 0 0 0 148 90 206 0 0 103 Initial Bse: 0 0 0 0 148 90 206 0 0 103 0 PHF Volume: 0 0 0 0 0 161 98 224 0 0 112 0 Reduct Vol: 0 0 0 0 0 161 98 224 0 0 112 0 98 224 PCE Module: 0 0 0 0 112 0 161 98 224 AutoPCE: 0 TruckPCE:
ComboPCE: 0 BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 161 98 224 0 0 112 Delay Module: >> Time Period: 0.25 hours << CircVolume: 322 112 0 MaxVolume: xxxxxx 1200 1140 1147 PedVolume: 0
AdjMaxVol: xxxxxx
ApproachVol: xxxxxx
ApproachDel: xxxxxx -0 0 Ω 1200 1140 1147 322 161 112 3.7 4.1 3.5 0.5 1.1 0.3 Oueue: XXXX

		т	evel Of	Sorw.	ice Co	mputat	ion Re					
	2000 1	JCM Or	poratio	ns Me	thod a	Base V	olume	Alte	rnative	≘)		
****	****	*****	****	****	****	****	****	****	****	*****	****	****
Intercontion	#15 B	e se rita	ation R	d/Mai	n Pri	Access	3					
******	****	****	*****	****	****	*****	****	****	*****	****	****	****
Cucle (sec).		100			Cı	ritical	. Vol.	/Cap.	(X):		0.31	
Loss Time (se	c):	9	(Y+R =	= 4 s	ec) A	verage	Delay	(sec	/veh):		18.	9
01		3.6			1.6	277A ()1	serv	ıce:				В
********	****	****	*****	****	****	****	****	****	*****	****	****	****
Approach:	Nor	th Bo	und			ınd		st Bo			st Bo	
Massamont	т _	φ.	- ¹R	Ţ	Т -	- R	L -	T	- R	T -		– R
Movement:												
Control:	P	ermit	ted				Pr	otect	ed		otect	
Rights:		Inclu			Inclu			Inclu			Inclu	
Min. Green:	10		10		0		_	10	10	7		0
Lanes:	0 0	1!	0 0	0 0	0	0 0	0 0	1	1 0	1 0		
Lanes:												
Volume Module				-0	. 0	0	0	362	49	67	402	10
Base Vol:	63	0	105	1 00	1 00	1.00	1.00		1.00	1.00		1.00
Growth Adj:	1.00		1.00	1.00	1.00	1.00	0	362	49	67	402	0
Initial Bse:		0	105	1.00		1.00	1.00		1.00	1.00		1.00
User Adj:	1.00		1.00	0.92		0.92	0.92		0.92	0.92		0.92
PHF Adj:	0.92	0.92	114	0.92	0.32	0.52	0.32	393	53	73	437	0
PHF Volume:	68 0	.0	0	.0	:0	0	0	0	0	0	0	0
Reduct Vol:		0	114	0	0	.0	0	393	53	7.3	437	0
Reduced Vol: 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		1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj: Final Vol.:	68	0	114	0	0	0	0	393	53	7.3	437	.0
				1			1			1		
Saturation F				-								
Sat/Lane:		1900	1900	1900	1900	1900	1900		1900	1900		1900
Adjustment:			0.82	1.00	1.00	1.00		0.93	0.93	0.95		1.00
Lanes:	0.38	0.00	0.62	0.00	0.00	0.00		1.76	0.24		2.00	0.00
Final Sat.:	583	0	972	.0	0	10	0		423		3610	0
Tillar Sac]		
Capacity Ana	lysis	Modu.	le:				20.00	0 10	0 10	70 O:4	0.12	0.00
Vol/Sat:		0.00	0.12	0.00	0.00	0.00	0.00	0.13	0.13	****	0.12	0.00
Crit Moves:	****				0 00	0 00	0 00		0.40		0.53	0.00
Green/Cycle:			0.38		0.00	0.00		0.40	0.40		0.23	0.00
Volume/Cap:		0.00	0.31		0.00	0.00		20.3	20.3		12.4	0.0
Uniform Del:		0.0	22.0	0.0		0.0	0.0		0.1	0.8	0.1	0.0
IncremntDel:		0.0	0.3	0.0		0.00		1.00			1.00	0.00
Delay Adj:		0.00	1.00	0.00	0.00	0.0		20.4	20.4		12.4	0.0
Delay/Veh:					1.00	1.00		1.00	1.00		1.00	
User DelAdj:	T.UU	0.0		0.0		0.0		20.4	20.4		12.4	0.0
AdjDel/Veh:	:/	0	Ä	Λ	٥	0	0	5	5	2	4	:0
HCM2kAvg:	·****	****	****	*****	****	*****	*****	****	*****	*****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #15 Reservation Rd/Main Prj Access ******************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.406 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 36 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Permitted Permitted Protected Protected Rights: Include Include Include Include Include Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0 Lanes: 0 0 1! 0 0 0 0 0 0 0 1 1 0 1 0 2 0 0 Volume Module: Base Vol: 57 0 82 0 0 0 0 575 69 123 348 0 PHF Volume: 62 0 89 0 0 0 0 625 75 134 378 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 62 0 89 0 0 0 0 625 75 134 378 0 Saturation Flow Module: Adjustment: 0.81 1.00 0.81 1.00 1.00 1.00 1.00 0.93 0.93 0.95 0.95 1.00 Lanes: 0.41 0.00 0.59 0.00 0.00 0.00 1.79 0.21 1.00 2.00 0.00 Final Sat.: 632 0 910 0 0 0 3172 381 1805 3610 0 Capacity Analysis Module: Crit Moves: **** Green/Cycle: 0.24 0.00 0.24 0.00 0.00 0.00 0.00 0.49 0.49 0.18 0.67 0.00 Uniform Del: 31.9 0.0 31.9 0.0 0.0 0.0 16.5 16.5 36.1 6.1 0.0 IncremntDel: 0.7 0.0 0.7 0.0 0.0 0.0 0.0 0.2 0.2 0.8 0.0 0.0 Delay/Veh: 32.6 0.0 32.6 0.0 0.0 0.0 16.6 16.6 36.9 6.2 0.0 AdjDel/Veh: 32.6 0.0 32.6 0.0 0.0 0.0 0.0 16.6 16.6 36.9 6.2 0.0 HCM2kAvg: 5 0 5 0 0 0 7 7 4 2 *******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************** Intersection #16 Reservation Rd/East Pri Access Cycle (sec): 100 Critical Vol./Cap. (X): 0.268 Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): Optimal Cycle: 25 Level Of Service: *********************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R______| Volume Module: Base Vol: 75 469 0 0 467 0 0 0 171 Initial Bse: 75 469 0 0 467 0 0 0 171 0 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 Saturation Flow Module: Adjustment: 0.95 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 Lanes: Final Sat.: 1805 1900 0 0 3610 0 0 0 1900 0 0 Capacity Analysis Module: Crit Moves: ****

 0.0
 0.0
 3.4
 0.0
 0.0
 0.0
 0.0
 0.0
 0.0
 0.0

 0.0
 0.0
 0.0
 0.0
 0.0
 0.0
 0.0
 0.0
 0.0

 Uniform Del: 30.0 0.0 0.0 Thorrempt Del: 0.2 0.1 0.0 IncremntDel: 0.2 0.1 AdjDel/Veh: 30.2 0.1 0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg: 2 0 0 0 2 0 0 0 0 0 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #16 Reservation Rd/East Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 27 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R n Volume Module: Base Vol: 183 471 0 0 657 0 0 0 94 0 0 Initial Bse: 183 471 0 0 657 0 0 0 94 0 0 PHF Volume: 199 512 0 0 714 0 0 0 0 0 0 MLF Adj: Final Vol.: 199 512 0 0 714 0 0 0 0 0 0 Saturation Flow Module: Capacity Analysis Module: Crit Moves: **** **** Uniform Del: 25.6 0.6 0.0 0.0 10.8 0.0 0.0 0.0 0.0 0.0 0.0 AdjDel/Veh: 25.9 0.7 0.0 0.0 10.9 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg: 5 2 0 0 6 0 0 0 0 0 0 0.0

على من المراجع في الم Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************************** Intersection #17 Reservation Rd/S. Davis Rd ******************************* Average Delay (sec/veh): 197.3 Worst Case Level Of Service: F[686.5] ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 Volume Module: 2 305 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 1684 1637 239 1562 1560 393 472 xxxx xxxxx 241 xxxx xxxxx Potent Cap.: 76 102 805 92 113 660 1100 xxxx xxxxx 1337 xxxx xxxxx Move Cap.: 30 59 805 58 66 660 1100 xxxx xxxxx 1337 xxxx xxxxx Volume/Cap: 0.07 0.09 0.00 3.73 0.11 0.37 0.42 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 1.7 2.1 xxxx xxxxx 0.0 xxxx xxxxx 7.7 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 13.6 10.6 xxxx xxxxx A * * LOS by Move: * * * * B B * * LT - LTR - RT Movement:

		л	Level C	f Ser	vice (omouta	tion I	enor	 +			
	2000					-		-	c ernativ	· · ·)		
*****											****	*****
Intersection	#17 I	Reserv	ation	Rd/S.	Davis	s Rd						
Cycle (sec):		100				Critica					0.7	
Loss Time (se	ec):			= 4 :	sec) /	verage	Dela	v (se	c/veh):		32	
Optimal Cycle	e:	58				Level C					JL	Ċ
*****	****	****	*****	****					*****	****	****	
Approach:	No:	rth Bo	ound	Soi	uth Bo	ound	Εā	ast B	ound	We	est Bo	ound
Movement:		- T			- T				- R	L -	- T	- R
Control:		Permit				 :ted		rotec			rotect	1
Rights:	_	Incl			Incl		; 	Incl		± .	Incl	
Min. Green:	0		.0	0		0	0		0	Ō		0
Lanes:	0 (0 1!	0 0	0	1 0	-	1 (_	1 0	_	O C	
				-			1					
Volume Module												
Base Vol:	2	. 5	3	209	7	237	447	229	5	2	305	153
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	2	5	3	209	7	237	447	229	5	2	305	153
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		0.97	0.97		0.97	0.97		0.97	0.97	0.97		0.97
PHF Volume:	2	5	3	215	7	244	461	236	5	2	314	158
Reduct Vol: Reduced Vol:	0	0 5	0	0	0	0	0	0	0	0	0	0
PCE Adj:		1.00	3 1.00	215	7	244	461	236	1 00	.2	314	158
MLF Adj:		1.00	1.00		1.00	$1.00 \\ 1.00$		1.00	$1.00 \\ 1.00$		1.00	1.00
Final Vol.:	2	5	3	215	7	244	461	236		2.00	314	1.00 158
									1			
Saturation F	low Mo	odule:	:						1	'		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.71	0.71	0.85	0.95	1.00	1.00	0.95	0.95	0.95
Lanes:	0.20	0.50	0.30	0.97	0.03	1.00	1.00	0.98	0.02	1.00	0.67	0.33
Final Sat.:	350	876	525	1311		1615		1854	40		1202	603
				1								
Capacity Ana	_			0 16	0.10	A 15F	0 00	Ø 12	0 10	0 :00		
Vol/Sat:	0.01	0.01	0.01	0.16	0.16	0.15	V.Z6	0.13	0.13	0.00	0.26	0.26
Crit Moves:	ກ່ວວ	0 22	0.22	n 22	0.22	0.00		0 .00	0.00	0 01		0 0 5
Green/Cycle: Volume/Cap:		0.22	0.22		0.75	0.22 0.69		0.68	0.68		0.35	0.35
Uniform Del:			30.6		36.4	35.9	29.2	5.7	0.19 5.7		0.75	0.75
IncremntDel:		0.0	0.0		10.1	5.6	5.1	0.1	0.1	8.0	5.0	28.7 5.0
Delay Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Delay/Veh:		30.7	30.7		46.5	41.5	34.2	5.8	5.8		33.6	33.6
User DelAdj:			1.00		1.00	1.00		1.00			1.00	1.00
AdiDel/Veh:			30.7		46.5	41.5	34.2	5.8	5.8		33.6	33.6
HCM2kAvg:	0	0	0	11	11	8	15	3	3	0	14	14

			vel Of			 moutat					,	
2	000 н	CM TIme	d anald	and Ma	thod	(Rase	Volume	- Alte	ernativ	re)		
	****	*****	*****	****	****	****	****	*****	*****	*****	****	****
Intersection	****	*****	*****	****	*****	****	****	****	****	*****	****	****
		1 . 1 . 3 .	2.0	20 1	Wordt	Caso	امتتما	Of Se	ervice:		F[9(02.21
											*****	****** ****
Approach: Movement:	T	T	ind - R	1 T	11' H	- K		1	- T	ساد	4	-LX
			 gn		on Sic		Unc	ontro	lled	Unco	ontro	lled
Control:	St	op sig	90 911	ى د	op big Includ	de	0110	Inclu	de		Inclu	de
Rights: Lanes:	0 0	11010	de 0 0	0 1	0 () 1	1 0	0	1 0	1 0	0	1 0
Lanes:												
Volume Module	<u>.</u>											
Base Vol:	5	.5	3	241	5			323	3	7	364	112
Growth Adj:			1.00	1.00	1.00		1.00			1.00		1.00 112
Initial Bse:	,5	5	3	241		285		323	3	7	364	1.00
User Adj:	1.00	1.00	1.00	1.00		1.00	1.00			1.00		0.93
PHF Adj:	0.93		0.93	0.93		0.93		0.93		0.93	391	120
PHF Volume:		5	_	259	5	306	406		3		391	.1.2.0
Reduct Vol:			0			0	100	0	3			120
Final Vol.:	5	.5	3.	259	5	306	406	347	1	1	391	
	1						1			4		•
Critical Gap	Modu.	Le:	~ n	·7 1	<i>c</i> 5	6 2	A 1	VVVV	xxxxx	4 . 1	xxxx	xxxxx
Critical Gp:	7.1	6.5	0.∠	3.5					XXXXX			XXXXX
FollowUpTim:	3.5	4.0	3.3 l	1		1]			1		
Capacity Mod				4			•					
Capacity Mod	1784	1689	349	1633	1630	452	512	xxxx	XXXXX			XXXXX
Potent Cap.:	64	95	699	82	103	612			XXXXX			XXXXX
Morro Can .	21	58	699	53	63	612			xxxxx			XXXXX
		~ ~ ~	0 00	4 06	0 00	0.50	0.38	XXXX	XXXX	0.01	xxxx	XXXX
Volume/Cap:	.											
Level Of Ser	vice	Module	€:									
0110110	XXXXX	xxxx	XXXXX	XXXXX	XXXX	2.8	1.8		XXXXX			XXXXX
Ctannad Dol.	xxxxx	XXXX	xxxxx	XXXXX	XXXX	16.6			*****			
IOS by Move:	*	*	*	*	· *	اب ا					- LTR	
and the second second second	T 97	- TTP	— RT	T.T	 LTR 	- RT	LT		- RT			XXXXX
Movement: Shared Cap.:	XXXX	40	XXXXX	53	XXXX	XXXXX	XXXX	XXXX	XXXXX	VVVVV	XXXX	XXXXX
											XXXX	xxxxx
dhad ctabal	VVVVV	- 139	XXXXX	1928	XXXX	XXXXX	XXXXX	XXXX	*	AMMA	21212111	*
Shared LOS:	.**	F	*	ř'	902.2		···	xxxxx			xxxxx	
ApproachDel	:	138.9			902.2 F		-25	.xxxx. *			*	
ApproachLOS	:	F			,E							

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #17 Reservation Rd/S. Davis Rd *********************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.770 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 62 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 5 5 3 241 5 285 378 323 3 7 364 112 Initial Bse: 5 5 3 241 5 285 378 323 3 7 364 112 PHF Volume: 5 5 3 259 5 306 406 347 3 8 391 120 ______ Saturation Flow Module: Adjustment: 0.88 0.88 0.88 0.71 0.71 0.85 0.95 1.00 1.00 0.95 0.97 0.97 Lanes: 0.39 0.38 0.23 0.98 0.02 1.00 1.00 0.99 0.01 1.00 0.76 0.24 Final Sat.: 643 643 386 1318 27 1615 1805 1881 17 1805 1402 431 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.20 0.20 0.19 0.23 0.18 0.18 0.00 0.28 0.28 Crit Moves: **** *** Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.29 0.64 0.64 0.01 0.36 0.36 Volume/Cap: 0.03 0.03 0.03 0.77 0.77 0.74 0.77 0.29 0.29 0.29 0.77 0.77 Uniform Del: 28.0 28.0 28.0 34.5 34.5 34.2 32.3 7.9 7.9 48.8 28.2 28.2 IncremntDel: 0.0 0.0 0.0 10.2 10.2 7.2 6.8 0.1 0.1 6.0 5.5 5.5 Delay/Veh: 28.0 28.0 28.0 44.7 44.7 41.4 39.2 8.1 8.1 54.8 33.7 33.7 AdjDel/Veh: 28.0 28.0 28.0 44.7 44.7 41.4 39.2 8.1 8.1 54.8 33.7 33.7 HCM2kAvq: 0 0 0 12 12 10 14 5 5 1 15 15 ****************** Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #18 Hwy 68 WB Ramps/Reservation Rd *************** Critical Vol./Cap. (X): 0.645 Cycle (sec): 45 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 38 Level Of Service: ******************* South Bound East Bound Approach: North Bound West Bound L - T - R L - T - R L - T - R Movement:
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0 0 0 0 0 0 10 0 10 0 10 7 10 0
 0 10 0 10 0 10 0 10 0
 0 1 0 1 0 0 1 0 0

 Lanes:
 0 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0
 0 0 0 0 0 0 0 0 0
 Volume Module: 0 313 144 197 289 0 0 171 Base Vol: 0 0 207 171 0 313 144 197 289 0 207 0 Initial Bse: 0 0 .0 PHF Adj: 0 225 0 186 0 340 157 214 314 0 0 0 0 0 PCE Adj: MLF Adj: Final Vol.: 0 0 0 225 0 186 0 340 157 214 314 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.12 0.00 0.27 0.27 0.12 0.17 0.00 **** Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.56 0.00 0.52 0.00 0.68 0.68 0.68 0.29 0.00 Uniform Del: 0.0 0.0 0.0 15.5 0.0 15.4 0.0 11.0 11.0 17.4 4.8 0.0 5.8 0.1 0.0 IncremntDel: 0.0 0.0 0.0 1.8 0.0 1.3 0.0 2.6 2.6 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 *********** ******

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************ Intersection #18 Hwy 68 WB Ramps/Reservation Rd ************ Cycle (sec): 80 Critical Vol./Cap. (X): 0.866 9 (Y+R = 4 sec) Average Delay (sec/veh): 80 Level Of Service: Loss Time (sec): 30.3 Optimal Cycle: *********************************** North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: North Bound Movement: Ω Volume Module: Base Vol: 0 0 0 499 0 258 0 484 167 110 202 Initial Bse: 0 0 0 499 0 258 0 484 167 110 202 n Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.97 0.97 0.95 1.00 1.00 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.74 0.26 1.00 1.00 0.00 Final Sat.: 0 0 0 1809 0 1615 0 1363 470 1805 1900 0 _____| Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.31 0.00 0.18 0.00 0.39 0.39 0.07 0.12 0.00 **** Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.35 0.00 0.35 0.00 0.45 0.45 0.09 0.54 0.00 AdjDel/Veh: 0.0 0.0 0.0 37.5 0.0 21.3 0.0 30.4 30.4 56.6 9.8 0.0 HCM2kAvg: 0 0 0 17 0 6 0 20 20 5 3 0 ********************

________ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #19 Hwy 68 EB Ramps/Reservation Rd ************************** 80 Cycle (sec): Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 65 Level Of Service: Optimal Cycle: South Bound East Bound West Bound Approach: North Bound L - T - R L - T - R L - T - RMovement: Control: Split Phase Split Phase Protected Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 7
 10
 0
 0
 10
 10

 Lanes: 0 1 0 0 1 0 0 0 0 0 1 0 1 0 0 0 1 0 1 Volume Module: 130 0 95 0 0 0 263 334 0 0 450 Base Vol: Initial Bse: 130 0 95 0 0 .0 263 334 0 0 450 User Adj: PHF Adj: 0.85 PHF Volume: 153 0 112
Reduct Vol: 0 0 0
Reduced Vol: 153 0 112 0 0 0 309 393 0 0 529 738 0 0 0 0 0 0 0 0 0 0 0 0 309 393 0 0 529 738 PCE Adi: MLF Adj: Final Vol.: 153 0 112 0 0 0 309 393 0 0 529 738 _____| Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46 Crit Moves: **** Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.76 0.00 0.00 0.55 0.55 Volume/Cap: 0.68 0.00 0.55 0.00 0.00 0.00 0.82 0.27 0.00 0.00 0.50 0.82 Uniform Del: 33.5 0.0 32.9 0.0 0.0 0.0 30.3 2.8 0.0 0.0 11.0 14.6 IncremntDel: 7.9 0.0 3.3 0.0 0.0 0.0 13.7 0.1 0.0 0.0 0.4 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 41.4 0.0 36.2 0.0 0.0 0.0 44.0 2.9 0.0 0.0 11.4 20.9 AdjDel/Veh: 41.4 0.0 36.2 0.0 0.0 0.0 44.0 2.9 0.0 0.0 11.4 20.9 HCM2kAvg: 5 0 3 0 0 0 10 3 0 0 8 17 ***************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************** Intersection #19 Hwv 68 EB Ramps/Reservation Rd Cycle (sec): 55 Critical Vol./Cap. (X): 0.734 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 48 Level Of Service: ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 7
 10
 0
 0
 10
 10

 Lanes:
 0
 1
 0
 0
 0
 0
 1
 0
 0
 0
 1
 0
 Volume Module: Base Vol: 127 0 199 0 0 0 211 881 0 0 240 299 Initial Bse: 127 0 199 0 0 0 211 881 0 0 240 299 ______| Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 0.85 Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615 ______| Capacity Analysis Module: Vol/Sat: 0.08 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21 Crit Moves: **** Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 21.0 0.0 33.9 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4 AdjDel/Veh: 21.0 0.0 33.9 0.0 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4 HCM2kAvg: 3 0 6 0 0 0 4 15 0 0 4 5 ***********************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************** Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy Average Delay (sec/veh): 11.4 Worst Case Level Of Service: ****************************** Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Include Include Include Lanes: 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 _____| Volume Module: Base Vol: 0 0 0 103 2 0 0 0 184 0 Initial Bse: 0 0 0 103 2 0 0 0 184 0 0 PHF Volume: 0 0 0 117 2 0 0 0 209 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 117 2 0 0 0 0 209 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxxx 4.1 xxxx xxxxx Capacity Module: Level Of Service Module: Stopped Del:xxxxx xxxx xxxxx 13.4 xxxx xxxxx xxxxx xxxx xxxxx 10.2 xxxx xxxxx LOS by Move: * * * B * * * * B * * LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT Shared LOS: * * * B * * * * * * * * * * ApproachDel: xxxxxx 13.4 xxxxxx xxxxxx xxxxxx ApproachLOS: В

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ************************* Average Delay (sec/veh): 10.1 Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RVolume Module: Base Vol: 0 0 0 45 3 0 0 0 0 120 0 Initial Bse: 0 0 0 45 3 0 0 0 120 0 0 PHF Volume: 0 0 0 51 3 0 0 0 136 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 51 3 0 0 0 0 136 0 Reduct Vol: Final Vol.: _____| Critical Gap Module: ______| Capacity Module: Move Cap.: xxxx xxxx xxxxx 637 541 xxxxx xxxx xxxx xxxxx 900 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.08 0.01 xxxx xxxx xxxx xxxx 0.15 xxxx xxxx Level Of Service Module: LOS by Move: * * * B * * * * * A * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * * * xxxxxx ApproachDel: ApproachLOS: В

مرح مرجو والمرابع والمرابع والمرجو والمرابع والم Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ***************** Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[10.4] *************************** Approach: North Bound South Bound East Bound West Bound L + T + R L + T - R L - T - R Movement: Stop Sign Uncontrolled Uncontrolled Include Include Control: Stop Sign Rights: Ignore Ignore Include Include Include 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1 Lanes: Volume Module: PHF Volume: 3 0 0 0 0 0 7 138
Reduct Vol: 0 0 0 0 0 0 0 0
Final Vol.: 3 0 0 0 0 0 7 138 7 138 0 0 168 0 0 0 0 0 0 168 Critical Gap Module: Capacity Module: Level Of Service Module: 0.0 xxxx xxxxx xxxxx xxxx Queue: 0.0 xxxx xxxxx xxxx xxxx xxxx 7.6 xxxx xxxxx xxxxx xxxx xxxxx Stopped Del: 10.4 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: B * * * * A * * * * * LT - LTR - RT Movement: SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * * A * * * * xxxxxx XXXXXX 10.4 XXXXXX ApproachDel: ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)
2000 HCM Unsignalized Method (Base Volume Alternative)
- Total and - Single

Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ************************************
Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[10.4]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Ignore Include Include Include
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1
Volume Module:
Base Vol: 4 0 160 0 0 0 14 42 0 0 113 106
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 4 0 160 0 0 0 14 42 0 0 113 106
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74
PHF Volume: 5 0 0 0 0 19 57 0 0 153 143
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 5 0 0 0 0 19 57 0 0 153 143
Critical Gap Module:
Critical Gp: 6.4 xxxx xxxxx xxxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTim: 3.5 xxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx
Capacity Module:
Cnflict Vol: 319 xxxx xxxxx xxxx xxxx xxxx 296 xxxx xxxx
Potent Cap.: 679 xxxx xxxxx xxxx xxxx xxxx 1277 xxxx xxxx
Move Cap.: 671 xxxx xxxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap: 0.01 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Level Of Service Module:
Stopped Del: 10.4 xxxx xxxxx xxxxx xxxxx xxxxx 7.9 xxxx xxxx
nee 2, neve. 2
Movement: LT - LTR - RT Shared Cap.: xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx
SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx
Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx
Shared LOS: * * * * * * A * * * * *
ApproachDel: 10.4 xxxxxx xxxxx xxxxx
ApproachLOS: B * * *

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) Intersection #22 3rd St/4th Ave **************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.568 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 0 Level Of Service: ******************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: 61 247 72 10 29 5 88 6 Base Vol: 35 81 98 PHF Adj: 6 104 7 12 34 72 291 85 8 .8 Final Vol.: 41 95 115 6 104 7 12 34 72 291 85 8 Saturation Flow Module: Final Sat.: 108 250 302 30 527 36 65 189 397 511 149 14 Capacity Analysis Module: Vol/Sat: 0.38 0.38 0.38 0.20 0.20 0.20 0.18 0.18 0.18 0.57 0.57 **** **** *** Delay/Veh: 10.9 10.9 10.9 9.7 9.7 9.7 9.0 9.0 14.2 14.2 14.2 A B B A A A В A A LOS by Move: B B 14.2 9.7 9.0 10.9 ApproachDel: 1.00 1.00 1.00 1.00 Delay Adj: 9.0 9.7 14.2 10.9 ApprAdjDel: LOS by Appr: B Α ·**Z**A *******************************

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) ************************************ Intersection #22 3rd St/4th Ave Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 0 13.9 Control: Stop Sign Stop Sign Stop Sign Stop Sign Rights: Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module: Base Vol: 35 196 264 15 137 8 11 78 20 128 51 16 143
 275
 16
 143
 8
 11
 81
 21

 0
 0
 0
 0
 0
 0

 275
 16
 143
 8
 11
 81
 21
 11 81 21 PHF Volume: 36 204
Reduct Vol: 0 0 133 53 :0 0 Reduced Vol: 36 204 133 53 Final Vol.: 36 204 275 16 143 8 11 81 21 133 53 1 Saturation Flow Module: Lanes: 0.07 0.40 0.53 0.09 0.86 0.05 0.10 0.72 0.18 0.71 0.28 0.01 Final Sat.: 53 296 399 58 530 31 56 396 102 401 160 3 Capacity Analysis Module: Vol/Sat: 0.69 0.69 0.69 0.27 0.27 0.21 0.21 0.21 0.33 0.33 Crit Moves: **** **** **** Crit Moves: AdjDel/Veh: 16.8 16.8 16.8 10.2 10.2 10.2 10.0 10.0 10.0 11.4 11.4 11.4 LOS by Move: C C C B B В в в в в 10.2 10.0 ApproachDel: 16.8 11.4 1.00 1.00 1.00 Delay Adj: 1.00 ApprAdjDel: 16.8 10.2 LOS by Appr: C B 10.2 10.0 ·B ********************************* Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 55 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Include Include Include Min. Green: 10 0 10 10 10 10 0 10 10 7 10 0 Lanes: 1 0 0 0 1 0 1 0 0 1 0 0 2 0 1 1 0 2 0 0 0 Volume Module: 14 689 0 588 10 2 36 63 Base Vol: 57 0 17 14 689 0 0 588 63 Initial Bse: 57 0 17 10 2 36 12 2 44 0 726 78 17 851 0 0 0 0 0 0 0 0 0 0 0 12 2 44 0 726 78 17 851 0 PHF Volume: 70 0 21
Reduct Vol: 0 0 0
Reduced Vol: 70 0 21

 Reduced vol.

 70
 0
 21
 12
 2
 14
 0
 7.26
 7.8
 1
 0.01
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 1.00
 < Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.00 0.01 0.01 0.01 0.03 0.00 0.20 0.05 0.01 0.24 0.00 **** Crit Moves: **** Green/Cycle: 0.18 0.00 0.18 0.18 0.18 0.18 0.00 0.53 0.53 0.13 0.65 0.00 Volume/Cap: 0.27 0.00 0.07 0.05 0.05 0.15 0.00 0.38 0.09 0.08 0.36 0.00 Uniform Del: 19.4 0.0 18.7 18.6 18.6 18.9 0.0 7.7 6.5 21.1 4.3 0.0 0.0 0.1 0.1 0.1 0.2 0.0 0.1 IncremntDel: 0.6 0.0 0.1 0.1 6.5 21.3 4.4 AdjDel/Veh: 19.9 0.0 18.8 18.7 18.7 19.2 0.0 7.8 6.5 21.3 4.4 0.0 HCM2kAvg: 2 0 0 0 0 1 0 4 1 0 3 0 ***************************** Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave ************************** Cycle (sec): 40 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 9.7 Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 0
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 1
 0
 0
 1
 1
 0
 2
 0
 1
 0
 2
 0
 0
 0 Volume Module: Base Vol: 160 0 33 2 1 78 0 742 7 619 163 0 742 Initial Bse: 160 0 33 2 1 78 163 7 619 PHF Volume: 172 0 35 2 1 84 0 798 175 8 666 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 172 0 35 2 1 84 0 798 175 8 666 MLF Adj: Final Vol.: 172 0 35 2 1 84 0 798 175 8 666 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.02 0.00 0.00 0.05 0.00 0.22 0.11 0.00 0.18 0.00 Crit Moves: **** **** Green/Cycle: 0.25 0.00 0.25 0.25 0.25 0.25 0.00 0.35 0.35 0.17 0.52 0.00 Volume/Cap: 0.47 0.00 0.09 0.01 0.01 0.21 0.00 0.63 0.31 0.02 0.35 0.00 Uniform Del: 12.8 0.0 11.5 11.3 11.3 11.9 0.0 10.8 9.5 13.7 5.5

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #24 Light Fighter Dr/2nd Ave ************** Average Delay (sec/veh): 1.7 Worst Case Level Of Service: C[23.1] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R_____ Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 Volume Module: 94 447 Base Vol: 3 0 0 3 91 9 3 564 3 564 Initial Bse: 3 0 1 0 3 91 94 447 9 Critical Gap Module: Critical Gp: 7.5 xxxx 6.9 xxxxx 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 xxxx 3.3 xxxxx 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 978 xxxx 240 xxxx 1279 298 597 xxxx xxxxx 480 xxxx xxxxx Potent Cap.: 208 xxxx 767 xxxx 167 704 990 xxxx xxxxx 1093 xxxx xxxxx Move Cap.: 163 xxxx 767 xxxx 150 704 990 xxxx xxxxx 1093 xxxx xxxxx Volume/Cap: 0.02 xxxx 0.00 xxxx 0.02 0.14 0.10 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 0.2 0.3 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxx xxxx xxxx 10.5 9.0 xxxx xxxxx 8.3 xxxx xxxxx LOS by Move: * * * * * B A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT B * * * * * Shared LOS: * C * * *
ApproachDel: 23.1 11.2 xxxxxx XXXXXX C В ApproachLOS:

													_
			Level	of Ser	vice (Computa	ation 1	Repor	t .				
	2000 I	ICM U1	nsigna.	lized 1	Metho	d (Base	rri loV e	me Al	ternat	ive)			
******							*****	****	*****	****	****	****	*
Intersection ******	#24 I	ight	Fighte	er Dr/:	2nd A	ve * * * * * *	*****	****	*****	*****	* * * * *	****	*
Average Delay	v (sec	/veh):	2.4	Wor:	st Case	e Leve	1 Of :	Service	٥.	ות	28 21	
Approach:			ound								est Bo		^
Movement:	L -	- T	- R	L -	- Т	- R	L ·	- T	- R	L ·	- T	- R	
										[]			1
Control:	St	op S.	ign	St	top S	ian	Und		olled			olled	•
Rights:		Incl	ude		Incl	ude			ıde		Incl	ude	
Lanes:			0 0	1 (0 0	1 1					0 1	1 0	
										-			l
Volume Module	: :			*									
Base Vol:	1.	.5	7	5	3	99	175	547	9	2	572	4	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	1	5	7	:5	3	99	175	547	9	2	572	4	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		0.94	0 - 94	
PHF Volume:	1	.5	7	5	.3	105	186	582	10	2	609	4	
Reduct Vol:	0	0	-0	0	0	0	0	.0	0	.0	0	.0	
Final Vol.:	1	5	7	-5	3	105	186	582	10	2		4	
			,										ı
Critical Gap													.1
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	
FollowUpTim:			3.3						xxxxx			XXXXX	
		-,:,											1
Capacity Modu	ıle:						, ,		4	, ,			1
Cnflict Vol:	1269	1576	296	1281	1579	306	613	xxxx	xxxxx	591	xxxx	xxxxx	
Potent Cap.:	127	111	707	125	110	696			xxxxx			xxxxx	
Move Cap.:		89	707	101	89	696			xxxxx			XXXXX	
Volume/Cap:		0.06	0.01	0.05	0.04				XXXX		XXXX		
													1
Level Of Serv	zice N	Module	e:	' '									4
			xxxxx	0.2	xxxx	0.2	0.7	xxxx	xxxxx	00	XXXX	xxxxx	
Stopped Del:							-		XXXXX	,		XXXXX	
LOS by Move:	*			E			Д	*	*	A.	*	*	
Movement:			- RT			- RT			- RT	7	- LTR		
Shared Cap.:			XXXXX						XXXXX			- KI	
SharedQueue:										XXXXX			
Shrd StpDel:										XXXXX			
Shared LOS:	*		*	*	*	13.1	*	**	*	*	XXXX	XXXXX	
ApproachDel:		28.2			13.3		niza	xxxxx			xxxxx		
ApproachLOS:		Z0.Z			13.3 B		X2	****		X	xxxxx *		
whhroacimos:		עוּ			Ð						•		

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************ Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd ****************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.580 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.2 Optimal Cycle: 46 Level Of Service: C**************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Movement: Control: Protected Protect Protected Rights: Include Include Ignore Include
Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10
Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 Volume Module: 127 88 277 4 68 Base Vol: 155 105 2 4 295 402 Initial Bse: 155 105 2 4 295 402 127 88 277 4 68 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Adj: 0 0 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 MLF Adj: Final Vol.: 178 121 2 5 339 462 146 101 0 5 78 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.06 0.06 0.00 0.21 0.28 0.08 0.05 0.00 0.00 0.04 0.00 **** Crit Moves: **** Green/Cycle: 0.13 0.28 0.28 0.19 0.35 0.35 0.13 0.18 0.00 0.13 0.18 0.00 Volume/Cap: 0.40 0.23 0.23 0.01 0.60 0.81 0.64 0.29 0.00 0.02 0.23 2 2 2 0 6 10 4 2 0 0 1 HCM2kAvg:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd Cycle (sec): 50 Critical Vol./Cap. (X): 0.719 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 50 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Protected Include Include Ignore Include 7 10 10 7 10 10 7 10 7 7 10 Control: Rights: Include 7 7 10 10 Min. Green: Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 Volume Module: Base Vol: 271 207 0 3 167 224 388 89 202 3 94 Initial Bse: 271 207 0 3 167 224 388 89 202 3 94 5 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Adj: PHF Volume: 308 235 0 3 190 255 441 101 0 3 107 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 308 235 0 3 190 255 441 101 0 3 107

 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 PCE Adj: MLF Adi: Final Vol.: _____| Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.87 0.87 0.95 1.00 1.00 0.95 0.99 0.99 Final Sat.: 3502 1900 0 1805 1650 1650 1805 1900 1900 1805 1790 95 Capacity Analysis Module: Vol/Sat: 0.09 0.12 0.00 0.00 0.12 0.15 0.24 0.05 0.00 0.00 0.06 0.06 Crit Moves: **** *** **** Green/Cycle: 0.14 0.20 0.00 0.14 0.20 0.20 0.22 0.25 0.00 0.17 0.20 0.20 Volume/Cap: 0.63 0.62 0.00 0.01 0.58 0.77 1.11 0.22 0.00 0.01 0.30 0.30 Uniform Del: 20.3 18.3 0.0 18.5 18.1 18.9 19.5 15.0 0.0 17.1 17.0 17.0 0.0 17.1 17.0 17.0 0.0 6.4 78.5 0.2 0.0 0.0 1.1 IncremntDel: 2.6 3.1 0.0 0.4 Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 Delay/Veh: 22.9 21.4 0.0 18.5 19.1 25.3 98.0 15.2 0.0 17.1 17.5 17.5 AdjDe1/Veh: 22.9 21.4 0.0 18.5 19.1 25.3 98.0 15.2 0.0 17.1 17.5 17.5 HCM2kAvg: 4 4 0 0 4 6 17 1 0 0 2 2 ****************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd *************** Average Delay (sec/veh): 317.9 Worst Case Level Of Service: F[748.6] Approach: North Bound South Bound East Bound West Bound L + T - R L - T - R L - T - R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Volume Module: 25 0 36 68 397 69 5 0 379 0 0 Base Vol: 25 0 36 68 397 69 0 379 5 Initial Bse: 0 0 :0 PHF Adj: 0 0 0 436 6 29 0 41 78 456 79 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 436 6 29 0 41 78 456 79 0 PHF Volume: Reduct Vol: Final Vol.: Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 1072 1111 79 xxxx xxxx xxxxx 120 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 246 211 987 xxxx xxxx xxxx 1481 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 167 124 987 xxxx xxxx xxxxx 1481 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 2.61 0.05 0.03 xxxx xxxx xxxx 0.31 xxxx xxxx Level Of Service Module: LOS by Move: * * * * * * * * * * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT A * * LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx 38.7 xxxx 0.2 xxxxx xxxx xxxxx 1.3 xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx 806.0 xxxx 13.5 xxxxx xxxx xxxxx 8.5 xxxx xxxxx B * * * A * Shared LOS: * * * F * XXXXXX XXXXXX 748.6 ApproachDel: xxxxxx F ApproachLOS:

					,					ت نے بیت متم میم ہے۔				
		I	evel O	f Ser	vice C	omputa	tion I	Report						
			ındabou											
*****								****	*****	****	****	****		
Intersection ******								****	*****	*****	****	****		
Average Dela				4.2 ****	*****	****	****		vel Of *****			A *****		
Approach:	Noi	th Bo	ound	Soi	ith Bo	und	Εć	ast Bo	und	W∈	st Bo	und		
Movement:			- R	L ·	- T ·	- R	L -	- T	- R	L -	T	- R		
Control:	Yie		.gn	Yie		gn	Υiϵ		gn	Yi∈	Yield Sign			
Lanes:		0	3	4	2	4	1	1		1				
Volume Module			1	1			1			1				
Base Vol:	0	0	0	379	5	25	10	36	68	397	69	0		
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00		
Initial Bse:		0	0	379	5	25	0	36	68	397	69	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00		
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87		
PHF Volume:	0	0	0	436	6	29	0	41	78	456	79	0		
Reduct Vol:	0	0	0	0	10	0	0	0	.0	10	0	0		
Reduced Vol:	.0	-0	0	436	6	29	0	41	78	456	79	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	1.00		1.00	1.00		1.00	1.00		
Final Vol.:	. 0	0	0	436	6	29	. 0	41	78	456		.0		
DOD 34-3-3				1]				
PCE Module: AutoPCE:	Ô	0	0	436	6	29	0	41	7.8	456	79	-0		
TruckPCE:	0	-0	0	430	0	.29	0	41	.0	436	0	0		
ComboPCE:	.0	0	.0	.0	0	0	.0	0	0	.0	0	.0		
BicyclePCE:	0	0	0	. 0	0	0	.0	0	0	0	0	0		
AdjVolume:	.0	0	0	436	6	29	0	41	78	456	79	0		
	[1	1										
Delay Module	: >>	Time I	Period:	0.25	hours	<<								
CircVolume:		477			536			898			0			
MaxVolume:	x	XXXXX			2038			715			1200			
PedVolume:		0			0			0			0			
AdjMaxVol:		xxxxx			2038			715			1200			
ApproachVol:		XXXXX			470			120			536			
ApproachDel:		XXXXX			2.3			6.0			5.4			
Queue:		XXXX			0.9			0.6			2.4			

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************ Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ***************** Average Delay (sec/veh): 119.0 Worst Case Level Of Service: F[451.0] ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 Volume Module: Base Vol: 0 0 0 255 2 61 0 116 212 383 209 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 1247 1357 218 xxxx xxxx xxxx 342 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 193 150 827 xxxx xxxx xxxxx 1229 xxxx xxxxx Move Cap.: xxxx xxxx xxxxx 130 88 827 xxxx xxxx xxxxx 1229 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 2.04 0.02 0.08 xxxx xxxx xxxx 0.32 xxxx xxxx Level Of Service Module: LOS by Move: * * * * * * * * * * * * * * * * Movement: LT - LTR - RT LT - LTR - RT A * * LT - LTR - RT Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx 558.8 xxxx 11.1 xxxxx xxxx xxxxx 9.3 xxxx xxxxx Shared LOS: * * * F * B * * * A * * ApproachDel: xxxxxx ApproachLOS: * 451.0 XXXXXX XXXXXX F

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ************************ Average Delay (sec/veh): 5.4 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Lanes: 0 2 1 Yield Sign Volume Module: Base Vol: 0 0 0 255 2 61 0 116 212 383 209 Initial Bse: 0 0 0 255 2 61 0 116 212 383 209 0 PHF Volume: 0 0 0 266 2 64 0 121 221 399 218 0 _____| PCE Module: 0 0 0 121 221 399 218 0 266 2 64 0 AutoPCE: 0 0 0 0 0 0 0 0 0 0 TruckPCE: .0 0 ComboPCE: 0 0 ______| Delay Module: >> Time Period: 0.25 hours << CircVolume: 386 617 667 0 840 MaxVolume: xxxxxx 1980 1200 PedVolume: 0
AdjMaxVol: xxxxxx
ApproachVol: xxxxxx 0 0 0 1980 840 1200 331 342 617 7.2 xxxxxx ApproachDel: 2.2 6.1 2.0 3.0 0.6 Oueue: XXXX

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ***************** Average Delay (sec/veh): 3.5 Worst Case Level Of Service: **************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Example: Include Inclu Volume Module: 21 462 0 0 481 225 Base Vol: 38 0 0 0 227 0 0 21 462 0 0 481 Initial Bse: 38 0 227 0 0 User Adj: PHF Adj: 43 0 255 0 0 0 24 519 0 0 540 253 0 0 0 0 0 0 0 0 0 0 0 0 0 43 0 255 0 0 0 24 519 0 0 540 253 PHF Volume: Reduct Vol: Final Vol.: Critical Gap Module: Capacity Module: 793 xxxx xxxxx xxxx xxxx xxxx Cnflict Vol: 1233 xxxx 519 xxxx xxxx xxxxx Level Of Service Module: Queue: 0.8 xxxx 2.4 xxxxx xxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx A * * * * * LOS by Move: D * C * * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * * * * * ApproachDel: 18.4 xxxxxx xxxxxx XXXXXX C ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************************													
### The property of the proper			.3	Level (of Serv	vice (Computa	ation I	Repor	t			
Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ***********************************	3	2000 F	ICM UI	nsignal	lized 1	Method	d (Base	e Volur	ne Al	ternat	ive)		
Average Delay (sec/veh): 6.8 Worst Case Level Of Service: D[25.6] North Bound Movement: L - T - R L - T									****	*****	****	****	****
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R	Intersection	#27 F *****	Iwy 1	NB Rar	nps/Cai	nyon 1	Del Ray	y Blvd *****	****	*****	****	****	****
Approach: North Bound	Average Dela	y (sec	/veh)): *****	6.8 *****	Wor:	st Case	e Level	l Of :	Service	9: *****	D[****	25.6]
Movement: L T R L													
Control: Stop Sign					T -	- Т	- R	L ·	- Т	- R	L ·	- T	- R
Rights: Include Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 1 0 1													1
Rights: Include Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 1 0 1	Control:	St	op S	ign	St	top S	ign	Un	contr	olled	Un	contr	olled
Volume Module: Base Vol: 101 0 444 0 0 0 17 363 5 0 499 647 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Rights:		Inc1	ıde		Incl	ude					Incl	ude
Volume Module: Base Vol: 101 0 444 0 0 0 17 363 5 0 499 647 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1 0	0	0 1	0 (0 0	0 0	0 (0 1!	0 0	0 (0 1	0 1
Base Vol: 101 0 444 0 0 0 17 363 5 0 499 647 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			:										1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Modul	e:											
Initial Bse: 101 0 444 0 0 0 0 17 363 5 0 499 647 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Base Vol:	101	0	444	0	0	0	17	363	:5	0	499	647
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Initial Bse:	101	0	444	0	0	.0	17	363	.5	0	499	647
PHF Volume: 104 0 458 0 0 0 18 374 5 0 514 667 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Final Vol.: 104 0 458 0 0 0 18 374 5 0 514 667	PHF Volume:	104	0	458	:0	0	0	18	374	5	ı.	514	667
Final Vol.: 104 0 458 0 0 0 18 374 5 0 514 667	Reduct Vol:	0	0	0	0	0	0	0	0	0	10	0	
Critical Gap Module: Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx xxxx xxx	Final Vol.:	104	0	458	0	0	:0	18	374	5	0	514	-
Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx xxxx xxx						-							
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxx	Critical Gap	Modu1	e:										.4
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxx	Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module: Cnflict Vol: 1260 xxxx 377 xxxx xxxx xxxx 1181 xxxx xxxxx xxxx xxxx xxxx xxxx xxxx	FollowUpTim:	3.5	xxxx										
Cnflict Vol: 1260 xxxx									,				1
Potent Cap.: 190 xxxx 674 xxxx xxxx xxxx 598 xxxx xxxxx xxxx xxxx	Capacity Mod	ule:											
Potent Cap.: 190 xxxx 674 xxxx xxxx xxxxx 598 xxxx xxxxx xxxx xxx	Cnflict Vol:	1260	xxxx	377	xxxx	xxxx	xxxxx	1181	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap: 186 xxxx 674 xxxx xxxx xxxx 598 xxxx xxxxx xxxx xxxx	Potent Cap.:	190	xxxx	674	xxxx	xxxx	xxxxx						
Volume/Cap: 0.56 xxxx 0.68 xxxx xxxx xxxx 0.03 xxxx xxxx xxxx xxxx				674	xxxx	xxxx	xxxxx						
Level Of Service Module: Queue: 3.0 xxxx 5.3 xxxxx xxxx xxxx 0.1 xxxx xxxxx xxxx xxx		0.56	xxxx	0.68	xxxx	xxxx	xxxx						
Queue: 3.0 xxxx 5.3 xxxxx xxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx					1								
Stopped Del: 46.6 xxxx 20.9 xxxxx xxxx xxxx 11.2 xxxx xxxxx xxxx xx	Level Of Ser	vice N	odule	e:									
Stopped Del: 46.6 xxxx 20.9 xxxxx xxxx xxxxx 11.2 xxxx xxxxx xxxxx xxxxx xxxxx	Oueue:	3.0	xxxx	5.3	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
	Stopped Del:	46.6	xxxx	20.9	xxxxx	xxxx	xxxxx						
	-:-											*	
Movement: LT - LTR - RT	-			_	LT -	- LTR	– RT	_	- LTR	– RT	J.T	- LTR	- RT
Shared Cap.: xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx												_	
SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx	-												
Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx													
Shared LOS: * * * * * * * * * * * * * * *						*	*	*					*
ApproachDel: 25.6 xxxxx xxxxx xxxxx					SZ :				xxxxx		· v	xxxxx	
ApproachLOS: D * * *											,212		

۔ جب جب مارم ند کے جب میں کے جب مرحم نہ ند کے جب میں کے جب ان ان کے جب کے میں کا جب کا بعد ان ان ان ان ان ان ان ا Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray ************* Cycle (sec): 55 Critical Vol./Cap. (X): 0.995 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 111 Level Of Service: ****************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: 0 550 52 645 0 Base Vol: 0 0 0 562 0 59 PHF Volume: 0 0 0 703 0 74 65 806 0 0 688 75 Reduct Vol: 0 0 0 703 0 74 65 806 0 0 688 75 Reduced Vol: 0 0 703 0 74 65 806 0 0 688 75 PCE Adj: Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.39 0.00 0.05 0.04 0.42 0.00 0.00 0.41 0.41 **** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.32 0.00 0.32 0.18 0.52 0.00 0.00 0.33 0.33 Volume/Cap: 0.00 0.00 0.00 1.22 0.00 0.14 0.20 0.82 0.00 0.00 1.22 1.22 0.0 18.7 0.0 13.3 19.1 11.2 0.0 0.0 18.3 Uniform Del: 0.0 0.0 0.0 18.7 0.0 13.3 19.1 11.2 IncremntDel: 0.0 0.0 0.0 112.3 0.0 0.1 0.3 5.7 0.0 111 111.2 0.0 AdjDel/Veh: 0.0 0.0 0.0 131.0 0.0 13.4 19.4 16.8 0.0 0.0 130 129.5 0 0 33 33 $0 \quad 0 \quad 0 \quad 32 \quad 0 \quad 1 \quad 1 \quad 14$ HCM2kAvg: *****************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Cycle (sec): 55 Critical Vol./Cap. (X): 0.913 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 25.8 Optimal Cycle: 77 Level Of Service: C ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 0 0 0 562 0 59 52 645 0 0 550 60 Final Vol.: 0 0 0 703 0 74 65 806 0 0 688 75 ______| Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.70 1.00 1.00 1.00 0.99 0.99 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 0.90 0.10 Final Sat.: 0 0 0 1805 0 1615 1338 1900 0 0 1691 184 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.39 0.00 0.05 0.05 0.42 0.00 0.00 0.41 0.41 Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.43 0.00 0.43 0.46 0.46 0.00 0.00 0.46 0.46 IncremntDel: 0.0 0.0 0.0 15.2 0.0 0.1 0.1 13.7 0.0 0.0 9.8 9.8 Delay/Veh: 0.0 0.0 0.0 30.1 0.0 9.6 8.4 27.4 0.0 0.0 23.1 23.1 AdjDel/Veh: 0.0 0.0 0.0 30.1 0.0 9.6 8.4 27.4 0.0 0.0 23.1 23.1 HCM2kAvg: 0 0 0 17 0 1 1 18 0 0 16 16 *************************

												
		Le	vel Of	Serv	ice Co	mputat	ion Re	eport				
	מחחת נ	JOM Or	eratio	ns Met	-hod i	Base V	7olime	Altei	rnative	e)		
****	2000 I	TOM OF		+++++	++++	*****	****	****	*****	****	****	****
Intersection	#28 G€	en. Ji	m Moor	e Blv	d/Cany	on Del	_ кау					ran an ar in air
Intersection *	****	****	****	****	****	*****	·****	****	*****	·****	****	****
Cycle (sec):		120			Cı	ritical	L Vol.,	/Cap.	(X):		0.96	7
	- \ -	0	(Y+R =	1 9	74 Poe	rerage	Delav	(sec	/veh):		40.5	5
Loss Time (see		2 7 7	11.11/		CC) 11		FCONT	i co:			- 1	5
Optimal Cycle	:	1/6			Щŧ	ever O	L DELV.		و خلا باز باز باز باز باز			
*****	****	****	*****	****	****	*****	****	****				. 1
Approach:	Nor	th Bou	ınd	Sou	th Boı	ınd	Ea	st Bo	ind		st Bo	
Marramant	т	Т -	- R	T	т -	- R	L -	Т .	- R		T -	
Movement:		-	1			1			1			
			ase	0-1	ar nh	1.	, בי	atact.	ad	Pr	otecte	ed
Control:				SbT	LU EII	156	Е:Д	T 7			Inclu	
Rights:		Inclu	de ·			de		Inclu				
Min. Green:	0	0	,O			10			, ,0	0		10
T =======	.0 0	0	0 0	1 0	0	0 1	1 0	1	0 0			1 0
Lanes:			1									
			1.4				•					
Volume Module			- 20	0.0	0	36	75	286	0	. 0	846	319
Base Vol:	0		0	99	0							1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		
Initial Bse:	.0	0	·O	99	0	36	7.5	286	0	-	846	319
	1.00	1 00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	0.82		0.82	0.82		0.82	0.82	0.82	0.82	0.82	0.82	0.82
, - - , - , - - , -				121	0	44		349	.0	-0	1032	389
PHF Volume:	.0	0	0						0	Ő	0	0
Reduct Vol:	0	O	0	0	.0	:0	0	0		-	•	
Reduced Vol:	0	0	0	121	0	44	91	349	0		1032	389
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
202 230	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	0	121	0	44	91		0	0	1032	389
Final Vol.:	0	.U	٠. ا									1
							1			1		
Saturation F.	Low Mo	odule:						4 10 10 10	1.000	1.000	1000	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900		1900		1900		
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00		0.96	0.96
		0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.73	0.27
Lanes:	0.00		0.00	1805		1615	1805	1900	0	0	1329	501
Final Sat.:		.0	٠,	1000						1		
				1			1.31					'
Capacity Ana	lysis	Modu.	Le:							0.00	Λ ¹ π.0	0.78
Vo1/Sat:	0.00	0.00	0.00		0.00	0.03		0.18	0.00	0.00	0.78	0.76
Crit Moves:				***			****				****	
Green/Cycle:	0 00	0.00	0.00	0.08	0.00	0.08	0.08	0.84	0.00	0.00	0.76	0.76
	0.00	0.00	0.00		0.00	0.33	0.61	0.22	0.00	0.00	1.02	1.02
Volume/Cap:		0.00				51.8	53.1	1.8	0.0		14.5	14.5
Uniform Del:			0.0	54.0					0.0		30.4	30.4
IncremntDel:	0.0	0.0	0.0	25.8		1.4	7.0					
Delay Adj:		0.00	0.00	1.00	0.00	1.00		1.00	0.00		1.00	
Delay/Veh:			0.0	79.8	0.0	53.2	60.1	1.9	0.0		44.9	44.9
User DelAdj:	1 00		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User DelAd):	1.00	1.00	0.0	79.8		53.2	60.1		0.0	0.0	44.9	44.9
AdjDel/Veh:				79.0	0.0	2	4	.3	0	0	63	63
HCM2kAvg:	0	0	0			ک خاصت بازیان بازیان	144444 4					
******	****	****	****	****	· * * * * * *							

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray 6 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 92 Level Of Service: Optimal Cycle: ************************************* Approach: North Bound
Movement: L - T - R South Bound East Bound West Bound L - T - R L - T - R Movement: L - T - R
 Control:
 Split Phase
 Split Phase
 Permitted
 Permitted

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 10
 10
 0
 0
 10
 10

 Lanes:
 0
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: Volume Module:
Base Vol: 0 0 0 99 0 36 75 286 0 0 846 319 Initial Bse: 0 0 0 99 0 36 75 286 0 0 846 319 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.29 1.00 1.00 1.00 0.96 0.96 Final Sat.: 0 0 0 1805 0 1615 551 1900 0 0 1329 501 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.03 0.17 0.18 0.00 0.00 0.78 0.78 **** Crit Moves: Delay/Veh: 0.0 0.0 0.0 79.8 0.0 53.2 1.5 1.4 0.0 0.0 11.8 11.8 AdjDel/Veh: 0.0 0.0 0.0 79.8 0.0 53.2 1.5 1.4 0.0 0.0 11.8 11.8 HCM2kAvg: 0 0 0 7 0 2 2 2 0 0 35 35 *********************************

Appendix C – Level of Service Worksheets: Existing plus Projects (1,470 Homes)

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd **************** Average Delay (sec/veh): 9.1 Worst Case Level Of Service: B[10.4] ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 0 0 0 0 0 1! 0 0 0 0 0 1 0 0 1 0 0 Volume Module: 0 5 29 2 0 0 0 73 22 1 Base Vol: Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 114 116 2 xxxx xxxx xxxxx 12 xxxx xxxxx Potent Cap:: xxxx xxxx xxxx 887 778 1088 xxxx xxxx xxxx 1620 xxxx xxxx Move Cap:: xxxx xxxx xxxx 865 753 1088 xxxx xxxx xxxx 1620 xxxx xxxx xxxx Volume/Cap: xxxx xxxx xxxx 0.15 0.05 0.00 xxxx xxxx xxxx 0.03 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * * * * LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.4 xxxxx xxxxx xxxx xxxx 7.3 xxxx xxxxx A * * Shared LOS: * * * * B * * * * XXXXXX 10.4 XXXXXX XXXXXX ApproachDel: В ApproachLOS:

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

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd ************************************
Average Delay (sec/veh): 8.3 Worst Case Level Of Service: A[9.9]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1! 0 0 0 1 0 0
Volume Module:
Base Vol: 0 0 0 111 2 7 1 7 6 41 6 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 0 0 0 111 2 7 1 7 6 41 6 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 0 0 0 131 2 8 1 8 7 48 7 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 131 2 8 1 8 7 48 7 0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflict Vol: xxxx xxxx xxxx 118 121 7 7 xxxx xxxxx 15 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxx 883 773 1081 1627 xxxx xxxxx 1616 xxxx xxxxx
Move Cap.: xxxx xxxx xxxx 862 749 1081 1627 xxxx xxxxx 1616 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.15 0.00 0.01 0.00 xxxx xxxx 0.03 xxxx xxxx
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx 7.2 xxxx xxxx
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxx xxxx
SharedQueue:xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx xxxxx xxxxx xxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * A * * * A * *
ApproachDel: xxxxxx 9.9 xxxxxx xxxxxx
ApproachLOS: * A * *

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd ***************** Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[13.3] ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 ______|___|___| Volume Module: 2 7 29 34 14 6 4 102 4 91 39 Base Vol: Initial Bse: 2 7 29 34 14 6 4 102 4 91 39 25 PHF Volume: 2 9 36 42 17 7 5 126 5 112 48 31 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Final Vol.: 2 9 36 42 17 7 5 126 5 112 48 31 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 439 442 128 131 xxxx xxxxx 449 429 64 79 xxxx xxxxx 927 524 521 1007 1532 xxxx xxxxx 1467 xxxx xxxxx 927 464 477 1007 1532 xxxx xxxxx 1467 xxxx xxxxx Potent Cap.: 532 513 480 469 Move Cap.: Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxx xxxx 0.08 xxxx xxxx ______ Level Of Service Module: LOS by Move: * * * * * * * A * * A * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd Average Delay (sec/veh): 6.2 Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______ Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module: Base Vol: 9 11 26 28 26 6 19 92 8 139 35 Initial Bse: 9 11 26 28 26 6 19 92 8 139 35 51 PHF Volume: 11 14 32 35 32 7 23 114 10 172 43 63 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 11 14 32 35 32 7 23 114 10 172 43 63 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx _____| Capacity Module: Cnflict Vol: 603 615 119 606 588 75 106 xxxx xxxxx 123 xxxx xxxxx Potent Cap.: 414 409 939 412 424 992 1498 xxxx xxxxx 1476 xxxx xxxxx Move Cap.: 342 351 939 344 363 992 1498 xxxx xxxxx 1476 xxxx xxxxx Volume/Cap: 0.03 0.04 0.03 0.10 0.09 0.01 0.02 xxxx xxxx 0.12 xxxx xxxx Level Of Service Module: 7.4 xxxx xxxxx 7.8 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT A * * A * *
LT - LTR - RT LT - LTR - RT ApproachLOS:

_____ ______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************** Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): Critical Vol./Cap. (X): 130 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: Optimal Cycle: South Bound East Bound West Bound Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Protected Include Include Include Rights: Rights: Include Include Include Include
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Lanes: 1 0 1 1 0 1 0 1 0 1 2 0 1 1 0 1 0 2 0 1 Volume Module: 245 469 340 358 577 1029 400 501 34 329 602 Base Vol: 381 614 1095 426 533 36 350 640 PHF Volume: 261 499 362 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 261 499 362 381 614 1095 426 533 36 350 640 320 PCE Adj: MLF Adj: Final Vol.: 261 499 362 381 614 1095 426 533 36 350 640 320 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.14 0.25 0.25 0.21 0.32 0.68 0.12 0.16 0.16 0.19 0.18 0.20 Crit Moves: **** **** **** Green/Cycle: 0.11 0.35 0.35 0.29 0.52 0.52 0.10 0.12 0.12 0.15 0.17 0.17 Volume/Cap: 1.29 0.73 0.73 0.73 0.62 1.29 1.17 1.29 1.29 1.29 1.05 1.17 Uniform Del: 57.8 37.2 37.2 41.8 21.8 31.0 58.3 57.0 57.0 55.3 54.0 54.0 IncremntDel:164.4 2.4 2.4 5.3 1.2 141.5 103.1 149 148.8 157.4 50.0 109.4 Delay/Veh: 222.2 39.6 39.6 47.1 23.0 172.5 161.3 206 205.8 212.6 104 163.5 AdjDel/Veh: 222.2 39.6 39.6 47.1 23.0 172.5 161.3 206 205.8 212.6 104 163.5 HCM2kAvg: 21 16 16 15 17 75 16 22 22 27 19 21 **************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 65 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle:OPTIMIZED Level Of Service: 31.5 Approach: North Bound South Bound East Bound $L - T - R \quad L - T - R \quad L - T - R$ Movement:
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Ovl
 Include
 Ovl
 Ovl
 Include
 Ovl
 Ovl
 Include
 Ovl
 I Volume Module: 400 501 Base Vol: 245 469 340 358 577 1029 34 329 602 PHF Volume: 261 499 362 381 614 1095 426 533 36 350 640 O Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 261 499 362 381 614 1095 426 533 36 350 640 320 MLF Adj: Final Vol.: 261 499 362 381 614 1095 426 533 36 350 640 320 Saturation Flow Module: Adjustment: 0.95 0.89 0.89 0.92 1.00 0.75 0.92 0.94 0.94 0.92 0.95 0.85 Lanes: 1.00 1.16 0.84 2.00 1.00 2.00 3.00 1.87 0.13 2.00 2.00 1.00 Final Sat.: 1805 1961 1422 3502 1900 2842 5253 3347 227 3502 3610 1615 ______| Capacity Analysis Module: Vol/Sat: 0.14 0.25 0.25 0.11 0.32 0.39 0.08 0.16 0.16 0.10 0.18 0.20 Crit Moves: **** **** **** Green/Cvcle: 0.16 0.36 0.36 0.15 0.35 0.46 0.11 0.19 0.19 0.11 0.19 0.35 Volume/Cap: 0.91 0.71 0.71 0.71 0.91 0.83 0.75 0.82 0.82 0.93 0.91 0.57 Uniform Del: 26.9 17.9 17.9 26.1 20.0 15.3 28.2 25.1 25.1 28.8 25.6 17.2 IncremntDel: 31.1 1.9 1.9 4.3 16.6 4.7 5.6 7.5 7.5 28.8 16.1 ********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************** Intersection #3 S. Davis Rd/W. Blanco Rd ****************** Cycle (sec): 125 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: ************************* Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R South Bound East Bound L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< Volume Module: 184 601 PHF Adj: 236 609 495 329 978 499 39 196 639 445 PHF Volume: 36 547 0 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 36 547 236 609 495 329 978 499 39 196 639 445 PCE Adj: MLF Adi: Final Vol.: 36 547 236 609 495 329 978 499 39 196 639 445 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.02 0.23 0.23 0.34 0.26 0.20 0.28 0.15 0.15 0.11 0.18 0.28 **** **** Crit Moves: Green/Cycle: 0.06 0.18 0.18 0.27 0.40 0.40 0.23 0.26 0.26 0.19 0.22 0.22 Volume/Cap: 0.36 1.24 1.24 1.24 0.65 0.51 1.24 0.58 0.58 0.58 0.80 1.24 Uniform Del: 56.8 51.0 51.0 45.5 30.4 28.3 48.4 40.2 40.2 46.3 45.9 48.6 IncremntDel: 2.2 120 120.1 123.4 2.0 0.7 117.7 0.9 0.9 2.5 5.6 128.6 ******** ****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************************* Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 70 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Critical Vol./Cap. (X): 0.922 Optimal Cycle:OPTIMIZED Level Of Service: Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R West Bound Movement: L - T - R Control: Protected Protected Protected Protected Rights: Include Ovl Include Ovl Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 Lanes: 1 0 1 1 0 2 0 1 0 2 3 0 1 1 0 2 0 2 0 1 Volume Module: Base Vol: 34 514 222 572 465 309 919 469 37 184 601 418 445 Final Vol.: 36 547 236 609 495 329 978 499 39 196 639 445 Saturation Flow Module: Adjustment: 0.95 0.91 0.91 0.92 1.00 0.75 0.92 0.94 0.94 0.92 0.95 0.85 Lanes: 1.00 1.40 0.60 2.00 1.00 2.00 3.00 1.85 0.15 2.00 2.00 1.00 Final Sat.: 1805 2408 1040 3502 1900 2842 5253 3309 261 3502 3610 1615 Capacity Analysis Module: Vol/Sat: 0.02 0.23 0.23 0.17 0.26 0.12 0.19 0.15 0.15 0.06 0.18 0.28 Crit Moves: **** *** **** Green/Cycle: 0.10 0.25 0.25 0.19 0.33 0.54 0.20 0.29 0.29 0.10 0.19 0.38 Volume/Cap: 0.20 0.92 0.92 0.92 0.78 0.22 0.92 0.51 0.51 0.56 0.92 0.72 Uniform Del: 28.9 25.7 25.7 27.9 20.9 8.5 27.4 20.5 20.5 30.0 27.8 18.5 IncremntDel: 0.5 15.3 15.3 18.5 6.1 0.1 12.9 0.4 0.4 2.0 17.9 Delay/Veh: 29.5 41.0 41.0 46.4 27.0 8.6 40.3 21.0 21.0 32.1 45.6 22.8 AdjDel/Veh: 29.5 41.0 41.0 46.4 27.0 8.6 40.3 21.0 21.0 32.1 45.6 22.8 HCM2kAvg: 1 13 13 11 12 2 12 5 5 3 11 10

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd ************** Average Delay (sec/veh): 53.4 Worst Case Level Of Service: F[202.2] *********************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 0 Volume Module: 0 29 15 526 44 0 0 171 3 16 0 Base Vol: PHF Volume: 0 0 0 184 3 17 0 31 16 566 47 0 Reduct Vol: 0 0 0 0 184 3 17 0 31 16 566 47 0 Final Vol.: 0 0 0 184 3 17 0 31 16 566 47 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1218 1226 47 xxxx xxxx xxxxx 47 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 201 180 1028 xxxx xxxx xxxx 1573 xxxx xxxx xxxx Move Cap.: xxxx xxxx xxxx 145 115 1028 xxxx xxxx xxxx 1573 xxxx xxxx xxxx Volume/Cap: xxxx xxxx xxxx 1.27 0.03 0.02 xxxx xxxx xxxx 0.36 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * * * * LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx B * * * * * * Shared LOS: * * * * * 202.2 XXXXXX XXXXXX ApproachDel: xxxxxx F ApproachLOS:

_____ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 34 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Volume Module:
Base Vol: 0 0 0 3 171 16 0 29 15 526 44 Initial Bse: 0 0 0 171 3 16 0 29 15 526 44 PHF Volume: 0 0 0 184 3 17 0 31 16 566 47 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 184 3 17 0 31 16 566 47 0 0 MLF Adj: Final Vol.: 0 0 0 184 3 17 0 31 16 566 47 0 _____ Saturation Flow Module: Capacity Analysis Module: Crit Moves: **** **** Green/Cycle: 0.00 0.00 0.00 0.22 0.22 0.22 0.00 0.05 0.63 0.69 0.00 Volume/Cap: 0.00 0.00 0.00 0.49 0.05 0.05 0.00 0.49 0.49 0.49 0.04 0.00 Uniform Del: 0.0 0.0 0.0 33.9 30.5 30.5 0.0 46.1 46.1 9.8 5.1 0.0

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd ************** Average Delay (sec/veh): 9.6 Worst Case Level Of Service: C[18.5] ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Volume Module: 0 0 0 216 3 23 0 72 22 168 97 Base Vol: Initial Bse: 0 0 0 216 3 23 0 72 22 168 97 PHF Volume: 0 0 0 223 3 24 0 74 23 173 100 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 223 3 24 0 74 23 173 100 n Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: 97 xxxx xxxxx 100 xxxx xxxx xxxxx Cnflict Vol: xxxx xxxx xxxxx 532 543 Potent Cap.: xxxx xxxx xxxxx 512 449 961 xxxx xxxx xxxxx 1509 xxxx xxxxx Move Cap: xxxx xxxx xxxx 467 398 961 xxxx xxxx xxxx 1509 xxxx xxxx Volume/Cap: xxxx xxxx xxxx 0.48 0.01 0.02 xxxx xxxx xxxx 0.11 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx 2.5 xxxx xxxxx xxxxx xxxxx xxxxx 0.4 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx 19.6 xxxx xxxxx xxxxx xxxxx xxxxx 7.7 xxxx xxxxx A * * SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx 9.5 xxxxx xxxx xxxxx xxxxx xxxx xxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx A * * * * * Shared LOS: * * * * XXXXXX 18.5 XXXXXX ApproachDel: xxxxxx C ApproachLOS:

				· 								·	
		I	evel 0	f Ser	vice (Computa	ation 1	Report	-				
	2000)perati							7 0)			
****	****	****	*****	****	****	*****	****	****	*****	·	****	****	*
Intersection *********							*****	****	* * * * * *	****			+
Cycle (sec):		100				Critica					0.3		
Loss Time (se	ec):	g	Y+R	= 4 :							23		
Optimal Cycle		26	5			Level (of Serv	vice:				C	
*****	****	****	*****	****	****	*****	*****	****	*****	*****	****	****	*
Approach:	Noi	cth Bo	und .	Sou	ith Bo	ound	Εà	ast Bo	ound	We	st Bo	ound	
Movement:		- T					· L ·			L -		- R	
	· · · · · · · · · · · · · · · · · · ·			1									1
Control:	Pi	cotect	ed	Pi	rotect	ted	P:	rotect	ted	Pi	otect	ed	
Rights:		Inclu	ıde		Inc1	ıde		Inc1	ıde		Inc1	ıde	
Min. Green:	0	0	0	0	0	0	0	.0	0	0	0	0	
Lanes:		0 0			0 0			0 0		1 () 1	0 0	
				1									
Volume Module													
Base Vol:	0	0	0	216	3	23	0	72	22	168	97	0	
Growth Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	.0	0	216	.3	23	0	72	22	168	97	0	
User Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.97		0.97		0.97	0.97		0.97	0.97	0.97	0.97	0.97	
PHF Volume:	0	.0	0	223	3	24	0	74	23	173	100	0	
Reduct Vol:	0	0	0	0	0	.0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	223	3	24	0	74	23	173	100	0	
PCE Adj:	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	
Final Vol.:	.0	0	0	223	3	24	0	74	23	173	100	.0	
Saturation Fl	1 1ow Mo			1		·	1						1
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	1.00	1.00	1.00	0.87	0.87	0.87	1.00	0.97	0.97	0.95		1.00	
Lanes:	0.00	0.00	0.00	1.00	0.12	0.88	0.00	0.77	0.23	1.00		0.00	
Final Sat.:	0	0	0	1647	190	1457		1409	430	1805		0	
		.											I
Capacity Anal	lysis	Modul	e:									,	
Vol/Sat:	0.00	0.00	0.00	0.14	0.02	0.02	0.00	0.05	0.05	0.10	0.05	0.00	
Crit Moves:				***				****		***			
Green/Cycle:	0.00	0.00	0.00	0.43	0.43	0.43	0.00	0.17	0.17	0.31	0.48	0.00	
Volume/Cap:	0.00	0.00	0.00	0.31	0.04	0.04	0.00	0.31	0.31	0.31	0.11	0.00	
Uniform Del:	0.0	0.0	0.0	18.6	16.3	16.3	0.0	36.5	36.5	26.5	14.5	0.0	٠,
IncremntDel:	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.6	0.6	0.3	0.1	0.0	
Delay Adj:	0.00		0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		16.3	16.3		37.0	37.0	26.8		0.0	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
AdjDe1/Veh:	0.0	0.0	0.0		16.3	16.3		37.0	37.0	26.8		0.0	
HCM2kAvg:	0	0	0	5	0	0	.0	.3	3	4	2	0	
******	****	*****	*****	****	****	****	*****	****	*****	****	****	*****	k

_____ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 1.3 Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Volume Module: Initial Bse: 10 0 108 0 0 0 8 204 0 0 575 183 PHF Volume: 11 0 114 0 0 0 8 215 0 0 605 193 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 11 0 114 0 0 0 8 215 0 0 605 193 Critical Gap Module: Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxxx xxxxx Capacity Module: Level Of Service Module: Oueue: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx ApproachLOS: В

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************************* Intersection #5 Hwy 1 NB Ramps/Reservation Rd ******************************** Average Delay (sec/veh): 4.0 Worst Case Level Of Service: **************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 3 1 297 0 0 0 13 256 0 212 Ω Initial Bse: 3 1 297 0 0 0 13 256 0 0 212 193 PHF Volume: 3 1 303 0 0 0 13 261 0 0 216 197 Critical Gap Module: Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxx xxxx xxxx xxxx xxxx FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxx 2.2 xxxx xxxxx xxxx xxxx xxxx xxxx ______| Capacity Module: ______| Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx Movement: LT - LTR - RT xxxxxx ApproachDel: В ApproachLOS:

_____ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************** Intersection #6 Reservation Rd/Del Monte Blvd ************************ Critical Vol./Cap. (X): 67 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 56 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Split Phase Split Phase Include Include Include Include 10 10 10 10 10 10 10 10 10 Control: Rights: Min. Green: Volume Module: 13 31 233 65 747 126 Base Vol: 80 161 574 125 125 71 812 137 165 34 253 PHF Volume: 87 175 624 136 136 14 0 0 0 0 0 Reduct Vol: 0 0 Reduced Vol: 87 175 0 0 0 0 136 136 14 34 253 71 812 137 624 PCE Adj: Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.94 0.94 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.81 0.19 0.19 1.42 0.39 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3224 335 328 2468 688 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.05 0.09 0.22 0.04 0.04 0.04 0.10 0.10 0.10 0.23 0.07 0.10 Crit Moves: **** Crit Moves: Green/Cycle: 0.16 0.28 0.28 0.10 0.22 0.22 0.15 0.15 0.15 0.29 0.29 0.29 Volume/Cap: 0.31 0.33 0.80 0.37 0.19 0.19 0.69 0.69 0.69 0.80 0.25 0.35 Uniform Del: 25.0 19.4 22.5 28.0 21.1 21.1 27.0 27.0 27.0 21.9 18.1 18.7 5.7 0.6 0.1 0.1 3.9 3.9 3.9 4.4 0.2 IncremntDel: 0.6 0.4 Delay/Veh: 25.7 19.7 28.2 28.6 21.2 21.2 30.9 30.9 30.9 26.3 18.4 19.2 AdjDel/Veh: 25.7 19.7 28.2 28.6 21.2 21.2 30.9 30.9 30.9 26.3 18.4 19.2 HCM2kAvg: 2 3 8 2 1 1 5 5 5 11 2 3 ********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************* Intersection #6 Reservation Rd/Del Monte Blvd ************************** Cycle (sec): 75 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 60 Level Of Service: 28.0 *********************************** Approach: North Bound South Bound East Bound L - T - R L - T - R L - T - R Movement: ______ Control: Protected Protected Split Phase Split Phase Rights: Include Include Include Include Include Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 ______| Volume Module: Base Vol: 91 178 833 143 71 7 20 273 59 615 238 PHF Ad: PHF Volume: 93 182 850 146 72 7 20 279 60 Reduct Vol: 0 0 0 0 0 0 0 0 0 Reduced Vol: 93 182 850 146 72 7 20 279 60 628 243 0 0 628 243 119 Final Vol.: 93 182 850 146 72 7 20 279 60 628 243 119 Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.94 0.94 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.82 0.18 0.11 1.55 0.34 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3243 320 199 2722 588 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.05 0.10 0.30 0.04 0.02 0.02 0.10 0.10 0.10 0.18 0.13 0.07 **** **** Crit Moves: Green/Cycle: 0.20 0.38 0.38 0.09 0.28 0.28 0.13 0.13 0.13 0.23 0.23 0.23 Volume/Cap: 0.26 0.25 0.78 0.45 0.08 0.08 0.77 0.77 0.77 0.78 0.56 0.32 Uniform Del: 25.5 15.8 20.3 32.2 19.9 19.9 31.4 31.4 31.4 27.1 25.5 24.0 IncremntDel: 0.4 0.2 3.7 1.0 0.0 0.0 7.5 7.5 7.5 4.9 1.6 0.5 Delay/Veh: 25.9 15.9 24.0 33.1 19.9 19.9 38.9 38.9 38.9 32.0 27.1 24.5 AdjDel/Veh: 25.9 15.9 24.0 33.1 19.9 19.9 38.9 38.9 38.9 32.0 27.1 24.5 HCM2kAvg: 2 3 11 2 1 1 6 6 6 9 6 3 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************** Intersection #7 Reservation Rd/Vista Del Camino Cycle (sec): 90 Critical Vol./Cap. (X): 0.561 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 38 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1

 Volume Module: Base Vol: 41 4 18 116 7 40 141 1356 49 38 1068 Initial Bse: 41 4 18 116 7 40 141 1356 49 38 1068 PHF Volume: 42 4 19 120 7 41 145 1398 51 39 1101 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 42 4 19 120 7 41 145 1398 51 39 1101 144 MLF Adj: Final Vol.: 42 4 19 120 7 41 145 1398 51 39 1101 144 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.01 0.10 0.10 0.03 0.08 0.39 0.03 0.02 0.30 0.09 **** **** **** Crit Moves: Green/Cycle: 0.16 0.16 0.16 0.16 0.16 0.16 0.15 0.66 0.66 0.08 0.58 0.58 Volume/Cap: 0.21 0.21 0.07 0.59 0.59 0.16 0.52 0.59 0.05 0.28 0.52 0.15 Uniform Del: 32.6 32.6 31.8 34.8 34.8 32.3 35.0 8.6 5.4 39.1 11.3 8.6 HCM2kAvg: 2 2 0 6 6 1 5 11 0 1 9

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

Intersection #7 Reservation Rd/Vista Del Camino
Cycle (sec): 90 Critical Vol./Cap. (X): 0.481
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 8.5
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: $L - T - R$ $L - T - R$ $L - T - R$
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include Min Green: 10 10 10 10 7 10 7 10 7 10 10
Min. Orecin.
Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 10 2 0 66 3 54 54 889 10 14 1161 70
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 10 2 0 66 3 54 54 889 10 14 1161 70
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 11 2 0 71 3 58 58 956 11 15 1248 75
Reduct Vol: 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 11 2 0 71 3 58 58 956 11 15 1248 75
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Final Vol.: 11 2 0 71 3 58 58 956 11 15 1248 75
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190
Adjustment: 0.80 0.80 1.00 0.71 0.71 0.85 0.95 0.95 0.85 0.95 0.95 0.85
Lanes: 0.83 0.17 1.00 0.96 0.04 1.00 1.00 2.00 1.00 2.00 1.00
Final Sat.: 1273 255 1900 1296 59 1615 1805 3610 1615 1805 3610 1615
Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.00 0.05 0.05 0.04 0.03 0.26 0.01 0.01 0.35 0.05
Crit Moves: **** ****
Green/Cycle: 0.11 0.11 0.00 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71
Volume/Cap: 0.08 0.08 0.00 0.49 0.49 0.32 0.41 0.37 0.01 0.11 0.49 0.07
Uniform Del: 35.8 35.8 0.0 37.5 37.5 36.8 39.5 5.2 3.8 38.6 5.8 4.0
IncremntDel: 0.2 0.2 0.0 2.4 2.4 1.0 2.0 0.1 0.0 0.3 0.1 0.0
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.0
Delay/Veh: 35.9 35.9 0.0 40.0 40.0 37.8 41.5 5.2 3.8 38.9 5.9 4.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
AdjDel/Veh: 35.9 35.9 0.0 40.0 40.0 37.8 41.5 5.2 3.8 38.9 5.9 4.0
HCM2kAvg: 0 0 0 3 3 2 2 5 0 0 8 1

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #8 Reservation Rd/Seacrest Ave Cycle (sec): Critical Vol./Cap. (X): 0.443 60 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss time (sec): 9 (ith = 4 sec) Average belay (sec/ven):
Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RL - T - R Movement: Volume Module: 0 897 68 95 934 0 0 0 0 45 Base Vol: 68 Initial Bse: 68 0 45 0 0 0 897 68 95 934 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.04 0.00 0.03 0.00 0.00 0.00 0.00 0.28 0.05 0.06 0.29 0.00 Crit Moves: **** Green/Cycle: 0.17 0.00 0.17 0.00 0.00 0.00 0.00 0.56 0.56 0.12 0.68 0.00 Volume/Cap: 0.25 0.00 0.19 0.00 0.00 0.00 0.09 0.08 0.49 0.42 0.00 6.0 24.7 4.2 0.0 1.7 0.1 Uniform Del: 21.7 0.0 21.5 0.0 0.0 0.0 0.0 7.9 IncremntDel: 0.4 0.0 0.3 0.0 0.0 0.0 0.0 0.2 IncremntDel: 0.4 0.0 0.3 0.0 0.0 ***********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #8 Reservation Rd/Seacrest Ave ********************************** Cycle (sec): 65 Critical Vol./Cap. (X): 0.796 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 59 Level Of Service: South Bound East Bound West Bound
T - T - R L - T - R Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 0
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: Base Vol: 182 0 87 0 0 O 0 1354 194 230 910 Initial Bse: 182 0 87 0 0 0 1354 194 230 910 0 PHF Adj: PHF Volume: 207 0 99 0 0 0 1539 220 261 1034 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 207 0 99 0 0 0 0 1539 220 261 1034 0 0 220 0 Final Vol.: 207 0 99 0 0 0 1539 220 261 1034 0 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 0.85 0.95 0.95 1.00 Final Sat.: 1805 0 1615 0 0 0 0 3610 1615 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.11 0.00 0.06 0.00 0.00 0.00 0.00 0.43 0.14 0.14 0.29 0.00 Crit Moves: **** **** Green/Cycle: 0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.53 0.53 0.18 0.71 0.00 Volume/Cap: 0.74 0.00 0.40 0.00 0.00 0.00 0.00 0.81 0.26 0.81 0.40 0.00 Uniform Del: 26.3 0.0 24.8 0.0 0.0 0.0 0.0 12.6 8.4 25.6 3.9 0.0 IncremntDel: 10.4 0.0 1.0 0.0 0.0 0.0 0.0 2.6 0.2 13.8 0.1 Delay/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 AdjDel/Veh: 36.7 0.0 25.8 0.0 0.0 0.0 15.3 8.5 39.4 4.0 0.0 HCM2kAvg: 6 0 2 0 0 0 15 3 8 4 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #9 Reservation Rd/De Forest Rd ******************************* 90 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - RL - T - R Control: Permitted Permitted Protected Protected Rights: Include Inclu Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1 Volume Module: Base Vol: 33 3 32 43 8 41 22 759 45 27 917 Initial Bse: 33 3 32 43 8 41 22 759 45 27 917 Reduct Vol: 0 0 0 Reduced Vol: 34 3 33 0 0 28 945 Saturation Flow Module: Adjustment: 0.73 0.73 0.85 0.74 0.74 0.85 0.95 0.95 0.85 0.95 0.95 0.85 Lanes: 0.92 0.08 1.00 0.84 0.16 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1268 115 1615 1181 220 1615 1805 3610 1615 1805 3610 1615 ______| Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.02 0.04 0.04 0.03 0.01 0.22 0.03 0.02 0.26 0.02 **** **** Crit Moves: Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.24 0.24 0.18 0.34 0.34 0.24 0.16 0.30 0.04 0.20 0.37 0.03 Uniform Del: 36.5 36.5 36.3 36.9 36.9 36.5 38.8 4.8 3.9 38.9 5.1 3.8 IncremntDel: 0.8 0.8 0.5 1.3 1.3 0.7 0.5 0.1 0.0 0.7 0.1 Delay/Veh: 37.4 37.4 36.8 38.2 38.2 37.2 39.3 4.9 3.9 39.6 5.2 3.8 AdjDel/Veh: 37.4 37.4 36.8 38.2 38.2 37.2 39.3 4.9 3.9 39.6 5.2 3.8 HCM2kAvg: 1 1 1 2 2 1 1 4 0 1 5 0 ***************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************ Intersection #9 Reservation Rd/De Forest Rd ********************* Cycle (sec): 80 Critical Vol./Cap. (X):
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 36 Level Of Service: Critical Vol./Cap. (X): 0.518 9.9 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 Volume Module: PHF Volume: 72 11 81 44 6 58 43 1355 96 40 1048 49 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 72 11 81 44 6 58 43 1355 96 40 1048 49 MLF Adj: Final Vol.: 72 11 81 44 6 58 43 1355 96 40 1048 49 Saturation Flow Module: _____| Capacity Analysis Module: Vol/Sat: 0.06 0.06 0.05 0.04 0.04 0.04 0.02 0.38 0.06 0.02 0.29 0.03 **** **** Crit Moves: Green/Cycle: 0.13 0.13 0.13 0.13 0.13 0.09 0.67 0.67 0.09 0.67 0.67 Volume/Cap: 0.50 0.50 0.40 0.30 0.30 0.29 0.27 0.56 0.09 0.25 0.43 0.05 Uniform Del: 32.6 32.6 32.3 31.8 31.8 31.8 34.1 6.8 4.5 34.1 6.0 4.4 IncremntDel: 2.3 2.3 1.3 1.0 1.0 0.8 0.9 0.3 0.0 0.9 0.1 0.0 AdjDel/Veh: 34.9 34.9 33.6 32.8 32.8 32.5 35.1 7.0 4.5 34.9 6.1 4.4 HCM2kAvg: 3 3 2 2 2 2 1 9 1 1 6 0

ے نے بری نے چوچر نے بچر کے لیے کے لیے بیان کی برائے کے بات کے بات کی بات کی بات کی بات کی بات کی بات کی بات کی

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #10 Reservation Rd/Crescent Ave Cycle (sec): 55 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: 11.0 ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10 10 10 10 10 10 7 10 7 10 7 10 10
 7 10 10 10 10 10

 Lanes:
 1 0 1 0 1 0 1 0 1 0 1 1 0 2 0 1 1 0 1 1 0
 Volume Module: Base Vol: 101 27 114 48 39 23 25 869 74 93 860 Initial Bse: 101 27 114 48 39 23 25 869 74 93 860 19 PHF Adj: 79 99 915 PHF Volume: 107 29 121 51 41 24 27 924 Reduct Vol: 0 0 Reduced Vol: 107 29 0 0 99 915 0 0 0 0 0 0 0 0 79 51 41 24 27 924 121 20 MIF Adi: Final Vol.: 107 29 121 51 41 24 27 924 79 99 915 20 Saturation Flow Module: Adjustment: 0.70 1.00 0.85 0.83 0.83 0.85 0.95 0.95 0.85 0.95 0.95 0.95 Lanes: 1.00 1.00 1.00 0.55 0.45 1.00 1.00 2.00 1.00 1.00 1.96 0.04 Final Sat.: 1321 1900 1615 869 706 1615 1805 3610 1615 1805 3521 78 Capacity Analysis Module: Vol/Sat: 0.08 0.02 0.08 0.06 0.06 0.02 0.01 0.26 0.05 0.05 0.26 0.26 Crit Moves: **** *** **** Uniform Del: 20.0 18.7 19.9 19.6 19.6 18.7 21.3 8.3 6.5 22.2 8.3 0.1 0.2 0.2 1.3 0.2 0.9 0.7 0.7 0.0 IncremntDel: 1.3 0.1 Delay/Veh: 21.4 18.8 20.8 20.2 20.2 18.8 21.5 8.5 6.5 23.5 8.5 8.5 AdjDel/Veh: 21.4 18.8 20.8 20.2 20.2 18.8 21.5 8.5 6.5 23.5 8.5 8.5 HCM2kAvg: 3 0 2 2 2 0 1 5 1 2 6 *****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #10 Reservation Rd/Crescent Ave Cvcle (sec): 55 Critical Vol./Cap. (X): 0.675 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 43 Level Of Service: 12.8 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Include Include Include
Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10
Lanes: 1 0 1 0 1 0 1 0 0 1 1 0 2 0 1 1 0 1 1 0 7 10 10 Volume Module: Base Vol: 75 38 149 54 29 34 65 1273 117 145 881 Initial Bse: 75 38 149 54 29 34 65 1273 117 145 881 47 PHF Volume: 81 41 160 58 31 37 70 1369 126 156 947 51 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 81 41 160 58 31 37 70 1369 126 156 947 51 Saturation Flow Module: Adjustment: 0.70 1.00 0.85 0.79 0.79 0.85 0.95 0.95 0.85 0.95 0.94 0.94 Lanes: 1.00 1.00 1.00 0.65 0.35 1.00 1.00 2.00 1.00 1.00 1.90 0.10 Final Sat.: 1326 1900 1615 980 526 1615 1805 3610 1615 1805 3400 181 Capacity Analysis Module: Vol/Sat: 0.06 0.02 0.10 0.06 0.06 0.02 0.04 0.38 0.08 0.09 0.28 0.28 **** **** Crit Moves: *** Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.13 0.53 0.53 0.53 0.53 Volume/Cap: 0.33 0.12 0.55 0.33 0.33 0.12 0.30 0.72 0.15 0.68 0.53 0.53 AdjDel/Veh: 20.4 19.0 22.6 20.3 20.3 19.0 22.5 11.3 6.7 30.9 8.8 8.8 HCM2kAvg: 2 1 3 2 2 1 1 10 1 4 6 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************** Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 70 Critical Vol./Cap. (X): 0 741 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 59 Level Of Service: 25.9 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Include Include Include Control: Protected Rights: Include Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 7 10 10 Lanes: 2 0 0 1 1 1 0 1 0 1 2 0 2 0 1 2 0 2 0 1 Volume Module: Base Vol: 192 14 299 2 8 8 29 911 160 646 782 11 PHF Volume: 221 16
Reduct Vol: 0 0
Reduced Vol: 221 16 2 9 9 0 0 0 2 9 9 344 33 1047 184 743 899 0 0 0 0 0 344 33 1047 743 899 184 13 PCE Adj: MLF Adj: Final Vol.: 221 16 344 2 9 9 33 1047 184 743 899 13 Saturation Flow Module: Adjustment: 0.92 0.86 0.86 0.95 1.00 0.85 0.92 0.95 0.85 0.92 0.95 0.85 Final Sat.: 3502 146 3111 1805 1900 1615 3502 3610 1615 3502 3610 1615 Capacity Analysis Module: Vol/Sat: 0.06 0.11 0.11 0.00 0.00 0.01 0.01 0.29 0.11 0.21 0.25 0.01 **** **** *** **** Crit Moves: Green/Cycle: 0.10 0.14 0.14 0.10 0.14 0.14 0.10 0.34 0.34 0.25 0.49 0.49 Volume/Cap: 0.63 0.77 0.77 0.01 0.03 0.04 0.10 0.86 0.34 0.86 0.51 0.02 Uniform Del: 30.3 28.9 28.9 28.4 25.8 25.9 28.6 21.6 17.3 25.2 12.3 7.9 0.0 0.1 0.1 0.1 6.2 0.4 8.5 0.3 IncremntDel: 3.7 7.9 Delay/Veh: 33.9 36.8 36.8 28.4 25.9 25.9 28.7 27.8 17.7 33.7 12.6 9.3 AdjDel/Veh: 33.9 36.8 36.8 28.4 25.9 25.9 28.7 27.8 17.7 33.7 12.6 9.3 HCM2kAvg: 4 6 6 0 0 0 0 14 3 11 7 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 75 Critical Vol./Cap. (X): 0.778 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 66 Level Of Service: 28.8 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 7 10 10 7 10 10
 7 10 10 10
 7 10 10
 7 10 10

 Lanes:
 2 0 0 1 1 1 1 0 1 0 1 2 0 2 0 1 2 0 1
 2 0 2 0 1
 2 0 2 0 1
 Volume Module: Base Vol: 169 9 593 6 8 28 4 1106 195 370 914 Initial Bse: 169 9 593 6 8 28 4 1106 195 370 914 3 PHF Volume: 184 10 645 7 9 30 4 1202 212 402 993 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 184 10 645 7 9 30 4 1202 212 402 993 Final Vol.: 184 10 645 7 9 30 4 1202 212 402 993 3 ______| Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.05 0.20 0.20 0.00 0.00 0.02 0.00 0.33 0.13 0.11 0.28 0.00 **** **** **** **** Crit Moves: Green/Cycle: 0.13 0.23 0.23 0.09 0.19 0.19 0.09 0.38 0.38 0.13 0.42 0.42 Volume/Cap: 0.39 0.87 0.87 0.04 0.02 0.10 0.01 0.87 0.34 0.87 0.65 0.00 Uniform Del: 29.7 27.7 27.7 30.9 24.6 25.0 30.9 21.4 16.5 31.9 17.3 12.6 2 11 11 0 0 1 0 16 4 8 10 HCM2kAvg:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************** Intersection #12 Reservation Rd/Blanco Rd ************* Cycle (sec): 95 Critical Vol./Cap. (X): 0.588 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 40 Level Of Service: В Approach: North Bound South Bound East Bound West Bound Movement: ** L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0 0 0 0 0 0 2 0 0 0 2
 0 0 0 0 0 0
 0 0 0 0 0 0
 0 0 0 0 0 0 0

 Lanes:
 0 0 0 0 0 0 0 2 0 0 0 0 0
 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0
 0 0 0 0 0 0 0
 Volume Module: Base Vol: 0 0 0 27 0 1278 916 344 0 0 398 37 Initial Bse: 0 0 0 27 0 1278 916 344 0 0 398 37 Saturation Flow Module: ______ Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.29 0.11 0.00 0.00 0.23 0.03 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.11 0.00 0.00 0.44 0.80 0.00 0.00 0.36 0.36 Volume/Cap: 0.00 0.00 0.00 0.08 0.00 0.00 0.65 0.13 0.00 0.00 0.65 0.07 *************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #12 Reservation Rd/Blanco Rd *************************** Cycle (sec): 110 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 44 Level Of Service: Optimal Cycle: ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____| Control: Split Phase Split Phase Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 10 0 10 7 10 10 0 10 10 Lanes: 0 0 0 0 0 2 0 0 0 2 2 0 2 0 0 0 1 0 1 Volume Module: Base Vol: 0 0 0 47 0 1118 1343 612 0 0 278 Initial Bse: 0 0 0 47 0 1118 1343 612 0 0 278 44 PHF Adj: PHF Volume: 0 0 0 50 0 0 1429 651 0 0 296 Reduct Vol: 0 0 0 0 50 0 0 1429 651 0 0 296 Reduced Vol: 0 0 0 50 0 0 1429 651 0 0 296 47 47 PCE Adj: MLF Adi: Final Vol.: 0 0 0 50 0 0 1429 651 0 0 296 47 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 4102 3502 3610 0 0 1900 1615 ______|__|__|__| Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.41 0.18 0.00 0.00 0.16 0.03 **** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.60 0.83 0.00 0.00 0.23 0.23 Volume/Cap: 0.00 0.00 0.00 0.16 0.00 0.00 0.68 0.22 0.00 0.00 0.68 0.13 Uniform Del: 0.0 0.0 0.0 46.1 0.0 0.0 15.0 2.0 0.0 0.0 38.8 33.7 IncremntDel: 0.0 0.0 0.0 0.2 0.0 0.0 0.9 0.0 0.0 0.0 4.4 0.2 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 0.0 0.0 0.0 46.3 0.0 0.0 15.9 2.0 0.0 0.0 43.2 33.9 AdjDel/Veh: 0.0 0.0 0.0 46.3 0.0 0.0 15.9 2.0 0.0 0.0 43.2 33.9 HCM2kAvg: 0 0 0 1 0 0 18 2 0 0 10 1

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #13 Reservation Rd/West Prj Access **************** Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: South Bound East Bound Approach: North Bound South Bound East Bound Movement: L-T-R L-T-RL - T - R Volume Module: PHF Adj: PHF Volume: 67 0 110 0 0 0 0 337 36 121 385 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 67 0 110 0 0 0 0 337 36 121 385 0 0 0 0 337 36 121 385 0 Ω PCE Adj: MLF Adi: Final Vol.: 67 0 110 0 0 0 0 337 36 121 385 0 Saturation Flow Module: Capacity Analysis Module: **** **** **** Crit Moves: Uniform Del: 25.8 0.0 26.5 0.0 0.0 0.0 0.0 25.0 25.0 26.8 8.4 IncremntDel: 0.2 0.0 0.2 0.0 0.0 0.0 0.0 0.1 0.1 0.2 0.0 AdjDel/Veh: 25.9 0.0 26.7 0.0 0.0 0.0 0.0 25.1 25.1 27.0 8.5 0.0 HCM2kAvg: 2 0 3 0 0 0 0 3 3 3 3 0 ********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #13 Reservation Rd/West Prj Access ********************************* Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: 18.1 ****************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement:
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 0
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 0
 1
 0
 1
 0
 2
 1
 0
 1
 0
 0
 Volume Module: Base Vol: 42 0 86 0 0 0 0 558 65 139 266 0 PHF Adj: PHF Volume: 46 0 93 0 0 0 0 607 71 151 289
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 46 0 93 0 0 0 0 607 71 151 289 0 MLF Adj: Final Vol.: 46 0 93 0 0 0 0 607 71 151 289 0 _____ Saturation Flow Module: Adjustment: 0.81 1.00 0.85 1.00 1.00 1.00 1.00 0.90 0.90 0.95 0.95 1.00 Lanes: 1.00 0.00 1.00 0.00 0.00 2.69 0.31 1.00 2.00 0.00 Final Sat.: 1539 0 1615 0 1900 0 0 4571 533 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.03 0.00 0.06 0.00 0.00 0.00 0.00 0.13 0.13 0.08 0.08 0.00 *** Crit Moves: **** **** Green/Cycle: 0.19 0.00 0.19 0.00 0.00 0.00 0.00 0.44 0.44 0.28 0.72 0.00 Uniform Del: 33.6 0.0 34.6 0.0 0.0 0.0 0.0 18.1 18.1 28.5 4.3 IncremntDel: 0.2 0.0 0.5 0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.0 0.0 Delay/Veh: 33.9 0.0 35.2 0.0 0.0 0.0 18.1 18.1 28.8 4.3 0.0 AdjDel/Veh: 33.9 0.0 35.2 0.0 0.0 0.0 18.1 18.1 28.8 4.3 0.0 HCM2kAvq: 1 0 3 0 0 0 4 4 4 1 .0 *******************************

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Service Computation Report Service Computation Report Service Servi													
Intersection #14 Inter-Garrison Rd/new collector North South South Bound East Bound West Bound Movement: L - T - R	FHWA Roundahout Method (Base Volume Alternative)												
Average Delay (sec/veh): 3.8 Level Of Service: A ************************************	**************************************												
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R	***************************************												
Movement: L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 1 1 Volume Module: Base Vol: 0 0 0 0 0 0 113 110 91 0 0 207 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Average Delay	****	****	*****	****				****	****	****		
Control: Yield Sign Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Morromont:	Ť	- т	- R	Д,	· T ~	- R	L -	T	- R	L -	T	- R
Volume Module: Base Vol: 0 0 0 0 113 110 91 0 0 207 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Control:	Yie	ld Si	gn	Yi∈	eld Sic	gn	Yie	ld Si	gn	Yie	gn	
Volume Module: Base Vol: 0 0 0 0 0 113 110 91 0 0 207 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0											1		1
Initial Bse: 0 0 0 0 0 113 110 91 0 0 207 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module Base Vol:	0	0	0	0	0	113	110	91	0	0	207	0
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92			.0	0	0	0	113	110	91	0	.0	207	0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							0.92	0.92	0.92	0.92	0.92	0.92	0.92
Reduced Vol: 0 0 0 0 0 123 120 99 0 0 225 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0									-		
Reduced Vol: 0 0 0 0 0 1.20 1.20 1.00 1.						-	_	_					
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		-	-		-					-	-		
Final Vol.: 0 0 0 0 0 123 120 99 0 0 225 0 PCE Module: AutoPCE: 0 0 0 0 0 123 120 99 0 0 225 0 TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 123 120 99 0 0 225 0													1.00
PCE Module: AutoPCE: 0 0 0 0 0 123 120 99 0 0 225 0 TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 123 120 99 0 0 225 0										0	:0	225	0
AutoPCE: 0 0 0 0 0 123 120 99 0 0 225 0 TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 123 120 99 0 0 225 0		ļ			1					1	ļ		
Autopce: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		· ·	20	10	'n	ń	123	120	99	10	0	225	0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-								-	0	0	0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0	Ō	0	0	.0	0	0	0	0	0
AdjVolume: 0 0 0 0 0 123 120 99 0 0 225 0			0	0	0	.0	0	0	0	0		-	
	_	0			•	•	123	120	99	.0	0	225	.0
		1											
Delay Module: >> Time Period: 0.25 hours <<		: >>			0.25	nours			·O			120	
CircVolume: 218 225													
MaxVolume: AAAAAA		х				-						0	
PedVolume: 0 0 1135 AdjMaxVol: xxxxxx 1079 1200 135		·~	-						1200			1135	
ApproachVol: xxxxxx 123 218 225									218			225	
ApproachDel: xxxxxx 3.8 3.7 4.0						3.8			3.7				
Queue: xxxx 0.4 0.7 0.7	1.1					0.4			0.7			0.7	

		-,											
Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative)													

Intersection #14 Inter-Garrison Rd/new collector													
Average Delay (sec/veh): 3.9 Level Of Service: A													
Approach: Movement:	L -	- T	- R	L ·	- T	- R	L ·	ast Bo - T	- R	L -	est Bo - T	- R	
Control:													
Lanes:	1.14	:1u 5.	ign	1.14	=10 SI 1	911	1.16	=10 51 1	.g11	TIE	era St 1	gn	
		-		[1		_		1			
Volume Module	•		-			4	1		-1	1		1	
Base Vol:	0	0	. 0	0	0	148	90	206	0	-0	103	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	0	0	0	148	90	206	0	.0	103	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
PHF Volume:	0	.0	0	0	0	161	98	224	0	0	112	0	
Reduct Vol:	0	0	0	.0	0	0	10	0	0	0	0	0	
Reduced Vol:	0	0	0	0	Ó	161	98	224	0	0	112	0	
PCE Adj:	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	
Final Vol.:	0	·O	0	0	0	161	98	224	0	0	112	0	
استرست سند شدند ساست ساست				1						1			
PCE Module:	, in						.0.0	00.					
AutoPCE:	0	0	Ó	0	0	161	98	224	0	0.	112	0	
TruckPCE:	0	0	.0	0	0	0	.0	0	0	0	10	0	
ComboPCE:	0	0	0	0	10 10	0	0	0	.0	0	0	0	
BicyclePCE:	0	0	0	0	0	•	0 98		0	0	110	0	
AdjVolume:	0	-	 	·		161		224	U	1.	112	0	
Delay Module	1		•										
CircVolume:	• ~~ .	322	reliou.	0.25	112			10			98		
MaxVolume:		XXXXX			1140			1200			1147		
PedVolume:	- A.	0			1140			0			1147		
AdiMaxVol:	×	xxxxx			1140			1200			1147		
ApproachVol:		XXXXX			161			322		112			
ApproachDel:		xxxxx			3.7			4.1			3.5		
Queue:		xxxx			0.5			1.1		-	0.3		
•													

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

Intersection	#15 R	eserv	ation F	Rd/Mai	n Prj	Access	3					
******	****	****	*****	****	****	*****	****	****	****	****	****	****
		100				ritical					0.31	
Cycle (sec):		100	737 UD	_ / _		verage					18.	
Loss Time (se				- 4 5		verage evel Oi			/ vell/ .			В
Optimal Cycle	•	36)تط. معاد ماه ماه ماه ماه	ever O	r serv	100.		4.4.4.4.4.		

Approach:	Nor	th Bo	und			und		st Bo			st Bo	
Movement:	L -	T	- R	L -	T	- R	Г –	T	– R		$^{\circ}\mathrm{T}$	
Movement:												
Control:	P	ermit	ted	Pr	otect	ed	Pr				otect	
Rights:			de		Inclu			Inclu	de		Inclu	ıde
Min. Green:	10		10	0	0	0	0	10	10	7	10	0
			0 0			0 0	0 0	1	1 0	1 0	2	0 0
Lanes:	0 0	,± 4	0 0	U		1						
			!	1			1			•		,
Volume Module			- 00 -	2		^	0	362	49	67	402	0
Base Vol:	63	.0	105	. 0	0	0	-	-				1.00
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00		
Initial Bse:	63	.0	105	0	0	0	.0	362	49	67	402	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	68	0	114	0	0	0	0	393	53	7.3	437	0
Reduct Vol:	0	0	0	0	0	0	.0	0	.0	0	0	0
2.0	. 24	0	114	0	0	.0	0	393	53	73	437	0
Reduced Vol:			1.00	1.00	-	1.00	1.00		1.00	1.00	1.00	1.00
PCE Adj:	1.00			1.00		1.00	1.00		1.00	1.00		1.00
MLF Adj:	1.00		1.00				-	393	53		437	0
Final Vol.:	68	0	114	. 0	0	0					407	1
	•									1		
Saturation F	low Mo	dule:									1000	1.000
Sat/Lane:	1900	1900	1900	1900	1900	1900		1900	1900		1900	1900
Adjustment:	0.82	1.00	0.82	1.00	1.00	1.00	1.00	0.93	0.93		0.95	1.00
Lanes:	0.38		0.62	0.00	0.00	0.00	0.00	1.76	0.24	1.00	2.00	0.00
Final Sat.:	583	0	972	.0	0	.0	0	3122	423	1805	3610	0
	1		1	1,			1					1
				,			'					
Capacity Ana			0.12	0.00	0.00	0.00	0 00	0.13	0.13	0.04	0.12	0.00
Vo1/Sat:		0.00	U.IZ	0.00	0.00	0.00	0.00	****	0.10	****		
Crit Moves:	****		0.00	0 00	0 00	0.00	0.00	0.40	0.40		0.53	0.00
Green/Cycle:			0.38		0.00	0.00						
Volume/Cap:		0.00	0.31		0.00	0.00		0.31	0.31		0.23	.= .= .= .=
Uniform Del:	22.0	0.0	22.0	0.0		0.0		20.3	20.3		12.4	
IncremntDel:		0.0	0.3	0.0	0.0	0.0	0.0		0.1	0.8		
Delay Adj:		0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00		1.00	
Delay/Veh:			22.3	0.0	0.0	0.0	0.0	20.4	20.4	40.3	12.4	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
AdjDel/Veh:			22.3	0.0		0.0	0.0	20.4	20.4	40.3	12.4	0.0
77 (7) (()) - 7)	- 1		1	Λ	Ω	0	0	-5	5	2	4	0
HCM2kAvg:	44 مان مان مان مان	 ∪	+++++-	+****	****	*****	*****	****	*****		****	*****
******	~ ^ × × ×	~ ~ ~ ~										

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #15 Reservation Rd/Main Pri Access ******************************* Cycle (sec): 100 Critical Vol./Cap. (X): 0.406 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 10
 10
 7
 10
 0

 Lanes:
 0
 0
 1!
 0
 0
 0
 0
 1
 1
 0
 2
 0
 Volume Module: Base Vol: 57 0 82 0 0 0 575 69 123 348 Initial Bse: 57 0 82 0 0 0 575 69 123 348 0 Saturation Flow Module: Adjustment: 0.81 1.00 0.81 1.00 1.00 1.00 1.00 0.93 0.93 0.95 0.95 1.00 Lanes: 0.41 0.00 0.59 0.00 0.00 0.00 0.00 1.79 0.21 1.00 2.00 0.00 Final Sat.: 632 0 910 0 0 0 3172 381 1805 3610 0 Capacity Analysis Module: Crit Moves: **** Uniform Del: 31.9 0.0 31.9 0.0 0.0 0.0 0.0 16.5 ThorremntDel: 0.7 0.0 0.7 0.0 0.0 0.0 0.0 0.0 0.2 0.8 0.0 0.2 Delay/Veh: 32.6 0.0 32.6 0.0 0.0 0.0 16.6 16.6 36.9 6.2 AdjDel/Veh: 32.6 0.0 32.6 0.0 0.0 0.0 0.0 16.6 16.6 36.9 6.2 0.0 HCM2kAvg: 5 0 5 0 0 0 7 7 4 2 *************************

ر میں نے نے بر سے بیان نے بر نے بر نے نے بر نے بر نے بر نے بر بر نے بر نے بر بر نے Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #16 Reservation Rd/East Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): Optimal Cycle: 25 Level Of Service: 3.9 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Protected
 Protected
 Permitted
 Protected

 Rights:
 Include
 Include
 Ignore
 Include

 Min. Green:
 0 10 0 0 10 0 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0

 Lanes:
 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0
 Volume Module: 0 0 0 171 Base Vol: 75 469 0 0 467 0 0 0 0 171 0 0 Initial Bse: 75 469 0 0 467 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0 0 0 0 0 PHF Volume: 82 510 0 0 508

Reduct Vol: 0 0 0 0 0

Reduced Vol: 82 510 0 0 508 0 0 0 0 0 0 0 Reduced Vol: 82 510 Final Vol.: 82 510 0 0 508 0 0 0 0 0 0 Saturation Flow Module: Adjustment: 0.95 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 1.00 1.00 Capacity Analysis Module: **** *** Crit Moves: 0.0 0.0 0.0 0.0 0.0 0.0 Uniform Del: 30.0 0.0 0.0 0.0 3.4 IncremntDel: 0.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.00 AdjDel/Veh: 30.2 0.1 0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 0 .0 0 0 2 0 0 0 HCM2kAvq: 2 0 *********************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)													_
Intersection #16 Reservation Rd/East Prj Access *********************************													
Thtersection #16 Reservation Rd/East Prj Access	2000 HCM Operations Method (Base Volume Alternative)												
Cycle (sec):	Intersection #16 Reservation Rd/East Prj Access												
Doss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 9.3													
Approach: North Bound	Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 9.3												
Approach: North Bound	· ·								·/ veii) .		9.		
Movement: L - T - R L L L L L L L L L				****					*****	****	****		k .
Control: Protected Include Include Ignore Include Min. Green: 7 10 0 0 0 10 0 0 0 0 10 0 0 0 0 0 0 0	Approach:	North Bo	und	Sou	ith Bo	ound	Εá	ast Bo	ound	₩e	est Bo	ound	
Control:										_	_		
Rights: Include				4			• • •		- 1			1	İ
Min. Green: 7 10 0 0 10 0 0 0 10 0 0 0 0 0 0 0 0 0				PI			4			Pı			
Lanes:							0	_		•			
Volume Module: Base Vol: 183 471 0 0 657 0 0 0 94 0 0 0 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		· · ·										•	
Volume Module: Base Vol: 183 471 0 0 657 0 0 0 94 0 0 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												1	ı
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		•											
Initial Bse: 183 471 0 0 657 0 0 0 94 0 0 0 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Base Vol:	183 471	0	0	657	10	0	0	94	0	0	0	
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	Initial Bse:	183 471	0	0	657	10	0	0	94	0	0	0	
PHF Volume: 199 512 0 0 714 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:	0.92 0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.00	0.92	0.92	0.92	
Reduced Vol: 199 512 0 0 714 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Volume:	199 512	0	0	714	.0	0	0	0	0	0	0	
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0 0	10	.0	0	0	.0	0	.0	.0	0	0	
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	199 512	0	0	714	.0	0	0	0	0	0	0	
Final Vol.: 199 512 0 0 714 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-								0.00	1.00	1.00	1.00	
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	-										1.00	1.00	
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190			-			-	-	-	-	0	0	0	
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190		•	- 1	· -:			11,						I
Adjustment: 0.95 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Lanes: 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.0				1900	1900	1900	1900	1900	1900	1900	1900	1 900	
Lanes: 1.00 1.00 0.00 0.00 2.00 0.00 0.00 0.00													
Final Sat.: 1805 1900 0 0 3610 0 0 0 1900 0 0 0 0 0 0 0 0 0 0 0 0 0					79								
Capacity Analysis Module: Vol/Sat:													
Capacity Analysis Module: Vol/Sat: 0.11 0.27 0.00 0.00 0.20 0.00 0.00 0.00 0.00											-		
Crit Moves: **** Green/Cycle: 0.33 0.91 0.00 0.00 0.58 0.00 0.00 0.00 0.00 0.00									•	•			
Green/Cycle: 0.33 0.91 0.00 0.00 0.58 0.00 0.00 0.00 0.00 0.00	Vol/Sat:	0.11 0.27	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Volume/Cap: 0.34 0.30 0.00 0.00 0.34 0.00 0.00 0.00	Crit Moves:	****			****								
Uniform Del: 25.6 0.6 0.0 0.0 10.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 IncremntDel: 0.3 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	Green/Cycle:	0.33 0.91	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
IncremntDel: 0.3 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	Volume/Cap:	0.34 0.30	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.0	Uniform Del:			0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay/Veh: 25.9 0.7 0.0 0.0 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												0.00	
AdjDel/Veh: 25.9 0.7 0.0 0.0 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-												
HCM2kAvg: 5 2 0 0 6 0 0 0 0 0 0	-												
**************************				-	-			0		-			

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************** Intersection #17 Reservation Rd/S. Davis Rd Average Delay (sec/veh): 197.3 Worst Case Level Of Service: F[686.5] ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 0 Lanes: Volume Module: 2 5 447 229 2 305 153 3 209 7 237 5 Base Vol: PHF Volume: 2 5 3 215 7 244 461 236 5 2 314 158 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 2 5 3 215 7 244 461 236 5 2 314 ______ Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 1684 1637 239 1562 1560 393 472 xxxx xxxxx 241 xxxx xxxxx Potent Cap.: 76 102 805 92 113 660 1100 xxxx xxxxx 1337 xxxx xxxxx Move Cap.: 30 59 805 58 66 660 1100 xxxx xxxxx 1337 xxxx xxxxx Volume/Cap: 0.07 0.09 0.00 3.73 0.11 0.37 0.42 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: 2.1 xxxx xxxxx 0.0 xxxx xxxxx Queue: xxxxx xxxx xxxxx xxxxx xxxx 1.7 Stopped Del:xxxxx xxxx xxxxx xxxx xxxx 13.6 10.6 xxxx xxxxx 7.7 xxxx xxxxx A * * LOS by Move: * * * * B B * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT F * * * * * * * Shared LOS: * F *
ApproachDel: 71.7
ApproachLOS: F XXXXXX 686.5 XXXXXX F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd ************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.749 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 58 Level Of Service: 32.6 ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Permitted Permitted Protected Protect

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0 Min. Green: 0 0 0 Volume Module: Base Vol: 2 5 3 209 7 237 447 229 5 2 305 Initial Bse: 2 5 3 209 7 237 447 229 5 2 305 PHF Volume: 2 5 3 215 7 244 461 236 5 2 314 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 2 5 3 215 7 244 461 236 5 2 314 1.58 Final Vol.: 2 5 3 215 7 244 461 236 5 2 314 158 Saturation Flow Module: Adjustment: 0.92 0.92 0.92 0.71 0.71 0.85 0.95 1.00 1.00 0.95 0.95 0.95 0.20 0.50 0.30 0.97 0.03 1.00 1.00 0.98 0.02 1.00 0.67 0.33 Lanes: Final Sat.: 350 876 525 1311 44 1615 1805 1854 40 1805 1202 603 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.16 0.16 0.15 0.26 0.13 0.13 0.00 0.26 0.26 **** **** Crit Moves: Green/Cycle: 0.22 0.22 0.22 0.22 0.22 0.34 0.68 0.68 0.01 0.35 0.35 AdjDel/Veh: 30.7 30.7 30.7 46.5 46.5 41.5 34.2 5.8 5.8 57.4 33.6 33.6 HCM2kAvg: 0 0 0 11 11 8 15 3 3 0 14 ****************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #17 Reservation Rd/S. Davis Rd Average Delay (sec/veh): 280.1 Worst Case Level Of Service: F[902.2] Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 0 Volume Module: 5 3 241 5 285 378 323 3 Base Vol: Initial Bse: 5 5 3 241 5 285 378 323 3 7 364 112 PHF Volume: 5 5 3 259 5 306 406 347 3 8 391 120 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 5 5 3 259 5 306 406 347 3 8 391 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 1784 1689 349 1633 1630 452 512 xxxx xxxxx 351 xxxx xxxxx Potent Cap.: 64 95 699 82 103 612 1064 xxxx xxxxx 1220 xxxx xxxxx Move Cap.: 21 58 699 53 63 612 1064 xxxx xxxxx 1220 xxxx xxxxx Volume/Cap: 0.26 0.09 0.00 4.86 0.09 0.50 0.38 xxxx xxxx 0.01 xxxx xxxx Level Of Service Module: Oueue: xxxxx xxxx xxxxx xxxxx xxxx 2.8 1.8 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 16.6 10.5 xxxx xxxxx 8.0 xxxx xxxxx LOS by Move: * * * * C B * * A * * LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT Shared LOS: * F * F * * * * * * * * * * ApproachDel: 138.9 902.2 xxxxxx xxxxx ApproachDel: 138.9
ApproachLOS: F F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 62 Level Of Service: 32.9 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Permitted Include Permitted Protected Protected Include Include Include Control: Rights: Include Volume Module: Base Vol: 5 5 3 241 5 285 378 323 3 7 364 112 Initial Bse: 5 5 3 241 5 285 378 323 3 7 364 PHF Volume: 5 5 3 259 5 306 406 347 3 8 391 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 5 5 3 259 5 306 406 347 3 8 391 0 0 0 0 0 259 5 306 406 347 0 0 8 391 -0 120 Saturation Flow Module: Adjustment: 0.88 0.88 0.88 0.71 0.71 0.85 0.95 1.00 1.00 0.95 0.97 0.97 Lanes: 0.39 0.38 0.23 0.98 0.02 1.00 1.00 0.99 0.01 1.00 0.76 0.24 Final Sat.: 643 643 386 1318 27 1615 1805 1881 17 1805 1402 431 ______| Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.20 0.20 0.19 0.23 0.18 0.18 0.00 0.28 0.28 **** **** Crit Moves: Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.29 0.64 0.64 0.01 0.36 0.36 Volume/Cap: 0.03 0.03 0.03 0.77 0.77 0.74 0.77 0.29 0.29 0.29 0.77 0.77 Uniform Del: 28.0 28.0 28.0 34.5 34.5 34.2 32.3 7.9 7.9 48.8 28.2 28.2 0.0 10.2 10.2 7.2 6.8 0.1 0.1 6.0 5.5 IncremntDel: 0.0 0.0 Delay/Veh: 28.0 28.0 28.0 44.7 44.7 41.4 39.2 8.1 8.1 54.8 33.7 33.7 AdjDel/Veh: 28.0 28.0 28.0 44.7 44.7 41.4 39.2 8.1 8.1 54.8 33.7 33.7 HCM2kAvg: 0 0 0 12 12 10 14 5 5 1 15 15 **********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************** Intersection #18 Hwy 68 WB Ramps/Reservation Rd ****************** Cycle (sec): Critical Vol./Cap. (X): 45 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 38 Level Of Service: 9 (Y+R = 4 sec) Average Delay (sec/veh): ************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - F L - T - R Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Min. Green: 0 0 0 10 0 10 0 10 7 10 Lanes: 0 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0 0 Volume Module: Base Vol: 0 0 0 207 0 171 0 313 144 197 289 Initial Bse: 0 0 0 207 0 171 0 313 144 197 289 0 PHF Volume: 0 0 0 225 0 186 0 340 157 214 314 _____ Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.96 0.96 0.95 1.00 1.00 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.068 0.32 1.00 1.00 0.00 Final Sat.: 0 0 0 1809 0 1615 0 1245 573 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.12 0.00 0.27 0.27 0.12 0.17 0.00 **** **** **** Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.56 0.00 0.52 0.00 0.68 0.68 0.68 0.29 0.00 Uniform Del: 0.0 0.0 0.0 15.5 0.0 15.4 0.0 11.0 11.0 17.4 4.8 IncremntDel: 0.0 0.0 0.0 1.8 0.0 1.3 0.0 2.6 2.6 5.8 0.1 0.0 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 Delay Adj: Delay/Veh: 0.0 0.0 0.0 17.3 0.0 16.7 0.0 13.6 13.6 23.2 5.0 0.0 AdjDel/Veh: 0.0 0.0 0.0 17.3 0.0 16.7 0.0 13.6 13.6 23.2 5.0 0.0 0 0 0 4 0 3 0 7 7 4 2 -0 HCM2kAvg: ******************

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

Intersection #18 Hwy 68 WB Ramps/Reservation Rd												
Cycle (sec):		80			,	ritica	1 Vol.	/Cap.	(X):	0.8	56	
Loss Time (se	ec):	9	(Y+R	= 4 5	sec) P	verage	Delay	/ (sec	c/veh):	30	. 3	
Optimal Cycle		80				evel 0					C	
*****	*****	*****	*****	****	*****	*****	*****	*****	*****	*****	*****	
Approach:			ound						ound	West Bo	ound	
Movement:	L -	- T	- R		- T		L -	- T	- R	L - T		
				1]	1			1		
Control:	Sp.		nase		lit Ph	ıase	Pi			Protect		
Rights:			ıde	4.0		ıde		Inclu		Incl		
Min. Green:		0	0		. 0		0		10	7 10	0	
Lanes:	. 0 (0 0	0 0	. 0	1 0	0 1	, 0 (טַּט	1 0	1 0 1	0 0	
Volume Module							1					
Base Vol:	0	0	0	499	0	258	'n	484	167	110 202	0	
Growth Adi:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00	
Initial Bse:		0	0	499	0	258	0	484	167	110 202	0	
User Adj:		1.00	1.00		1.00	1.00	-	1.00	1.00	1.00 1.00	1.00	
PHF Adi:		0.90	0.90		0.90	0.90		0.90	0.90	0.90 0.90	0.90	
PHF Volume:	0	0	0	554	0	287	0	538	186	122 224	0	
Reduct Vol:	:0	0	0	0	0	0	0	0	0	0 0	0	
Reduced Vol:	0	0	0	554	0	287	.0	538	186	122 224	Ō	
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	
Final Vol.:	0	0	0	554	0	287	0	538	186	122 224	0	
						1				1		
Saturation F	low Mo	odule										
Sat/Lane:		1900	1900		1900	1900		1900	1900	1900 1900	1900	
Adjustment:		1.00	1.00		1.00	0.85		0.97	0.97	0.95 1.00	1.00	
Lanes:		0.00	0.00		0.00	1.00		0.74	0.26	1.00 1.00	0.00	
	. 0	0	.0		0	1615		1363	470	1805 1900	0	
Consoltuinon							1					
Capacity Ana. Vol/Sat:	-		0.00	0 31	0.00	0.18	0 00	0.39	0.39	0.07 0.12	0.00	
Crit Moves:	0.00	0.00	0.00	****	0.00	0.10	0.00	****	0.59	****	0.00	
Green/Cycle:	0 00	0.00	0.00		0.00	0.35	0.00	0.45	0.45	0.09 0.54	0.00	
Volume/Cap:		0.00	0.00		0.00	0.51		0.88	0.88	0.77 0.22	0.00	
Uniform Del:		0.0	0.0	24.4	0.0	20.6		20.0	20.0	35.7 9.7	0.0	
IncremntDel:	0.0	0.0	0.0	13.1	0.0	0.8		10.4	10.4	20.8 0.1	0.0	
Delay Adj:		0.00	0.00		0.00	1.00		1.00	1.00	1.00 1.00	0.00	
Delay/Veh:	0.0	0.0	0.0	37.5	0.0	21.3		30.4	30.4	56.6 9.8	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:	0.0	0.0	0.0	37.5	0.0	21.3	0.0	30.4	30.4	56.6 9.8	0.0	
HCM2kAvg:	0	0	0	17	0	6	0	20	20	5 3	0	
*****	****	****	*****	****	****	*****	****	****	*****	*****	*****	

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************** Intersection #19 Hwy 68 EB Ramps/Reservation Rd 80 Critical Vol./Cap. (X): Cycle (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 65 Level Of Service: Optimal Cycle: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Split Phase Split Phase Protected Protected Control: Rights: Include Include Include Include
Min. Green: 10 0 10 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1 Volume Module: 0 0 450 0 0 0 263 334 Base Vol: 130 0 95 263 334 0 0 450 Initial Bse: 130 0 95 0 0 .0 PHF Adj: PHF Volume: 153 0 112
Reduct Vol: 0 0 0
Reduced Vol: 153 0 112 0 0 0 309 393 0 0 529 0 0 0 0 0 0 0 0 0 0 309 393 0 0 529 0 738 PCE Adj: MLF Adj: Final Vol.: 153 0 112 0 0 0 309 393 0 0 529 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.46 Crit Moves: **** **** Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.76 0.00 0.00 0.55 0.55 Volume/Cap: 0.68 0.00 0.55 0.00 0.00 0.00 0.82 0.27 0.00 0.00 0.50 0.82 Uniform Del: 33.5 0.0 32.9 0.0 0.0 0.0 30.3 2.8 0.0 0.0 11.0 14.6 0.0 0.4 IncremntDel: 7.9 0.0 3.3 0.0 0.0 0.0 13.7 0.1 0.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 0.0 11.4 20.9 HCM2kAvg: 5 0 3 0 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************ Intersection #19 Hwy 68 EB Ramps/Reservation Rd Cycle (sec): 55 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 48 Level Of Service: 15.4 Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Movement: Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Include Include Min. Green: 10 0 10 0 0 0 7 10 0 0 10 10 Lanes: 0 1 0 0 1 0 0 0 0 0 1 0 1 0 0 0 0 1 0 1 -----| Volume Module: Base Vol: 127 0 199 0 0 0 211 881 0 0 240 0 0 240 Initial Bse: 127 0 199 0 0 0 211 881 229 0 0 0 243 1013 0 0 276 0 0 0 0 0 0 0 0 0 0 0 0 243 1013 0 0 276 0 243 1013 PHF Volume: 146 0 Reduct Vol: 0 0 0 Reduced Vol: 146 0 229 1.00 MLF Adj: Final Vol.: 146 0 229 0 0 0 243 1013 0 0 276 344 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.08 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21 Crit Moves: **** *** Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.25 0.65 0.00 0.00 0.40 0.40 Volume/Cap: 0.44 0.00 0.78 0.00 0.00 0.00 0.53 0.81 0.00 0.00 0.36 0.53 Uniform Del: 20.0 0.0 21.4 0.0 0.0 0.0 17.7 7.0 0.0 0.0 11.5 12.5 IncremntDel: 1.0 0.0 12.5 0.0 0.0 0.0 1.2 4.2 0.0 0.0 0.3 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 21.0 0.0 33.9 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4 AdjDel/Veh: 21.0 0.0 33.9 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4 HCM2kAvg: 3 0 6 0 0 0 4 15 0 0 4 5

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************************** Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ********************************** Average Delay (sec/veh): 11.4 Worst Case Level Of Service: ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Include
 Include
 Include
 Include

 0 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 0 0
 Include
 Include
 Lanes: Volume Module: Base Vol: 0 0 0 103 2 0 0 0 0 184 0 Initial Bse: 0 0 0 103 2 0 0 0 0 184 0 PHF Volume: 0 0 0 117 2 0 0 0 209 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 117 2 0 0 0 0 209 0 Final Vol.: Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: _____| Level Of Service Module: Queue: xxxxx xxxx xxxx Stopped Del:xxxxx xxxx xxxxx 13.4 xxxx xxxxx xxxxx xxxx xxxxx 10.2 xxxx xxxxx LOS by Move: * * * B * * * * B * * LT - LTR - RT Movement: Shared LOS: * * * B * * * * * * * 13.4 XXXXXX XXXXXX ApproachDel: xxxxxx ApproachLOS: В

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)												
2000 ncm onsignatized method (base volume Arternative)												
Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy												
Average Delay (sec/veh): 10.1 Worst Case Level Of Service: B[11.0]												
Approach: Movement:	Noi L -	rth Bo - T	ound - R	Sou L -	ith Bo	ound - R	Eá	ast Bo	ound - R	We L -	est Bo - T	ound - R
Control: Rights: Lanes:	.St	op Si Incli	ign ude 00	St 1 1	top S: Incli L 0	ign ide 0 0	Un (contro Inclu	olled ade 0 0	Unc 1 (contro Inclu	olled ude 0 0
Volume Module				1			1 ,1					
Base Vol:	.0	0	10	45	3	0	0	0	0	120	0	.0
Growth Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	0	0	0	45	3	0	0	0	0	120	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:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	0	0	51	3	.0	0	0	10	136	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	51		0	0	.0	0	136	0	0
	'											
Critical Gap												1,0
Critical Gp:												XXXXX
FollowUpTim:2						xxxxx						XXXXX
Capacity Modu							11					
Cnflict Vol:		xxxx	XXXXX	273	273	xxxxx	xxxx	xxxx	xxxxx	. 0	XXXX	xxxxx
Potent Cap.:						xxxxx					-,	xxxxx
Move Cap.:				637		xxxxx			xxxxx			xxxxx
Volume/Cap:				0.08	0.01	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	xxxx
Level Of Serv	vice 1	Modul	e:									
Queue:	xxxxx	xxxx	XXXXX	0.1	xxxx	XXXXX	XXXXX	XXXX	xxxxx	0.5	XXXX	XXXXX
Stopped Del:				10.9		xxxxx				9.7	xxxx	XXXXX
LOS by Move:	*	*	*	В	*	*	*	*	*	Α	*	*
Movement:	LT ·	- LTR	- RT	$_{ m LT}$	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:						XXXXX						XXXXX
SharedQueue:	xxxxx	XXXX	XXXXX							XXXXX		
Shrd StpDel:		XXXX					XXXXX			XXXXX	XXXX	XXXXX
Shared LOS:		*	*	В	*	*	**	*	*	*	*	*
ApproachDel:					11.0		X	xxxxx *		X	xxxxx *	
ApproachLOS:		*			В			*			*	

<u>:- :- : :- :- :- :- :- :- :- </u>												
Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)												

Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy												
Average Delay	/ (sec	:/veh)	:			t Case						10.4]
Approach: Movement:	Т	- т	– R	I	. T	Ta ÷	- Т	ound - R	T ₁ -	· T	- R	
Control: Rights: Lanes:	St 1 0	op Si Ignor) 0	gn e 0 1	st 0 0	op Si Inclu	gn ide 0 0	Uncontrolled Include			Uncontrolled Include 0 0 1 0 1		
Volume Module	,			1			4			3		- 1
Base Vol: Growth Adj:	.3 1.00	1.00	85 1.00		1.00		1.00	126 1.00	1.00	1.00		1.00
<pre>Initial Bse: User Adj: PHF Adj:</pre>	3 1.00 0.91		0.00 0.00	0 1.00 0.91		0 1.00 0.91	1.00	126 1.00 0.91	0 1.00 0.91	0 1.00 0.91	153 1.00 0.91	22 1.00 0.91
PHF Volume: Reduct Vol:	3 0 3	0	0 0 0	0	0	0	· 7 0 7	138 0 138	0	0	168 0 168	24 0 24
Final Vol.:	_								·	 	100	.z.4
Critical Gap Critical Gp:	Modu]	Le:							xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	XXXXX	XXXX	XXXXX	2.2	XXXX	XXXXX	xxxxx	xxxx	XXXXX
Capacity Modu	· .	-:										
Cnflict Vol:			xxxxx						XXXXX			
Potent Cap.:									XXXXX			
Move Cap.: Volume/Cap:			XXXX			XXXX		XXXX		XXXX		
Level Of Ser	vice N	Modul	∋:									
Queue:			xxxxx						XXXXX			
Stopped Del:			*****		XXXX *	**	/ . 6 A	***	xxxxx *	*	XXXX *	XXXXX *
LOS by Move: Movement:	В т. т		- RT		- LTR	- RT			- RT			- RT
Shared Cap.:												xxxxx
SharedQueue:							0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx			XXXX	xxxxx	xxxxx	XXXX	xxxxx
Shared LOS:		*	*	*	*	*	Α	*	:* *	*	*	*
ApproachDel:		10.4		x	xxxxx *		X	xxxxx *		X	xxxxx *	
ApproachLOS:		В						-			-	

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ****************** 0.5 Worst Case Level Of Service: Average Delay (sec/veh): ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Rights:
 Ignore
 Include
 Include
 Include

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1
 0 0 1 0 1 0 1
 Volume Module: 14 42 0 0 113 Initial Bse: 4 0 160 10 0 10 PHF Volume: 5 0 0 0 0 0 19 57 0 0 153 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Final Vol.: 5 0 0 0 0 19 57 0 0 153 143 ______| Critical Gap Module: FollowUpTim: 3.5 xxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx ______| Capacity Module: Cnflict Vol: 319 xxxx xxxxx xxxx xxxx xxxx 296 xxxx xxxxx xxxx xxxx xxxx _____| Level Of Service Module: Queue: 0.0 xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx Stopped Del: 10.4 xxxx xxxxx xxxxx xxxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxx LOS by Move: B * * * * * A * * * * * LT - LTR - RT Movement: SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx 7.9 XXXX XXXXX XXXXX XXXX ApproachDel: 10.4 XXXXXX ApproachLOS: ·Β

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) ******************** Intersection #22 3rd St/4th Ave ***************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.568 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 0 Level Of Service: ******************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Stop Sign Stop Sign Rights: Include Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 Volume Module: Base Vol: 35 81 98 5 88 6 10 29 61 247 72 Initial Bse: 35 81 98 5 88 6 10 29 61 247 72 7 PHF Volume: 41 95 115 6 104 7 12 34 72 291 85 8 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 41 95 115 6 104 7 12 34 72 291 85 0 8 Final Vol.: 41 95 115 6 104 7 12 34 72 291 85 8 Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.38 0.38 0.38 0.20 0.20 0.20 0.18 0.18 0.18 0.57 0.57 0.57 Crit Moves: **** **** Delay/Veh: 10.9 10.9 10.9 9.7 9.7 9.7 9.0 9.0 9.0 14.2 14.2 14.2 AdjDel/Veh: 10.9 10.9 10.9 9.7 9.7 9.7 9.0 9.0 9.0 14.2 14.2 14.2 A A A A A 9.0 A B LOS by Move: B B B B ApproachDel: 10.9 9.7 14.2 Delay Adj: 1.00 1.00 1.00 1.00 9.0 LOS by Appr: R 9.7 A 14.2 :A В

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) ************************************* Intersection #22 3rd St/4th Ave ********** ************* Cycle (sec): 100 Critical Vol./Cap. (X): 0.690 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 0 Level Of Service: 13.9 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____
 Control:
 Stop Sign
 Rights:
 Include
 Includ Volume Module: Base Vol: 35 196 264 15 137 8 11 78 20 128 51 PHF Volume: 36 204 275 16 143 8 11 81 21 133 53 1 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 36 204 275 16 143 8 11 81 21 133 53 Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.69 0.69 0.69 0.27 0.27 0.27 0.21 0.21 0.33 0.33 0.33 Crit Moves: **** **** **** Delay/Veh: 16.8 16.8 16.8 10.2 10.2 10.2 10.0 10.0 10.0 11.4 11.4 11.4 AdjDel/Veh: 16.8 16.8 16.8 10.2 10.2 10.2 10.0 10.0 10.0 11.4 11.4 11.4 LOS by Move: C C C B B B B B B B ApproachDel: 16.8 11.4 10.2 10.0 1.00 Delay Adj: 1.00 1.00 1.00 ApprAdjDel: 16.8 10.2 10.0 LOS by Appr: C B B 1.00 11.4 В

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************** Intersection #23 Light Fighter Dr/1st Ave ******************* Critical Vol./Cap. (X): Cycle (sec): 55 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss Time (sec): 9 (Y+K = 4 sec) Average Delay (sec Optimal Cycle: 36 Level Of Service: ********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Includ Volume Module: Base Vol: 57 0 17 10 2 36 0 588 63 14 689 0 Initial Bse: 57 0 17 10 2 36 0 588 63 14 689 0 PHF Volume: 70 0 21 12 2 44 0 726 78 17 851 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 70 0 21 12 2 44 0 726 78 17 851 0 .0 Final Vol.: 70 0 21 12 2 44 0 726 78 17 851 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.00 0.01 0.01 0.01 0.03 0.00 0.20 0.05 0.01 0.24 0.00 **** Crit Moves: **** Green/Cycle: 0.18 0.00 0.18 0.18 0.18 0.18 0.00 0.53 0.53 0.13 0.65 0.00 Volume/Cap: 0.27 0.00 0.07 0.05 0.05 0.15 0.00 0.38 0.09 0.08 0.36 Uniform Del: 19.4 0.0 18.7 18.6 18.6 18.9 0.0 7.7 6.5 21.1 4.3 0.0 IncremntDel: 0.6 0.0 0.1 0.1 0.1 0.2 0.0 0.1 0.0 0.0 0.1 0.1 0.0 Delay Adj: 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.0 HCM2kAvg: 2 0 0 0 1 0 4 1 0 3

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 40 Critical Vol./Cap. (X): 0.443 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/Optimal Cycle: 36 Level Of Service: 9 (Y+R = 4 sec) Average Delay (sec/veh): 9.7 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Movement: Control: Permitted Permitted Protected Protected Rights: Include Include Include
 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 10
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 1
 0
 0
 1
 0
 0
 2
 0
 1
 1
 0
 2
 0
 0
 Volume Module: Base Vol: 160 0 33 2 1 78 0 742 163 7 619 Initial Bse: 160 0 33 2 1 78 0 742 163 7 619 0 PHF Volume: 172 0 35 2 1 84 0 798 175 8 666 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 172 0 35 2 1 84 0 798 175 8 666 0 MLF Adj: Final Vol.: 172 0 35 2 1 84 0 798 175 8 666 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.02 0.00 0.00 0.05 0.00 0.22 0.11 0.00 0.18 0.00 **** Crit Moves: **** **** Green/Cycle: 0.25 0.00 0.25 0.25 0.25 0.25 0.00 0.35 0.35 0.17 0.52 0.00 Volume/Cap: 0.47 0.00 0.09 0.01 0.01 0.21 0.00 0.63 0.31 0.02 0.35 0.00 AdjDel/Veh: 13.7 0.0 11.6 11.3 11.3 12.1 0.0 11.9 9.8 13.7 5.6 0.0 HCM2kAvg: 3 0 0 0 0 1 0 5 2 0 3 ************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #24 Light Fighter Dr/2nd Ave *************** Average Delay (sec/veh): 1.7 Worst Case Level Of Service: **************** Approach: North Bound South Bound East Bound West Bound Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 Volume Module: 94 447 3 564 0 3 91 Base Vol: 3 0 1 Initial Bse: 3 0 1 0 3 91 94 447 9 3 564 3 PHF Volume: 3 0 1 0 3 96 99 471 9 3 594 3 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 inal Vol.: 3 0 1 0 3 96 99 471 9 3 594 3 Critical Gap Module: Critical Gp: 7.5 xxxx 6.9 xxxxx 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 xxxx 3.3 xxxxx 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 978 xxxx 240 xxxx 1279 298 597 xxxx xxxxx 480 xxxx xxxxx Potent Cap.: 208 xxxx 767 xxxx 167 704 990 xxxx xxxxx 1093 xxxx xxxxx Move Cap.: 163 xxxx 767 xxxx 150 704 990 xxxx xxxxx 1093 xxxx xxxxx Volume/Cap: 0.02 xxxx 0.00 xxxx 0.02 0.14 0.10 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 0.2 0.3 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 10.5 9.0 xxxx xxxxx 8.3 xxxx xxxxx A * * LOS by Move: * * * * * B A * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT B * * * * * Shared LOS: * C * * *
ApproachDel: 23.1 11.2 XXXXXX ApproachDel: 23.1 11.2 XXXXXX В ApproachLOS: С

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

Average Delay	y (sec	/veh) ****	: ******	2.4	Wors	st Case	Leve:	L Of :	Service	e: *****	D[28.2]
Approach:		th Bo		Sou	ith Bo	ound	Εā			We		
Movement:	L -	Т	- R	ъ-	- T	- R		- T	- R	T .	- Т	- R
Control:												
Rights:	500	Inclu	ide	:D:(Inclu	ign ide	OTI	Incli	ige ittea	UIII	contro Incli	
Lanes:			0 0			1 1	1 () 1		1 (1 1	
الماسة شرشاسة مداشر مسرسة مساشا شرا												
Volume Module				•						1 3		-1
Base Vol:	1	5	7	.5	3	99	175	547	9	2	572	4
Growth Adj:	1.00 1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	5	7	5	3	99	175	547	9	2	572	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94 (0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	1	5	7	5	3	105	186	582	10	2	609	4
Reduct Vol:	0	0	.0	0	0	0	0	0	.0	0	0	0
Final Vol.:	. 1	.5	.7	5	:3	105	186	582	10	2	609	4
Critical Gap	,]	:-		1					
Critical Gp:		6.5	6.9	7.5	6.5	6.9	4 1	XXXX	xxxxx	1 1	VVVV	xxxxx
FollowUpTim:		4.0	3.3		4.0	3.3			XXXXX			XXXXX
				1								
Capacity Modu												
Cnflict Vol:			296		1579	306	613	xxxx	XXXXX	591	xxxx	XXXXX
Potent Cap.:		111	707	125	110	696			XXXXX		xxxx	XXXXX
Move Cap.:	90	89	707	101	89	696			xxxxx			XXXXX
Volume/Cap:			0.01		0.04	0.15		XXXX			xxxx	
Level Of Serv	•								:			
	XXXXX X			0.2	vvvv	0.2	-0.7	VVVV	xxxxx	0.0	2222	xxxxx
Stopped Del:									XXXXX			XXXXX
LOS by Move:	*		*	42.0 E	*		7. U	*	*	A	*	*
Movement:			- RT			- RT			- RT		- LTR	
Shared Cap.:			XXXXX		XXXX	501			XXXXX			XXXXX
SharedQueue:			XXXXX							XXXXX		
Shrd StpDel:										XXXXX		
Shared LOS:	*	D	*	*	*	В	*	*	*	*	**	*
ApproachDel:		28.2			13.3		×	XXXXX		x	XXXXX	
ApproachLOS:		D			В			*			*	

Level Of Service Computation Report													
coop wow constitute Mothod (Base Volume Alternative)													

Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd													
Cycle (sec):		55			Cr	itical	Vol./	Cap.	(X):		0.560		
Loss Time (sec	:):	12	(Y+R =	4 s	ec) Av	erage	Delay	(sec/	veh):		20.2		
					T.O	01 OF	Sartt			a. a. a. a. a. a.	C		
*****	****						*****	****	·*****	י א א א א א י ה הו	st Bou	nd	
Approach:		th Bou			th Bou			st Bou			T -		
Movement:	Г -	T -	R	L -	Т -	- K		T -	- K				
				Dr	otecte	مر ا ا ا – – –	Pro	otecte	ed.	Pro	otecte	ed .	
Control:		otecte Includ			Includ			Ignore			Includ	de	
Rights:	7	110140	10	7		10	7	_	7	7	10	10	
Min. Green: Lanes:	2 0	Λ 1	n	1 0	1 1	L O	1 0	1 (1 0	-	L 0	
Lanes:			1			11							
Volume Module											68	0	
Base Vol:	155	105	2	4	295	402	127	88	277 1.00	1.00		1.00	
Growth Adj:	1.00		1.00	1.00		1.00	1.00 127	88	277	4	68	0	
Initial Bse:	155	105	2	1 00	295	402 1.00	1.00		0.00	1.00		1.00	
User Adj:	1.00		1.00	1.00 0.87		0.87	0.87		0.00	0.87		0.87	
PHF Adj:	0.87 178	121	2	5	339	462	146	101	0	5	78	0	
PHF Volume: Reduct Vol:	170	121	0	Ö	0	0	0	0	0	0	.0	0	
Reduced Vol:	178	121	2	-5	339	462	146	101	0	:5	78	0	
PCE Adj:	1.00	1.00	1.00	1.00		1.00	1.00		0.00	1.00		1.00	
MLF Adj:	1.00	1.00	1.00	1.00		1.00	1.00		0.00	1.00 5	78	1.00	
Final Vol.:	178	121	2	5	339	462	146	101	.0	_	7.0	1	
				1			1		1	1		•	
Saturation F			1900	1000	1900	1900	1900	1900	1900	1900	1900	1900	
Sat/Lane:		1900 1.00	1.00		0.87	0.87	0.95		1.00	0.95		1.00	
Adjustment:		0.98	0.02		1.00	1.00	1.00	1.00	1.00		1.00	0.00	
Lanes: Final Sat.:	3502	1859	35	1805	1648	1648		1900	1900		1900	0	
				·			1					:	
Capacity Ana	lysis	Modul	.e:					.0.05	0 00	0 00	0.04	0.00	
Vol/Sat:	0.05	0.06	0.06	0.00	0.21	0.28	****	0.05	0.00	0.00	****	0.00	
Crit Moves:	****			0 10	0.25	0.35		0.18	0.00	0.13	0.18	0.00	
Green/Cycle:	0.13	0.28	0.28		0.35	0.81		0.29	0.00		0.23	0.00	
Volume/Cap:		0.23	0.∠3 15.3		14.8	16.4		19.4	0.0	21.0	19.2	0.0	
Uniform Del: IncremntDel:			0.2	0.0		5.2	5.8		0.0	0.0		0.0	
Delay Adj:		1.00	1.00		1.00	1.00	1.00	1.00	0.00		1.00	0.00	
Delay/Veh:		15.6	15.6	17.9	15.6	21.5		19.9	0.0		19.5	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	-	1.00	1.00		1.00 19.5	0.0	
AdjDel/Veh:	22.7	15.6	15.6		15.6	21.5	28.6 4	19.9 2	0.0	21.0	19.5	0.0	
HCM2kAvg:	_	2	2		6	10	4 *****	****					
*******	****	****	****	*****									

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd ********************************** Cycle (sec): 50 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 50 Level Of Service: ************************************* South Bound East Bound Approach: North Bound L-T-R L-T-R L-T-R Movement: Control: Protected Protected Protected Protected Rights: Include Include Ignore Include Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10 Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 1 Volume Module: Base Vol: 271 207 0 3 167 224 388 89 202 3 94 Initial Bse: 271 207 0 3 167 224 388 89 202 3 94 5 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.00 0.88 0.88 0.88 PHF Volume: 308 235 0 3 190 255 441 101 0 3 107 6 6 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 MLF Adj: Final Vol.: 308 235 0 3 190 255 441 101 0 3 107 6 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.87 0.87 0.95 1.00 1.00 0.95 0.99 0.99 Capacity Analysis Module: Vol/Sat: 0.09 0.12 0.00 0.00 0.12 0.15 0.24 0.05 0.00 0.00 0.06 0.06 *** Crit Moves: **** **** Green/Cycle: 0.14 0.20 0.00 0.14 0.20 0.20 0.22 0.25 0.00 0.17 0.20 0.20 AdjDel/Veh: 22.9 21.4 0.0 18.5 19.1 25.3 98.0 15.2 0.0 17.1 17.5 17.5 HCM2kAvg: 4 4 0 0 4 6 17 1 0 0 2 2 ****************** Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ********************** Average Delay (sec/veh): 317.9 Worst Case Level Of Service: F[748.6] North Bound South Bound East Bound West Bound Approach: $L + T - R \quad L - T - R \quad L - T - R$ L - T - R Movement: _____| Stop Sign Uncontrolled Uncontrolled Include Include Include Control: Stop Sign
Rights: Include Include Volume Module: Base Vol: 0 0 0 379 5 25 0 36 68 397 69 Initial Bse: 0 0 0 379 5 25 0 36 68 397 69 0 0 41 78 456 79 PHF Volume: 0 0 0 436 6 29 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 436 6 29 0 41 0 0 0 0 78 456 79 Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx 6.4 6.5 6.2 xxxxx xxxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1072 1111 79 xxxx xxxx xxxxx 120 xxxx xxxxx Potent Cap.: xxxx xxxx xxxxx 246 211 987 xxxx xxxxx xxxxx 1481 xxxx xxxxx Move Cap.: xxxx xxxxx xxxxx 167 124 987 xxxx xxxxx xxxxx 1481 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 2.61 0.05 0.03 xxxx xxxx xxxx 0.31 xxxx xxxx Level Of Service Module: 1.3 xxxx xxxxx 8.5 xxxx xxxxx A * * LOS by Move: * * * * * * * * * * * * Movement: LT - LTR - RT 166 xxxx 456 xxxx xxxx xxxxx xxxx xxxx xxxx Shared Cap.: xxxx xxxx xxxxx SharedQueue:xxxxx xxxx xxxxx 38.7 xxxx 0.2 xxxxx xxxx xxxxx 1.3 xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx 806.0 xxxx 13.5 xxxxx xxxx xxxx 8.5 xxxx xxxxx Shared LOS: * * * F * B * * * A * xxxxxx ApproachDel: xxxxxx 748.6 XXXXXX ApproachLOS:

__________________ Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 4.2 Level Of Service: ************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign 10 Lanes: 2 1 Volume Module: Base Vol: 0 0 0 379 5 25 0 36 68 397 69 0 PHF Volume: 0 0 0 436 6 29 0 41 78 456 79 0 Reduced Vol: 0 0 0 436 6 29 0 41 78 456 79 0 Final Vol.: 0 0 0 436 6 29 0 41 78 456 79 0 PCE Module: AutoPCE: 0 0 0 436 6 29 0 41 78 456 79
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 436 6 29 0 41 78 456 79 Ω 0 0 0 Delay Module: >> Time Period: 0.25 hours << CircVolume: 477
MaxVolume: xxxxxx 898 536 0 2038 715 1200 PedVolume: 0
AdjMaxVol: xxxxx 0 0 0 715 2038 1200 ApproachVol: xxxxxx 470 120 536 2.3 6.0 ApproachDel: xxxxxx 5.4 0.6 xxxx 0.9 2.4 Queue:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************* Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 119.0 Worst Case Level Of Service: F[451.0] ****************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R______| ____| _____| | ______| | ______| | _____| | _____| | _____| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 Volume Module: 0 0 0 255 2 61 0 116 212 383 209 Base Vol: Initial Bse: 0 0 0 255 2 61 0 116 212 383 209 0 PHF Volume: 0 0 0 266 2 64 0 121 221 399 218 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 266 2 64 0 121 221 399 218 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1247 1357 218 xxxx xxxx xxxxx 342 xxxx xxxxx Potent Cap:: xxxx xxxx xxxxx 193 150 827 xxxx xxxx xxxxx 1229 xxxx xxxxx Move Cap:: xxxx xxxx xxxxx 130 88 827 xxxx xxxx xxxx 1229 xxxx xxxxx XVolume/Cap: xxxx xxxx xxxx 2.04 0.02 0.08 xxxx xxxx xxxx 0.32 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * * * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT B * * * A * Shared LOS: * * * F * 451.0 XXXXXX XXXXXX ApproachDel: xxxxxx F ApproachLOS:

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd **************************** Average Delay (sec/veh): 5.4 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 0 2 1 1 1 Volume Module: Base Vol: 0 0 0 255 2 61 0 116 212 383 209 Initial Bse: 0 0 0 255 2 61 0 116 212 383 209 0 PHF Volume: 0 0 0 266 2 64 0 121 221 399 218 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 266 2 64 0 121 221 399 218 0 PCE Module: :0 0 0 266 2 64 0 121 399 218 AutoPCE: 221 TruckPCE: 0 0 0 0 0 0 0 ComboPCE: 0 0 0 0 0 0 0 0 0 0 .0 0 0 0 Delay Module: >> Time Period: 0.25 hours << CircVolume: 386 617 667 XXXXXX 1980 MaxVolume: 840 1200 PedVolume: 0
AdjMaxVol: xxxxx 0 0 .0 1980 840 1200 331 342 ApproachVol: xxxxxx 617 2.2 7.2 6.1 ApproachDel: xxxxxx xxxx 2.0 3.0 Queue: 0.6

______ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 3.5 Worst Case Level Of Service: C[18.4] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Volume Module: 0 0 481 Base Vol: 38 0 227 0 0 0 21 462 Initial Bse: 38 0 227 0 0 0 .0 0 481 21 462 Critical Gap Module: Capacity Module: Level Of Service Module: Queue: 0.8 xxxx 2.4 xxxxx xxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx 9.4 xxxx xxxxx xxxxx xxxx Stopped Del: 28.9 xxxx 16.7 xxxxx xxxx xxxxx LOS by Move: D * C * * * *
Movement: LT - LTR - RT LT - LTR - RT A * * * * * LT - LTR - RT LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx 9.4 xxxx xxxxx xxxxx xxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * * A * * * 18.4 xxxxx XXXXXX XXXXXX ApproachDel: C ApproachLOS:

______ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *********************************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 6.8 Worst Case Level Of Service: D[25.6] ******************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1! 0 0 0 0 1 0 1 Volume Module: PHF Volume: 104 0 458
Reduct Vol: 0 0 0 PHF Volume: 104 0 458 0 0 0 18 374 5 0 514 667 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 104 0 458 0 0 0 18 374 5 0 514 667 Critical Gap Module: Capacity Module: Move Cap.: 186 xxxx 674 xxxx xxxx xxxx 598 xxxx xxxx xxxx xxxx xxxx xxxx xxxx Volume/Cap: 0.56 xxxx 0.68 xxxx xxx xxxx xxx xxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx ______| Level Of Service Module: Stopped Del: 46.6 xxxx 20.9 xxxxx xxxx xxxxx 11.2 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: E * C * * * B * * * * Movement: LT - LTR - RT D ApproachLOS:

Ex+Prj AM		Wed	d Jun 3	0, 20	004 17:	28:26				age 2	
- د مغه مه ک کرمان پی بیرین بیرین <u>بیان پی</u> ر ن	2000 HCM O	evel O	f Servi	.ce Co	omputat Base V	ion Re	eport Alte	rnativ	e)		
*****	*****	****	*****	****	*****	****	****	****	****	****	*****
Intersection	#28 Gen. J	im Moo	re Blvo	l/Cany	on Del	. Ray					tari Santaka

Cycle (sec): Loss Time (se	55			C ₁	ritical	. vol.	/Cap.	(X):		0.99) 7
Loss Time (se	c): 9	(Y+R :	= 4 S	(DE	rerage	ретау	(Sec	/ven/:		0.0.	, E
Optimal Cycle	: 111 	والمحاجبة والمتاجبة)∟. ******	evel Of	*****	****	*****	****		
Approach:	North Do	and	Sout	h Boi	ınd	Ea	st Bo	und	We	st Bo	und
		. 1	91		4	l		1	1		
Control: Rights:	Split Ph	ase	lqS	it Ph	ase	Pr	otect	ed	Pr	otect	ed
Rights:	Inclu	de	i j	Inclu	de		Inclu	de		Inclu	de
Min. Green:	0 0	0	10		10	10	10	, ,	·	_ •	
Lancat	000	0 0	1 0	0	0 1	1 0	1	0 0	0 0	0	1 0
Lanes.											
Volume Module											
Base Vol:	0 0	.0	562		59		645		-	550	60
Growth Adj:	1.00 1.00	1.00	1.00		1.00	1.00					1.00
Initial Bse:	0 0	0	562	0	59		645	0	0	550	60
User Adj:	1.00 1.00	1.00	1.00		1.00	1.00					1.00
PHF Adj:	0.80 0.80	0.80	0.80		0.80	0.80		0.80	0.80		75
PHF Volume:	0 0	0	703	0	74	65	806			000	7.0
Reduct Vol:	0 0	.0	7.03	0	0 74	0 65	806		0	688	75
Reduced Vol:	1 00 7 00	1 00				1.00					1.00
PCE Adj: MLF Adj:	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		65				688	7.5
Final Vol.:			105		1	1					
Saturation F			1								
Sat/Lane:	1900 1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00 1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00		0.99	
Lanes:	0.00 0.00	0.00	1.00		1.00		1.00				0.10
Dinol Cot .	0 0	Ω	1805	0	1615	1805	1900	0	0		184
						1					
Canadity Ana	lusis Modu	1e:									
Vol/Sat:	0.00 0.00	0.00	0.39	0.00	0.05	****	0.42	0.00	0.00	****	0.41
Crit Moves:			****		o 30			0 00	0.00	0.33	0.33
Green/Cycle:	0.00 0.00	0.00	0.32	0.00	0.34	0.18	0.52	0.00		1.22	
Volume/Cap:			1.22	0.00	13.3	10.20	11 2	0.00	0.00	18.3	18.3
Uniform Del:	0.0 0.0				0.1	0.3		0.0		111	111.2
IncremntDel:	0.0 0.0		112.3	0.0	1.00		1.00			1.00	
Delay Adj:	0.00 0.00		131.0	0.0	13.4		16.8				129.5
Delay/Veh:	0.0 0.0				1.00		1.00			1.00	
User DelAdj:	1.00 1.00		131.0	0.0	13.4		16.8				129.5
AdjDel/Veh: HCM2kAvg:	10	0	32	:0	1	1	14	0	0	33	33
HUMZ KAVO I	*****		-		. —		4 1 4 1 1	مأق طه ملك ملك ملك داب		+++++	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************** Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray *********************************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.913 6 (Y+R = 4 sec) Average Delay (sec/veh):
77 Level Of Service: Loss Time (sec): Optimal Cycle: ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Permitted Permitted Rights: Include Include Include Include Min. Green: 0 0 0 10 0 10 10 10 0 0 10 10 Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 Volume Module: Base Vol: 0 0 0 562 0 59 52 645 0 550 0 Initial Bse: 0 0 0 562 0 59 52 645 0 0 550 0 75 PCE Adi: MLF Adj: Final Vol.: 0 0 0 703 0 74 65 806 0 0 688 75 _____| Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.70 1.00 1.00 1.00 0.99 0.99

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 0.90 0.10

Final Sat.: 0 0 0 1805 0 1615 1338 1900 0 0 1691 184 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.39 0.00 0.05 0.05 0.42 0.00 0.00 0.41 0.41 Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.43 0.00 0.43 0.46 0.46 0.00 0.00 0.46 0.46 Uniform Del: 0.0 0.0 0.0 14.8 0.0 9.5 8.3 13.7 0.0 0.0 13.3 13.3 IncremntDel: 0.0 0.0 0.0 15.2 0.0 0.1 0.1 13.7 0.0 0.0 9.8 9.8 Delay/Veh: 0.0 0.0 0.0 30.1 0.0 9.6 8.4 27.4 0.0 0.0 23.1 23.1 *****************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************** Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray ******************** Critical Vol./Cap. (X): 0.967 Cycle (sec): 120 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 176 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 0
 10
 10
 0
 0
 0
 10

 Lanes:
 0
 0
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 _____ Volume Module: 0 0 846 319 36 75 286 Base Vol: 0 0 0 99 0 Initial Bse: 0 0 0 99 0 36 75 286 0 0 846 319 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.03 0.05 0.18 0.00 0.00 0.78 0.78 *** **** Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.80 0.00 0.33 0.61 0.22 0.00 0.00 1.02 1.02 0.0 54.0 0.0 51.8 53.1 1.8 0.0 0.0 14.5 Uniform Del: 0.0 0.0 IncremntDel: 0.0 0.0 0.0 30.4 30.4 0.0 25.8 0.0 1.4 7.0 0.1 0.0 AdjDel/Veh: 0.0 0.0 0.0 79.8 0.0 53.2 60.1 1.9 0.0 0.0 44.9 44.9 HCM2kAvg: 0 0 0 7 0 2 4 3 0 0 63 63 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Cycle (sec): 120 Critical Vol./Cap. (X): 0.888 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 92 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Permitted
 Permitted

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 10
 10
 0
 0
 10
 10

 Lanes:
 0
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: Base Vol: 0 0 0 99 0 36 75 286 0 0 846 319 Initial Bse: 0 0 0 99 0 36 75 286 0 0 846 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.29 1.00 1.00 1.00 0.96 0.96 Final Sat.: 0 0 0 1805 0 1615 551 1900 0 0 1329 501 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.03 0.17 0.18 0.00 0.00 0.78 0.78 Crit Moves: **** 0.0 54.0 0.0 51.8 1.3 1.3 Uniform Del: 0.0 0.0 0.0 0.0 4.8 IncremntDel: 0.0 0.0 0.0 25.8 0.0 1.4 0.2 0.1 0.0 0.0 7.1 0.0 0.0 0.0 79.8 0.0 53.2 1.5 1.4 0.0 0.0 11.8 11.8 Delay/Veh: AdjDel/Veh: 0.0 0.0 0.0 79.8 0.0 53.2 1.5 1.4 0.0 0.0 11.8 11.8 HCM2kAvg: 0 0 0 7 0 2 2 2 0 0 35 35 ******************************

APPENDIX D – REGIONAL LAND USE DATA, AND EXISTING AND FUTURE NETWORK ASSUMPTIONS

A00-170\...\ALTS for EGARR Report.xls - Summary2

HIGGINS ASSOCIATES

TABLE 00: LAND USES FOR MODELING ORGANIZED BY CDP AND COMMUNITY AREA IN THE MONTERY COUNTY GENERAL PLAN UPDATE (BASELINE 2000-2001)

	Dwelling Po	Population V	Retail P Wholesale	Public & Office	Jobs	3	Pop	Saor	Housing Ratio
		CETIMATED				0	OBSERVED		
corporated Cities	2				:	100		010	
alinas Valley Cities	1.724	7,525	874	1,020	3,873	1,724	626,7	0,00	2 5
GONZAIGS	2.728	12,583	99	2,082	2,800	2,726	12,303	738	196
Gleenileid Klab Oliv	2.822	11,094	1,193	2,228	5,543	2,822	11,084	51,130	1 29
Salinar Salinar	39,659	143,778	11,744	22,772	51,332	96,65	11 834	4 127	1.63
Odinida	2,534	11,634	322	4,212	4,127	2,534	100	1,12	1600.00
Soledad The Prison		11,000	0	702	1,600	- 100	207 649	20.288	
subtotal:	49,466	197,612	14,594	33,017	69,075	49,466	710'/61	003.400	
								·	
eninsula Cities		700 7	A7.4	2517	4 258	3,334	4,081	4,258	1,28
Carmel	3,334	100,4	2 5	138	828	727	1,650	828	7.
Del Rey Oaks	727	0.65	452	171	103	8.537	21,014	3,102	0.38
Marina	8,537	21,014	900	17.018	31 104	13,382	29,674	31,104	2.32
Monterey	13,382	47.674	1.241	2 579	4.854	8,032	15,522	4,854	0.60
Pacific Grove	6,032	13,322	187	715	3300	87	28	3,300	37.93
Sand City	11 00 5	31.696	2,101	2,863	7,798	11,005	31,696	7,798	0.71
Seaside	45,104	103,898	13,098	28,440	55,244	45,104	103,898	55,2441	Company of the compan
177-17	04.569	304.510	27.692	61,457	124,319	94,570	301,510	124,512	
Combined Cities Total:	94,00	2							
Unincorporated Monterey County								9	3
CDP Areas	qua	1 901	88	318	900	609	1,901	009	6.6
Aromas	332	1.328	0	128	252	332	1,328	252	9.79
Boronda	45	120	20	92	195	42	150	185	95.0
Carmel Valley	2,105	4,700	210	888	1,189	2,105	8,724	3.045	2.08
Castroville	1,462	8,724	480	997,1	250	100	144	250	0.83
Chular	301	1,444	188	20.0	2 352	2.847	4,531	2,352	0.89
Del Monte Forest	2,847	L.C.		2007	i -1	1	i	4,	1
(Fort Ord) East Garrison	1	1 -	1 1	:1	:1	1	1	1	3 1
(Fort Ord) MBEST		1 501		0	422	542	1,591	422	0.78
Elkhorn	242	3.07R	28.	্ৰ	342	596	3,078	342	0.67
Las Lomas	13.0	300	75	185	750	135	8	750	5.56
Moss Landing	987	3,384	20	633	2,600	687	3,384	2,600	9.00
Pagalo Din Camor	503	2,009		0	193	- i	0 0, 0,	0000	3 6
Prine Califori	5,591	16,438	789	1,780	3,897	5,591	16,430	2,00,0	;
Rancho San Juan									
Rancho San Juan II		3	.;		6	187	501	80	0.48
San Ardo	167	201	Ε,	7.	8 4	20		48	
San Lucas	97	419	7	- E	204	178		5.	
Spreckels	176	485	11	5 6	1,384	210	-		
Toro	814	1,697	21	,	33 708	20.855	· v	23.7	1.14
Other Unincorporated Areas	20,855	51,613		1	23,100	27 428	Г	ŀ	
subtotal:	37,138	100,252	5,256	17,818	41,370	00110	1		ļ.,
	Dwelling	Population	Retail	Public &	Total	Census	Census	EDD	
	Cillis		3	ı			107 700	405 000	1.36
	1000								

	And the second of the second o	AND THE PERSON NAMED IN COLUMN			0 7777	Total	Jobs/
		Dwelling Units	Population	Retail Wholesale	Office	Jobs	Housing Ratio
ncorporated Cities	s,				1		0
Salinas Valley Clues	Contales	4,509	16,781	858	1,498	9,636	6
3	Greenfield	6,687	24,861	947	2,284	3,310	1.05
	King City	6,084	21,145	1,632	23 135	88.88	1.21
	Salinas	55,437	192,677	741		7 971	1.47
	Soledad	5,435	20,697		0	1,600	1,600
Constitution of the Constitution	The Prison	107.00	207.464	22.064	45.262	90,157	- - -
	subtotal:	(0,100	101/107				1
7.000						į	,
Peninsula ciues	Cormol	3,565	4,797	477	1,048	3,676	3 5
	Calmel Dot Doy Oake	762	1,783	482	33	9 6	0.00
	Marina	12,225	31,898	1,665	5,594	11,950	2 13
	Monterey	18,511	36,324	6,934	770'BL	076,45	: c
	Pacific Grove	8,770	17,612	1,461	3,200	3 203	5.47
•	Sand City	288	1,807	818	3.052	10.995	0.79
	Seaside	13,969	40,848	140,0	20,002	70.493	1.25
	subtotal:	56,388	137,045	15,860	32,913	10,440	1
	Combined Cities Total:	134,621	424,206	37,924	78,175	160,580	1.19
Inincornorated	Industrialist Monterey County						
Onlicorporated	farment farment		1000		176	, R.	0.89
	Aromas	651	2,031		4 8	606	1.13
	Boronda	807			÷	216	1.69
	Bradley	128		423	1.494	2,239	1.01
	Carmel Valley	2,209	12,022		2.243	4,028	1.20
	Castroville	240,0			8	354	1.04
	Chular	- to c			2,447	2,662	Ē
	Del Monte Forest	4 470	A 591	79	2000	164	-
	(Fort Ord) East Garrison	766			3,075	4,552	20.05
	(Fort Ord) MBES I	3			Ξ	415	0.77
	EIKNOITI	202		34	ĸ	388	19:0
	Las Lomas	135		8	219	747	5.03
	Moss Landing	1 687	· cc			3,269	1.86
	Pajaro	2 030		212		1,517	0.75
	Pine Canyon	10.040		-	2,606	5,411	0.54
	Prunedale	4 073		1.146	-	4,923	-
	Rancho San Juan	200			371	1,287	0.29
	Rancho San Juan II	190				475	1.82
	San Ardo	107	•			127	0.20
·	San Lucas	670		129	88	1,659	9.43
	Spreckels	B14	-		F	249	0.31
	Toro	200	-	4	11.487	26,956	1.27
	Other Unincorporated Are	21,140				63,084	1.08
100000000000000000000000000000000000000	subtotal:	107,00					
	Triple land of the state of the		590.700		Target Jobs: 22:	223159	
	andor ragini					er di	
		Dwelling	Population	Retail	Public &	Total	
		- Infi		Wholesale	CIIICE	Jobs	1

A List of Road and Highway Projects Used in the Traffic Model for The East Garrison Specific Plan

List I: Road and Highway Projects Recently Constructed and Included in the 2002-2003 Traffic Model Network for the East Garrison Specific Plan -INCLUDED IN THE MODEL-

- A. The San Miguel Interchange at Highway 101 in Prunedale.
- B. The Imjin Parkway and 12th Street Improvements between Highway 1 and Reservation Road.
- C. Blanco Road Widening and Reservation Road Widening between MBEST Driveways and Imjin Parkway respectively.
- D. California Avenue, construct California Avenue between Imjin Parkway and Reindollar Avenue in Marina.
- E. Boronda Road, extend (2) lane arterial between Constitution and Williams.
- F. The collector Street Network in North and East Salinas.
- G. Del Monte Avenue Improvements and widening (1998-2002 time frame) between Washington and Highway 1in Monterey City.
- H. Lighthouse Avenue, include left turn prohibitions.
- I. Presidio of Monterey, exclude through trips in the Presidio of Monterey caused by gate closures.
- J. Carmel Valley Road, widen to 4 lanes east of Highway 1.
- K. Bardin Road widening at Sherwood and North Main Street.

List II: <u>Projects with Funding and High a Probability of Being</u> <u>Built by 2020 and Included in the 2022 Traffic Model Network for the East Garrison Specific Plan.</u> <u>-INCLUDED IN THE MODEL-</u>

- A. The Prunedale Improvement Project (the PIP) between Crazy Horse and Russell/Espinosa.
- B. The Salinas Road Interchange at Highway 1 and improvements between the county line and ¼ mile south of Salinas Road.
- C. Airport Road Interchange at Highway 101.
- D. Highway 1, add (1) Northbound lane by Carmel between Rio Road and Carmel Valley Road.
- E. California Avenue, upgrade California Avenue between Reindollar and Carmel Avenue.
- F. Crescent Court, construct collector street to Abrams.
- G. River Road, widen to four lanes between Highway 68 and Las Palmas.
- H. Highway 68, widen to (4) lanes between Ragsdale and Highway 218.

- I. Davis Road, widen to (4 lanes) between Blanco Road and Salinas City Limit (FORA).
- J. Del Monte Boulevard widening at select location in the City of Monterey: (6) lanes west of El Estero; (6) lanes between El Estero and Aguajito; (5) lanes between Aguajito and Sloat.
- **K.** City of Monterey Operational Improvements including additional lanes at the following intersections: Del Monte and Washington, Freemont and Camino Aguaito, Del Monte and Figueroa.
- L. Del Monte Extension, Construct (2) lane collector between 2nd Avenue and Reindollar Avenue in Marina (FORA).
- M. 2nd Avenue, upgrade to (4) lane arterial between Light fighter Drive and Imjin Parkway.
- N. Imjin Parkway, widen to (4) lanes between California Avenue and Reservation Road (FORA).
- O. 8th Street, construct (2) lane arterial from Highway 1 overpass to Inter-Garisson (FORA).
- P. Inter-Garrison, upgrade to a (2) lane arterial between 8th Street and Reservation Road (FORA).
- Q. Gigling Road, construct (4) lane arterial between General Jim Moore Boulevard to Eastside Road (FORA).
- R. 2nd Avenue, construct (4) lane arterial from Light fighter Drive to Del Monte Boulevard (FORA).
- S. General Jim Moore Boulevard, widen to (4) lanes between Normandy Road and Coe Avenue. Update General Jim to artrial status between Highway 218 and Coe Avenue (FORA).
- T. Salinas Avenue, construct a (2) lane arterial from Salinas Avenue to Abrams Drive near Barth Court (FORA).
- U. Eucalyptus Road, upgrade (2) lane collector from General Jim Moore Blvd. to Parker Flats (FORA).
- V. Eastside Road, construct (2) lane arterial from intersection with Gigling Road northeasterly to intersection with Inter-Garrison Road and Imjin Road (FORA)
- W. The Highway 101 & Highway 156 interchange Improvements including Prunedale North and Prunedale South Connection and Highway 156 on ramp.
- X. OPTIONAL (Not Used for E.Gar): Open York Road between Highway 68 and South Boundary Road; open South Boundary Road to General Jim Moore Boulevard, construct a collector street between Upper Ragsdale and South Boundary Road.
- Y. OPTIONAL(Not Used for E.Gar): Holman Highway (68), widen Holman Highway to (4) lanes between Highway 1 and ¾ mile past CHOMP driveway.

List III: <u>Projects of Un-certain Funding with a Low Probability of Being Built by 2020 and Included in the "build-out" 2020-22 Traffic Model Network for the City of Monterey General Plan Update. – NOT INCLUDED IN THE MODEL-</u>

- A.) Highway 1, construct addition (1) southbound lane between Freemont Interchange and Del Monte Interchange.
- B.) Highway 156, widen to (4) lanes from Highway 101 to Highway 183.
- C.) Blanco Road, widen to (4) lanes from MBEST to Davis Road.
- D.) Highway 218, widen to (4) lanes between General Jim Moore Boulevard and Highway 68.
- E.) Highway 1 in Carmel, construct additional lanes and turn channels consistent with the Highway PSR.
- F.) Dunbarton Road and San Juan Road interchange at Highway 101.
- G.) Highway 68 Bypass, construct (4) lane highway through Fort Ord between Toro and the intersection of Highway 218 and Existing Highway 68.
- H.) Blanco-Imjin Connector, extend Blanco Road to Imjin Parkway (4) lanes.
- I.) Reservation Road, widen to (6) lanes between Del Monte and Crescent and Salinas Avenue and Reservation; also construct (4) lane arterial between UC MBEST and Watkin's Gate.
- J.) The Prunedale Bypass between Crazy Horse and Russell/Espinosa.
- K.) Highway 1 between Castroville and the Santa Cruz County Line, widen to (4) lanes.
- L.) The Westside Bypass, construct (4) lane bypass between Boronda Road interchange and Blanco Road west of the Boronda Community.
- M.) The Rossi Street Extension, construct (4) lane arterial west of intersection of Rossi Street and Davis Road.
- N.) The Russell Road extension, construct a (4) lane arterial between Highway 101 and Old Stage Road.
- O.) The Salinas General Plan Capital Improvements: (See the Salinas General Plan) capacity enhancements include an Alvin Road over crossing, Boronda Road widening to (6) lanes, Williams Road extension, Kern Street Extension and others.
- P.) The Eastside Bypass, construct new (4) lane Parkway from the midpoint of the Prunedale Bypass to a proposed interchange close to Harris Road and Highway 101.
- Q.) LaSalle and Hilby Gates, provide access to Seaside at General Jim Moore.
- R.) The Freemont Interchange at Highway 1, construct alternative access and egress to Del Monte and Freemont and Coe.
- S.) Interchange at Highway 156 and Castroville Boulevard.

A00-170\...\ALTS for EGARR Report.xls - Summary2

HIGGINS ASSOCIATES

TABLE 00: LAND USES FOR MODELING ORGANIZED BY CDP AND COMMUNITY AREA IN THE MONTERY COUNTY GENERAL PLAN UPDATE (BASELINE 2000-2001)

Incorporated Cities Salinas Valley Cities Gonzales Greenfield	Units	Population	Wholesale	Office	Sqof	ΩΩ	Pop	JOBS	Housing Ratio
Salinas Valley Citles Gonzales Greenfield		ESTIMATED				-	OBSERVED		
Gonzales Greenfield	1	-	į		9.679	1,757	7.575	3.673	2 13
Greeniteid	47/1	1,525	440	2 080	0000	2 728	12.583	2,800	1.03
	2,720	500,71	100		2,000	2 822	11 004	5 738	196
King City	2,622	450.034	1,180		E1 223	30,650	_	51 332	
Salinas	39,659	143,776	17.44		200,10	25.00 25.00		4 127	
Soledad	2,534	11,634	322	212,4	12/	400.4	11 000	1,600	Ŧ
The Prison		000	2	707	0001	907 07	ľ	896 09	۱
subtotal:	49,466	197,612	14,594	33,017	69,076	43,450	1	007,00	2000
	-					_		_	
Peninsula Cities	4000	190	87.4	2.517	4 258	3.334	4.081	4.258	1.28
Carmel	4,004	4,00	100	128	808	727	1,650	828	7
Del Rey Oaks	171	24.050	724	71.	3 102	8 537	21 014	3.102	0.38
Marina	7000	410.14	900 0	47.010	31 104	13 382		31.104	2.32
Monterey	13,302	45.5074	1,241	0.570	4854	R 032		4.854	0.60
Pacific Grove	250,0	23,056	787	71.5	3300	87		3,300	37.93
Sand City	11.005	31.698	2,101	2.863	2,798	11,005	31	7,798	0.71
subtotal:	45,104	103,898	13,098	28,440	55,244	45,104	103,898	55,244	100 mm
Combined Cities Total:	94.589	301.510	27.692	61,457	124,319	94,570	301,510	124,512	
mor callo pallon		<u>!</u>	i						
Unincorporated Monterey County									
CDP Areas	1		Č		000	900	1 00 1	900	66.0
Aromas	903	1,901	8	5 5	250	333		252	
Boronda	25.5	926,	5	2 4	104	42	120	195	
Bradley	7 5	720	2 2		1 180	2105	4	1 189	
Carmel Valley	00.0	5,0	789	-	3.045	1 482		3.045	
Castroville	462	0,724	50		250	30.		250	0.83
Chular	900	4 F24	180	2 0.28	2 352	2 647	4.531	2.352	
Del Monte Forest	7,047	50,4			1	1	1	1	
(Fort Ord) East Garrison	1	i	HJ	. :	l A	()	1	1	ı
(For Ord) MBES)	1	1	⊹c I	1	422			422	0.78
Elkhorn	7 90	1,08 170 170	0 6	ח ע	342	298	3.078	342	0.57
Las Lomas	125	000	3 2	185	750	135		750	
Moss Lanuing	867	3.384	200	833	2.600	667	·en	2,600	3.90
agino O	503	2,009	0	0	193	٥		0	
Prinedale	5.591	18.438	789	1,780	3,897	5,591	16,438	3,897	
Rancho San Juan									
Rancho San Juan II					9				
San Ardo	187	501	Ξ.	23	8	187		80	
San Lucas	46	419	0		48	97		84	
Spreckels	178	465	=	_	1,594	178		1,594	
Toro	814	1,697	5 5		20	814	1,697	20 20	90.0
Other Unincorporated Areas	20,855	51,613	3,220		23,706	20,855	1	23,700	
subtotal:	37,138	100,252	5,256	17,818	41,370	37,138	100,252	41,370	
	Dwelling Units	Population	Retall Wholesale	Public & Office	Total Jobs	Census	Census	EDD	
Table Comment	424 707	404 763	22 0.47	1	165 680	134 70B	401 762	165 882	1.26

TABLE I, ALTERNATIVE 1: LAND USE ASSUMPTIONS FOR MODELING ORGANIZED BY CDP AND COMMUNITY AREA IN 2020 SEVEN (7) COMMUNITIES WITH <u>ADJUSTED</u> CITY GROWTH

Contracted Cities Contracted Contra	858 1,498 947 2,284 1,632 2,839 7,886 33,135		
Coling	W		
10 10 10 10 10 10 10 10			1
Greenfield 6,887 24,861 E King City 6,084 21,145 16 E Salinas 5,437 17,145 17,1	.,		0.89
King City 6,084 21,145 16 Salimas 56,437 1145 115 Solediad 5,437 116,000 12,817 17 Solediad 5,435 28,71 17 17 Solediad 5,435 28,71 17 17 Boll Rey Oaks 12,225 31,939 1,6 1,7 Maritia 12,225 31,939 1,6 1,7 1,1 Sand City 8,70 1,807 1,80 1,6 1,1 1,1 1,1 1,2			20.0
Salinas S6,437 192,877 178 Solected 1 1,000 The Prison subtorial: 78,133 227,161 226 Cermel Solected 762 1,763 1,000 The Prison subtorial: 762 1,763 1,000 Manutery Cave 1,225 31,999 1,18 Monterey Cover 1,225 31,999 1,18 Sand City Solected 1,18,12 1,18 Solected Solected 1,18 So			9.
Solected 5,435 20.697 The Phison subtotat: 78,133 2817161 222 Cerimel 1,000 Del Rey Carls Monterey Pacific Grove 8,170 Seaside 1,807 Combined Cities Total: 13,969 Governmel Valley 2,209 Seasivalle 2,209 Seasivalle 2,209 Seasivalle 2,209 Seasivalle 2,209 Seasivalle 1,807 Commel Valley 2,209 Seasivalle 3,41 Seasivalle 3,42 Construction MeEST 2,209 Seasivalle 2,209 Seasivalle 3,41 Seasivalle 3,42 Construction MeEST 2,209 Seasivalle 3,43 Seasivalle 3,43 Seasivalle 3,44 Seasivalle 3,44 Seasivalle 1,897 Hone Canyon 1,887 Sean Auton 2,999 Sean Auton 3,999 Sean Auton 3,999 Sean Auton 3,999 Sean Auton 3,999 Sean Auton 4,433 Spreckels 1,143 Spreckels 1,143 Spreckels 1,143 Other Unincomportated Are 21,143 Ap777 Ap77			7
11,000			1.47
Carmel 3,585 4,797 72 1163 287,161 222 Barrier 12,225 31,696 11,181 15,225 31,696 11,182 11,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,696 11,181 15,225 31,296 31,	0	1,600	1,600
Del Rey Oaks	64 45,262	90,157	1.15
Marities 3,585 4,797 Del Rey Cakks 1,225 1,783 Marities 1,225 1,696 1,1812 Pacific Grove 8,770 17,812 1,595 Sand City 8,770 1,7812 1,595 Monterey County 13,999 40,346 1,591 Bradley 2,299 5,022 Bradley 2,299 5,022 Castroville 3,41 1,569 Elkhom Forest 2,847 4,531 Fler of city Bress 2,847 4,531 Fler of city Bress 2,847 4,591 Fler of city Bress 2,847 4,591 Fler of city Bress 3,078 Moss Landing 1,887 4,814 Philano Canyon 2,030 6,703 Prunedale 4,073 12,688 1,8167 San Ado Juan 4,343 13,667 San Ado Juan 4,343 13,667 San Ado Juan 4,343 14,687 Other Unincomporated Are 21,143 44,777 Subrockels 8,8287 161,066 9,94			
Centrel 3.885 4.787 Del Rey Caks Martine Martine Martine Martine Martine 1,225 31,696 1,18 12 Seaside Seaside Seaside Seaside Combined Cities Total: 13,4827 424,206 Aromas Monterey County Aromas Brondia			9
Marina 12,255 31,696 1,169 1	*	3,876	<u>-</u>
Martine Monitery (12.25 31.696 l.f. Martine Monitery (15.11 38.324 8.16 Monitery (15.11 38.324 8.16 Searic Grove (15.11 38.324 8.17 1.1812 1.1807 (15.11 38.324 8.1807 8.1	462 133		<u>5</u>
Monteley 16,511 38,324 8,5 Pacific Grove 3,100 5,60 Sand City 1,101 1,101 Seaside 1,107 1,101 Seaside 1,107 1,101 Combined Cities Total: 13,669 137,046 137,046 Aronias 12,102 1,101 Brondley 1,203 1,203 Brondley 1,203 1,203 Castroville 3,342 1,2,509 Chullar City 1,201 1,501 Chullar City 1,201 1,501 Chullar City 1,201 1,501 Chullar City 1,201 1,501 Chullar City 1,501 1,501	1,865 5,594	11,950	0.98
Sand City Size 17, 15, 25, 26, 26, 26, 26, 26, 26, 26, 27, 27, 27, 27, 27, 27, 27, 27, 27, 27	-		2.12
Send City Service 1.807 Seaside subtorei: 66.388 1.807 Seaside combined Cities Total: 13,999 40,946 37,14 Aromas Acomas 651 2.031 Belonoida 67 3.209 5.022 Carmel Valley 2.209 5.022 Chular Ord) Meley 3.342 12.509 Chular Del Monte Erest 2.409 3.41 1.508 Chular City Meley 2.209 5.022 Chular Chular 2.409 3.42 12.509 Chular Chular 2.409 3.42 12.509 Chular Les Lomas 5.00 3.002 Felori City Meley 2.209 5.022 Chular Chular 2.409 3.42 15.609 Felori City Meley 2.209 5.022 Felori City Meley 2.209 5.022 Felori City Meley 2.209 5.022 Felori City Meley 2.209 5.023 1.1 Fancho San Juan II 4.707 12.608 Felori City Meley 2.209 5.006 San Lucas 625 2.056 San Lucas 625 2.056 San Lucas 625 2.056 San Lucas 625 2.056 San Lucas 641 1.697 Felori City Meley 641 1.697 Felori			0.56
Seasible 13,959 40,846 31, 20,000 31, 32, 32, 33, 34, 34, 34, 34, 34, 34, 34, 34, 34		3,203	6.47
Combined Cities Total: 134,521 424,206 37,045 16,000	6	10,995	0.79
ated Monterey Country Aromas Boronda Brounda	160 32,913	70,423	1,25
Acombined Cities Total: 134,621 424,266 37, are defined Monterey Country			
Aromes 651 2,031 Aromes 667 3,201 Bunnda 172 3,801 Bunnda 172 3,801 Bunnda 1,209 5,025 Carmel Valley 2,209 5,022 Castroville 3,342 1,5,509 Chular 1,569 3,41 1,5,509 Chular 1,569 1,591 Chular 1,591	124 78,175	160,580	1.19
Acomas			
657 3, 201 128 367 2, 209 5, 502 3, 342 12, 508 3, 342 12, 508 2, 347 4, 531 1,470 4, 531 1,687 8, 484 4,073 12, 688 4,073 12, 688 10, 040 30, 231 4,073 12, 688 1,687 4, 488 1,687 16, 688 1,687 16, 688	97.4	, ZB 4	0 80
128 367 2.209 5.022 3.342 12.509 3.41 1.568 2.647 4.531 1.470 689 542 1.581 596 3.078 596 3.078 1.640	100	<u> </u>	- -
2,202 3,342 12,509 3,41 15,609 3,41 15,609 3,41 15,609 1,470 4,691 2,470 4,691 1,691 2,030 9,709 10,040 30,078 1,040 30,07		218	
2,209 5,022 2,342 12,509 3,41 1,569 2,647 4,531 1,470 4,591 596 3,076 1,887 8,484 1,040 30,231 1,4,073 1,040 30,231 1,4,073		0 0 0	3
3,42 12,509 3,42 15,509 3,41 1,569 2,647 4,531 2,727 669 3,727 669 3,728 1,681 8,484 4,073 12,688 4,343 13,667 4,043 13,667 2,143 46,777 4,685 614 1,697 61,1666 9	1,494	2,239	5 5
2 847 4 531 1,470 4,691 527 689 542 1,591 596 3,078 1,687 8,484 2,030 8,703 1, 4,073 12,688 1, 4,073 12,688 1, 4,073 12,688 1, 4,073 12,688 1, 625 2,096 625 2,096 614 1,697 4, 621 13,867 1,698 625 2,096 625 2,096 627 1,695 8,		4,026	3
2647 4,531 1,470 4,531 227 689 542 1,591 584 3,078 586 3,078 158 3,00 1,687 8,484 4,073 12,688 4,073 12,688 6,04 1,066 6,04 1,066 6,04 1,066 6,04 1,066		354	5
1,470 4,891 227 689 542 1,588 542 1,588 136 3,078 1367 8,484 2,030 8,703 10,040 30,231 4,073 12,688 4,343 12,688 22,1367 845 178 485 178 485 21,143 48,777 83,567 83,567 83,567 83,567 83,567 848 845 846 85,567 86,568 86,567 86,568 86,567 86,568 86,567 86,568	2,4	2,862	5
227 689 542 1,581 586 3,078 586 3,078 136 3,078 1,687 8,484 4,073 12,688 4,343 12,688 4,343 12,687 281 782 625 2,095 625 2,095 176 485 176 485 177 485 184 1,697 21,143 48,777			Ξ
542 1,591 596 3,078 135 300 1,687 8,484 2,030 0,703 10,040 30,231 4,073 12,688 4,343 13,867 281 782 825 2,056 178 485 614 1,697 21,143 46,777	3,075		20.05
se 596 3,078 Indiring 135 300 Indiring 135 300 Indiring 1,687 6,484 Indiring 10,040 30,231 San Juan II 2,037 12,688 San Juan II 281 782 Indiring 178 485 Indiring 118 46,777 Intropressed Are 21,143 46,777 Intropressed Are 21,143 46,777 Intropressed Are 21,143 46,777	=	5	0.77
135 300 1,887 8484 2,030 6,703 10,040 30,231 4,073 12,688 4,343 113,667 281 7,82 825 2,056 176 485 614 1,895 614 1,895 615 1,143 46,777		368	5.6
1,887 8,484 2,030 6,703 10,040 30,231 4,073 12,888 4,043 13,667 281 785 20,56 625 2,056 176 485 614 1,687 cotat: 68,267 161,056		/4/	3
2,030 6,703 10,040 30,231 4,073 12,686 4,43 13,667 281 782 825 2,056 178 485 614 1,695 forlar: 68,267 161,056		3,269	96.
10,040 30,231 4,073 12,688 4,343 13,667 281 792 825 2,056 176 485 614 4,697 orat: 68,267 161,056	212 225	1,517	9.7
4,073 12,888 4,343 12,867 281 79,5 625 2,056 176 4,85 614 1,697 70 Are 21,143 46,777		5,411	0.54
4,343 13.667 281 7792 825 2,056 176 485 614 1,697 rod Are 21,143 46,777 rotal: 68,267 161,056	1,148 1,591	4,923	<u>진</u>
281 792 825 2,056 176 485 814 1,697 odare 21,143 49,777 colar: 68,267 161,056	123 371	1,267	0.29
625 2.056 178 485 118 1.697 corporated Are 21.143 46.777 subtotal: 68,267 161,056	73 366	475	1.82
176 485 614 1.697 corporated Are 21,143 46,777 subtotal: 58,267 161,056	.0	127	0.20
814 1,697 Unincorporated Are 21,143 46,777 subtotal: 58,267 161,056	129 86	1,659	9.43
21,143 46,777 68,267 161,056		249	.3
58,267 161,056	,374 11,487	28,956	1.27
	9,403 28,122	63,084	1.08
Target Population: 690,700	Target Jobs: 223159		
Dwelling Population Retail Units Wholesale	Public & Office	Total Jobs	
Countywide Total: 192,788 585,262 47,327	27 106,297	223,664	1.16

A List of Road and Highway Projects Used in the Traffic Model for The East Garrison Specific Plan

List I: Road and Highway Projects Recently Constructed and Included in the 2002-2003 Traffic Model Network for the East Garrison Specific Plan -INCLUDED IN THE MODEL-

- A. The San Miguel Interchange at Highway 101 in Prunedale.
- B. The Imjin Parkway and 12th Street Improvements between Highway 1 and Reservation Road.
- C. Blanco Road Widening and Reservation Road Widening between MBEST Driveways and Imjin Parkway respectively.
- D. California Avenue, construct California Avenue between Imjin Parkway and Reindollar Avenue in Marina.
- E. Boronda Road, extend (2) lane arterial between Constitution and Williams.
- F. The collector Street Network in North and East Salinas.
- G. Del Monte Avenue Improvements and widening (1998-2002 time frame) between Washington and Highway 1in Monterey City.
- H. Lighthouse Avenue, include left turn prohibitions.
- I. Presidio of Monterey, exclude through trips in the Presidio of Monterey caused by gate closures.
- J. Carmel Valley Road, widen to 4 lanes east of Highway 1.
- K. Bardin Road widening at Sherwood and North Main Street.

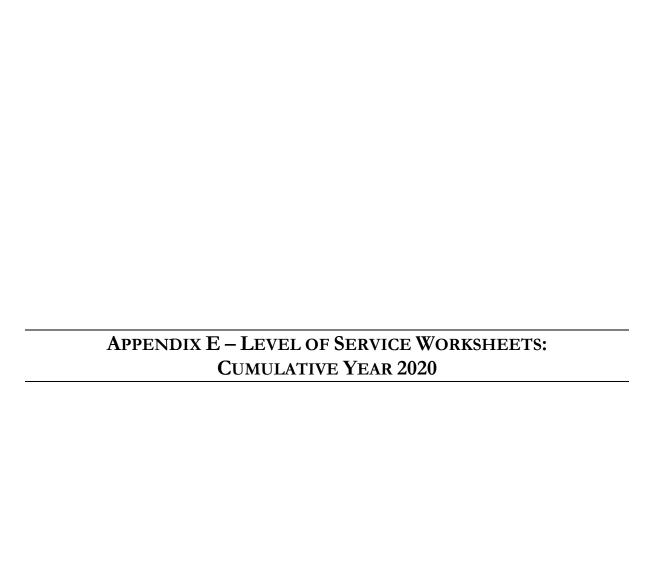
List II: <u>Projects with Funding and High a Probability of Being</u> <u>Built by 2020 and Included in the 2022 Traffic Model Network for the East Garrison Specific Plan.</u> <u>-INCLUDED IN THE MODEL-</u>

- A. The Prunedale Improvement Project (the PIP) between Crazy Horse and Russell/Espinosa.
- B. The Salinas Road Interchange at Highway 1 and improvements between the county line and ¼ mile south of Salinas Road.
- C. Airport Road Interchange at Highway 101.
- D. Highway 1, add (1) Northbound lane by Carmel between Rio Road and Carmel Valley Road.
- E. California Avenue, upgrade California Avenue between Reindollar and Carmel Avenue.
- F. Crescent Court, construct collector street to Abrams.
- G. River Road, widen to four lanes between Highway 68 and Las Palmas.
- H. Highway 68, widen to (4) lanes between Ragsdale and Highway 218.

- I. Davis Road, widen to (4 lanes) between Blanco Road and Salinas City Limit (FORA).
- J. Del Monte Boulevard widening at select location in the City of Monterey: (6) lanes west of El Estero; (6) lanes between El Estero and Aguajito; (5) lanes between Aguajito and Sloat.
- K. City of Monterey Operational Improvements including additional lanes at the following intersections: Del Monte and Washington, Freemont and Camino Aguaito, Del Monte and Figueroa.
- L. Del Monte Extension, Construct (2) lane collector between 2nd Avenue and Reindollar Avenue in Marina (FORA).
- M. 2nd Avenue, upgrade to (4) lane arterial between Light fighter Drive and Imjin Parkway.
- N. Imjin Parkway, widen to (4) lanes between California Avenue and Reservation Road (FORA).
- O. 8th Street, construct (2) lane arterial from Highway 1 overpass to Inter-Garisson (FORA).
- P. Inter-Garrison, upgrade to a (2) lane arterial between 8th Street and Reservation Road (FORA).
- Q. Gigling Road, construct (4) lane arterial between General Jim Moore Boulevard to Eastside Road (FORA).
- R. 2nd Avenue, construct (4) lane arterial from Light fighter Drive to Del Monte Boulevard (FORA).
- S. General Jim Moore Boulevard, widen to (4) lanes between Normandy Road and Coe Avenue. Update General Jim to artrial status between Highway 218 and Coe Avenue (FORA).
- T. Salinas Avenue, construct a (2) lane arterial from Salinas Avenue to Abrams Drive near Barth Court (FORA).
- U. Eucalyptus Road, upgrade (2) lane collector from General Jim Moore Blvd. to Parker Flats (FORA).
- V. Eastside Road, construct (2) lane arterial from intersection with Gigling Road northeasterly to intersection with Inter-Garrison Road and Imjin Road (FORA)
- W. The Highway 101 & Highway 156 interchange Improvements including Prunedale North and Prunedale South Connection and Highway 156 on ramp.
- X. OPTIONAL (Not Used for E.Gar): Open York Road between Highway 68 and South Boundary Road; open South Boundary Road to General Jim Moore Boulevard, construct a collector street between Upper Ragsdale and South Boundary Road.
- Y. OPTIONAL(Not Used for E.Gar): Holman Highway (68), widen Holman Highway to (4) lanes between Highway 1 and ¾ mile past CHOMP driveway.

List III: <u>Projects of Un-certain Funding with a Low Probability of Being Built by 2020 and Included in the "build-out" 2020-22 Traffic Model Network for the City of Monterey General Plan Update. – NOT INCLUDED IN THE MODEL-</u>

- A.) Highway 1, construct addition (1) southbound lane between Freemont Interchange and Del Monte Interchange.
- B.) Highway 156, widen to (4) lanes from Highway 101 to Highway 183.
- C.) Blanco Road, widen to (4) lanes from MBEST to Davis Road.
- D.) Highway 218, widen to (4) lanes between General Jim Moore Boulevard and Highway 68.
- E.) Highway 1 in Carmel, construct additional lanes and turn channels consistent with the Highway PSR.
- F.) Dunbarton Road and San Juan Road interchange at Highway 101.
- G.) Highway 68 Bypass, construct (4) lane highway through Fort Ord between Toro and the intersection of Highway 218 and Existing Highway 68.
- H.) Blanco-Imjin Connector, extend Blanco Road to Imjin Parkway (4) lanes.
- I.) Reservation Road, widen to (6) lanes between Del Monte and Crescent and Salinas Avenue and Reservation; also construct (4) lane arterial between UC MBEST and Watkin's Gate.
- J.) The Prunedale Bypass between Crazy Horse and Russell/Espinosa.
- K.) Highway 1 between Castroville and the Santa Cruz County Line, widen to (4) lanes.
- L.) The Westside Bypass, construct (4) lane bypass between Boronda Road interchange and Blanco Road west of the Boronda Community.
- M.) The Rossi Street Extension, construct (4) lane arterial west of intersection of Rossi Street and Davis Road.
- N.) The Russell Road extension, construct a (4) lane arterial between Highway 101 and Old Stage Road.
- O.) The Salinas General Plan Capital Improvements: (See the Salinas General Plan) capacity enhancements include an Alvin Road over crossing, Boronda Road widening to (6) lanes, Williams Road extension, Kern Street Extension and others.
- P.) The Eastside Bypass, construct new (4) lane Parkway from the midpoint of the Prunedale Bypass to a proposed interchange close to Harris Road and Highway 101.
- Q.) LaSalle and Hilby Gates, provide access to Seaside at General Jim Moore.
- R.) The Freemont Interchange at Highway 1, construct alternative access and egress to Del Monte and Freemont and Coe.
- S.) Interchange at Highway 156 and Castroville Boulevard.



ے میں بنا جے بران کے بیان کے بران کے بران کے بران کے بات میں کے بران کے بیان کے بران کے بران کے بران کے بران ک میں بران کا جاتا ہے بیان کے بران کے بران کے بران کے بران کی بران کے بران کے بران کے بران کے بران کے بران کے بر Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd ******************* Average Delay (sec/veh): 10.8 Worst Case Level Of Service: ********************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 0 0 0 0 0 1! 0 0 0 0 0 1 0 0 0 0 Volume Module: Base Vol: 0 0 0 162 22 1 0 5 3 31 1 PHF Volume: 0 0 0 284 39 2 0 9 5 54 2 0 Reduct Vol: 0 0 0 284 39 2 0 9 5 54 2 0 Final Vol.: 0 0 0 284 39 2 0 9 5 54 2 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: 2 xxxx xxxx xxxxx 14 xxxx xxxxx Cnflict Vol: xxxx xxxx xxxx 122 125 Potent Cap.: xxxx xxxx xxxx 878 770 1088 xxxx xxxx xxxx 1617 xxxx xxxxx Move Cap.: xxxx xxxxx xxxxx 855 743 1088 xxxx xxxx xxxxx 1617 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.33 0.05 0.00 xxxx xxxx xxxx 0.03 xxxx xxxx Level Of Service Module: 7.3 xxxx xxxxx LOS by Move: * * * * * * * * A * * LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT Shrd StpDel:xxxxx xxxxx xxxxx xxxxx 11.9 xxxxx xxxxx xxxxx xxxxx 7.3 xxxx xxxxx A * Shared LOS: * * * * B * * * * XXXXXX 11.9 XXXXXX ApproachDel: xxxxxx В ApproachLOS:

ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd **************** Average Delay (sec/veh): 8.3 Worst Case Level Of Service: B[10.1] ************************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R______| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 Lanes: Volume Module: Base Vol: 0 0 0 101 2 7 1 7 5 53 6 Initial Bse: 0 0 0 101 2 7 1 7 5 53 6 0 PHF Volume: 0 0 0 119 2 8 1 8 6 62 7 0 Reduct Vol: 0 0 0 119 2 8 1 8 6 62 7 0 _____| Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx _____| Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 145 148 7 7 xxxx xxxxx 14 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 852 747 1081 1627 xxxx xxxxx 1617 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 825 717 1081 1627 xxxx xxxxx 1617 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.14 0.00 0.01 0.00 xxxx xxxx 0.04 xxxx xxxx _____ Level Of Service Module: Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx 7.2 xxxx xxxxx 7.3 xxxx xxxxx LOS by Move: * * * * A * * A * * LT - LTR - RT Movement: Shared LOS: * * * * B * * * * A * 10.1 ApproachDel: xxxxxx XXXXXX XXXXXX

В

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd ************** Average Delay (sec/veh): 5.0 Worst Case Level Of Service: B[13.3] ************************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module:
Base Vol: 2 7 29 34 14 6 4 94 4 91 39 PHF Volume: 2 9 36 42 17 7 5 116 5 112 48 51 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 2 9 36 42 17 7 5 116 5 112 48 51 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 439 452 119 449 429 73 99 xxxx xxxxx 121 xxxx xxxxx Potent Cap.: 532 506 939 524 521 994 1507 xxxx xxxxx 1479 xxxx xxxxx Move Cap.: 480 464 939 465 478 994 1507 xxxx xxxxx 1479 xxxx xxxxx Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxx xxxx 0.08 xxxx xxxx Level Of Service Module: LOS by Move: * * * * * * * A * * A * * * Movement: LT - LTR - RT Shared LOS: * B * * B * * * * * * * * * * * * * ApproachDel: 10.1 13.3 xxxxxx xxxxxx ApproachDel: 10.1
ApproachLOS: B В

		باليد شديشات	بدعة بشاعد عداعة	برشات بيديد تد								
		ī	evel C	f Serv	rice C	Computa	tion F	Report	: "			
			signal									
*****	****	****	****	*****	****	*****	*****	****	*****	****	****	*****
Intersection ********							*****	****	*****	*****	****	*****
Average Delay												17.1]
Approach:			und									
Movement:	L -	- T	- R	L -	- ' 'T	- R	L -	- T	- R	L -	- T	- R
Control:	St	op Si	gn	St	op Si	gn	Unc	contro	olled	Und	contro	lled
Rights:		Inclu	ıde		Inclu	ıde		Inclu	ıde		Inclu	ıde
Lanes:	0 (1!	0 0	0 () 1!	0 0	0 () 1!	0 0	0 () 1!	0 0
				1			1					
Volume Module	:											
Base Vol:	8	11	46	28	26	6	19	82	8	139	35	67
Growth Adi:	1.00	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	11	46	28	26	6	19	82		139	35	67
User Adj:		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:		0.81		0.81		0.81		0.81			0.81	0.81
PHF Volume:	10		57	35	32	7	23	101			43	83
Reduct Vol:	0	0	0	.0			0	0		0		.0
	10	-		35		-		101		_	43	83
rinai voi.;	1. 		، ر. ا ــــــا				25 					
Critical Gap	Modii.	le:					1. di 2			1 1		9
Critical Gp:		6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	41	xxxx	xxxxx
FollowUpTim:			3.3		4.0				xxxxx			
Capacity Modu	ule:		•									
Cnflict Vol:	601	622	106	616					XXXXX			
Potent Cap.:			954	406	425	980	1473	XXXX	xxxxx	1491	XXXX	XXXXX
Move Cap.:	343	348	954	330	365	980			xxxxx		xxxx	XXXXX
Volume/Cap:	0.03	0.04	0.06			0.01			XXXX			XXXX
										[] <u>-</u> -		
Level Of Ser												
			XXXXX						XXXXX			XXXXX
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	XXXX	XXXXX	7.5	xxxx	XXXXX	7.7	,	XXXXX
LOS by Move:	*	.*	*	*	*	*	Α	*	:*	Α	*	*
Movement:	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	xxxx	630	XXXXX	xxxx	370	xxxxx	xxxx	xxxx	xxxxx	XXXX		xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	11.5	xxxxx	xxxxx	17.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
· ·	*		*		С		*	*		*	*	*
ApproachDel:		11.5			17.1		x	xxxxx		X	xxxxx	
ApproachLOS:		В			C			*			*	
		~-										

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #3 S. Davis Rd/W. Blanco Rd ****************** Cycle (sec): 130 Critical Vol./Cap. (X): 1.837 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: ******************** North Bound South Bound East Bound L-T-R L-T-RApproach: North Bound West Bound L - T - R Movement: Control: Protected Protected Protected Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10</td Volume Module: Base Vol: 246 493 252 435 1279 1524 400 667 33 527 575 308 Initial Bse: 246 493 252 435 1279 1524 400 667 33 527 575 308 _____| Saturation Flow Module: Adjustment: 0.95 0.90 0.90 0.95 1.00 0.85 0.92 0.94 0.94 0.95 0.95 0.85 Lanes: 1.00 1.32 0.68 1.00 1.00 1.00 2.00 1.91 0.09 1.00 2.00 1.00 Final Sat.: 1805 2267 1159 1805 1900 1615 3502 3416 169 1805 3610 1615 _____ Capacity Analysis Module: Vol/Sat: 0.14 0.23 0.23 0.26 0.72 1.00 0.12 0.21 0.21 0.31 0.17 0.20 **** **** Crit Moves: **** Green/Cycle: 0.08 0.30 0.30 0.33 0.55 0.55 0.11 0.11 0.11 0.17 0.18 0.18 Volume/Cap: 1.84 0.78 0.78 0.78 1.31 1.84 1.15 1.84 1.84 0.96 1.15 Uniform Del: 59.9 41.8 41.8 39.4 29.5 29.5 58.1 57.6 57.6 54.0 53.1 53.5 6.6 147 381.0 94.0 386 386.0 389.1 26.0 100.0 IncremntDel:402.5 3.9 3.9 Delay/Veh: 462.4 45.8 45.8 45.9 176 410.4 152.2 444 443.7 443.1 79.1 153.5 AdjDel/Veh: 462.4 45.8 45.8 45.9 176 410.4 152.2 444 443.7 443.1 79.1 153.5 HCM2kAvg: 28 16 16 19 93 153 16 37 37 57 16 21 ******************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************* Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 70 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (\sec/veh) : Optimal Cycle: OPTIMIZED Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R South Bound East Bound West Bound
 Control:
 Protected
 Ov1
 Include
 Ov1
 Ov1
 Ov1
 Include
 Ov1
 Ov1
 Ov1
 Include
 Ov1
 Ov1
 Include
 Ov1
 Ov1
 Include
 Include
 Include
 Include
 Include
 Include
 Include
 <t 10 Volume Module: Base Vol: 246 493 252 435 1279 1524 400 667 33 527 575 308 Initial Bse: 246 493 252 435 1279 1524 400 667 33 527 575 PHF Volume: 262 524 268 463 1361 1621 426 710 35 561 612 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Saturation Flow Module: Adjustment: 0.95 0.91 0.85 0.92 0.95 0.75 0.92 0.91 0.85 0.92 0.91 0.75 Lanes: 1.00 3.00 1.00 2.00 2.00 3.00 3.00 3.00 1.00 2.00 3.00 2.00 Final Sat.: 1805 5187 1615 3502 3610 4264 5253 5187 1615 3502 5187 2842 Capacity Analysis Module: Vol/Sat: 0.14 0.10 0.17 0.13 0.38 0.38 0.08 0.14 0.02 0.16 0.12 0.12 Crit Moves: **** **** **** Delay/Veh: 83.8 19.6 22.7 24.7 44.6 15.5 31.4 52.9 26.6 65.8 28.5 13.8 AdjDel/Veh: 83.8 19.6 22.7 24.7 44.6 15.5 31.4 52.9 26.6 65.8 28.5 13.8 HCM2kAvg: 11 3 6 5 22 11 4 9 1 12 5 3 *************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 125 Critical Vol./Cap. (X): 12 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss Time (sec): 12 (1+k = 4 sec) Average Delay (sec/ven): Optimal Cycle: 180 Level Of Service: ********************* Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R L - T - R Movement:
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Incl _____| Volume Module: 451 1175 697 175 626 609 596 36 491 Initial Bse: 39 1198 436 PHF Volume: 41 1274
Reduct Vol: 0 0 464 648 634 480 1250 741 38 186 666 522 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 41 1274 464 648 634 480 1250 741 38 186 666 522 PCE Adj: MLF Adi: Final Vol.: 41 1274 464 648 634 480 1250 741 38 186 666 522 _____| Saturation Flow Module:

 Sat/Lane:
 1900 1900
 1900 1900
 1900 1900
 1900 1900 1900
 1900 1900 1900 1900
 1900 1900 1900 1900
 1900 1900 1900 1900 1900

 Adjustment:
 0.95 0.91 0.91 0.95 1.00 0.85 0.92 0.94 0.94 0.94 0.95 0.95 0.85

 Lanes:
 1.00 1.47 0.53 1.00 1.00 1.00 2.00 1.90 0.10 1.00 2.00 1.00

 Final Sat:
 1805 2541 925 1805 1900 1615 3502 3409 176 1805 3610 1615

 Capacity Analysis Module: Vol/Sat: 0.02 0.50 0.50 0.36 0.33 0.30 0.36 0.22 0.22 0.10 0.18 0.32 Crit Moves: **** **** Green/Cycle: 0.06 0.29 0.29 0.21 0.45 0.45 0.21 0.27 0.27 0.13 0.19 0.19 Volume/Cap: 0.41 1.70 1.70 1.70 0.74 0.66 1.70 0.80 0.80 0.80 0.97 1.70 Uniform Del: 57.0 44.1 44.1 49.3 28.5 27.0 49.4 42.5 42.5 52.9 50.3 50.6 4.9 18.1 27.5 330.7 IncremntDel: 2.7 321 321.3 328.1 3.6 2.3 322.9 4.9 ***********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #3 S. Davis Rd/W. Blanco Rd ********************************** Cycle (sec): 125 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (\sec/veh) : Optimal Cycle: 112 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement: Control: Protected Protected Protected Rights: Ovl Ovl Include Protected Ov1 Min. Green: 7 10 10 7 10 10 7 10 7 10 Lanes: 1 0 3 0 1 2 0 2 0 3 3 0 3 0 1 2 0 3 0 2 Volume Module: Base Vol: 39 1198 436 609 596 451 1175 697 36 175 626 0.94 480 1250 741 38 PHF Volume: 41 1274 464 648 634 186 666 0 ...0 0 0 0 Reduct Vol: 0 0 0 0 0 0 480 1250 741 38 186 666 Reduced Vol: 41 1274 464 648 634 522 1.00 MLF Adj: Final Vol.: 41 1274 464 648 634 480 1250 741 38 186 666 522 Saturation Flow Module: Adjustment: 0.95 0.91 0.85 0.92 0.95 0.75 0.92 0.91 0.85 0.92 0.91 0.75 Lanes: 1.00 3.00 1.00 2.00 2.00 3.00 3.00 1.00 2.00 3.00 2.00 Final Sat.: 1805 5187 1615 3502 3610 4264 5253 5187 1615 3502 5187 2842 Capacity Analysis Module: Vol/Sat: 0.02 0.25 0.29 0.19 0.18 0.11 0.24 0.14 0.02 0.05 0.13 0.18 Crit Moves: **** Green/Cycle: 0.06 0.28 0.33 0.21 0.43 0.70 0.27 0.36 0.36 0.06 0.15 0.36 Volume/Cap: 0.41 0.88 0.86 0.88 0.41 0.16 0.88 0.40 0.07 0.95 0.88 0.52 Uniform Del: 57.0 43.1 38.8 47.9 24.4 6.2 43.7 29.9 26.3 58.8 52.3 31.8 IncremntDel: 2.7 6.7 13.0 12.1 0.2 0.0 6.8 0.1 0.0 49.7 11.8 Delay/Veh: 59.7 49.8 51.8 60.0 24.6 6.3 50.5 30.1 26.3 108.5 64.1 32.3 AdjDel/Veh: 59.7 49.8 51.8 60.0 24.6 6.3 50.5 30.1 26.3 108.5 64.1 32.3 HCM2kAvg: 2 19 19 16 8 2 19 7 1 7 11 8 ******************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd Average Delay (sec/veh): 161.7 Worst Case Level Of Service: F[615.8] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 0 0 Volume Module: 213 28 625 67 3 33 0 14 0 0 0 Base Vol: PHF Adi: 0 0 0 229 3 35 0 30 15 672 72 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 229 3 35 0 30 15 672 72 0 PHF Volume: Reduct Vol: Final Vol.: Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1454 1461 72 xxxx xxxx xxxxx 45 xxxx xxxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx 20.7 xxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx 717.7 xxxx xxxxx xxxxx xxxxx 9.0 xxxx xxxxx A * * LOS by Move: * * * * * * * Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx 13.0 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * B * * * * * XXXXXX ApproachDel: xxxxxx 615.8 XXXXXX F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 40 Level Of Service: Optimal Cycle: ********************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: _____ n Volume Module: Base Vol: 0 0 0 213 3 33 0 28 14 625 67 Initial Bse: 0 0 0 213 3 33 0 28 14 625 67 PHF Volume: 0 0 0 229 3 35 0 30 15 672 72 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 229 3 35 0 30 15 672 72 0 Final Vol.: 0 0 0 229 3 35 0 30 15 672 72 0 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.96 0.96 0.95 1.00 1.00 Lanes: 0.00 0.00 0.00 1.00 0.08 0.92 0.00 0.67 0.33 1.00 1.00 0.00 Final Sat.: 0 0 0 1638 136 1501 0 1210 605 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.14 0.02 0.02 0.00 0.02 0.02 0.37 0.04 0.00 **** **** Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.59 0.10 0.10 0.00 0.59 0.59 0.59 0.06 0.00 0.0 33.8 29.8 29.8 0.0 47.0 47.0 10.9 5.6 0.0 2.4 0.1 0.1 0.0 11.6 11.6 0.8 0.0 Uniform Del: 0.0 0.0 0.0IncremntDel: 0.0 0.0 0.0 36.2 29.9 29.9 0.0 58.7 58.7 11.7 5.6 0.0 0.0 Delay/Veh: AdjDel/Veh: 0.0 0.0 0.0 36.2 29.9 29.9 0.0 58.7 58.7 11.7 5.6 0.0 0 0 0 8 1 1 0 2 2 13 1 HCM2kAvg: 0 ************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #4 Hwy 1 SB Ramps/Reservation Rd Average Delay (sec/veh): 33.7 Worst Case Level Of Service: F[70.6] ********************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: 77 215 126 Base Vol: 0 0 0 353 3 25 50 0 215 126 0 0 77 50 Initial Bse: 0 0 0 353 3 25 PHF Volume: 0 0 0 364 3 26 0 79 52 222 130 0 Reduct Vol: 0 0 0 364 3 26 0 79 52 222 130 0 Final Vol.: 0 0 364 3 26 0 79 52 222 130 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 678 704 130 xxxx xxxx xxxxx 131 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 421 364 925 xxxx xxxx xxxx 1467 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 372 309 925 xxxx xxxx xxxx 1467 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.98 0.01 0.03 xxxx xxxx xxxx 0.15 xxxx xxxx Level Of Service Module: F * * * * * * * LT - LTR - RT LT - LTR - RT A * * LOS by Move: * * * LT - LTR - RT Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx 9.9 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx A * * * * * * Shared LOS: * * * * * XXXXXX xxxxxx 70.6 ApproachDel: XXXXXX F ApproachLOS:

	0000		_evel C			-					
and an areas are are are are are are are									ernativ		
******							****	****	*****	*****	*** ***
Intersection	#4 H	wy 1 S *****	3B Ramp *****	s/Rese ****	ervati *****	Lon Rd ******	****	****	*****	*****	*****
Cycle (sec):		. 100							. (X):	0.4	
Loss Time (se	ec):	g							c/veh):		
Optimal Cycle	e :	32				_evel C			- / /		Ċ
*****		****	****	****					*****	*****	
Approach:	No:	rth Bo	ound	Soi	uth Bo	brue	E	ast Bo	nınd	West B	ound
Movement:		- T			- T		L ·		- R	L - T	
Control:		rotect			rotect			rotect		Protec	
Rights:		Inc1			Inclu		-1	Incl		Incl	
Min. Green:	.0	.0	.0	0		0	10		0	0 0	
Lanes:	0 (1 (_		0 (_		0
										1 0 1	0 0
Volume Module	•		1	1		1	1				
Base Vol:	0	0	0	353	. 3	25	0	77	50	215 126	20
Growth Adi:		1.00	1.00		1.00	1.00	_				0
		1.00	1.00	353	3	25		1.00	1.00	1.00 1.00	1.00
Initial Bse:	1 00		-				0	77	50	215 126	0
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00
PHF Adj:		0.97	0.97		0.97	0.97		0.97	0.97	0.97 0.97	0.97
PHF Volume:	0	0	0	364	3	26	0	79	52	222 130	-0
Reduct Vol:	.0	0	0	0	0	0	0	0	0	0 0	.0
Reduced Vol:	0	0	0	364	3	26	.0	79	52	222 130	-0
PCE Adj:		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
Final Vol.:	,0	0	0	364	3	26	0	7.9	52	222 130	0
Saturation F	low Ma	odule:		 				÷		·	
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900 1900	1900
Adjustment:		1.00	1.00		0.87	0.87		0.95	0.95	0.95 1.00	1.00
Lanes:		0.00	0.00		0.11	0.89		0.61	0.39	1.00 1.00	0.00
Final Sat.:	0.00	0.00	0.00	1645	176	1469		1091	708	1805 1900	0.00
Tillai bac			-				-		/.U6 		
Capacity Ana	•		•	1						.1	
Vol/Sat:	-	0.00	0.00	0.22	0.02	0.02	0.00	0.07	0.07	0.12 0.07	0.00
Crit Moves:	0.00	0.00	0.00	****	0.02	0.02	0.00	****	0.07	****	0.00
Green/Cycle:	0 00	0.00	0.00		0.48	0.48	0.00	0.16	0.16		0 00
Volume/Cap:		0.00	0.00		0.04	0.04		0.16	0.16	0.27 0.43	0.00
					13.6					0.46 0.16	0.00
Uniform Del:	0.0	0.0	0.0			13.6		38.1	38.1	30.5 17.6	0.0
IncremntDel:			0.0	0.4	1.00	0.0	0.0	1.2	1.2	0.7 0.1	0.0
Delay Adj:		0.00	0.00		1.00	1.00		1.00	1.00	1.00 1.00	0.00
Delay/Veh:	0.0	0.0	0.0		13.6	13.6		39.3	39.3	31.2 17.7	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00
AdjDe1/Veh:	0.0	0.0	0.0		13.6	13.6		39.3	39.3	31.2 17.7	0.0
HCM2kAvg:	0		0	9	0	0	0	4	4	6 2	-0
************	^ x x 'X X '	^*************************************	``````````````````````````````````````	, x x x x x x x	* * * * * * * *	·*******	· * * * * * *	* * * * * * *	****	*****	*****

______ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[13.6] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: 0 0 682 Base Vol: 27 0 108 0 0 0 7 188 PHF Volume: 28 0 114 0 0 0 7 198 0 0 718 318 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 28 0 114 0 0 0 7 198 0 0 718 318 Critical Gap Module: Capacity Module: Cnflict Vol: 1089 xxxx 198 xxxx xxxx xxxxx 1036 xxxx xxxxx xxxx xxxx xxxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 10.4 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT B * * * * LT - LTR - RT LT - LTR - RT XXXXXX В ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #5 Hwy 1 NB Ramps/Reservation Rd ************ Average Delay (sec/veh): 4.5 Worst Case Level Of Service: C[18.1] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Include Include _____| Volume Module: 291 28 1 0 0 0 23 388 Base Vol: 0 0 262 339 291 0 0 23 388 Initial Bse: 28 1 0 0 0 262 339 User Adj: PHF Adj: PHF Volume: 29 1 297 0 0 0 23 396 0 0 267 346 Critical Gap Module: FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx _____| Capacity Module: Cnflict Vol: 883 1056 Level Of Service Module: 0.1 xxxx xxxxx xxxxx xxxx Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.8 xxxx xxxxx xxxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: * * * * * A * * * * * Movement: LT - LTR - RT Shared LOS: * C * * * * * * * * * 18.1 XXXXXX XXXXXX XXXXXX ApproachDel: ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #6 Reservation Rd/Del Monte Blvd Critical Vol./Cap. (X): 0.848 67 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 75 Level Of Service: ************************** Approach: North Bound South Bound East Bound Movement: L-T-R L-T-RL - T - R
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10

 Lanes:
 1 0 1 0 2 2 0 1 1 0 0 1 0 1 0 1 0 1
 2 0 1 0 1
 Volume Module: 65 880 184 31 228 113 208 574 329 470 13 Base Vol: 31 228 65 880 184 Initial Bse: 113 208 574 329 470 13 PHF Adj: 14 34 248 71 957 200 358 511 PHF Volume: 123 226 624 0 0 0 0 . .0 0 0 n .0 0 0 Reduct Vol: 0 14 34 248 71 957 200 228 624 358 511 Reduced Vol: 123 226 PCE Adj: Saturation Flow Module: Final Sat.: 1805 1900 2842 3502 3499 97 333 2452 699 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.07 0.12 0.22 0.10 0.15 0.15 0.10 0.10 0.10 0.27 0.11 0.14 Crit Moves: Crit Moves: Green/Cycle: 0.15 0.25 0.25 0.12 0.21 0.21 0.15 0.15 0.15 0.31 0.31 Volume/Cap: 0.46 0.48 0.89 0.89 0.68 0.68 0.68 0.68 0.68 0.89 0.34 0.46 Uniform Del: 26.0 21.5 24.3 29.2 24.3 24.3 27.0 27.0 27.0 22.0 17.9 18.7 IncremntDel: 1.2 0.8 12.9 20.2 2.6 2.6 3.6 3.6 3.6 9.0 0.3 Delay/Veh: 27.2 22.3 37.2 49.4 26.8 26.8 30.5 30.5 30.5 31.0 18.3 19.3 AdjDel/Veh: 27.2 22.3 37.2 49.4 26.8 26.8 30.5 30.5 30.5 31.0 18.3 19.3 HCM2kAvg: 3 4 10 7 6 6 5 5 5 14 3 4 ***********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************** Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 67 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 75 Level Of Service: 31.0 ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Protected Protected Split Phase Split Phase Rights: Include Include Include Include Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 Lanes: 1 0 2 0 2 2 0 1 1 0 0 1 0 1 0 1 0 1 Volume Module: 329 470 13 Base Vol: 113 208 574 31 228 65 880 184 210 Initial Bse: 113 208 574 329 470 13 31 228 65 880 184 PHF Volume: 123 226 624 358 511 14 34 248 71 957 200 228 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 123 226 624 358 511 14 34 248 71 957 200 Final Vol.: 123 226 624 358 511 14 34 248 71 957 200 228 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.07 0.06 0.22 0.10 0.15 0.15 0.10 0.10 0.10 0.27 0.11 0.14 **** Crit Moves: **** Green/Cycle: 0.15 0.25 0.25 0.12 0.21 0.21 0.15 0.15 0.15 0.31 0.31 0.31 Volume/Cap: 0.46 0.25 0.89 0.89 0.68 0.68 0.68 0.68 0.68 0.89 0.34 0.46 Uniform Del: 26.0 20.2 24.3 29.2 24.3 24.3 27.0 27.0 27.0 22.0 17.9 18.7 HCM2kAvg: 3 2 10 7 6 6 5 5 5 14 3 4

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************** Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 75 Critical Vol./Cap. (X):
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: 1.073 60.9 Optimal Cycle: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______| Control: Protected Protected Split Phase Split Phase Rights: Include Include Include Include Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 Volume Module: PHF Adj: 220 256 7 20 343 108 628 336 0 0 0 0 0 0 0 0 850 373 PHF Volume: 117 896 Reduct Vol: 0 0 Reduced Vol: 117 896 0 0 0 0 0 0 0 0 0 0 850 220 256 7 20 343 108 628 336 0 Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.95 0.95 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.95 0.05 0.09 1.45 0.46 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3498 98 151 2531 799 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.07 0.47 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.23 **** **** **** Crit Moves: Green/Cycle: 0.21 0.41 0.41 0.09 0.30 0.30 0.13 0.13 0.13 0.20 0.20 0.20 Volume/Cap: 0.31 1.15 0.73 0.67 0.25 0.25 1.02 1.02 1.02 0.89 0.88 1.15 Uniform Del: 25.2 22.1 18.5 32.9 20.0 20.0 32.5 32.5 32.5 29.1 29.0 29.9 2.3 5.5 0.1 0.1 45.8 45.8 45.8 13.1 19.6 95.5 IncremntDel: 0.5 80.4 Delay/Veh: 25.6 102 20.8 38.4 20.1 20.1 78.3 78.3 78.3 42.3 48.6 125.4 AdjDel/Veh: 25.6 102 20.8 38.4 20.1 20.1 78.3 78.3 78.3 42.3 48.6 125.4 HCM2kAvg: 3 39 10 4 2 2 11 11 11 11 18 _____

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 75 Critical Vol./Cap. (X): 0.867 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 84 Level Of Service: 32.7 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Include Protected Split Phase Split Phase Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10

 Volume Module: 366 216 251 7 20 336 Initial Bse: 115 878 833 106 615 329 User Adj: PHF Adj: PHF Volume: 117 896 850 220 256 7 20 343 108 628 336 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 117 896 850 220 256 7 20 343 108 628 336 373 0 373 MLF Adj: Final Vol.: 117 896 850 220 256 7 20 343 108 628 336 373 Saturation Flow Module: _____ Capacity Analysis Module: Vol/Sat: 0.07 0.25 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.23 **** **** **** Crit Moves: Green/Cycle: 0.18 0.34 0.34 0.09 0.25 0.25 0.15 0.15 0.15 0.26 0.26 0.26 Volume/Cap: 0.37 0.74 0.89 0.67 0.29 0.29 0.89 0.89 0.89 0.69 0.68 0.89 Uniform Del: 27.2 22.0 23.6 32.9 22.6 22.6 31.2 31.2 31.2 25.1 25.0 26.8 HCM2kAvq: 3 11 13 4 3 3 9 9 9 8 8

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #7 Reservation Rd/Vista Del Camino ***************** 90 Critical Vol./Cap. (X): 0.571 Cycle (sec): Cycle (sec): 9 (Y+R = 4 sec) Average
Loss Time (sec): 9 (Y+R = 4 sec) Average
Level Of Service: 38 Level Of Service: 8.8 9 (Y+R = 4 sec) Average Delay (sec/veh): ****************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Rights: Include Include Include Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 0
 1
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1

 Include Volume Module: Base Vol: 10 2 0 66 3 51 862 10 14 1440 52 Initial Bse: 10 2 0 66 3 52 51 862 10 14 1440 PHF Adj: PHF Volume: 11 2 0 71 3 56 55 927 11 15 1548 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.00 0.05 0.05 0.03 0.03 0.26 0.01 0.01 0.43 0.05 **** **** Green/Cycle: 0.11 0.11 0.00 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.08 0.08 0.00 0.49 0.49 0.31 0.39 0.36 0.01 0.11 0.60 0.07 Uniform Del: 35.9 35.9 0.0 37.6 37.6 36.8 39.5 5.1 3.8 38.6 6.6 3.9 Crit Moves: 0.0 40.1 40.1 37.8 41.3 5.1 3.8 38.9 7.0 4.0 AdjDel/Veh: 36.1 36.1 0 3 3 2 2 5 0 0 11 HCM2kAvg: 0 0 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #7 Reservation Rd/Vista Del Camino ************************** Cycle (sec): 90 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 38 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: _____| Control: Permitted Permitted Protected Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 7
 10
 7
 10
 10
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 0
 1
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1

 Volume Module: 4 7 Base Vol: 41 18 116 40 141 1393 49 38 1155 18 116 7 40 141 1393 Initial Bse: 41 4 49 38 1155 PHF Adj: PHF Volume: 42 4 19 120 7 41 145 1436 51 39 1191 144 0 0 0 0 0 0 0 0 51 39 1191 0 0 0 Reduct Vol: Reduced Vol: 42 4 19 120 7 41 145 1436 51 PCE Adj: MLF Adj: Final Vol.: 42 4 19 120 7 41 145 1436 51 39 1191 144 Saturation Flow Module:

 Sat/Lane:
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900 Capacity Analysis Module: Vol/Sat: 0.04 0.04 0.01 0.10 0.10 0.03 0.08 0.40 0.03 0.02 0.33 0.09 **** **** Crit Moves: Green/Cycle: 0.16 0.16 0.16 0.16 0.16 0.16 0.15 0.66 0.66 0.08 0.59 0.59 Volume/Cap: 0.22 0.22 0.07 0.60 0.60 0.16 0.55 0.60 0.05 0.28 0.55 0.15 Uniform Del: 32.9 32.9 32.1 35.1 35.1 32.6 35.8 8.5 5.3 39.1 11.0 8.2 ******

2000 l	HCM Or	peratio	ons Me	thod	(Base	Volume	Alte	rnativ	e) *****	****	****
#8 Re	servat	ion Ro	d/Seac	rest	Ave						
****	****	*****	*****	****	****				*****		
c): : *****	36	(Y+R =	= 4 s	ec) A	verage evel 0	Delay f Serv	(sec	:/veh):		8.	1 A
Nor	th Boi	ind - R	Sou L -	th Bo T	und – R	Ea L -	st Bo T	und - R	We L -	st Bo T	und - R
Spl 10	it Pha Includ	ase de 10 0 1	Sp1 0 0 0	it Ph Inclu 0	ase de 0	Pr 0 0 0	otect Inclu 10 2	ed ide 10 0 1	Pr 7 1 0	otect Inclu 10 2	ed ide 0 0
95 1.00 95 1.00 0.90 106 0 1.00 1.00 1.00	0 1.00 0 1.00 0.90 0 0 1.00 1.00 0	50 1.00 50 1.00 0.90 56 0 56 1.00 1.00	0 1.00 0 1.00 0.90 0 0 0 1.00 1.00	0 1.00 0 1.00 0.90 0 0 0 1.00 1.00	0 1.00 0 1.00 0.90 0 0 0 1.00 1.00	0 1.00 0 1.00 0.90 0 0 1.00 1.00	870 1.00 870 1.00 0.90 967 0 967 1.00 1.00	81 1.00 81 1.00 0.90 90 1.00 1.00 90	95 1.00 95 1.00 0.90 106 0 106 1.00 1.00	1137 1.00 1137 1.00 0.90 1263 0 1263 1.00 1.00 1263	0 1.00 0 1.00 0.90 0
0.95 1.00 1805	1.00	0.85 1.00 1615	1.00 0.00 0	1.00 0.00 0	1.00 0.00 0	1.00 0.00 0	0.95 2.00 3610	0.85 1.00 1615	0.95 1.00 1805	0.95 2.00 3610	1.00 0.00 0
lysis 0.06 **** 0.17 0.35 22.1 0.7 1.00 22.8 1.00 22.8	Modul 0.00 0.00 0.00 0.0 0.0 0.00 1.00 0.0	0.03 0.17 0.21 21.6 0.4 1.00 22.0 1.00 22.0	0.00 0.00 0.00 0.0 0.0 0.00 0.00	0.00 0.00 0.00 0.0 0.00 0.00 1.00	0.00 0.00 0.00 0.0 0.0 0.00 0.00	0.00 0.00 0.00 0.0 0.0 0.00 0.00	0.27 **** 0.56 0.48 7.9 0.2 1.00 8.1 1.00 8.1	0.06 0.56 0.10 6.1 0.0 1.00 6.2 1.00 6.2	0.06 **** 0.12 0.48 24.5 1.6 1.00 26.2 1.00	0.35 0.68 0.51 4.6 0.2 1.00 4.8 1.00 4.8	0.00 0.00 0.00 0.0 0.0 0.0 0.00
	**** #8 Re **** C): : **** Nor L - Spl 10 1 00 95 1.00 0.90 106 0.00 106 106 106 106 106 106 106 106 106 1	2000 HCM Or ********** #8 Reservat ******** 60 c): 9 : 36 ******** North Bou L - T Split Pha Includ 10 0 1 0 0 1	2000 HCM Operation ******************** #8 Reservation RG **************** 60 c): 9 (Y+R = 1	2000 HCM Operations Me ************************************	2000 HCM Operations Method ***********************************	2000 HCM Operations Method (Base ************************************	2000 HCM Operations Method (Base Volume ************************************	2000 HCM Operations Method (Base Volume Alter ************************************	#8 Reservation Rd/Seacrest Ave ***********************************	2000 HCM Operations Method (Base Volume Alternative) ************************************	### Reservation Rd/Seacrest Ave ### Protected Protected Protected Protected Protected Protected Pr

_____ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********** Intersection #8 Reservation Rd/Seacrest Ave ***************** 65 Critical Vol./Cap. (X): Cycle (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 65 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement: ______| Control: Split Phase Split Phase Protected Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 0
 10
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 0
 0
 0
 0
 2
 0
 1
 0
 2
 0

 Ω Volume Module: Base Vol: 213 0 89 0 0 0 0 1325 226 256 928 256 928 Initial Bse: 213 0 89 0 0 0 0 1325 226 0 PHF Adj: 0 0 1506 257 291 1055 0 0 PHF Volume: 242 0 101 Reduct Vol: 0 0 0 Reduced Vol: 242 0 101 0 0 0 0 0 0 0 0 0 0 0 0 1506 257 291 1055 0 PCE Adi: MLF Adj: Final Vol.: 242 0 101 0 0 0 1506 257 291 1055 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.13 0.00 0.06 0.00 0.00 0.00 0.00 0.42 0.16 0.16 0.29 0.00 Crit Moves: **** Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.00 0.50 0.50 0.19 0.70 0.00 Volume/Cap: 0.83 0.00 0.39 0.00 0.00 0.00 0.00 0.83 0.32 0.83 0.42 0.00 Uniform Del: 26.3 0.0 24.3 0.0 0.0 0.0 0.0 13.7 9.5 25.1 4.1 IncremntDel: 17.4 0.0 0.9 0.0 0.0 0.0 0.0 3.3 0.2 14.8 0.1 0.0 0.0 1.00 0.0 0 ************************** Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #9 Reservation Rd/De Forest Rd ************* Critical Vol./Cap. (X): Cycle (sec): 90 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____|
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 10 10 10 10 10 7 10 7 10 7 10 10
 7 10 10 7 10 10

 Lanes:
 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1
 Volume Module: Base Vol: 33 3 31 52 8 67 20 732 45 43 1183 43 1183 Initial Bse: 33 3 31 52 8 67 20 732 45 21 755 46 44 1220 54 8 0 0 54 8 69 PHF Volume: 34 3 32 0 0 0 0 Reduct Vol: 0 0 0 Reduced Vol: 34 3 32 0 69 0 21 755 46 44 1220 3.4 Final Vol.: 34 3 32 54 8 69 21 755 46 44 1220 34 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.02 0.05 0.05 0.04 0.01 0.21 0.03 0.02 0.34 0.02 *** **** Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.24 0.24 0.18 0.41 0.41 0.38 0.15 0.29 0.04 0.32 0.48 0.03 Uniform Del: 36.5 36.5 36.3 37.2 37.2 37.1 38.7 4.7 3.9 39.2 5.7 3.8 0.5 1.8 1.8 1.4 0.5 0.1 0.0 1.3 0.1 0.0 IncremntDel: 0.8 0.8 AdjDel/Veh: 37.4 37.4 36.8 39.0 39.0 38.5 39.2 4.8 3.9 40.5 5.8 3.8 0 2 8 HCM2kAvg: 1 1 1 3 3 2 1 4 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #9 Reservation Rd/De Forest Rd ************************ Cycle (sec): 80 Critical Vol./Cap. (X): 0.521 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R ______| Control: Permitted Permitted Protected Protected Rights: Include Include Include Include

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 0
 1
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1

 Volume Module: Base Vol: 71 11 87 44 6 56 42 1304 93 47 1068 44 6 56 42 1304 47 1068 Initial Bse: 71 11 87 93 50 PHF Adj: 90 45 6 58 43 1344 96 48 1101 52 PHF Volume: 73 11 MLF Adj: Final Vol.: 73 11 90 45 6 58 43 1344 96 48 1101 52 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.06 0.06 0.06 0.04 0.04 0.04 0.02 0.37 0.06 0.03 0.30 0.03 Crit Moves: **** **** **** Green/Cycle: 0.13 0.13 0.13 0.13 0.13 0.09 0.67 0.67 0.09 0.67 0.67 Volume/Cap: 0.50 0.50 0.44 0.31 0.31 0.29 0.27 0.55 0.09 0.31 0.45 0.05 Uniform Del: 32.7 32.7 32.4 31.9 31.9 31.8 34.1 6.7 4.5 34.2 6.1 AdjDel/Veh: 35.1 35.1 34.0 32.9 32.9 32.5 35.1 7.0 4.5 35.3 6.2 4.4 HCM2kAvg: 3 3 3 2 2 2 1 9 1 1 7

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************ Intersection #10 Reservation Rd/Crescent Ave Cycle (sec): 55 Critical Vol./Cap.
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/Optimal Cycle: 36 Level Of Service: Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 1
 0

 Volume Module: Base Vol: 170 27 134 68 39 23 25 84 74 93 993 Initial Bse: 170 27 134 68 39 23 25 84 74 93 993 79 99 1056 PHF Volume: 181 29 143 72 41 24 27 89 Saturation Flow Module: ______ Capacity Analysis Module: Vol/Sat: 0.14 0.02 0.09 0.07 0.07 0.02 0.01 0.02 0.05 0.05 0.30 0.30 **** Crit Moves: **** Green/Cycle: 0.23 0.23 0.23 0.23 0.23 0.13 0.36 0.36 0.25 0.48 0.48 Volume/Cap: 0.62 0.07 0.39 0.33 0.33 0.07 0.12 0.07 0.14 0.22 0.62 0.62 Uniform Del: 19.2 16.7 18.1 17.8 17.8 16.7 21.3 11.6 11.9 16.3 10.5 10.5 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************* Intersection #10 Reservation Rd/Crescent Ave ***************** Cycle (sec): 55 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 42 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____|
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 1
 0
 Volume Module: 103 38 149 55 29 177 152 907 Base Vol: 34 65 1237 65 1237 152 907 Initial Bse: 103 38 55 29 177 149 34 54 PHF Volume: 111 41 160 59 31 37 70 1330 190 163 975 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 111 41 160 59 31 37 70 1330 190 163 975 MLF Adj: Final Vol.: 111 41 160 59 31 37 70 1330 190 163 975 58 ______ Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.08 0.02 0.10 0.06 0.06 0.02 0.04 0.37 0.12 0.09 0.29 0.29 **** **** Crit Moves: Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.13 0.53 0.53 0.13 0.53 0.53 Volume/Cap: 0.46 0.12 0.55 0.33 0.33 0.12 0.30 0.70 0.22 0.70 0.55 0.55 Uniform Del: 20.1 18.8 20.4 19.6 19.6 18.8 21.8 9.8 7.0 22.9 8.6 8.6 IncremntDel: 1.4 0.2 2.1 0.7 0.7 0.2 0.8 1.2 0.1 9.2 0.3

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************************** Intersection #11 Reservation Rd/Imjin Rd ********************* 70 Critical Vol./Cap. (X): Cycle (sec): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 180 Level Of Service: ******************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R
 Control:
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 7 10 10 7 10 10
 7 10 10

 Lanes:
 2 0 0 1 1 1 0 1 0 1 2 0 2 0 1 2 0 2 0 1
 Volume Module: 29 883 160 1860 840 Base Vol: 192 14 1412 2 8 8 Initial Bse: 192 14 1412 2 8 8 29 883 160 1860 840 PHF Volume: 221 16 1623 2 9 9 33 1015 184 2138 966 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 221 16 1623 2 9 9 33 1015 184 2138 966 33 1015 184 2138 966 0 13 MLF Adj: 2 9 9 33 1015 184 2138 966 13 Final Vol.: 221 16 1623 Saturation Flow Module: Adjustment: 0.92 0.85 0.85 0.95 1.00 0.85 0.92 0.95 0.85 0.92 0.95 0.85 Capacity Analysis Module: Vol/Sat: 0.06 0.51 0.51 0.00 0.00 0.01 0.01 0.28 0.11 0.61 0.27 0.01 **** Green/Cycle: 0.15 0.26 0.26 0.10 0.21 0.21 0.10 0.15 0.15 0.32 0.36 0.36 **** Volume/Cap: 0.42 1.92 1.92 0.01 0.02 0.03 0.10 1.92 0.78 1.92 0.73 0.02 Uniform Del: 27.0 25.8 25.8 28.4 21.7 21.7 28.6 29.9 28.8 23.9 19.3 14.2 0.0 0.0 0.0 0.1 420 15.0 416.8 2.2 IncremntDel: 0.5 418 417.8 AdjDel/Veh: 27.5 444 443.6 28.4 21.7 21.8 28.7 450 43.7 440.7 21.4 14.3 HCM2kAvg: 3 67 67 0 0 0 42 6 91 11 0 **********

	ے بنے میں بنے کے بنیانسے متاریخار کے کہ سازمین اور کر کیا میڈ بیٹر میٹر میٹر کے کا کہ بیٹر میں										
Level Of Service Computation Rep	ort										
2000 HCM Operations Method (Base Volume Alternative)											

Intersection #11 Reservation Rd/Imjin Rd	********										
Cycle (sec): 70											
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.9										
Optima Cycle: 69 Level Of Service: D											
Movement: L - T - R L - T - R L -	T + R L - T - R										
Control: Protected Protected Prot											
	clude Include										
Min. Green: 7 10 10 7 10 10 7	10 10 7 10 10										
Lanes: 2 0 0 1 1 1 0 1 0 1 1 0	3 0 1 3 0 1 1 0										
Volume Module:											
Base Vol: 192 14 1412 2 8 8 29 8											
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.											
	83 160 1860 840 11										
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.											
PHF Adj: 0.87 0.87 0.00 0.87 0.87 0.87 0.87 0.											
PHF Volume: 221 16 0 2 9 9 33 10											
Reduct Vol: 0 0 0 0 0 0	0 0 0 0										
Reduced Vol: 221 16 0 2 9 9 33 10											
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.											
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.											
Final Vol.: 221 16 0 2 9 9 33 10											
Cotymptics Flow Medulos											
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 19	00 1000 1000 1000 1000										
Sat/Lane: 1900 1900 1900 1900 1900 1900 19 Adjustment: 0.92 1.00 1.00 0.95 1.00 0.85 0.95 0.											
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 3.											
Final Sat.: 3502 1900 1900 1805 1900 1615 1805 51											
Capacity Analysis Module:	. 14										
Vol/Sat: 0.06 0.01 0.00 0.00 0.00 0.01 0.02 0.	20 0.11 0.41 0.27 0.27										
Crit Moves: **** ***											
Green/Cycle: 0.10 0.14 0.00 0.10 0.14 0.14 0.10 0.	19 0.19 0.40 0.49 0.49										
Volume/Cap: 0.63 0.06 0.00 0.01 0.03 0.04 0.18 1.											
Uniform Del: 30.3 25.9 0.0 28.4 25.8 25.9 28.9 28											
IncremntDel: 3.7 0.1 0.0 0.0 0.1 0.1 0.5 36											
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.											
Delay/Veh: 33.9 26.0 0.0 28.4 25.9 25.9 29.4 64											
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	00 1.00 1.00 1.00 1.00										
AdjDel/Veh: 33.9 26.0 0.0 28.4 25.9 25.9 29.4 64	.7 29.2 48.7 13.1 13.1										
HCM2kAvg: 4 0 0 0 0 1 1											
***************	********										

________ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 75 Critical Vol./Cap. (X):
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: 385.6 Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< Reduced Vol: 184 10 2197 7 9 30 4 1255 212 1652 1029 Final Vol.: 184 10 2197 7 9 30 4 1255 212 1652 1029 2 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.68 0.68 0.00 0.00 0.02 0.00 0.35 0.13 0.47 0.29 0.00 **** **** *** **** Crit Moves: Green/Cycle: 0.18 0.34 0.34 0.09 0.25 0.25 0.09 0.17 0.17 0.23 0.31 0.31 0 54 7 75 16 0 HCM2kAvg: 2 94 94 0 0 1 **********

ش مند امي مند منه منه منه بيم شد شد ميد س.											
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)											
*****	ZUUU HCP	*******	CONS ME	*****	(base	*****	*****	rnativ	e) *****	****	*****
Intersection	#11 Rese	rvation	Rd/Im	in Rd							
Cycle (sec): Loss Time (se	ec):	12 (Y+R	= 4 5	sec) A	verage	Delav	/ (sec	:/veh):		27.	5
Optimal Cycle	e:	61		ı	evel 0	f Serv	rice:	,			
*****	******	******	*****	****	*****	*****	****	****	****		
Approach:	North	Bound	Sou	ith Bo	und	Εá	ast Bo	und	We	st Bo	und
Movement:		- R								- T	
					1			1			
Control:	Prote	ected nore	Pı	otect	.ed	Pr	rotect	ed	Pr	otect	ed
Rights:	Igr	nore	7	Inclu	ide	7	Inclu	ıde	_	Inclu	
Min. Green:	7 1		1 0	10					7		10
Lanes:	200) 1 1	1 1 W) <u>1</u>	U 1	1 0) 3	0 1	3 0		1 0
Volume Module			117		1	1			1		
Base Vol:		9 2021	. 6	8	28	4	1155	195	1520	947	2
Growth Adj:				1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		9 2021	6	8	28		1155	195	1520	947	2
User Adj:				1.00	1.00		1.00		1.00		1.00
	0.92 0.9		0.92		0.92		0.92	0.92		0.92	0.92
PHF Volume:		LO 0	7	9	30	4	1255	212	1652	1029	2
Reduct Vol:	0	0 0	0	0	0	.0	0	0	0	0	0
Reduced Vol:	184	LO 0	7	9	30	4	1255	212	1652	1029	2
PCE Adj:	1.00 1.0	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.0	0.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:		10 0	7	9	30		1255	212		1029	2
	•										
Saturation F			1000	1000	1000	1000	1000	1000	1000	1.0.0.0	1000
Sat/Lane:	1900 190			1900	1900		1900			1900	1900 0.95
Adjustment:				1.00	$0.85 \\ 1.00$		0.91			0.95	0.93
Lanes: Final Sat.:				1900	1615		5187			3602	8
rinal sac.:	1					1					
Capacity Ana			1.3		-1			•	•		41
Vol/Sat:	0.05 0.		0.00	0.00	0.02	0.00	0.24	0.13	0.31	0.29	0.29
Crit Moves:	***				****		****		****		
Green/Cycle:	0.09 0.	13 0.00	0.09	0.13	0.13	0.09	0.27	0.27	0.35	0.52	0.52
Volume/Cap:			0.04	0.03	0.14	0.03	0.91	0.49	0.91	0.55	0.55
Uniform Del:				28.3	28.7	30.9	26.6	23.2	23.4	12.1	12.1
IncremntDel:			0,.1	0.1	0.3	0.1	8.9	0.9	7.1	0.3	0.3
Delay Adj:	1.00 1.	00.00		1.00	1.00		1.00	1.00		1.00	1.00
Delay/Veh:				28.4	29.0		35.6	24.1		12.4	12.4
User DelAdj:				1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				28.4	29.0					12.4	12.4
HCM2kAvg: ******		0 0	0	0	1	.0		5		8	8
******	****	*****	****	****	*****	****	× × × × ×	*****	*****	× × × × × ;	*****

Level Of Service Computation Report
ance way operations Mothod (Rase Volume Alternative)

Intersection #12 Reservation Rd/Blanco Rd
$\alpha_{-2} + i \operatorname{and} A \operatorname{Con} A \operatorname{V} $
D-1 (200) 1
Level Of Service:

Approach: North Bound South Bound East Bound West Bound
Movement: L = 1
Include Include include
Win Croop: 0 0 10 0 10 7 10 10 0 10 10
Min. Green.
Lanes: 0 0 0 0 0 2 0 0 0 2 0 0 0 0 0 0 0 0 0
Volume Module: 0 1070 016 946 0 0 1948 0
Base Vol: 0 0 11 0 1 00 1 00 1 00 1 00 1 00 1 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 0 0 0 100 100 100 100 1.00 1.00 1.00 1
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Volume: 0 0 0 11 0 0 916 846 0 0 1948 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 11 0 0 916 846 0 0 1948 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
MLF Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.0
Final Vol.: 0 0 0 11 0 0 916 846 0 0 1948 0
Flow Module:
1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 1.00
Tapes: 0.00 0.00 0.00 2.00 0.00 2.00 2.00 2.0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Sat.: 0 0 0 3302 0 4102 3502 001
Capacity Analysis Module: Val/Sat: 0.00 0.00 0.00 0.00 0.00 0.26 0.23 0.00 0.00 1.03 0.00
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.11 0.00 0.00 0.16 0.80 0.00 0.00 0.64 0.00
Volume/Cap: 0.00 0.00 0.00 0.03 0.00 0.00 1.61 0.29 0.00 0.00 1.61 0.00
Uniform Del: 0.0 0.0 0.0 38.1 0.0 0.0 39.8 2.5 0.0 0.0 17.2 0.0
IncremntDel: 0.0 0.0 0.0 0.0 0.0 282.0 0.1 0.0 0.0 278 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 38.2 0.0 0.0 321.7 2.3 1.00 1.00 1.00 1.00
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Adjuet/ven: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
HCM2kAvg: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

												
		.]	Level C	of Ser	vice (Computa	tion 1	Repor	 +	- 		<u></u>
	2000	HCM (Operati	ons M	ethod	(Base	Volume	e Alt	ernativ	re)		
*****	****	****	*****	****	****	****	****	****	*****	****	****	****
Intersection ******							****	****	*****	****	****	*****
Cycle (sec):		130)		C	ritica	l Vol	./Cap	. (X):			
Loss Time (s	ec):	9	(Y+R	= 4 :	sec) P	verage	Delay	y (se	c/veh):		33	
Optimal Cycl	e:OPT	IMIZEI)		I	Level C	f Ser	vice:				C
*******								****	*****	****	****	*****
Approach:		rth Bo				ound		ast B			est B	
Movement:		- T 		ь -	- T	– R	L -	- T	- R	L	- T	- R
Control:			ase					rotec			rotec	•
Rights:	-1-	Incli		JP.	Ignor			Incl		, E	Incl	
Min. Green:	Ó		0	10	0		7		10	0		10
Lanes:	0	0 0	0 0	2 (0 0	0 (
		<u> </u>		1			1					
Volume Modul	e:											•
Base Vol:	0	0	.0	11	0	1278		846	0	0	1948	0
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse:		0	0	11	0	1278	916	846	0	0	1948	0
User Adj:		1.00	1.00		1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:		1.00	1.00		1.00	0.00		1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	11	0	0	916	846	0	0	1948	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	.0	0
Reduced Vol:	0	0	.0	11	0	0	916	846	0		1948	0
PCE Adj:		1.00	1.00		1.00	0.00		1.00	1.00		1.00	1.00
MLF Adj:		1.00	1.00		1.00	0.00		1.00	1.00		1.00	1.00
Final Vol.:	. 0	0	.0	11	0	,0		846	0 		1948	0
Saturation F				1								
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	1.00		1.00	1.08		0.95			0.95	0.95
Lanes:	0.00		0.00		0.00	2.00		2.00			2.00	0.00
Final Sat.:	0	0	0	3502		4102		3610	0		3610	0.00
			1							-		
Capacity Ana	lysis	Modu]	e:									•
Vo1/Sat:	0.00	0.00	0.00		0.00	0.00		0.23	0.00	0.00	0.54	0.00
Crit Moves:				****			****				****	
Green/Cycle:			0.00	0.08	0.00	0.00	0.28	0.85	0.00	0.00	0.58	0.00
Volume/Cap:		0.00	0.00		0.00	0.00		0.27	0.00	0.00	0.94	0.00
Uniform Del:		0.0	0.0	55.6	0.0	0.0	45.8	1.8	0.0		25.5	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.0	0.0	16.0	0.0	0.0	0.0	9.0	0.0
Delay Adj:		0.00	0.00		0.00	0.00		1.00	0.00		1.00	0.00
Delay/Veh:	0.0	0.0	0.0	55.6	0.0	0.0	61.8	1.9	0.0		34.5	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDe1/Veh:	0.0	0.0	0.0	55.6	0.0	0.0	61.8	1.9	0.0		34.5	0.0
HCM2kAvg:		0	0	0	.0	0	23	3	0	0	40	.0
				0 0 0 0 0 X			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~	^ ^ X X X X X X	***	****	****

							ion Re	 nort			
			vel Of eration			~ · T.7	_ l	カーナヘア	native)	
****	2000 f	CM OP	******	15 Mec	****	****	****	****	*****	*****	****
				. /							
and the second of the second o		****	****	****	****	****	****	****	****	*******	****
cycle (sec):		110			Cr	itical	Vo1./	Cap.	(X):	0.8	70.4
Loss Time (se	c):	9	(Y+R =	4 s∈	c) Av	erage	Delay	(sec/	ven):	20	:C
Cycle (sec): Loss Time (se Optimal Cycle	:	99		a a acceptant	Le	vel OI	*****	.ce: *****	*****	****	*****
*****	****	*:*:*:*	V . V . V . V . V . V							West I	3ound
Approach:	Nor	th Bou	na R		_		T .	TT.	TD .	T	- K
											1
Control: Rights:	Spl	it Pha	se	Spl:	it Pha	se	Pro	otecte	ed	Prote	cted
Rights:	OPI	Includ	le	- 1	Ignore	•	Ī	Includ	le	Inc	lude 0 10
Min Green:	0	0	0	10	U	10	4	1.0	1.0		-
Lanes:	0 0	0 0	0	2 0	0 0) 2	2 0	.2 () 0 11	0 0 1	
			11								
Volume Module		0	0	35	0	1118	1353	2046	0	0 69	7 25
	1 00	1 00	1.00	1.00		1.00	1.00		1.00	1.00 1.0	
Growth Adj:		0	0	35	0	1118	1353	2046	0	0 69	
Initial Bse: User Adj:			1.00	1.00	1.00	0.00	1.00		1.00	1.00 1.0	
PHF Adj:	0.94	0.94	0.94	0.94		0.00	0.94		0.94	0.94 0.9	
PHF Volume:	0	0	0	37	0	0	1439		0	0 74	· -
Reduct Vol: Reduced Vol:	0	0	0	0	0	0	0 1439	0 0	0	0 74	•
	0	0	0	37	1 00	0.00	1.00			1.00 1.0	
PCE Adj:	1.00	1.00	1.00	1.00		0.00		1.00		1.00 1.0	
MLF Adj:			_	27	0	· ∩	1/139	2177	0	0 74	
Final Vol.:	1		1	J			1				
Saturation F	low M	odule:	••								
Sat/Lane:	1900	1900	1900	1900		1900	1900	1900	1900 1.00	1900 190	
Addingtment.	1.00	1.00	1.00	0.92	1.00		0.92	2.00			
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00 4102	3502	3610	0	0 19	00 1615
Final Sat.:	0	.0		3502		4102					
Capacity Ana	1	Modul	ė:	ı							
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.00		0.60	0.00	0.00 0.	
Crit Moves:				****			***				
Green/Cycle:	0.00	0.00	0.00	0.09	0.00	0.00		0.83	0.00	0.00 0.	
Volume/Cap:	0.00	0.00	0.00	0.12	0.00	0.00		0.73	0.0	0.00 0.	
Uniform Del:			0.0	45.9 0.2		0.0	30.9 16.4			0.0 24	
IncremntDel	: 0.0		0.0		0.00	0.00		1.00		0.00 1.	
Delay Adj:	0.00	0.00	0.00	46.1		0.0				0.0 57	.1 20.0
Delay/Veh: User DelAdj	. 1 0.0	1.00	1.00		1.00	1.00		1.00		1.00 1.	
AdjDel/Veh:	0.0	0.0				0.0				0.0 57	
HCM2kAva:	0	0	_	-	0	0	31	17	0		30 1 ******
HCM2kAvg: ******	****	****	*****	*****	****	*****	****	: x x x x x	A. R. R. R. R. R.		

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #12 Reservation Rd/Blanco Rd ******************************** Cycle (sec): 90 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: OPTIMIZED Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0 0 0 0 0 10 0 10 7 10 10 0 10 10
 0 10 10 10 10

 Lanes:
 0 0 0 0 0 2 0 0 0 2 2 0 0 0 0 0 0 1 1 0
 Volume Module: Base Vol: 0 0 0 35 0 1118 1353 2046 0 0 697 Initial Bse: 0 0 0 35 0 1118 1353 2046 0 0 697 25 PHF Volume: 0 0 0 37 0 0 1439 2177 0 0 741 27 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 0.95 0.95 Final Sat.: 0 0 0 3502 0 4102 3502 3610 0 0 3468 124 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.41 0.60 0.00 0.00 0.21 0.21 Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.11 0.00 0.00 0.52 0.79 0.00 0.00 0.27 0.27 Volume/Cap: 0.00 0.00 0.00 0.10 0.00 0.00 0.79 0.76 0.00 0.00 0.79 0.79 0.0 17.7 5.1 0.0 2.5 1.3 0.0 35.9 0.0 Uniform Del: 0.0 0.0 0.0 30.5 0.0 0.0 IncremntDel: 0.0 0.0 0.1 0.0 0.0 0.0 4.5 0.0 0.0 0.0 36.0 0.0 0.0 20.1 6.3 Delay/Veh: 0.0 0.0 35.0 35.0 AdjDel/Veh: 0.0 0.0 0.0 36.0 0.0 0.0 20.1 6.3 0.0 0.0 35.0 35.0 HCM2kAvg: 0 0 0 1 0 0 19 17 0 0 12 12

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************* Intersection #17 Reservation Rd/S. Davis Rd **************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] ************************* North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include 0 0 1! 0 0 0 1 0 0 1 0 0 1 0 0 1 0 Lanes: Volume Module: 200 2 741 7 1212 595 262 .1 209 21 14 14 Base Vol: 209 7 1212 595 262 1 2 741 200 Initial Bse: 21 14 14 PHF Volume: 22 14 14 215 7 1249 613 270 1 2 764
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 22 14 14 215 7 1249 613 270 1 2 764 Ω Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx 2.2 xxxx xxxxx 2.2 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 Capacity Module: 970 xxxx xxxxx 271 xxxx xxxxx Cnflict Vol: 2997 2472 271 2383 2369 867 Cnflict Vol: 233, 2 Potent Cap.: 9 30 773 0 4 773 719 xxxx xxxxx 1304 xxxx xxxxx 773 24 35 355 719 xxxx xxxxx 1304 xxxx xxxxx 773 0 5 355 719 xxxx xxxxx 1304 xxxx xxxxx Volume/Cap: xxxx 3.24 0.02 xxxx 1.39 3.52 0.85 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxxx xxxxx xxxxx xxxx 115.8 10.0 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 1162 31.9 xxxx xxxxx 7.8 xxxx xxxxx LOS by Move: * * * * * F D * * A * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * * * * * * * * * * * XXXXXX XXXXXX XXXXXX ApproachDel: xxxxxx F F ApproachLOS:

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

<pre>Intersection #17 Reservation Rd/S. Davis Rd ************************************</pre>													
Cycle (sec):		105							. (X):	0.6			
Loss Time (se	ec):	Ç	(Y+R	= 4 :	sec) A	verage	Dela	v (sed	./veh):	28			
Optimal Cycle	÷:	4 9)		I	Level C	f Ser	vice:			C		
******	****	*****	*****	****	****	****	****	****	*****	*****	*****		
Approach:	No:	rth Bo	ound	So	ath Bo	ound	É	ast Bo	ound	West Bound			
			- R			- R		- T	- R	L - T	- R		
										1			
Control:	1	Permit					P			Protec			
Rights:	_	Inclu 0			Ignor		•	Incl		Incl			
Min. Green:			0		0	0	.0		0	0 0	0		
Lanes:		0 1!			L U	0 1	.2 (0 0	1 0	1 0 1	1 0		
Volume Module				1			1			1			
Base Vol:	21	14	14	209	7	1212	595	262	1	2 741	200		
		1.00	1.00		1.00	1.00		1.00		1.00 1.00			
Initial Bse:	21	14	14	209	7	1212	595	262	1	2 741	200		
		1.00	1.00		1.00	0.00		1.00	1.00	1.00 1.00	1.00		
		0.97	0.97		0.97	0.00		0.97	0.97	0.97 0.97	0.97		
PHF Volume:	22	14	14	215	7	0	613		1	2 764	206		
Reduct Vol:	0	0	0	0	0	0	0_0	2.0	ō	0 0	200		
Reduced Vol:	22	14	14	215	7	.0	613	270	1	2 764	206		
PCE Adi:	1.00	1.00	1.00		1.00	0.00		1.00		1.00 1.00	1.00		
-		1.00	1.00		1.00	0.00		1.00	1.00	1.00 1.00	1.00		
Final Vol.:	22	14	14	215	7	0	613		1	2 764	206		
]]			
Saturation Fl	ow Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900 1900	1900		
Adjustment:	0.82	0.82	0.82	0.71	0.71	1.00	0.92	1.00	1.00	0.95 0.92	0.92		
Lanes:	0.43	0.28	0.29		0.03	1.00	2.00	0.99	0.01	1.00 1.57	0.43		
		444	444		44	1900	3502	1891	7	1805 2752	743		
Capacity Anal						1	1						
			0.03	0.17	0.17	0.00	0.18	0.14	0.14	0.00 0.28	0.28		
Crit Moves:		0.00			****	0.00	****	0.11	0.11	****	0.20		
Green/Cycle:	0.24	0.24	0.24	0.24	0.24	0.00	0.26	0.66	0.66	0.01 0.41	0.41		
_	0.13		0.13		0.68	0.00		0.22	0.22	0.22 0.68	0.68		
Uniform Del:			31.0		35.9	0.0	34.9	6.9	6.9	52.0 25.3	25.3		
IncremntDel:		0.2	0.2	5.5	5.5	0.0	2.1	0.1	0.1	11.0 1.3	1.3		
		1.00	1.00		1.00	0.00		1.00	1.00	1.00 1.00	1.00		
Delay/Veh:		31.1	31.1		41.4	0.0	37.0	7.0	7.0	63.0 26.6	26.6		
User DelAdj:			1.00		1.00	1.00	-, -,-	1.00	1.00	1.00 1.00	1.00		
AdjDel/Veh:		31.1	31.1		41.4	0.0	37.0	7.0	7.0	63.0 26.6	26.6		
HCM2kAvg:	2	2	2	10	10	0	10	3	3	0 14	14		
******	-	-	_		.— -	_			-				

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #17 Reservation Rd/S. Davis Rd **************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: *************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Stop Sign Uncontrolled Uncontrolled Include Include Include Control: Stop Sign Rights: Include Rights: Include Includ Volume Module: Base Vol: 9 5 7 310 5 315 1256 787 17 7 398 Initial Bse: 9 5 7 310 5 315 1256 787 17 7 398 131 Critical Gap Module: 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx Critical Gp: 7.1 6.5 FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 4242 4140 855 4076 4079 498 569 xxxx xxxxx 865 xxxx xxxxx Potent Cap.: 1 2 361 1 3 576 1014 xxxx xxxxx 787 xxxx xxxxx 0 0 576 1014 xxxx xxxxx 787 xxxx xxxxx 0 0 361 Move Cap.: Volume/Cap: xxxx xxxx 0.02 xxxx xxxx 0.59 1.33 xxxx xxxx 0.01 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 3.8 51.9 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxx 19.8 171.3 xxxx xxxxx 9.6 xxxx xxxxx LOS by Move: * * * * * C F * *

Movement: IT - ITP - PT IT - ITP - PT IT - ITP - PT A * * LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT XXXXXX ApproachDel: F F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***********************************													
	****	****	*****	*****	****	*****	****	****	****	*****	****	*****	
Intersection #17 Reservation Rd/S. Davis Rd ************************************													
Cycle (sec):		7 (, (:(Critica	1 Vol	./Cap	. (X):		0.92	22	
Loss Time (se	ec):	Ç	9 (Y+R	= 4	sec) 1	Average	Dela	y (se	c/veh):	:	31.	. 3	
Optimal Cycle		95			1	Level C	f Ser	vice:				C	

Approach: Movement:			ouna - R						ound		st Bo		
Movement:				ط ا	- T	- R	٠ با	- T	- R	L	Т	- R	
Control:		Permit				ted			 ted			•	
Rights:		Inclu			Ignoi			Incl			otect Incli		
Min. Green:	0	0	0		0	0	0	0		0		.0	
Lanes:	0	0 1!	0 .0	0	1 0	0 1	2 (0 0		1 0	-		
							1						
Volume Module		_	_		_								
Base Vol:	9	.5	7	310	5	315	1256		.—	7	398	131	
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Initial Bse:	1 00	1 00	1 00	310	5	315	1256	787	17	7	398	131	
User Adj: PHF Adj:		1.00	1.00		1.00	0.00		1.00	1.00	1.00		1.00	
PHF Volume:	10	0.93	0.93	333	0.93	0.00		0.93	0.93	0.93 (0.93	
Reduct Vol:		0	0	3.3.3	.0	;0 :0	1351	846 0	18	8	428	141	
Reduced Vol:	10	5	8	333	5	0	1351	846	0 18	0	0	0	
PCE Adi:		1.00	1.00		1.00	0.00		1.00		8 1.00 1	428	141	
MLF Adj:		1.00	1.00		1.00	0.00		1.00		1.00		$1.00 \\ 1.00$	
Final Vol.:	10	5	8	333	5	0.00	1351	846	18	8	428	141	
			_			-							
Saturation F	low M	odule:								•			
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900 1	1900	1900	
Adjustment:	0.83	0.83	0.83	0.70	0.70	1.00	0.92	1.00	1.00	0.95 (0.91	0.91	
Lanes:		0.24	0.33		0.02	1.00		0.98		1.00 1		0.50	
	673		524	1311	21	1900		1854	40	1805 2		861	
			,	1		1							
Capacity Anal Vol/Sat:			e: 0.01	0.25	0.25	0.00	0 30	0.46	0.46	0 00 0	3 3 6	0 10	
Crit Moves:	0.01	0.01	0.01	0.23	****	0.00	****	0.46	0.46	0.00).16 ****	0.16	
Green/Cycle:	0.28	n 28	0.28	0.28	0.28	0.00		0.59	0.59	0.01 (A 10	
Volume/Cap:		0.25	0.05		0.20	0.00		0.39	0.39	0.77		0.18 0.92	
Uniform Del:			18.6		24.6	0.0		10.8	10.8	34.8 2		28.3	
IncremntDel:			0.1		28.2	0.0	9.9	3.4		158.6		20.3 19.5	
Delay Adj:		1.00	1.00		1.00	0.00		1.00	1.00	1.00 1		1.00	
Delay/Veh:		18.7	18.7		52.8	0.0		14.2		193.3		47.8	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1		1.00	
AdjDel/Veh:		18.7	18.7		52.8	0.0		14.2		193.3		47.8	
HCM2kAvg:	0	0	0	15	15	0	19	16	16	1	10	10	
*****	****	****	*****	****	*****	****	****	****	*****	*****	****	****	

	+	evel Of	Corvi		mnut at	ion Re	port				
	ье 2000 НСМ Ор	evel Or	Servit Servit	200	mpucac Basa V	olume	Alter	native)		
****	2000 HCM OF	eracio	*****		*****	****	****	*****	****	****	****
*****	*****	TID Dom	na /Posí	arvat	ion Rd						
Intersection ******	#18 HMA 08	WD Rall	*****	****	*****	*****	****	*****	*****	****	****
	45			Cr	itical	Vol./	Cap.	(X):		0.675	, ,
Cycle (sec):		/V±D -	. /	- Δ τ <i>τ</i>	erade	Delav	(sec/	veh):		14.8	}
Loss Time (se	4.0			Tο	7701 Ot	Servi	LCP:			Ε	
Optimal Cycle	. 40	*****	****	****	****	****	****	*****	*****	****	****
	North Bo		Sout			Eas	st Bou	ınd	Wes	st Bou	ınd
Approach:	÷	D	т -	т <u> </u>	R	T	Ť +	- R	L -	Т -	- R
Movement:	L - 1	1						1			
	Split Ph	1 I 2 S E	Spli	t Pha	se	Pro	otecte	ed	Pro	otecte	ed
Control:	Inclu		I	ncluc	le		Includ	de		Includ	de
Rights:	0 0	0	10		10	0	10	10	7	10	0
Min. Green:	0 0	0 0	0 1	0 0) 1	0 0	0 3	1 0	1 0		0 0
Lanes:		1									
Volume Module	· ·		•								
Base Vol:	0 0	0	207	0	228	0	318	139		663	0
Growth Adj:	1.00 1.00	1.00	1.00 1	.00	1.00	1.00	1.00	1.00	1.00		1.00
Initial Bse:	0 0	0	207	0	228	0	318	139	238	663	0
User Adj:	1.00 1.00	1.00	1.00 1	.00	1.00	1.00	1.00	1.00	1.00		1.00
PHF Adj:	0.92 0.92	0.92	0.92	.92	0.92	0.92		0.92	0.92		0.92
PHF Volume:	0 0	0	225	O	248	0	346	151		721	0
Reduct Vol:	0 0	0	0	0	0	0	10	0	.0	0	0
Reduced Vol:	0 0	.0	225	0	248	0	346	151	259	721	0
PCE Adj:	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
Final Vol	0 0	0	225	0	248	0	346	151	259	721	0
gillar vor.			1			J					
Saturation F	low Module	:				- 2000	1000	1.000	1900	1.000	1900
Sat/Lane:	1900 1900	1900	1900		1900	1900		1900			1.00
Adjustment:	1.00 1.00	1.00	0.95		0.85	1.00		0.96	0.95	1.00	0.00
Lanes:	0.00 0.00		1.00		1.00		0.70	0.30 554		1900	0.00
Final Sat.:	0 0	0	1809	0	1615		1268		1000	1300	_
Final Sat.:						1			1		1
Capacity Ana	lysis Modu	le:		0.00	0 15	0 00	0.27	0.27	0 14	0.38	0.00
Vol/Sat:	0.00 0.00	0.00	0.12	0.00	0.15	0.00	****	0.27	****	0.00	,0 ,4 .0 0
Crit Moves:	- 1-			0 00	0 00	0.00	0.38	0.38	0.20	0.58	0.00
Green/Cycle:	0.00 0.00	0.00	0.22		0.22		0.72	0.72		0.66	0.00
Volume/Cap:	0.00 0.00		0.56				11.9	11.9	16.8	6.5	0.0
Uniform Del:			15.5	0.0	16.1 5.6	0.0		3.7	6.9		0.0
IncremntDel	: 0.0 0.0		1.8	0.0	1.00		1.00	1.00		1.00	0.00
Delay Adj:	0.00 0.00		17.3	0.0	21.7		15.6	15.6		7.9	0.0
Delay/Veh:	0.0 0.0		1.00		1.00		1.00	1.00		1.00	1.00
User DelAdj	: 1.00 1.00	1.00	17.3	0.0	21.7		15.6	15.6			0.0
AdjDel/Veh:	~ ~		1	Λ	5	n	8	8	5	8	0
HCM2kAvg: ******	0 0	0	*****	****	*****	*****	****	*****	*****	****	*****
******	V-0-W-0-V-0-W-0-W-0-W-0			,							

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

Intersection #18 Hwy 68 WB Ramps/Reservation Rd ***********************************												
Cycle (sec): 45 Critical Vol./Cap. (X):												
	13.3											
Optimal Cycle: 36 Level Of Service:	В											
*****************	*****											
Approach: North Bound South Bound East Bound West	Bound											
Movement: L - T - R L - T - R L - T - R L -	т – в											
Control: Split Phase Split Phase Protected Prot	rected											
Rights: Include Include Include	nclude											
Min. Green: 0 0 0 10 0 10 0 10 7	10 0											
Lanes: 0 0 0 0 0 1 1 0 0 1 0 0 1 0 1 1 0	1 0 0											
Volume Module:	1											
Base Vol: 0 0 0 207 0 228 0 318 139 238 6	663 0											
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												
	663 0											
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92												
Reduct Vol: 0 0 0 0 0 0 0 0 0	· · ·											
	0 0 721 0											
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												
2.50	721 0											
Saturation Flow Module:												
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	900 1900											
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 0.85 0.95 1												
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 1												
Final Sat.: 0 0 0 3618 0 1615 0 1900 1615 1805 19												
Capacity Analysis Module:												
Vol/Sat: 0.00 0.00 0.00 0.06 0.00 0.15 0.00 0.18 0.09 0.14 0	.38 0.00											
Crit Moves: **** **** ****	. 5.5											
Green/Cycle: 0.00 0.00 0.00 0.26 0.00 0.26 0.00 0.30 0.30 0.24 0	54 0.00											
Volume/Cap: 0.00 0.00 0.00 0.24 0.00 0.60 0.00 0.60 0.31 0.60 0												
	7.6 0.0											
	2.1 0.0											
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1	· · · · · ·											
	9.7 0.0											
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0												
	9.7 0.0											
HCM2kAvq: 0 0 0 1 0 4 0 5 2 4	9 0											

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #18 Hwy 68 WB Ramps/Reservation Rd **************** Cycle (sec): 80 Critical Vol./Cap. (X): 1.421 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: ****************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Include Min. Green: 0 0 0 10 0 10 0 10 7 10 Min. Green: Lanes: 0 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0 Volume Module: 241 0 873 0 0 0 821 0 246 134 257 Base Vol: PHF Volume: 0 0 0 912 0 268 0 970 273 149 286 0 Reduct Vol: 0 0 0 912 0 268 0 970 273 149 286 0 Reduced Vol: 0 0 0 912 0 268 0 970 273 149 286 0 Final Vol.: 0 0 0 912 0 268 0 970 273 149 286 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.50 0.00 0.17 0.00 0.67 0.67 0.08 0.15 0.00 *** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.34 0.00 0.34 0.00 0.46 0.46 0.09 0.55 0.00 Volume/Cap: 0.00 0.00 0.00 1.47 0.00 0.48 0.00 1.47 1.47 0.94 0.28 0.00 Uniform Del: 0.0 0.0 0.0 26.3 0.0 20.7 0.0 21.7 21.7 36.3 9.7 IncremntDel: 0.0 0.0 0.0 221.9 0.0 0.7 0.0 220 219.6 54.6 0.1 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 Delay/Veh: 0.0 0.0 0.0 248.2 0.0 21.4 0.0 241 241.3 90.9 9.9 AdjDel/Veh: 0.0 0.0 0.0 248.2 0.0 21.4 0.0 241 241.3 90.9 9.9 HCM2kAvg: 0 0 63 0 6 0 81 81 7 4 0.0 **************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #18 Hwy 68 WB Ramps/Reservation Rd Cycle (sec): 80 Critical Vol./Cap. (X): 0.952 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/Optimal Cycle: 120 Level Of Service: 36.5 9 (Y+R = 4 sec) Average Delay (sec/veh): ************************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______ Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Include Min. Green: 0 0 0 10 0 10 0 10 7 10 Lanes: 0 0 0 0 0 1 1 0 0 1 0 0 1 0 1 0 0 0 Volume Module: Final Vol.: 0 0 0 912 0 268 0 970 273 149 286 0 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 0.85 0.95 1.00 1.00 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.25 0.00 0.17 0.00 0.51 0.17 0.08 0.15 0.00 **** **** Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.26 0.00 0.26 0.00 0.54 0.54 0.09 0.62 0.00 Volume/Cap: 0.00 0.00 0.00 0.95 0.00 0.63 0.00 0.95 0.32 0.94 0.24 0.00 Uniform Del: 0.0 0.0 0.0 28.9 0.0 25.9 0.0 17.6 10.4 36.3 6.7 0.0 IncremntDel: 0.0 0.0 0.0 18.8 0.0 2.9 0.0 18.0 0.2 54.6 0.1 AdjDel/Veh: 0.0 0.0 0.0 47.7 0.0 28.9 0.0 35.6 10.6 90.9 6.8 0.0 HCM2kAvg: 0 0 0 17 0 7 0 29 4 7 3 0 **********************************

ب بن د د د د د د د د د د د د د د د د د د							* ** **					
						omputat				,		
	2000	HCM OF	peratio	ons Me	thod	(Base \	/olume	Alte	rnativ	e) 	مات مات بالديات	دالأخاب بالداخات خاد خاد
*****								****	****	****	×××××	
Intersection ********	#19 H ****	wy 68 ****	EB Ran *****	nps/Re	serva ****	tion Ro	1 * * * * * * *	****	*****	*****	****	****
Cycle (sec):		80							(X):		0.95	5
Loss Time (se	c):	9	(Y+R =	= 4 s	ec) A	verage	Delay	(sec	:/veh):		34.	5
Optimal Cycle	.70	122			T.	evel 0:	f Serv	ice:				C
*******	****	****	*****	****	****	****	*****	****	****	*****	****	****
Approach:	Nor	th Bo	ınd	Sou	th Bo	und	Ea	st Bo	ound		st Bo	und
Movement.	Т -	T	- R	L -	Т	- R	L -			Г -		– R
Control:	Spl	it Ph	ase	Spl	it Ph	ase	Pr	otect		Pr	otect	
Rights:		Inclu			Inclu	de		Incl		_	Inclu	
Min. Green:	10	0	10	0		.0	7	-	0	0	10	10
Lanes:	0 1	. 0	0 1	0 0			1 C		0 0	0 0		0 1
							1					1
Volume Module					-		0.01	224		ò	000	7.4.1
Base Vol:	191	.0	93	0	0	0	281	334	1 00	1 00	802	741 1.00
Growth Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00	802	741
Initial Bse:	191	0	93	0	1 00	0	281 1.00	334	1.00	1.00		1.00
User Adj:	1.00		1.00	1.00		1.00	0.85		0.85	0.85		0.85
PHF Adj:	0.85		0.85	0.85		0.85	331	393	0.65	0.00	944	872
PHF Volume:	225	0	109	0	0	.0	331	393 0	0	0	0	0 72
Reduct Vol:	0	0	100	.0	0	•	331	393	0	0	944	872
Reduced Vol:	225	1 00	109 1.00		1.00	1.00		1.00	1.00	1.00		1.00
PCE Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:	1.00	1.00	100	1.00	0	0		393	0	0	944	872
Final Vol.:		-		-		1			_	1		
Saturation F	low Mo		1	i.		•	1		,	•		,
Sat/Lane:		1900	1900	1900	1900	1900		1900			1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00		1.00			1.00	0.85
Lanes:	1.00	0.00	1.00		0.00	0.00		1.00			1.00	1.00
Final Sat.:	1809	0	1615	0	0	:0		1900			1900	1615
	•			1								
Capacity Ana				0 00	0 00	0.00	0 10	0.21	0.00	0 00	0.50	0.54
Vo1/Sat:	-	0.00	0.07	0.00	0.00	0.00	****	0.21	0.00	0.00	0.50	****
Crit Moves:	****	0.00	0 10	0.00	0 00	0.00		0.76	0.00	0 00	0.57	0.57
Green/Cycle:			0.13		0.00	0.00		0.70			0.88	0.95
Volume/Cap:		0.00	0.52 32.5	0.00		0.0	32.0				15.0	16.4
Uniform Del:			2.3	0.0		0.0	36.4			0.0		19.6
IncremntDel:		0.00	1.00		0.00	0.00		1.00			1.00	1.00
Delay Adj:	80.5		34.8	0.0		0.0	68.4				23.4	36.0
Delay/Veh: User DelAdj:			1.00		1.00	1.00		1.00			1.00	
			34.8	0.0		0.0	68.4				23.4	36.0
AdjDel/Veh:	10	0.0	3	0.0	0	0	13	3	0	0	24	26
HCM2kAvg:		•				-				****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #19 Hwy 68 EB Ramps/Reservation Rd ************************* Cycle (sec): 85 Critical Vol./Cap. (X): 0.972 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle:OPTIMIZED Level Of Service: ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Split Phase Rights: Include I Lanes: 0 1 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1 ______| Volume Module: Base Vol: 191 0 93 0 0 0 281 334 0 0 802 Initial Bse: 191 0 93 0 0 0 281 334 0 0 802 741 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.93 0.93 1.00 1.00 1.00 0.85 Final Sat.: 1809 0 1615 0 0 0 1613 1917 0 0 1900 1615 Capacity Analysis Module: Crit Moves: **** Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.56 0.56 Volume/Cap: 0.97 0.00 0.53 0.00 0.00 0.00 0.97 0.97 0.00 0.00 0.89 0.97 0.0 33.3 33.3 Uniform Del: 36.9 0.0 34.7 0.0 0.0 0.0 0.0 16.7 2.6 0.0 0.0 0.0 26.1 26.1 IncremntDel: 51.0 0.0 0.0 0.0 9.9 23.3 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 88.0 0.0 37.3 0.0 0.0 59.4 59.4 0.0 0.0 26.6 41.6 AdjDel/Veh: 88.0 0.0 37.3 0.0 0.0 59.4 59.4 0.0 0.0 26.6 41.6 HCM2kAvg: 11 0 3 0 0 0 15 15 0 0 26 29 ********************

سینیا کے میں بنت سے بند میں میں کے بیان کے بیان کے بیان کی بیان کی بیان کے بیان کے بیان کے بیان کے بیان کے بیا Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #19 Hwy 68 EB Ramps/Reservation Rd ******************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.979 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/ven):
Optimal Cycle: 103 Level Of Service: ****************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 7
 10
 0
 0
 10
 10

 Lanes:
 0
 1
 0
 0
 0
 0
 1
 0
 0
 0
 1
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 <t Volume Module: 0 0 296 338 295 1205 0 0 0 141 0 217 Base Vol: 0 0 0 295 1205 0 0 296 338 Saturation Flow Module: Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615 Vol/Sat: 0.09 0.00 0.15 0.00 0.00 0.19 0.73 0.00 0.00 0.18 0.24 Crit Moves: **** Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.29 0.65 0.00 0.00 0.37 0.37 Volume/Cap: 0.49 0.00 0.85 0.00 0.00 0.00 0.65 1.11 0.00 0.00 0.49 0.65 0.0 0.0 13.4 14.5 0.0 0.0 0.5 2.6 Uniform Del: 20.2 0.0 21.8 0.0 0.0 0.0 17.2 9.5 AdjDel/Veh: 21.4 0.0 42.0 0.0 0.0 0.0 20.2 72.2 0.0 0.0 13.9 17.1 HCM2kAvg: 3 0 7 0 0 0 7 46 0 0 5 7 *************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************												
Intersection #19 Hwy 68 EB Ramps/Reservation Rd ************************************												
Cycle (sec): 85												
Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R L - T -								ound - R	We L	est Bo - T	ound - R	
Control: Rights: Min. Green: Lanes:	Split F Incl 10 0	hase ude 10 0 1	Sp. 0	Lit Ph Inclu 0 0	nase ide 0	Sp: 7 0	lit Ph Inclu 10 l 1	nase nde 0	Sp. 0	lit Pl Incl: 10	hase ude 10	
Growth Adj: 1 Initial Bse: User Adj: 1 PHF Adj: 0 PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: 1 MLF Adj: 1 Final Vol.:	141	217 1.00 217 1.00 0.87 249 0 249 1.00 1.00 249	0 1.00 0 1.00 0.87 0 0 0 1.00 1.00 1.00	0 1.00 0 1.00	0 1.00 0 1.00 0.87 0 0 1.00 1.00	295 1.00 295 1.00 0.87 339 0 339 1.00 1.00 339	1205 1.00 1205 1.00 0.87 1385 0 1385 1.00 1.00 1385	0 1.00 0 1.00	0 1.00 0 1.00 0.87 0 0 1.00 1.00 1.00	296 1.00 296 1.00 0.87 340 0 340 1.00 340	338 1.00 338 1.00 0.87 389 0 389 1.00 1.00 389	
	.00 0.00 809 0	1615	0	0.00	0.00	0.39 703	1.61 2871	0.00	0.00	1.00 1900	1.00 1615	
Crit Moves: Green/Cycle: 0 Volume/Cap: 0 Uniform Del: 3 IncremntDel: Delay Adj: 1 Delay/Veh: 3 User DelAdj: 1 AdjDel/Veh: 3 HCM2kAvg:	.09 0.00 .16 0.00 .57 0.00 3.1 0.0 2.7 0.0 .00 0.00 5.9 0.0	0.15 **** 0.16 0.98 35.7 51.0 1.00 86.7 1.00 86.7 11	0.00 0.00 0.0 0.0 0.00 0.0 1.00 0.0	0.00 0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0	0.00 0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0	**** 0.49 0.98 21.2 17.2 1.00 38.4 1.00 38.4 30	0.48 0.49 0.98 21.2 17.2 1.00 38.4 1.00 38.4 30	0.00 0.00 0.00 0.0 0.00 0.00 0.00 1.00 0.0	0.00 0.00 0.0 0.00 0.00 0.00 1.00 0.0	0.18 0.25 0.73 29.5 5.8 1.00 35.3 1.00 35.3	0.24 **** 0.25 0.98 31.9 40.1 1.00 72.0 1.00 72.0 16	

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ******************************* Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 Volume Module: Base Vol: 0 0 0 550 2 0 0 1161 0 0 PHF Volume: 0 0 0 625 2 0 0 0 0 1319 0 0 Reduct Vol: 0 0 0 625 2 0 0 0 0 0 1319 0 0 Final Vol.: 0 0 625 2 0 0 0 0 0 1319 0 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx xxxx 3.5 4.0 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 2639 2639 xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx Level Of Service Module: ApproachLOS:

			Level C	f Ser	vice (Computa	tion 1	Panar				
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)												
*******	****	****	****	****	****	*****	****	****	*****	****	****	*****
Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ************************************												
Cycle (sec): 100 Critical Vol./Cap. (X): 0.953												
Loss Time (sec): 6 $(Y+R = 4 \text{ sec})$ - Average Delay (sec/veh): 37.6												
Optimal Cycle: 138 Level Of Service:												

Approach:	North Bound L - T - R			South Bound L - T - R			East Bound L - T - R			West Bound		
Movement:						- R	L .	- T	- R	L -	T	- R
Control:		Lit Pl		Split Phase			Split Phase			· ·		
Rights:	Include 0 0 0			Include 0 0 0			Include 0 0 0			Split Phase Include 0 0 0		
Min. Green:												
Lanes:	0 0	0	0 0	1 1	1 0	0 0	0 (0 0	0 0	1 0	0	0 0
<u></u>	•				········	1				1		
Volume Module				F F O	0							
Base Vol: Growth Adj:	1.00	1 00	0 1.00	550	1.00	1 00	1 00	1 00	0	1161	0	0
Initial Bse:	0	1.00	0	550	2.00	1.00	1.00	1.00	1.00	1.00		1.00
User Adj:	1.00		1.00		1.00	1.00	•	1.00	1.00	$1161 \\ 1.00$	1 00	0 1.00
PHF Adj:	0.88		0.88		0.88	0.88		0.88	0.88	0.88		0.88
PHF Volume:	0	0	0	625	2	0	0	0	0	1319	0	0.00
Reduct Vol:	0	0	10	0	.0	.0	0	0	0	0	0	0
Reduced Vol:	0	0	` 0	625	2	0	0	0	0	1319	0	0
PCE Adj:	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
Final Vol.:	0	0		625	2	0	0	10	0	1319	0	0
Saturation Flow Module:												
Sat/Lane:	1900		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	0.95		1.00
Lanes:	0.00	0.00	0.00	1.99	0.01	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Final Sat.:	0	0	0	3786	14	0	0	0	-0	1805	0	0
	'		1							\		
Capacity Anal Vol/Sat:	0.00		Le: 0.00	0 17	0 17	0.00	0 00	0 00	0 00	A 75	0 00	0 00
Crit Moves:	0.00	0.00	0.00	0.17	****	0.00	0.00	0.00	0.00	0.73	0.00	0.00
Green/Cycle:	0.00	0.00	0.00	0.17	0.17	0.00	0 00	0.00	0.00	0.77	0 00	0.00
Volume/Cap:	0.00		0.00		0.95	0.00		0.00	0.00	0.95		0.00
Uniform Del:	0.0	0.0	0.0		40.9	0.0	0.0	0.0	0.0	10.1	0.0	0.0
<pre>IncremntDel:</pre>	0.0	0.0	0.0	24.1	24.1	0.0	0.0	0.0	0.0	14.5	0.0	0.0
Delay Adj:	0.00		0.00		1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0		65.0	0.0	0.0	0.0	0.0	24.6	0.0	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh: HCM2kAva:	0.0	0.0	0.0	65.0 14	65.0 14	0.0	0.0	0.0	0.0	24.6	0.0	0.0
ncmzkavg:			_			_	****	0 ****	0 *****	43	0 ****	0

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ***************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ PHF Volume: 0 0 0 478 3 0 0 0 0 964 0 0 Reduct Vol: 0 0 0 478 3 0 0 0 0 964 0 0 Final Vol.: 0 0 0 478 3 0 0 0 0 964 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 xxxxx xxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx xxxx 3.5 4.0 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1927 1927 xxxxx xxxx xxxx xxxx 0 xxxx xxxxx Level Of Service Module: 71.6 xxxx xxxxx F ApproachLOS:

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************** Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy **************************** Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 42 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Split Phase Rights: Include Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 Volume Module: Base Vol: 0 0 0 421 3 0 0 :0 0 848 0 Final Vol.: 0 0 0 478 3 0 0 0 964 0 0 Saturation Flow Module: Capacity Analysis Module: **** Crit Moves: Uniform Del: 0.0 0.0 0.0 38.5 38.5 0.0 0.0 0.0 0.0 6.2 0.0 0.0 IncremntDel: 0.0 0.0 0.0 3.3 3.3 0.0 0.0 0.0 0.0 1.7 0.0 Delay/Veh: 0.0 0.0 0.0 41.8 41.8 0.0 0.0 0.0 7.9 0.0 0.0 AdjDel/Veh: 0.0 0.0 0.0 41.8 41.8 0.0 0.0 0.0 0.0 7.9 0.0 0.0 0 0 0 8 8 0 0 0 HCM2kAva: 0 17 0 ***********************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ****************** Average Delay (sec/veh): 0.1 Worst Case Level Of Service: F[63.5] **************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Ignore Include Include Include Rights: Lanes: Volume Module: Base Vol: 3 0 657 0 0 0 6 573 0 1130 231 Initial Bse: 3 0 657 0 0 0 6 573 0 0 1130 231 PHF Volume: 3 0 0 0 0 0 7 630 0 0 1242 254 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 3 0 0 0 0 0 7 630 0 0 1242 Critical Gap Module: _____ Capacity Module: Cnflict Vol: 2012 xxxx xxxxx xxxx xxxx xxxxx 1496 xxxx xxxxx xxxx xxxxx xxxxx Level Of Service Module: Queue: 0.2 xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx Stopped Del: 63.5 xxxx xxxxx xxxxx xxxxx xxxxx 13.0 xxxx xxxxx xxxxx xxxxx LOS by Move: F * * * * * B * * * * * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT F ApproachLOS:

Level Of Service Computation Report												
	2000	HCM C	perati	ons M	ethod	(Base	Volume	e Alt	ernativ	re)		
*******	****	*****	****	****	****	*****	****	****	*****	*****	****	****
Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy												
Cycle (sec): 100												
Loss Time (sec): 9 $(Y+R = 4 \text{ sec})$ Average Delay (sec/veh) : 30.5												
Optimal Cycle: 110 Level Of Service: C												

Approach:							E	ast Bo	ound	West Bound		
Movement:		- T				- R	L	- T	- R	L -	T	- R
Control:	Split Phase			Split Phase			Sp.	Lit Pi	nase	Split Phase		
Rights: Min. Green:	Ignore 0 0 0			Include 0 0 0			20	TUCT	ıae	Include 0 0 0		
Lanes:	_		0 1								-	0
Lanes:						0 0		1 1			1	-
Volume Module				1			1					
Base Vol:	3	. 0	657	0	0	0	6	573	10	'n	1130	231
Growth Adi:	_	1.00	1.00		1.00	1.00		1.00		1.00		1.00
Initial Bse:		0	657	0	0	0	6	573	0		1130	231
User Adj:		1.00	0.00	-	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:		0.91	0.00		0.91	0.91		0.91	0.91	0.91		0.91
PHF Volume:	3	0	0	0	0	0.51	7	630	0.01		1242	254
Reduct Vol:	_	0	0	0	0	Õ	0	0	0	0	0	204
Reduced Vol:	3	0	0	0	.0	0	7	630	0		1242	254
PCE Adi:		1.00	0.00	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
Final Vol.:	.3	0	0	0	0	0	7	630	0		1242	254
			1						1			
Saturation F.	low M	odule:										·
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.85
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.02	1.98	0.00	0.00	1.00	1.00
Final Sat.:	1805		1900		0	0		3573	0		1900	1615
				1		J						
Capacity Ana.	-											
Vo1/Sat:		0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.00	0.00		0.16
Crit Moves:	****							****			****	
Green/Cycle:					0.00	0.00		0.19	0.00	0.00		0.72
Volume/Cap:			0.00	0.00		0.00		0.91		0.00		0.22
Uniform Del:		0.0	0.0	0.0	0.0	0.0		39.5	0.0	0.0		4.8
IncremntDel:			0.0	0.0	0.0	0.0		16.6	0.0		9.7	0.1
Delay Adj:		0.00	0.00		0.00	0.00		1.00	0.00	0.00		1.00
Delay/Veh:			0.0	0.0	0.0	0.0		56.1	0.0	0.0		4.9
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh: 4	451.6	0.0	0.0	0.0	0.0	0.0	13	56.1 13	0.0	0.0	21.4 35	4.9
HCMZKAVG:	_	-			-	_			· * * * * * *	0		3
									······································	~ ^ × × × × ×	^ X X X X	· ^ * * * * *

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************** Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ******************* Average Delay (sec/veh): 0.3 Worst Case Level Of Service: F[79.5] ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Ignore Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1 Volume Module: Base Vol: 4 0 1059 14 421 0 0 841 555 0 0 0 Critical Gap Module: FollowUpTim: 3.5 xxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx Capacity Module: Level Of Service Module: Stopped Del: 79.5 xxxx xxxxx xxxxx xxxx xxxxx 16.9 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * * * * * C * * * * * Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 16.9 xxxx xxxxx xxxxx xxxxx xxxxx F ApproachLOS:

	Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)											
	2000									e)		
*****	****	****	*****	****	****	*****	****	****	****	*****	****	*****
Intersection	#21 I	Hwy 1 *****	NB Ram	ps/Im	jin Pl	cwy *****	****	****	*****	****	****	*****
Cycle (sec): Loss Time (se		100) .		10	Critica	1 Vol.	./Cap.	(X):		0.84	ın
Loss Time (se	ec):) (Y+R	= 4 9	sec) A	verage	Delay	, (sec	/veh).		21	7
Optimal Cycle	e:	7.9)		1	evel 0	f Serv	zice:	, , , , , ,			Ċ
*****	****	****	*****	****	****	*****	****	*****	*****	****	****	*****
Approach:										Wes		
Movement:	L -	T	- R	L -	- T	- R	L	- 中	- R	I. –	T	– R
				1		1				1		
Control:	[qZ	lit Ph	ıase	Sp.	lit Ph	nase	Spl	lit Ph	ase '	Sp1	it Ph	iase
Control: Rights: Min. Green:	:-	Ignor	e		Inclu	ıde		Inc1:	ıde		Inclu	ide
Min. Green:	0	0	:0	.0	0	0	0	0	0	0	0	0
Lanes:	1 (0 0	0 1	0 (0	0 0	0 1	1 1	0 0	0 0	า	0 1
	·						1			1		
Volume Module									'	•		A
Base Vol:	4	0	1059	0	0	0	14	421	0	.0	841	555
Growth Adj:	1.00	1.00	1.00		1.00			1.00		1.00		1.00
Initial Bse:	4	0	1059	0	0	.0	14	421	.0		841	555
User Adj:		1.00	0.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:			0.00		0.74	0.74		0.74	0.74	0.74		0.74
PHF Volume:			0	0	0	0		569	0	0		750
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			0	0	0	0	19	569	0	0 1	1136	750
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1	1.00	1.00
	1.00		0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	0	.0	0	0	.0		569	0	0 :	1136	750
			1				1					1
Saturation F	low Mo	odule:										•
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.85
Lanes:			1.00	0.00	0.00	0.00	0.06	1.94	0.00	0.00	1.00	1.00
Final Sat.:			1900	0		0			0		1900	1615
							1			1		
Capacity Ana			e:									
Vo1/Sat:		0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.60	0.46
Crit Moves:	****							****		4	***	
Green/Cycle:			0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.71	0.71
Volume/Cap:	0.84	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84	0.65
Uniform Del:	49.8	0.0	0.0	0.0	0.0	0.0	38.8	38.8	0.0	0.0	10.3	7.7
IncremntDel:			0.0	0.0	0.0		8.9	8.9	0.0	0.0	4.9	1.3
Delay Adj:	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	296.5	0.0	0.0	0.0	0.0	0.0	47.7	47.7	0.0	0.0	15.2	9.1
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh: 2			0.0	0.0	0.0	0.0		47.7		0.0		9.1
HCM2kAvg:	1		0	0	0	0	11	11	0	0	27	13
*****	****	****	*****	****	****	*****	****	****	****	****	* * * * *	****

ے میں دے میں ہے نمور نے می <u>ں د</u>	2000	Le	vel Of Way St	Serv	ice Co	mputat	ion R	eport	rnative	<u>-</u>)		
****	ZUUU 1	HCM 4-	*****	****	*****	*****	****	****	*****	*****	****	****
Intersection	#22 3	rd St	/4+h Ax	r 🗅								
(a) (b) (c) (c)		100			C-	riticaí	Vol.	/Cap.	(X):		0.43	
Loss Time (se	c):	0	(Y+R =	= 4 s	ec) A	rerage	Delay	(sec	/veh):		10.	6
Cycle (sec): Loss Time (se Optimal Cycle	:	0			Le	evel O	Serv	ice:				В
*****	****	****	*****	***	***	K-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M						
Approach:	Nor	th Boı	ınd	Sou	th Bo	ınd	Ea	st Bo	und_		st Bo	
Marramant	ा	Tr.	- R	1. 一	Ψ.	- R	L -	Т	- R	L -	· T	- R
Control: Rights: Min. Green:	St	op Si	gn	St	op S1	gn	St	op si	gn do	(D)	Toclu	911 911
Rights:	•	Inclu	de o	0	Tuctn	ae ົ	Ò	THETU	ae n	n	0	0
Min. Green:		11	0 0	0 0	11	0 0	0 0	11	0 0	0 0) 1!	0 0
Lanes:	0 0	1 14		1	4.4 · ·	I	1			1]
				ı						•		
Volume Module Base Vol:		81	5.1	5	161	20	10	26	61	170	67	7
Growth Adj:				1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	81	51		161	20	10	26	61	170	67	7
User Adj:	1 00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85		0.85	0.85	0.85	0.85	0.85	0.85	0.85
DHE Volume.	41	95		6		24	12	31	72	200	7.9	8
Reduct Vol:	0	0	0	0	.0	0	0	0	0	0		0
Reduced Vol:	41	95	60		189	24		31		200		8
PCE Adj:	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
T1 77-1 •	// 1	95	:60	6	189	24	12	31	72		79	8
rinai voi.				1		1	1					
Saturation F	low Mo	odule:					1 00	1 00	1 00	1 00	1.00	1.00
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70		
Lanes:	0.21	0.48	0.31	0.03	0.86	U.11	0.10	175	411	457	180	19
Final Sat.:	138	320	201	18	269	/ ± 1	1	1/5		107		
	1						1			1 1		
Capacity Ana Vol/Sat:	TASTS	Modri	0 30	0 33	0 33	0.33	0.17	0.17	0.17	0.44	0.44	0.44
Vol/Sat:	0.30	0.30	0.50	0.22	0.55	****	0.1.	****			****	
Crit Moves: Delay/Veh:	10.0	10 0	10.0	10.5	10.5	10.5	8.9	8.9	8.9	11.9	11.9	11.9
Delay/Ven: Delay Adj:	1 00	1 00	1.00		1.00	1.00		1.00		1.00	1.00	1.00
AdjDel/Veh:	100	100		10.5		10.5	8.9			11.9	11.9	11.9
LOS by Move:	10.0	10.0 B		В	В	В				В	В	В
ApproachDel:	٠	10.0	_	_	10.5			8.9			11.9	
Delay Adj:		1.00						1.00			1.00	
AnnrAdiDel		10.0			10.5			8.9			11.9	
ApprAdjDe1: LOS by Appr:		В			B			Α			В	
LOS by Appr:	****	****	*****	*****	****	*****	*****	****	****	****	****	*****

___________ Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) Intersection #22 3rd St/4th Ave 100 Cycle (sec): Critical Vol./Cap. (X): 0.551 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 0 Level Of Service: 11.3 ************************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Stop Sign Stop Sign Rights: Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 ______| Volume Module: Base Vol: 35 196 167 15 137 14 108 23 20 68 45 15 137 Initial Bse: 35 196 167 23 14 108 20 68 45 1 PHF Volume: 36 204
Reduct Vol: 0 0 16 143 24 15 113 174 21 71 47 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 36 204 174 16 143 24 15 113 21 71 47 1 MLF Adj: Final Vol.: 36 204 174 16 143 24 15 113 21 71 47 1 Saturation Flow Module: Lanes: 0.09 0.49 0.42 0.09 0.78 0.13 0.10 0.76 0.14 0.60 0.39 0.01 Final Sat.: 66 371 316 57 524 88 60 461 85 345 228 5 _____| Capacity Analysis Module: Vol/Sat: 0.55 0.55 0.55 0.27 0.27 0.27 0.24 0.24 0.24 0.21 0.21 0.21 Crit Moves: **** **** Delay/Veh: 12.8 12.8 12.8 9.8 9.8 9.8 9.9 9.9 9.9 9.9 9.9 AdjDel/Veh: 12.8 12.8 12.8 9.8 9.8 9.8 9.9 9.9 9.9 9.9 9.9 9.9 LOS by Move: B B B A A A A A A A Α 9.8 9.9 ApproachDel: 12.8 9.9 Delay Adj: 1.00 1.00 1.00 1.00 ApprAdjDel: 12.8
LOS by Appr: B 9.8 9.9 12.8 9.9 Δ Z **************************** ______

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************** Intersection #23 Light Fighter Dr/1st Ave ****************** Cycle (sec): 55 Critical Vol./Cap. (X): 1.098 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Min. Green: 10 0 10 10 10 10 0 10 7 10 0 Lanes: 1 0 0 0 1 0 1 0 0 1 0 0 2 0 1 1 0 2 0 0 Volume Module: 36 Base Vol: 448 0 177 10 2 0 698 451 276 703 PHF Volume: 553 0 219 12 2 44 0 862 557 341 868 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 553 0 219 12 2 44 0 862 557 341 868 0 Saturation Flow Module: Adjustment: 0.76 1.00 0.85 0.89 0.89 0.85 1.00 0.95 0.85 0.95 0.95 1.00 Lanes: 1.00 0.00 1.00 0.83 0.17 1.00 0.00 2.00 1.00 1.00 2.00 0.00 Final Sat.: 1436 0 1615 1414 283 1615 0 3610 1615 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.39 0.00 0.14 0.01 0.01 0.03 0.00 0.24 0.34 0.19 0.24 0.00 Crit Moves: **** Green/Cycle: 0.35 0.00 0.35 0.35 0.35 0.00 0.31 0.31 0.17 0.49 0.00 Volume/Cap: 1.10 0.00 0.39 0.02 0.02 0.08 0.00 0.76 1.10 1.10 0.49 0.00 Uniform Del: 17.9 0.0 13.4 11.7 11.7 11.9 0.0 17.0 18.9 22.8 9.6 0.0 IncremntDel: 69.6 0.0 0.4 0.0 0.0 0.1 0.0 3.1 69.5 80.1 0.2 Delay Adj: 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 Delay/Veh: 87.5 0.0 13.9 11.7 11.7 12.0 0.0 20.1 88.4 102.8 9.8 AdjDel/Veh: 87.5 0.0 13.9 11.7 11.7 12.0 0.0 20.1 88.4 102.8 9.8 HCM2kAvg: 26 0 3 0 0 1 0 9 21 14 5 0.0 ****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 55 Critical Vol./Cap. (X): 0.806 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 57 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 10
 7
 10
 0

 Lanes:
 2
 0
 0
 1
 0
 1
 0
 2
 0
 2
 1
 0
 2
 0
 0
 Volume Module: Base Vol: 448 0 177 10 2 36 0 698 451 276 703 PHF Volume: 553 0 219 12 2 44 0 862 557 341 868 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 553 0 219 12 2 44 0 862 557 341 868 0 MLF Adj: Final Vol.: 553 0 219 12 2 44 0 862 557 341 868 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.25 0.00 0.14 0.01 0.01 0.03 0.00 0.24 0.20 0.19 0.24 0.00 Crit Moves: **** Volume/Cap: 0.81 0.00 0.44 0.03 0.03 0.09 0.00 0.81 0.66 0.81 0.45 0.00 Uniform Del: 17.6 0.0 15.3 13.4 13.4 13.6 0.0 17.9 16.9 19.9 8.0 0.0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************** Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 40 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): 109.0 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 1
 0
 1
 0
 0
 2
 0
 1
 0
 2
 0
 Volume Module: 0 922 701 324 922 Base Vol: 619 0 271 2 1 78 84 0 991 754 348 991 0 0 0 0 0 0 0 0 84 0 991 754 348 991 0 PHF Volume: 666 0 291 2 1 84
Reduct Vol: 0 0 0 0 0 0
Reduced Vol: 666 0 291 2 1 84 Saturation Flow Module: Adjustment: 0.77 1.00 0.85 0.92 0.92 0.85 1.00 0.95 0.85 0.95 0.95 1.00 Lanes: 1.00 0.00 1.00 0.67 0.33 1.00 0.00 2.00 1.00 1.00 2.00 0.00 Final Sat.: 1457 0 1615 1162 581 1615 0 3610 1615 1805 3610 0 ______ Capacity Analysis Module: Vol/Sat: 0.46 0.00 0.18 0.00 0.00 0.05 0.00 0.27 0.47 0.19 0.27 0.00 Crit Moves: **** Green/Cycle: 0.30 0.00 0.30 0.30 0.30 0.30 0.00 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.00 0.30 0.30 0.0 Delay Adj: 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 Delay/Veh: 268.0 0.0 14.3 9.9 9.9 10.6 0.0 24.1 266.6 97.7 8.0 0.0 AdjDel/Veh: 268.0 0.0 14.3 9.9 9.9 10.6 0.0 24.1 266.6 97.7 8.0 0.0 HCM2kAvg: 50 0 4 0 0 1 0 11 44 13 5 *************************

												
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)												
	2000	HCM (Operati	ons M	ethod	(Base	Volum	e Alte	ernatio	7e)		
******	****	*****	*****	****	****	*****	****	****	*****	****	****	*****
Intersection	#23 ****	Light *****	Fighte	r Dr/	1st At *****	7e ******	****	****	*****	****	****	*****
Cycle (sec):		40							(X):		0.9	
Loss Time (s) (Y+R	= 4	sec) I	Average	Dela	y (se	c/veh):		28	. 8
Optimal Cycle		75			I	evel (of Ser	vice:				C

Approach:		rth Bo - T	– R		uth Bo - T			ast Bo	ound - R		est B	
	.—			" بند محمد با	1		1	– I	– K	- با	- T	- R
Control:		Permit				ted		rotect			rotec	
Rights:		Inclu	ıde		Inclu			Incl			Incl	
Min. Green:	10	.0	10	10	10	10	0	10	10	7	10	0
Lanes:		0 ,0	0 1		1 0			2	-		2	0 0
										1		
Volume Module Base Vol:	e: 619	0	271	.2	1	78	0	922	701	201	000	•
Growth Adj:		1.00	1.00		1.00	1.00		1.00	701	324	922	1.00
Initial Bse:	619	0	271	2	1	78	0	922	701	324	922	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	666	0	291	2	1	84	0	991	754	348	991	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	:0	0
Reduced Vol:	666		291	2	1	84	0	991	754	348	991	0
PCE Adj: MLF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Final Vol.:	666	0.00	291	2.00		1.00 84	1.00	1.00 991	1.00 754	348	1.00	1.00
TIME VOICE		-					1	991 	/J4 1	1	991	
Saturation F.	low Mo	odule:				1			•	1		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	0.85		0.92	0.85		0.95	0.75	0.95	0.95	1.00
Lanes:		0.00	1.00		0.33	1.00		2.00	2.00		2.00	0.00
Final Sat.:	2341	0	1615	1160	580	1615		3610	2842		3610	0.
Capacity Ana			•	1								
Vol/Sat:	-	0.00	0.18	0.00	0.00	0.05	0.00	0.27	0.27	0 19	0.27	0.00
Crit Moves:	****							****		****	0.27	0.00
Green/Cycle:	0.29	0.00	0.29	0.29	0.29	0.29	0.00	0.28	0.28	0.20	0.48	0.00
Volume/Cap:		0.00	0.62	0.01	0.01	0.18	0.00	0.97	0.94	0.97	0.57	0.00
Uniform Del:		0.0	12.2		10.0	10.5		14.2	14.0	15.9	7.4	0.0
IncremntDel:		0.0	2.4	0.0	0.0	0.2		21.2	18.2	39.5	0.5	0.0
Delay Adj: Delay/Veh:		0.00	$1.00 \\ 14.6$		1.00	1.00		1.00	1.00		1.00	0.00
User DelAdj:	41.0		1.00		1.00	$10.7 \\ 1.00$		35.4	32.2	55.4	7.9	0.0
AdjDel/Veh:	41.0	0.0	14.6		10.0	10.7		35.4	32.2	55.4	7.9	1.00
HCM2kAvg:	13	0	4	0	0	1	0	12	10	10	5	0.0
*****	****	****	*****	****	****	****					_	*****

پر ان میں بران میں بران میں ان میں بران ہو ان میں ان می میں میں میں میں میں ان می Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #24 Light Fighter Dr/2nd Ave ******************** Average Delay (sec/veh): 79.8 Worst Case Level Of Service: F[739.2] ***************** North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Include Include Include Include 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 Lanes: Volume Module: 3 419 :0) 481 415 3 0 1 115 3 584 Base Vol: Final Vol.: Critical Gap Module: Critical Gp: 7.5 xxxx 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 xxxx 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 1683 xxxx 223 1731 1959 273 546 xxxx xxxxx 446 xxxx xxxxx Potent Cap.: 63 xxxx 786 58 64 731 1033 xxxx xxxxx 1125 xxxx xxxxx Move Cap.: 6 xxxx 786 35 33 731 1033 xxxx xxxxx 1125 xxxx xxxxx Volume/Cap: 0.55 xxxx 0.00 3.42 0.10 0.84 0.49 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx 14.0 xxxx 2.1 2.8 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx 1326 xxxx 13.5 11.8 xxxx xxxxx 8.2 xxxx xxxxx F * B B * * A * * LOS by Move: * * LT - LTR - RT Movement: Shrd StpDel:xxxxx 739 xxxxx xxxxx xxxx 17.2 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * F * * * C * * * * * * ApproachDel: 739.2 230.0 XXXXXX XXXXXX ApproachLOS: F

	Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)										
	2000	HCM (Level O	f Ser	vice (Computa	tion I	Repor	t 	ra l	
****											****
Intersection							****	****	*****	*****	****
Cycle (sec):		1.00	· •			7	1 7701	1000	7371	<u>^</u>	689
Loss Time (se	ec):	9	Y+R	= 4 :	sec) I	Average	Delay	/ (se	. (x): c/veh):	2	8.8
Optimal Cycle	5 /4	J.()		1	rever c	T Serv	Tce:			C
Approach:		rth Bo				ound				West	
Movement:	L -	- T.	- R	L ·	- T	- R	L -	- T	- R	L - T	– R
Control:		Permit	ted	1	Permit	ted	P1			Prote	
Rights:		Inclu			Inclu			Incl			lude
Min. Green:	10		10	10		10	7	10	10	7 1	0 10
Lanes:		0 1!				1 1) 1		1 0 1	
Volume Module							1				
Base Vol:	3	0	1	115	3	584	481	415	9	3 41	9 100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00 1.0	
Initial Bse:	.3	0	1	115	3	584	481	415	9	3 41	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0	0 1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95 0.9	5 0.95
PHF Volume:	.3	.0	1	121	.3	615	506	437	9	3 44	1 105
Reduct Vol:	0	0	0	0	0	.0	0	:0	0	0 (0 0
Reduced Vol:	3	0	.1	121	3	615	506	437	9	3 44	1 105
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0	0 1.00
MLF Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.0	0 1.00
Final Vol.:	. 3	0	1	121	3	615		437	.9	3 44	
Saturation F1	•		- 1]	· · · · · · · · · · · · · · · · · · ·	
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900 190	0 1900
Adjustment:			0.90		0.85	0.85		0.95		0.95 0.9	
Lanes:	0.75	0.00	0.25	1.00	0.01	1.99	1.00	1.96	0.04	1.00 1.6	
Final Sat.:	1277	.0	426	1459	17	3217	1805	3523	76	1805 283	
	•		•				1		1	1	
Capacity Ana.	-										
Vol/Sat:	0.00	0.00	0.00	0.08	0.19	0.19	0.28 ****	0.12	0.12	0.00 0.1	
Crit Moves:	0 00	0 :00	0 00	0 00						***	
Green/Cycle:			0.28		0.28	0.28		0.56	0.56	0.07 0.2	
Volume/Cap:		0.00	0.01		0.69	0.69		0.22	0.22	0.02 0.6	
Uniform Del:		0.0	26.2 0.0	28.5	32.3	32.3	24.5	10.9	10.9	43.3 35.	
IncremntDel:		0.00	1.00		1.00	2.3		0.1	$0.1 \\ 1.00$	0.1 2.	
Delay Adj: Delay/Veh:	26.2	0.00	26.2		34.6	34.6		11.00	11.0	1.00 1.0 43.4 38.	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1.0	
AdjDel/Veh:	26.2		26.2		34.6	34.6		11.0	11.00	43.4 38.	
HCM2kAvg:	0	0.0	20.2	4	10	10	14	3	3	0 9	1 38.1 9
******	-	_		-				_	_	-	

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #24 Light Fighter Dr/2nd Ave ****************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 0 1 0 Lanes: Volume Module: Base Vol: 1 5 7 145 3 681 755 433 9 2 610 139 Initial Bse: 1 5 7 145 3 681 755 433 9 2 610 139 PHF Volume: 1 5 7 154 3 724 803 461 10 2 649 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 1 5 7 154 3 724 803 461 10 2 649 0 148 Critical Gap Module: Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 2402 2873 235 2566 2804 398 797 xxxx xxxxx 470 xxxx xxxxx Potent Cap.: 18 17 773 13 19 607 834 xxxx xxxxx 1102 xxxx xxxxx Move Cap.: 0 1 773 0 1 607 834 xxxx xxxxx 1102 xxxx xxxxx Volume/Cap: xxxx 8.59 0.01 xxxx 4.64 1.19 0.96 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: 0.0 xxxx xxxxx Oueue: xxxxx xxxx xxxxx xxxxx xxxx 3.9 15.5 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxx xxxx 19.3 45.0 xxxx xxxxx 8.3 xxxx xxxxx LOS by Move: * * * * * C E * * A * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT A * * Movement: LT - LTR - RT Shared LOS: * * * * *
ApproachDel: xxxxxx xxxxx F * * * * * * XXXXXX XXXXXX F F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #24 Light Fighter Dr/2nd Ave Cycle (sec): 100 Critical Vol./Cap. (X): 0.986 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Inclu Volume Module: Base Vol: 1 5 7 145 3 755 433 681 9 2 610 755 433 9 2 610 Initial Bse: 1 5 7 145 3 681 139 PHF Volume: 1 5 7 154 3 724 803 461 10 2 649 148 Final Vol.: 1 5 7 154 3 724 803 461 10 2 649 148 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.11 0.23 0.23 0.44 0.13 0.13 0.00 0.23 0.23 **** **** Crit Moves: **** Green/Cycle: 0.23 0.23 0.23 0.23 0.23 0.23 0.45 0.61 0.61 0.07 0.23 0.23 Volume/Cap: 0.03 0.03 0.03 0.47 0.99 0.99 0.99 0.21 0.21 0.02 0.99 0.99 AdjDel/Veh: 30.1 30.1 30.1 34.4 67.9 67.9 55.0 8.7 8.7 43.3 66.4 66.4 HCM2kAvg: 0 0 0 6 16 16 33 3 3 0 18 18

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************** Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd Cycle (sec): 55 Critical Vol./Cap. (X): 0.484 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 18.6 Optimal Cycle: 46 Level Of Service: B Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R,L - T. - R Control: Protected Protected Protected Protected Rights: Include Include Ignore Include Rights: Include Include Ignore Include
Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10
Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 Volume Module: Base Vol: 233 98 2 4 332 256 95 88 605 4 68 0 Initial Bse: 233 98 2 4 332 256 95 88 605 4 68 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Adj: PHF Volume: 268 113 2 5 382 294 109 101 0 5 78 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 268 113 2 5 382 294 109 101 0 5 78 0 -0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 Saturation Flow Module: Lanes: 2.00 0.98 0.02 1.00 1.13 0.87 1.00 1.00 1.00 1.00 1.00 0.00 Final Sat.: 3502 1856 38 1805 1906 1470 1805 1900 1900 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.08 0.06 0.06 0.00 0.20 0.20 0.06 0.05 0.00 0.00 0.04 0.00 **** Crit Moves: **** *** HCM2kAvg: 3 2 2 0 6 6 2 2 0 0 1 ****************************** Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd *************** Average Delay (sec/veh): 710.4 Worst Case Level Of Service: F[1379.7] ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 Volume Module: 0 35 61 405 69 Base Vol: 0 0 0 569 5 21 PHF Volume: 0 0 0 654 6 24 0 40 70 466 79 0 Reduct Vol: 0 0 0 654 6 24 0 40 70 466 79 0 Final Vol.: 0 0 654 6 24 0 40 70 466 79 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Level Of Service Module: A * * LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT Shared LOS: * * * F *
ApproachDel: xxxxxx 1379.7 B * * * A * * XXXXXX XXXXXX F ApproachLOS:

			111				12:12	·····			Page 	1-1
	 		 Level O ındabou	f Ser	vice (tion I	Report		·		
*****	****	****	*****	****	*****	*****	****	* * * * * * * JT CGT1	(*****	*****	****	*****
Intersection	#26]	Hwy 1	SB Ram	ps/Ca	nvon I	el Rav	Blvd					
Average Dela				4.2 ****	*****	*****	****	Le ****	vel Of	Serv.	ice: ****	A ******
Movement:	L	- T	ound - R	L	- T	- R	L ·	- T	ound - R	L -	est B - T	- R
Control:	Yi	eld S.	ign	Yi	eld Si	gn	Yie	eld Si	.gn	Yie	eld S	ian .
Lanes:		0	,	a .	2			1			1	
Volume Module												
Base Vol:	0	0	10	569	5	21	0	35	61	405	69	- 0
Growth Adi:		1.00	_		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	0	0	.0	569	5	21	0	35	61	405	69	0
User Adj:	1.00	1.00	1.00		1.00	1.00	_	1.00	1.00		1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87			0.87	0.87		0.87
PHF Volume:	0	0	0	654	6	24	0	40	70	466	79	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	654	6	24	0	40	70	466	79	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
	. 0	.0	0	654		24		40	70	466	79	0
DCE Modulios												
PCE Module: AutoPCE:	0	Ö	0	654	6	24	.0	40	70	466	70	^
TruckPCE:	0	0	0	0.034	0	0	.0	0	-0	400	79 0	.O
ComboPCE:	0	Ö	0	0	0	0	.0	.0	0	.0	0	Ö
BicyclePCE:	0	0	ō	0	0	Ō	0	0	0	0	0	0
AdjVolume:	0	0	, <u>1</u> 0	654	6	24	Ō	40	70	466	79	0
	•			-1		•						
Delay Module	: >> '		Period:	0.25		<<						
CircVolume:		694			545			1125			0	
MaxVolume:	X	XXXX			2032			592			1200	
PedVolume:		0			0 2032			0			1000	
AdjMaxVol: ApproachVol:		XXXXX			684			592 110			1200	
ApproachDel:	- X.2	XXXXX			2.7			7.5			545 5.5	
Oueue:		XXXX			1.5			0.7			2.4	
Queue.		MAAA			T - 0			0.1			2.4	

_____ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ***************** Average Delay (sec/veh): 248.6 Worst Case Level Of Service: F[824.9] ************************* North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Rights: 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 1 0 0 Lanes: Volume Module: 383 224 Base Vol: 0 0 0 345 2 60 0 142 212 PHF Volume: 0 0 0 359 2
Reduct Vol: 0 0 0 0 0
Final Vol.: 0 0 0 359 2 0 148 221 399 233 0 63 0 0 0 0 0 0 63 0 148 221 399 233 Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx ' 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx _____ Capacity Module: Level Of Service Module: LOS by Move: * * * * * * * * A * * LT - LTR - RT Movement: SharedQueue:xxxxx xxxx xxxxx 34.0 xxxx 0.3 xxxxx xxxx xxxxx 1.5 xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx 970.2 xxxx 11.4 xxxxx xxxx xxxxx 9.5 xxxx xxxxx B * * * A * * Shared LOS: * * * F * XXXXXX XXXXXX ApproachDel: xxxxx 824.9 F ApproachLOS:

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) ************************************													
******	****	****	*****	****	****	*****	****	*****	*****	****	****	*****	
Intersection	#26 F	lwy 1	SB Ram	ps/Ca:	nyon D	el Ray	Blvd						
Average Dela	y (sec	c/veh;	; * * * * * * * *	5.7 ****	****	****	****	Le	vel Of	Serv.	ice: *****	A *****	
Approach:	Nor	rth Bo	ound		uth Bo			ast Bo		We	est Bo	ound	
Movement:	L -	- T	- R	L	- T ·	- R	L -	- T	- R	T -	- T	- R	
Control:		17 6	 an	V			V	12 64		J			
Lanes:	Yield Sign Yield Sign Yield Sign 0 2 1 1												
	Volume Module:												
Base Vol:	0	0	0	345	2	60	-10	142	212	383	224	-0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Initial Bse:	0	0	.0	345	2	60	0	142	212	383	224	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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
PHF Volume:	0	0	0	359	2	63	۰.0	148	221	399	233	0	
Reduct Vol:	0	10	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	:0	0	359	2	63	0	148	221	399	233	0	
PCE Adj:	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	
Final Vol.:	. 0	.0	0	359	2	63	-0	148	221	399	233	0	
PCE Module:				1									
AutoPCE:	10	0	0	359	2	63	0	148	221	399	233	·0	
TruckPCE:	:0	0	0	0.0	0	0	.0	140	221	399	233	0	
ComboPCE:	Ö	0	0	0	.0	0	.0	0	0	0	0	0	
BicyclePCE:	Ō	0	0	0	0	0	0	0	0	0	0	0	
AdjVolume:	0	.0	0	359	2	63	0	148	221	399	233	0	
·	.1			1			1			1			
Delay Module	: >> 1		Period:	0.25	hours	<<							
CircVolume:		507			632			760			0		
MaxVolume:	XX	XXXX			1969			789			1200		
PedVolume:		0			0			.0			0		
AdjMaxVol:		xxxx			1969			789			1200		
ApproachVol:		XXXX			424			369			632		
ApproachDel:		XXXX			2.3			8.5			6.3		
Queue:		xxxx			0.8			2.5			3.2		

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 15.4 Worst Case Level Of Service: F[63.2] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: 1 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1 0 1 Lanes: Volume Module: 33 609 0 486 Base Vol: 38 0 390 0 0 0 0 Initial Bse: 38 0 390 0 0 0 33 609 0 0 486 PHF Volume: 43 0 438 0 0 0 37 684 0 0 546 253 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 546 253 Final Vol.: 43 0 438 0 0 0 37 684 0 0 546 253 ______ Critical Gap Module: Capacity Module: Level Of Service Module: 0.1 xxxx xxxxx xxxx xxxx xxxx Oueue: 1.2 xxxx 12.0 xxxxx xxxx xxxx 9.5 xxxx xxxxx xxxxx xxxx Stopped Del: 40.1 xxxx 65.5 xxxxx xxxx xxxxx LOS by Move: E * F * * *
Movement: LT - LTR - RT LT - LTR - RT A * * * * * LT - LTR - RT LT - LTR - RT Movement: SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx 9.5 xxxx xxxxx xxxxx xxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx A * * * * * Shared LOS: * * * * * * ApproachLos: 63.2
ApproachLos: F XXXXXX XXXXXX XXXXXX ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ****************************** Average Delay (sec/veh): 5.0 Worst Case Level Of Service: C[20.1] ********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Rights:
 Include
 Include
 Include
 Include

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1
 0 0 1 0 1 0 1
 Volume Module: Base Vol: 38 0 390 0 0 33 609 0 0 486 225 Initial Bse: 38 0 390 0 0 0 33 609 0 0 486 225 PHF Volume: 43 0 438 0 0 0 37 684 0 0 546 253 0 0 43 0 0 438 0 0 0 0 0 0 0 0 0 0 0 0 37 684 0 0 546 253 Reduct Vol: Final Vol.: Critical Gap Module: Capacity Module: Level Of Service Module: LOS by Move: E * C * * * A * * * * * Movement: LT - LTR - RT Shared LOS: * * * * * * A * * * * * 20.1 ApproachDel: XXXXXX xxxxxx XXXXXX ApproachLOS: C

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 25.5 Worst Case Level Of Service: F[86.7] Approach: North Bound South Bound East Bound West Bound $L - T - R \quad L - T - R \quad L - T - R$ Movement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1! 0 0 0 0 1 0 1 Volume Module: ______| Critical Gap Module: Capacity Module: Level Of Service Module: Stopped Del: 68.3 xxxx 89.8 xxxxx xxxx xxxxx 11.3 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * F * * * B * * * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * * * * * * * * * * * * ApproachLOS: F xxxxxx xxxxxx XXXXXX

					Computa						
******	2000 HCM	Unsigna	lized D	Metho	d (Base	Volu	me A1	ternat.	ive)		
Intersection							****	*.*******	****	****	*****
*****	*****	*****	*****	****	*****	****	****	****	****	****	*****
Average Dela	y (sec/ve	h):	9.0	Wor	st Case	Leve	1 Of :	Service	: :	D[30.4]

Approach: Movement:	North L - T		So		ound - R			ound - R		est B	
	1		 	1 	- K	1	- 1 	- K	· با. اا	- T	- K
Control:	Stop	Sign			ign					contro	
Rights:	Inc	lude		Incl			Incl			Incl	ıde
Lanes:	1 0 0				0 0		1 0			0 1	
Talua Madul			11								
Volume Module Base Vol:		0 599	0	-0	0		401	·F		4.0.0	×= ×
Growth Adi:	1.00 1.0		1.7	1.00	0 1.00	1 00	491		1 00	499	676
Initial Bse:		0 1.00	1.00	1.00	1.00	1.00	491		1.00	499	1.00 676
User Adj:	1.00 1.0			1.00	1.00		1.00		-	1.00	
PHF Adj:	0.97 0.9			0.97	0.97		0.97			0.97	0.97
PHF Volume:		0 618	0.37	0.57	0.57	15	506	5	0.97	514	697
Reduct Vol:	0	0 0	0	0	0	-0	0		0	214	0 9 7
Final Vol.:		0 618	Ö	0	0	15	506		0	514	697
									11		
Critical Gap	Module:										•
Critical Gp:	6.4 xxx	x 6.2	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:			xxxxx			2.2	xxxx	xxxxx	xxxxx	xxxx	XXXXX
Constant Mode				-:							
Capacity Modu		x 256	V V V V	www	xxxxx	1011	35353535	xxxxx			
Potent Cap.:					XXXXX			XXXXX			XXXXX
Move Cap.:	150 xxx				XXXXX			XXXXX			XXXXX
Volume/Cap:					XXXX		XXXX				XXXX
voranc/oup:									-,		
Level Of Serv			•			•					ત
Queue:	3.9 xxx	x 7.9	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	68.3 xxx	x 24.0	XXXXX	xxxx	xxxxx	11.3	xxxx	XXXXX	xxxxx	xxxx	XXXXX
LOS by Move:	F *	С	*	∘*	*	В	*	*	*	*	*
Movement:	LT - LT	R - RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	xxxx xxx	x xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxx xxxx	x xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	XXXXX
Shrd StpDel:	xxxx xxx					11.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	* *	*	*	*	*	В	*	*	*	*	*
ApproachDe1:	30.		X	xxxxx		X	xxxxx		x	xxxxx	
ApproachLOS:	Ė			*			*			*	

Level Of Service Computation Report												
		ьe Эц	eratio	Servi	bod /	Rose W	olume	Δ1+or	native	Α		
*******	2000 I	ICM OF	eratio	us wer	.1100 (744444	****	*****	****	, *****	****	****
Intersection	#28 Ge *****	en. Ji	m Moor	*****	1/ Carry *****	*****	****	*****	****	*****	****	****
		55			Cr	itical	Vol.	/Cap.	(X):		1.368	}
Cycle (sec):	~\ •	33	(Y+R =	. 4 54	zA (oe	rerage	Delav	(sec/	veh):		2676	,
Loss Time (see		1.00			Τc	TTAL Of	Serv	ice:			E	
Optimal Cycle		* * * * * *	*****	****	*****	****	****	****	*****	****	*****	****
	Nor	th Boı	ınd	Sou	th Boi	ınd	Ea	st Boı	ınd	We:	st Bou	ind
	-	·m	.TD	т –	÷π <u>-</u>	- R	J	Т -	- R	L -	Т -	- R
Movement:			1								- سن ت ب بن	
_ "	Sn1	i+ Dh:	ase	Spl	it Pha	ase	Pr	otecte	ed	Pro	otecte	ed
Control:		Inclu			Inclu			Inclu	de		Inclu	de
Rights:	0	.0	0		0	10	10	10	0	0	10	10
Min. Green:	0 0	-	0 0		0 (1 0	1)	0 0	0 0	0	1 0
Lanes:	0 0		1	1								
			4.3	1			•					
Volume Module	. 0	0	0	1012	0	93	58	874	0	0	550	55
Base Vol:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
	0.1.00	0.00	1.00	1012	0	93	58	874	0	0	550	55
Initial Bse:	_		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Adj:	1.00		0.80	0.80		0.80	0.80		0.80	0.80	0.80	0.80
	0.00	0.00		1265	0	116		1093	0	0	688	69
PHF Volume:	0	0	0	0	0	0	0	0	.0	10	0	0
Reduct Vol:	0	0	0	1265	0	116	73	1093	0	0	688	69
Reduced Vol:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
102 1103	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:		1.00	0	1265	0	116		1093	0	0	688	69
Final Vol.:	0											
				T .		4	1					
Saturation F			1900	1 900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:		1900	1.00	0.95		0.85		1.00	1.00	1.00		0.99
Adjustment:	1.00		0.00		0.00	1.00		1.00	0.00	0.00	0.91	0.09
Lanes:	0.00		0.00	1805	0.00	1615		1900	0	0	1707	171
Final Sat.:	.0	:0		1			1		1	1		
	1	Modul	₁	1 -		d	1					
Capacity Ana	TASIS	n oo	0.00	0.70	0.00	0.07	0.04	0.57	0.00	0.00	0.40	0.40
Vol/Sat:	0.00	0.00	0.00	****	0.00	0.01	****				****	
Crit Moves:	0 00	0.00	0.00		0.00	0.42	0.18	0.42	0.00	0.00	0.24	0.24
Green/Cycle:	0.00	0.00	0.00		0.00	0.17		1.37	0.00	0.00	1.69	1.69
Volume/Cap:		0.00	0.0	16.1		10.1		15.9	0.0	0.0	20.9	20.9
Uniform Del:				314.6		0.1	0.3		0.0	0.0		318.4
IncremntDel:	0.0	0.0			0.00	1.00		1.00	0.00		1.00	1.00
Delay Adj:		0.00	0.00			10.2	19.5		0.0	0.0		339.3
Delay/Veh:	0.0			330.6		1.00		1.00	1.00		1.00	1.00
User DelAdj:	1.00	T.00	1.00		1.00	10.2	19.5		0.0	0.0		339.3
AdjDel/Veh:	-	^	0	330.6 90	:0	1	1	57	.0	0	52	52
HCM2kAvg:	0	0		+++++	*****	*****	*****	·****	*****	*****	****	*****
*******	****	****	***	^ ^ ^ ^ ^ ^								

					<u>-</u>		<u> </u>				·	
	Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***********************************											
	#28 (Gen.	Jim Moc	re Bly	d/Car	yon De	1 Ray					
Cycle (sec): Loss Time (se Optimal Cycle	c):	55 6 180	5 (Y+R)	= 4 :	sec) A I	ritica verage evel 0	l Vol Delay	./Cap. y (sec vice:	(X): c/veh):		1.05 43.	51 .4 D
************ Approach: Movement:	Noi L -	cth Bo - T	ound - R	Sou L -	ith Bo - T	und - R	Ea L	ast Bo	ound - R	We	st Bo	ound - R
Control: Rights: Min. Green: Lanes:	Sp1 0 0 0	Lit Ph Inclu 0) 0	nase nde 0	Sp. 10 2 (lit Ph Inclu 0) 0	ase de 10 0 1	10 1 (Permit Inclu 10 0 1	ted ide 0 0 0	0 0 0	ermit Inclu 10	ted
Volume Module Base Vol: Growth Adj: Initial Bse: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: Final Vol.:	: 0 1.00 0 1.00 0.80 0 0 1.00 1.00 0	0 1.00 0 1.00 0.80 0 0 1.00 1.00	0 1.00 0 1.00 0.80 0 0 0 1.00 1.00	1012 1.00 1012 1.00 0.80 1265 0 1265 1.00 1.00 1265	0 1.00 0 1.00 0.80 0 0 0 1.00 1.00	93 1.00 93 1.00 0.80 116 0 116 1.00 1.00	58 1.00 58 1.00 0.80 73 0 73 1.00 1.00 73	874 1.00 874 1.00 0.80 1093 0 1093 1.00 1.00 1093	1.00 0 1.00 0.80 0 0 1.00 1.00	0 1.00 0 1.00 0.80 0 0 1.00 1.00 1	550 1.00 550 1.00 0.80 688 0 688 1.00 1.00 688	55 1.00 55 1.00 0.80 69 0 69 1.00 1.00 69
Adjustment:	1.00 0.00 0	1.00 0.00 0	1.00 0.00 0	0.92 2.00 3502	1.00 0.00 0	0.85 1.00 1615	0.23 1.00 443	1.00 1.00 1900	1.00 0.00 0	1.00 0.00 0	1.00 1.00 1900	0.85 1.00 1615
Capacity Anal	ysis		le:		0.00	0.07		0.57		0.00		0.04
Uniform Del: IncremntDel:	0.00 0.0 0.0 0.00 0.00 1.00 0.0	0.00 0.0 0.0 0.00 0.0 1.00 0.0	0.00 0.00 0.0 0.0 0.00 0.0 1.00 0.0	1.05 18.0 40.4 1.00 58.5 1.00 58.5 22	0.00 0.00 0.0 0.00 0.00 1.00 0.0	0.34 0.21 12.8 0.2 1.00 13.0 1.00 13.0	0.30 6.7 0.7 1.00 7.4 1.00 7.4 3	0.55 1.05 12.5 42.3 1.00 54.7 1.00 54.7 32	0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0	1.00 0.0 0	0.66 8.8 1.6 1.00 10.4 1.00	0.55 0.08 5.9 0.0 1.00 5.9 1.00

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************* Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray *************** Cycle (sec): 120 Critical Vol./Cap. (X): 1.433 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 10
 10
 0
 0
 0
 10

 Lanes:
 0
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: 347 0 0 968 0 89 465 0 0 64 0 560 Base Vol: Initial Bse: 0 0 0 347 0 64 89 465 0 0 968 560 PHF Volume: 0 0 0 423 0 78 109 567 0 0 1180 683 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 423 0 78 109 567 0 0 1180 683 Final Vol.: 0 0 0 423 0 78 109 567 0 0 1180 683 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.23 0.00 0.05 0.06 0.30 0.00 0.00 1.03 1.03 Crit Moves: *** **** Green/Cycle: 0.00 0.00 0.00 0.16 0.00 0.16 0.08 0.77 0.00 0.00 0.69 0.69 Volume/Cap: 0.00 0.00 0.00 1.50 0.00 0.31 0.72 0.39 0.00 0.00 1.50 1.50 Uniform Del: 0.0 0.0 0.0 50.6 0.0 44.9 53.6 4.6 0.0 0.0 18.9 18.9 IncremntDel: 0.0 0.0 0.0 244.4 0.0 0.7 15.7 0.2 0.0 0.0 231 231.0 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 AdjDel/Veh: 0.0 0.0 0.0 295.1 0.0 45.6 69.4 4.7 0.0 0.0 250 249.8 HCM2kAvg: 0 0 0 36 0 3 6 7 0 0 143 143 ****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Cycle (sec): 120 Critical Vol./Cap. (X): 0.781 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 56 Level Of Service: Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Permitted Permitted Rights: Include Include Include Include Min. Green: 0 0 0 10 0 10 10 10 0 0 10 10 Volume Module: Base Vol: 0 0 0 347 0 64 89 465 0 0 968 Final Vol.: 0 0 0 423 0 78 109 567 0 0 1180 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 0.14 1.00 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 1615 262 1900 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.05 0.41 0.30 0.00 0.00 0.62 0.42 Crit Moves: **** **** Green/Cycle: 0.00 0.00 0.00 0.15 0.00 0.15 0.80 0.80 0.00 0.00 0.80 0.80 Volume/Cap: 0.00 0.00 0.00 0.78 0.00 0.31 0.52 0.38 0.00 0.00 0.78 0.53 Uniform Del: 0.0 0.0 0.0 48.8 0.0 45.0 4.3 3.6 0.0 0.0 6.6 IncremntDel: 0.0 0.0 0.0 7.2 0.0 0.7 2.3 0.2 0.0 0.0 2.7 0.4 Delay/Veh: 0.0 0.0 0.0 56.0 0.0 45.8 6.6 3.7 0.0 0.0 9.3 4.8 AdjDel/Veh: 0.0 0.0 0.0 56.0 0.0 45.8 6.6 3.7 0.0 0.0 9.3 4.8 HCM2kAvg: 0 0 0 10 0 3 10 6 0 0 25 9

APPENDIX F – LEVEL OF SERVICE WORKSHEETS: CUMULATIVE YEAR 2020 PLUS PROJECT (1,470 HOMES)

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd ************************ Average Delay (sec/veh): 11.6 Worst Case Level Of Service: B[12.7] ************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Lanes: Volume Module: 5 2 34 0 186 22 2 0 0 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Level Of Service Module: 7.3 xxxx xxxxx LOS by Move: * * * * * * * * A * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx xxxxx 2.3 xxxxx xxxxx xxxxx 0.1 xxxx xxxxx Shrd StpDel:xxxxx xxxxx xxxxx xxxxx 12.7 xxxxx xxxxx xxxxx 7.3 xxxx xxxxx Shared LOS: * * * * B * * * *

ApproachDel: xxxxxx 12.7 xxxxxx A * В ApproachLOS:

<u> </u>									
	Level Of								
2000 HCM U	nsignaliz ******	ed Metho	d (Base	· Volur	ne Al	ternati	ve)	والمراويات المراويات	rode de de de de de de de
Intersection #1 Hwy 1	SB Ramps/	Del Mont	e Blvd	P.					
Average Delay (sec/veh	.): 8	3.3 Wor	st Case	Leve	l Of :	Service	:	ВΓ	10.11
Approach: North B		South B				****** ound		***** est Bo	
Movement: L - T	- R	L - T	- R	L -	- Т	- R	I	- °FP	- R
]						
Control: Stop S	ign	Stop S	ign	Und	contro	olled	Und		
	ude							Incl	
Lanes: 0 0 0	0 0	0 0 1!	0 0	0 (1!	0 0	0 1	1 0	0 0
Volume Module:				1					
	0	101 2	7	1	7	5	52	-5	0
Growth Adj: 1.00 1.00		.00 1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse: 0 0		101 2	7	1	7	5	52	5	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: 0.85 0.85	0.85 0	0.85 0.85	0.85	0.85	0.85	0.85	0.85		0.85
PHF Volume: 0 0	O	119 2	8	1	8	6	61	6	0
Reduct Vol: 0 0	-	0 0		0	0	0	.0	0	0
Final Vol.: 0 0	-	119 2		.1	8	6	61	6	. 0
				1		-,,,	1		
Critical Gap Module:		<i>c</i>	6.0	л °1			4 4		
Critical Gp:xxxxx xxxx FollowUpTim:xxxxx xxxx						XXXXX			XXXXX
Capacity Module:	4.1		,1	4			4		
Cnflict Vol: xxxx xxxx	xxxxx	142 145	6	6	xxxx	xxxxx	14	xxxx	xxxxx
Potent Cap.: xxxx xxxx	XXXXX	856 750	1083			xxxxx		xxxx	xxxxx
Move Cap.: xxxx xxxx		830 720	1083	1628	xxxx	XXXXX	1617	xxxx	xxxxx
Volume/Cap: xxxx xxxx		0.14 0.00	0.01			XXXX		XXXX	XXXX
							1		1
Level Of Service Modul				0.0			·0 ·1		
Queue: xxxxx xxxx Stopped Del:xxxxx xxxx						XXXXX			XXXXX
LOS by Move: * *	. AAAAA AA	* *			*	*	7.3 A	*	*
Movement: LT - LTF		LT - LTR			- LTR	- RT		- LTR	
Shared Cap.: xxxx xxxx						XXXXX			xxxxx
SharedQueue:xxxxx xxxx	xxxxx xx	xxxx 0.5	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:xxxxx xxxx	xxxxx xx	xxx 10.1	xxxxx	xxxxx	xxxx	XXXXX	7.3	xxxx	xxxxx
Shared LOS: * *	*		*	*	*	*	A	*	*
ApproachDel: xxxxxx	:	10.1		X	XXXXX		X	xxxxx	
ApproachLOS: *		В			*			*	

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd **************** Average Delay (sec/veh): 4.5 Worst Case Level Of Service: B[13.8] ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module: Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: 153 xxxx xxxxx 121 xxxx xxxxx Capacity Nodults.

Cnflict Vol: 466 506 119 477 456

Potent Cap.: 510 472 939 502 503

Move Cap.: 460 432 939 444 461 101 960 1440 xxxx xxxxx 1479 xxxx xxxxx 960 1440 xxxx xxxxx 1479 xxxx xxxxx Move Cap.: 460 432 939 Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxx xxxx 0.08 xxxx xxxx Level Of Service Module: 7.6 xxxx xxxxx LOS by Move: * * * * * * * A * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT A * *
LT - LTR - RT В ApproachLOS:

	Level Of	Servi	ce C	omputa	tion F	Report	_			
2000 HCM U	nsignali	zed Me	thod	(Base	Volum	ne Alt	ernat	ive)		
******	*****	****	****	****	****	****	*****	****	****	*****
Intersection #2 Hwy 1	NB Ramps	/Del M	onte ****	Blvd *****	*****	****	· * * * * *	*****	****	****
Average Delay (sec/veh	.):	6.4	Wors	t Case	Level	Of S	Service	a •	CI	17 41
Approach: North E Movement: L - T	ound - R	Sout L -	h Bo T	und – R	Ea L -	ast Bo - T	ound - R	We L -	est Bo - T	ound - R
Control: Stop S Rights: Incl	ign	Sto	p Si	gn	Unc	contro	olled	Und	contro	olled
Rights: Incl	ude	\mathbf{I}_{3}	nclu	de.		Inclu	ıde		Incl	ıde
Lanes: 0 0 1!	0 0	0 0	1!	0 0	:O () 1!	0 0	0 () 1!	0 0
					1					
Volume Module:						-				
Base Vol: 8 11	57	28	26	. 6	19	82	8	139	35	67
Growth Adj: 1.00 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 11	57	28	26	6	19	82	8	139	3.5	67
User Adj: 1.00 1.00	1.00	1.00 1	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj: 0.81 0.81	0.81	0.81 0	.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume: 10 14	70	35	32	7	23	101	10	172	43	83
Reduct Vol: 0 0	0	0	.0	0	0	0	0	0	0	0
Final Vol.: 10 14	70	35	32	7		101	-	172		8.3
	11			1						
Critical Gap Module:	1 1			,	-			1 1		4
-	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4 1	VVVV	*****
FollowUpTim: 3.5 4.0				3.3			xxxxx			XXXXX
					1			 		
Capacity Module:	• •			-1	1			1 1		
Cnflict Vol: 601 622	106	623	586	85	126	xxxx	xxxxx	111	XXXX	xxxxx
Potent Cap.: 415 405			425	980			XXXXX			XXXXX
Move Cap:: 343 348		· ·	365	980			XXXXX			
Volume/Cap: 0.03 0.04		0.11 0		0.01			XXXX		XXXX	
Level Of Service Modul				4	1			11		
Queue: xxxxx xxxx		vvvv v	.	vvvvv	0.0	vvvv	xxxxx	0 1	*******	xxxxx
Stopped Del:xxxxx xxxx							XXXXX			XXXXX
LOS by Move: * *		*				*			xxxx *	*****
Movement: LT - LTR		LT - :						A		
							- RT		- LTR	
Shared Cap.: xxxx 663							xxxxx			XXXXX
SharedQueue:xxxxx 0.5										
Shared LOS: * B					**			XXXXX	XXXX	XXXXX
bridged Hob.		*		*				*	*	*
ApproachDel: 11.3			7.4		XX	XXXXX		X	XXXX	
ApproachLOS: B			С			*			*	

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************** Intersection #3 S. Davis Rd/W. Blanco Rd ****************** Cycle (sec): 130 Critical Vol./Cap. (X):
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: ********************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Protected Protected Protected Protected Protected Volume Module: Base Vol: 245 609 348 419 1456 1320 604 537 37 524 734 Initial Bse: 245 609 348 419 1456 1320 604 537 37 524 734 PHF Adj: PHF Volume: 261 648 370 446 1549 1404 643 571 39 557 781 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 261 648 370 446 1549 1404 643 571 39 557 781 364 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.14 0.30 0.30 0.25 0.82 0.87 0.18 0.17 0.17 0.31 0.22 0.23 **** **** **** Crit Moves: **** Green/Cycle: 0.09 0.34 0.34 0.28 0.53 0.53 0.13 0.10 0.10 0.19 0.16 0.16 Volume/Cap: 1.65 0.89 0.89 0.89 1.54 1.65 1.40 1.65 1.65 1.65 1.35 1.40 Uniform Del: 59.3 40.7 40.7 44.9 30.7 30.7 56.5 58.3 58.3 52.8 54.6 54.6 HCM2kAvg: 26 22 22 21 127 122 27 28 28 52 30 29 **********************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 85 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle:OPTIMIZED Level Of Service: ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Protected Control: Include Ovl Include Ovl 7 10 10 7 10 10 7 10 10 2 0 3 0 1 3 0 2 0 3 3 0 3 0 1 2 0 3 0 2 Rights: Min. Green: 10 Lanes: Volume Module: Base Vol: 245 609 348 419 1456 1320 604 537 37 524 734 Initial Bse: 245 609 348 419 1456 1320 604 537 37 524 734 PHF Volume: 261 648 370 446 1549 1404 643 571 39 557 781 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Saturation Flow Module: Adjustment: 0.92 0.91 0.85 0.92 0.95 0.75 0.92 0.91 0.85 0.92 0.91 Lanes: 2.00 3.00 1.00 3.00 2.00 3.00 3.00 3.00 1.00 2.00 3.00 2.00 Final Sat.: 3502 5187 1615 5253 3610 4264 5253 5187 1615 3502 5187 2842 Capacity Analysis Module: Vol/Sat: 0.07 0.12 0.23 0.08 0.43 0.33 0.12 0.11 0.02 0.16 0.15 0.13 Crit Moves: **** **** **** **** Green/Cycle: 0.08 0.41 0.41 0.15 0.48 0.61 0.13 0.12 0.12 0.18 0.17 0.32 AdjDel/Veh: 67.3 17.1 20.4 34.4 27.2 9.8 52.4 52.6 34.0 50.4 48.7 23.1 HCM2kAvg: 7 4 8 5 23 8 9 8 1 11 10 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #3 S. Davis Rd/W. Blanco Rd ************************ Cycle (sec): 125 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 180 Level Of Service: 12 (Y+R = 4 sec) Average Delay (sec/veh): **************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Protected
Include Include Include Include Include Rights: Include Includ 7 10 10 Volume Module: 428 1248 682 36 237 586 Base Vol: 37 1277 441 647 695 441 647 695 428 1248 682 36 237 586 484 Initial Bse: 37 1277 User Adj: PHF Adj: PHF Volume: 39 1359 469 688 739 455 1328 726 38 252 623 515 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 39 1359 469 688 739 455 1328 726 38 252 623 515 Saturation Flow Module: Adjustment: 0.95 0.91 0.91 0.95 1.00 0.85 0.92 0.94 0.94 0.95 0.95 0.85 Lanes: 1.00 1.49 0.51 1.00 1.00 1.00 2.00 1.90 0.10 1.00 2.00 1.00 Final Sat.: 1805 2579 891 1805 1900 1615 3502 3405 180 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.02 0.53 0.53 0.38 0.39 0.28 0.38 0.21 0.21 0.14 0.17 0.32 **** **** **** Crit Moves: Green/Cycle: 0.06 0.30 0.30 0.21 0.46 0.46 0.21 0.24 0.24 0.16 0.18 0.18 HCM2kAvg: 2 84 84 67 27 14 65 18 18 13 16 48 **********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 75 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle:OPTIMIZED Level Of Service: ******************************* Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Control: Protected Protected Protected Protected Rights: Include Ov1 Include Ov1
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Lanes: 2 0 3 0 1 3 0 2 0 3 3 0 3 0 1 2 0 3 0 2 10 Volume Module: Base Vol: 37 1277 441 647 695 428 1248 682 36 237 586 Initial Bse: 37 1277 441 647 695 428 1248 682 36 237 586 PHF Adi: PHF Volume: 39 1359 469 688 739 455 1328 726 38 252 623 515 Reduct Vol: 0 0 0 Reduced Vol: 39 1359 469 688 739 455 1328 726 38 252 623 515 MLF Adj: Final Vol.: 39 1359 469 688 739 455 1328 726 38 252 623 515 Saturation Flow Module:

 Sat/Lane:
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900
 1900 Capacity Analysis Module: Vol/Sat: 0.01 0.26 0.29 0.13 0.20 0.11 0.25 0.14 0.02 0.07 0.12 0.18 Crit Moves: **** **** Green/Cycle: 0.09 0.30 0.30 0.14 0.35 0.61 0.26 0.30 0.30 0.09 0.13 0.27 Volume/Cap: 0.12 0.86 0.95 0.95 0.59 0.17 0.95 0.46 0.08 0.77 0.90 0.67 Uniform Del: 31.2 24.6 25.6 32.1 20.0 6.3 27.1 21.1 18.6 33.2 32.0 24.4 AdjDe1/Veh: 31.3 29.6 54.8 55.0 20.8 6.3 41.7 21.3 18.6 44.0 47.0 26.6 HCM2kAvg: 1 13 16 10 8 2 16 5 1 5 8 7

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************** Intersection #4 Hwy 1 SB Ramps/Reservation Rd Average Delay (sec/veh): 142.2 Worst Case Level Of Service: *************************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RUncontrolled Stop Sign Stop Sign Uncontrolled Include Include Include Include Include 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0 Lanes: Volume Module: Base Vol: 0 0 0 232 3 23 0 34 33 556 65 Initial Bse: 0 0 0 232 3 23 0 34 33 556 65 0 PHF Volume: 0 0 0 249 3 25 0 37 35 598 70 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 249 3 25 0 37 35 598 70 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: 70 xxxx xxxx xxxxx 72 xxxx xxxxx Cnflict Vol: xxxx xxxx xxxxx 1320 1338 Potent Cap.: xxxx xxxx xxxx 175 154 999 xxxx xxxx xxxx 1541 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 122 95 999 xxxx xxxx xxxxx 1541 xxxx xxxxx 999 xxxx xxxx xxxxx 1541 xxxx xxxxx Move Cap.: xxxx xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 2.05 0.03 0.02 xxxx xxxx xxxx 0.39 xxxx xxxx Level Of Service Module: Stopped Del:xxxxx xxxx xxxxx 557.2 xxxx xxxxx xxxxx xxxx xxxx 8.8 xxxx xxxxx LOS by Move: * * * F * * * * * *

Movement: LT - LTR - RT LT - LTR - RT A * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT в * * * * * Shared LOS: * * * * * XXXXXX XXXXXX 502.3 ApproachDel: xxxxxx F ApproachLOS:

Level Of Service Computation Report													
2000 HCM Unsignalized Method (Base Volume Alternative)													
Intersection #4 Hwy 1 SB Ramps/Reservation Rd													

Average Delay (sec/veh): 34.1 Worst Case Level Of Service: F[71.4]													
Approach:		***** rth B		***** Soi					***** ound				
Movement:			- R			- R			- R				
										11		1	
Control:	St	op S	ign	St	top S	ign	Un	contr	olled	Uncontrolled			
Rights:		Inc1			Incl	ıde		Inc1	ude		Incl		
Lanes:			0 0		0 0				1 0			0 0	
					-,,,	ند ساسه ساسوس				11		1	
Volume Modul		_											
Base Vol:	.0	0			3		0				125		
Growth Adj:		1.00			1.00					1.00		1.00	
Initial Bse:		0	0	354	3	26	.0	80	48	215	125	0	
User Adj:		1.00			1.00	1.00		1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.97		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
PHF Volume:	0	0	0	365	3	27	0	82	49	222	129	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Final Vol.:	0	0	0	365	3		0	82	49			0	
	•									11			
Critical Gap													
Critical Gp:									xxxxx			XXXXX	
FollowUpTim:					4.0				xxxxx			XXXXX	
Capacity Mod				1 4			1 1			11			
Cnflict Vol:	xxxx	xxxx	xxxxx	679	704	129	XXXX	xxxx	xxxxx	132	xxxx	xxxxx	
Potent Cap.:	XXXX	xxxx	xxxxx	420	364	926	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx	371	309	926	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx	0.98	0.01	0.03	xxxx	xxxx	xxxx	0.15	xxxx	xxxx	
										1			
Level Of Ser	vice N	Modul	e:										
Queue:	xxxxx	xxxx	XXXXX	11.3	xxxx	xxxxx	XXXXX	XXXX	xxxxx	0.5	xxxx	xxxxx	
Stopped Del:	XXXXX	xxxx	xxxxx	76.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	
LOS by Move:	*	*	*	F	*	*	*	*	*	A	*	*	
Movement:	LT -	- LTR	- RT	LT	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR	- RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	768	xxxx	xxxx	xxxxx	xxxx	xxxx	XXXXX	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX	
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX	
Shared LOS:	*	*	*	*	**	Α	*	**	*	*	*	*	
ApproachDel:	,XX	xxxxx			71.4		X	xxxxx		X	xxxxx		
ApproachLOS:		*			F			*			*		

_____ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) *************** Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 2.0 Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RVolume Module: PHF Volume: 32 0 148 0 0 0 8 284 0 0 639 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 32 0 148 0 0 0 8 284 0 0 639 0 Critical Gap Module: Capacity Module: Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx 9.7 xxxx xxxxx xxxxx xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx A * * * * * LOS by Move: * * * * * LT - LTR - RT Movement: Shared LOS: * B * * * * * * * * * xxxxxx 14.5 XXXXXX XXXXXX ApproachDel: ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 4.4 Worst Case Level Of Service: C[17.9] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Volume Module: Base Vol: 26 1 290 0 0 0 24 391 0 0 264 Initial Bse: 26 1 290 0 0 0 24 391 0 0 264 PHF Volume: 27 1 296 0 0 0 24 399 0 0 269 346 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 27 1 296 0 0 0 24 399 0 0 269 346 Critical Gap Module: Capacity Module: Level Of Service Module: Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx 8.8 xxxx xxxxx xxxxx xxxx C ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #6 Reservation Rd/Del Monte Blvd *********************************** Cycle (sec): 67 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 73 Level Of Service: 30.5 ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 91 323 574 368 464 13 31 276 85 747 157 Initial Bse: 91 323 574 368 464 13 31 276 85 747 157 PHF Volume: 99 351 624 400 504 14 34 300 92 812 171 0 0 0 400 504 14 0 92 Reduct Vol: 0 0 0 0 0 0 0 Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.95 0.95 0.91 0.91 0.91 0.92 1.00 0.85 Lanes: 1.00 1.00 2.00 2.00 1.95 0.05 0.16 1.41 0.43 2.00 1.00 1.00 Final Sat.: 1805 1900 2842 3502 3498 98 275 2448 754 3502 1900 1615 _____ Capacity Analysis Module: Vol/Sat: 0.05 0.18 0.22 0.11 0.14 0.14 0.12 0.12 0.12 0.23 0.09 0.20 **** **** **** *** Crit Moves: Green/Cycle: 0.16 0.26 0.26 0.14 0.23 0.23 0.15 0.15 0.15 0.28 0.28 0.28 Volume/Cap: 0.34 0.71 0.84 0.84 0.62 0.62 0.82 0.82 0.82 0.82 0.84 0.33 0.73 Uniform Del: 24.8 22.5 23.5 28.3 23.0 23.0 27.6 27.6 27.6 22.9 19.3 22.0 8.6 12.8 1.4 1.4 10.1 10.1 10.1 6.8 0.4 IncremntDel: 0.7 4.7 Delay Adj: Delay/Veh: 25.5 27.2 32.1 41.1 24.4 24.4 37.7 37.7 37.7 29.7 19.7 27.9 AdjDel/Veh: 25.5 27.2 32.1 41.1 24.4 24.4 37.7 37.7 37.7 29.7 19.7 27.9 HCM2kAvq: 2 8 9 7 6 6 7 7 7 11 3 8 ******

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************** Intersection #6 Reservation Rd/Del Monte Blvd ************************************ Cycle (sec): 67 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 73 Level Of Service: ************************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 91 323 574 368 464 13 31 276 85 747 157 Initial Bse: 91 323 574 368 464 13 31 276 85 747 157 PHF Volume: 99 351 624 400 504 14 34 300 92 812 171 ______| Saturation Flow Module: Adjustment: 0.95 0.95 0.75 0.92 0.95 0.95 0.91 0.91 0.91 0.92 1.00 0.85 Lanes: 1.00 2.00 2.00 2.00 1.95 0.05 0.16 1.41 0.43 2.00 1.00 1.00 Final Sat.: 1805 3610 2842 3502 3498 98 275 2448 754 3502 1900 1615 _____| Capacity Analysis Module: Vol/Sat: 0.05 0.10 0.22 0.11 0.14 0.14 0.12 0.12 0.12 0.23 0.09 0.20 **** **** **** Crit Moves: Delay/Veh: 25.5 20.5 32.1 41.1 24.4 24.4 37.7 37.7 37.7 29.7 19.7 27.9 AdjDel/Veh: 25.5 20.5 32.1 41.1 24.4 24.4 37.7 37.7 37.7 29.7 19.7 27.9 HCM2kAvg: 2 3 9 7 6 6 7 7 7 11 3 8 ***************************

ال ساہم مارسا بات بات ہے جانے میں بات کے نازے میں مار مان کے بات کے ب Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 75 Critical Vol./Cap. (X): 76.0 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Split Phase Split Phase Include Include Include Include 7 10 10 7 10 10 10 10 10 10 10 10 Control: Rights: 10 10 10 10 10 10 Volume Module: Base Vol: 113 966 833 220 250 7 20 339 108 615 340 382 Initial Bse: 113 966 833 220 250 7 20 339 108 615 340 PHF Adj: PHF Volume: 115 986 850 224 255 7 20 346 110 628 347 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 115 986 850 224 255 7 20 346 110 628 347 0 628 347 Reduced Vol: 115 986 850 224 255 390 Saturation Flow Module: Adjustment: 0.95 1.00 0.75 0.92 0.95 0.95 0.91 0.91 0.91 0.92 1.00 0.85 1.00 1.00 2.00 2.00 1.95 0.05 0.09 1.45 0.46 2.00 1.00 1.00 Lanes: Final Sat.: 1805 1900 2842 3502 3498 98 149 2524 804 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.06 0.52 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.24 **** **** **** Crit Moves: Green/Cycle: 0.21 0.42 0.42 0.09 0.30 0.30 0.13 0.13 0.13 0.19 0.19 0.19 Volume/Cap: 0.30 1.24 0.71 0.69 0.24 0.24 1.03 1.03 1.03 0.92 0.94 1.24 Uniform Del: 25.0 21.8 18.1 32.9 19.8 19.8 32.5 32.5 32.5 29.6 29.7 30.2 0.1 49.1 49.1 49.1 17.8 31.2 131.9 6.0 0.1 IncremntDel: 0.5 118 2.1 AdjDel/Veh: 25.4 140 20.2 39.0 19.9 19.9 81.6 81.6 81.6 47.4 60.9 162.1 HCM2kAvg: 3 49 10 4 2 2 11 11 12 12 21 *******

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #6 Reservation Rd/Del Monte Blvd Cycle (sec): 75 Critical Vol./Cap. (X): 0.883 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 88 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 113 966 833 220 250 7 20 339 108 615 340 Initial Bse: 113 966 833 220 250 7 20 339 108 615 340 Saturation Flow Module: Adjustment: 0.95 0.95 0.75 0.92 0.95 0.95 0.91 0.91 0.91 0.92 1.00 0.85 Lanes: 1.00 2.00 2.00 2.00 1.95 0.05 0.09 1.45 0.46 2.00 1.00 1.00 Final Sat.: 1805 3610 2842 3502 3498 98 149 2524 804 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.06 0.27 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.24 **** Crit Moves: Green/Cycle: 0.17 0.33 0.33 0.09 0.25 0.25 0.15 0.15 0.15 0.27 0.27 0.27 Delay/Veh: 28.0 28.2 36.4 39.0 23.0 23.0 50.8 50.8 50.8 26.6 28.6 49.3 AdjDel/Veh: 28.0 28.2 36.4 39.0 23.0 23.0 50.8 50.8 50.8 26.6 28.6 49.3 HCM2kAvg: 3 13 14 4 3 3 9 9 9 8 8 13 ********************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************** Intersection #7 Reservation Rd/Vista Del Camino ***************** Cycle (sec): Critical Vol./Cap. (X): 0.479 90 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: 8.4 ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____ Control: Permitted Permitted Protected Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1

 7 10 10 Volume Module: Base Vol: 10 2 0 66 3 52 52 948 10 14 1158 Initial Bse: 10 2 0 66 3 52 52 948 10 14 1158 70 PHF Volume: 11 2 0 71 3 56 56 1019 11 15 1245 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 11 2 0 71 3 56 56 1019 11 15 1245 0 75 Saturation Flow Module: 0.83 0.17 1.00 0.96 0.04 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1273 255 1900 1296 59 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.00 0.05 0.05 0.03 0.03 0.28 0.01 0.01 0.34 0.05 **** **** Crit Moves: Green/Cycle: 0.11 0.11 0.00 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.07 0.07 0.00 0.49 0.49 0.31 0.40 0.40 0.01 0.11 0.49 0.07 Uniform Del: 35.7 35.7 0.0 37.5 37.5 36.7 39.5 5.3 IncremntDel: 0.2 0.2 0.0 2.4 2.4 1.0 1.9 0.1 3.8 38.6 5.8 0.0 0.3 0.1 HCM2kAvq: 0 0 0 3 3 2 2 6 0 0 8 1 **********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #7 Reservation Rd/Vista Del Camino Cycle (sec): 90 Critical Vol./Cap. (X): 0.550 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 37 Level Of Service: ************************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 10 10 10 10 10 10 7 10 7 10 10
 7 10 10 7 10 10

 Lanes:
 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1
 7 10 10 Volume Module: Base Vol: 41 4 18 116 7 40 141 1321 49 38 1183 140 Initial Bse: 41 4 18 116 7 40 141 1321 49 38 1183 140 PHF Adj: PHF Volume: 42 4 19 120 7 41 Reduct Vol: 0 0 0 0 0 0 0 Reduced Vol: 42 4 19 120 7 41 41 145 1362 51 39 1220 0 0 0 51 39 1220 0 0 0 145 1362 144 Final Vol.: 42 4 19 120 7 41 145 1362 51 39 1220 144 Saturation Flow Module: Adjustment: 0.71 0.71 0.85 0.69 0.69 0.85 0.95 0.95 0.85 0.95 0.95 0.85 Lanes: 0.91 0.09 1.00 0.94 0.06 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1226 120 1615 1244 75 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.01 0.10 0.10 0.03 0.08 0.38 0.03 0.02 0.34 0.09 **** Crit Moves: **** **** Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.17 0.14 0.66 0.66 0.08 0.59 0.59 Volume/Cap: 0.21 0.21 0.07 0.58 0.58 0.15 0.57 0.58 0.05 0.28 0.57 0.15 Uniform Del: 32.3 32.3 31.6 34.5 34.5 32.0 36.1 8.6 5.5 39.1 11.3 0.1 3.7 3.7 0.3 3.1 0.4 0.0 IncremntDel: 0.5 0.5 1.1 0.4 Delay/Veh: 32.8 32.8 31.7 38.3 38.3 32.3 39.2 8.9 5.5 40.2 11.7 AdjDel/Veh: 32.8 32.8 31.7 38.3 38.3 32.3 39.2 8.9 5.5 40.2 11.7 8.3 HCM2kAvg: 2 2 0 5 5 1 5 11 0 1 11 **************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #8 Reservation Rd/Seacrest Ave ****************************** 60 Critical Vol./Cap. (X): 0.474 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R _____ Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Include Min. Green: 10 0 10 0 0 0 0 0 10 10 7 10 0 Lanes: 1 0 0 0 1 0 0 0 0 0 0 2 0 1 1 0 2 0 0 Volume Module: Base Vol: 95 0 49 0 0 0 0 897 91 111 931 Initial Bse: 95 0 49 0 0 0 0 897 91 111 931 0 PHF Volume: 106 0 54 0 0 0 0 997 101 123 1034 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 106 0 54 0 0 0 0 997 101 123 1034 0 ______ Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 0.85 0.95 0.95 1.00 Final Sat.: 1805 0 1615 0 0 0 0 3610 1615 1805 3610 0 _____| Capacity Analysis Module: Vol/Sat: 0.06 0.00 0.03 0.00 0.00 0.00 0.08 0.06 0.07 0.29 0.00 **** **** Crit Moves: **** Green/Cycle: 0.17 0.00 0.17 0.00 0.00 0.00 0.00 0.55 0.55 0.14 0.68 0.00 Volume/Cap: 0.35 0.00 0.20 0.00 0.00 0.00 0.00 0.50 0.11 0.50 0.42 0.00 Uniform Del: 22.1 0.0 21.6 0.0 0.0 0.0 0.0 8.5 6.5 24.1 4.2 0.0 IncremntDel: 0.7 0.0 0.4 0.0 0.0 0.0 0.0 0.2 0.1 1.7 0.1 Delay/Veh: 22.8 0.0 21.9 0.0 0.0 0.0 0.0 8.7 6.6 25.7 4.3 0.0 AdjDel/Veh: 22.8 0.0 21.9 0.0 0.0 0.0 0.0 8.7 6.6 25.7 4.3 0.0 HCM2kAvq: 2 0 1 0 0 0 0 6 1 3 5 0 *****************

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

<pre>Intersection #8 Reservation Rd/Seacrest Ave ************************************</pre>														
Cycle (sec):		6	ξ.				7 77 7	10	7573		0.8			
Loss Time (se	ec):	C) (Y+R	= 4	sec) 7	verage	Dela	v (sec	(x): :/veh):		16			
Optimal Cycle	e:	64	1		I	_evel C	f Ser	vice:	zi veni, .		1.0	. т		
*****	****	****	*****	****					*****	****	****	*****		
Approach: North Bound South Bound East Bound											West Bound			
Movement:	L	- T	- R		- Т				- R	L - T - R				
										1				
Control: Split Phase Split Phase Protected Prot														
Rights:	•	Inclu		-	Inclu			Inclu			Incl			
Min. Green:	10	0	10	:0	0	0	0	10	10	7		0		
Lanes:	1	0 0	0 1	١٠ ٥٠	0 C	0 0	0	0 2	0 1	1 (2	0 0		
		_:		1			1:			1				
Volume Module	∋ :											·		
Base Vol:	213	0	90	0	0	0	0	1320	224	255	956	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:	213	0	90	:0	0	0	0	1320	224	255	956	.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:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88		
PHF Volume:	242	0	102	.0	0	0	0	1500	255	290	1086	0		
Reduct Vol:	.0	. 0	0	0	0	0	0	0	0	. 0	0	0		
Reduced Vol:	242	0	102	0	0	0	0	1500	255	290	1086	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		
Final Vol.:	242	0	102	. 0	.0	0	0	1500	255	290	1086	0		
				1						1				
Saturation Fl														
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900		
Adjustment:		1.00	0.85		1.00	1.00		0.95	0.85		0.95	1.00		
Lanes:		0.00	1.00		0.00	0.00		2.00	1.00		2.00	0.00		
Final Sat.:	1805		1615	0	.0	0		3610	1615		3610	.0		
Capacity Anal				1	~····		1			1				
Vol/Sat:	_		0.06	0.00	0.00	0.00	0 00	0.42	0.16	0 16	0.30	0.00		
Crit Moves:	****	0.00	0.00	.0.00	0.00	0.00	0.00	****	0.1.0	****	0.30	0.00		
Green/Cycle:		0 00	0.16	0.00	0.00	0.00	0.00	0.50	0.50		0.70	0.00		
Volume/Cap:			0.39		0.00	0.00		0.82	0.31		0.43	0.00		
Uniform Del:		0.0	24.3	0.0	0.0	0.0	0.0		9.5	25.1	4.2	0.0		
IncremntDel:		0.0	1.0	0.0	0.0	0.0	0.0	3.2	0.2	14.6	0.1	0.0		
Delay Adj:		0.00	1.00		0.00	0.00		1.00	1.00		1.00	0.00		
Delay/Veh:	43.3	0.0	25.3	0.0	0.0	0.0		16.9	9.7	39.7	4.3	0.00		
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00		
AdjDel/Veh:	43.3	0.0	25.3	0.0	0.0	0.0		16.9	9.7	39.7	4.3	0.0		
HCM2kAvg:	8	0	2	0	0	0	0	15	3	9	5	0.0		
******	-			-										

_________ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #9 Reservation Rd/De Forest Rd ********************* Cycle (sec): 90 Critical Vol./Cap. (X): 0.349 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 36 Level Of Service: 8.8 ******************* Approach: North Bound South Bound East Bound Movement: L-T-R L-T-RSouth Bound East Bound West Bound L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10 Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1 Volume Module: Base Vol: 33 3 39 46 8 41 22 775 46 39 914 Initial Bse: 33 3 39 46 8 41 22 775 46 39 914 0.97 PHF Adj: 47 8 42 0 0 0 47 8 42 23 799 47 40 942 0 0 0 47 40 942 PHF Volume: 34 3 40
Reduct Vol: 0 0 0
Reduced Vol: 34 3 40 42 0 .0 23 799 37 _____| Saturation Flow Module: Adjustment: 0.73 0.73 0.85 0.73 0.85 0.95 0.95 0.95 0.95 0.95 0.95 0.95 Lanes: 0.92 0.08 1.00 0.85 0.15 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1264 115 1615 1182 205 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.02 0.04 0.04 0.03 0.01 0.22 0.03 0.02 0.26 0.02 **** **** Crit Moves: Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.08 0.71 0.71 0.08 0.71 0.71 Volume/Cap: 0.24 0.24 0.22 0.36 0.36 0.24 0.24 0.16 0.31 0.04 0.29 0.37 0.03 Uniform Del: 36.5 36.5 36.5 37.0 37.0 36.5 38.8 4.8 3.9 39.1 5.1 3.8 0.6 1.4 1.4 0.7 0.5 0.1 0.0 1.1 0.1 IncremntDel: 0.8 0.8 Delay/Veh: 37.4 37.4 37.1 38.5 38.5 37.2 39.3 4.9 3.9 40.3 5.2 3.9 AdjDel/Veh: 37.4 37.4 37.1 38.5 38.5 37.2 39.3 4.9 3.9 40.3 5.2 3.9 HCM2kAvg: 1 1 1 2 2 1 1 4 0 1 5 Ω

		3	Level O	f Ser	vice (Computa	ation I	Repor	t				
	2000	HCM (Operati	ons Me	ethod	(Base	Volume	a Ālta	ernativ	re)			
******	*************************												
	Intersection #9 Reservation Rd/De Forest Rd												
********	T - 10	* * * * * *	TOTON K	44444	. 0162	- NU	. ن ن ن ن ن ن ن ن	والمعارضة المعارضة	and an area of a				

-											-		
Loss Time (se			9 (Y+R	= 4 :					c/veh):	1	0.0		
Optimal Cycle		3				Level (В		
*******	****	****	*****	****	****	*****	****	****	*****	*****	****		
Approach:	No:	rth Bo	ound	Soi	ith Bo	ound	Εá	ast B	ound	West	Bound		
Movement:	L	- T	- R	L ·	- T	- R	L -	- m	- R	L - T			
				1						1			
Control:													
Rights:	Permitted Permitted Protected Protected Include Include Include												
Min. Green:	10			10			7						
			10			10			10	7 1			
Lanes:	. 0 :	1 0	0 1	0 :		0 1	1 () 2	0 1	1 0 2	0 1		
										1			
Volume Module													
Base Vol:	71	11	89	45	6	56	42	1279	93	48 109	9 51		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0	0 1.00		
Initial Bse:	71	11	89	45	6	56	42	1279	93	48 109	9 51		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0			
PHF Adj:	0.97	0.97	0.97		0.97	0.97		0.97	0.97	0.97 0.9			
PHF Volume:	7.3	11	92	46	6	58		1319	96	49 113			
Reduct Vol:	.0	0	0	0	0	-0	-0	1319	0				
Reduced Vol:	73	11	92	46	6	58	_						
	_							1319	96	49 113			
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.0			
MLF Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.0			
Final Vol.:	73	11	92	46	6	58	43	1319	96	49 113	3 53		
·	,		-1										
Saturation F.	Low Mo	odule	;										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900 190	1900		
Adjustment:	0.71	0.71	0.85	0.70	0.70	0.85	0.95	0.95	0.85	0.95 0.9	5 0.85		
Lanes:	0.87	0.13	1.00	0.88	0.12	1.00	1.00	2.00	1.00	1.00 2.0	0 1.00		
Final Sat.:	1161	180	1615	1180	157	1615	1805	3610	1615	1805 361			
									1				
Capacity Anal	lveis	Modu		· I		-1			1	1	. 1.		
Vol/Sat:	-	0.06	0.06	0.04	0.04	0.04	0.00	0.37	0.06	0.03 0.3	1 0 00		
Crit Moves:	0.00	****	0.00	0.04	0.04	0.04	0.02	****	0.00	****	1 0.03		
	0 10		0 10	0 10	0 10	0 10	0 00						
Green/Cycle:			0.13		0.13	0.13		0.67	0.67	0.09 0.6			
Volume/Cap:		0.50	0.45		0.31	0.29		0.54	0.09	0.31 0.4			
Uniform Del:			32.5		31.9	31.8	34.1	6.7	4.5	34.2 6.			
IncremntDel:	2.4	2.4	1.6	1.1	1.1	0.8	0.9	0.2	0.0	1.1 0.	1 0.0		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0	0 1.00		
Delay/Veh:	35.1	35.1	34.1	33.0	33.0	32.5	35.1	6.9	4.5	35.4 6.	3 4.4		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.0			
AdjDel/Veh:		35.1	34.1		33.0	32.5	35.1	6.9	4.5	35.4 6.			
HCM2kAvg:	3	3	3	2	2	2	1	9	1	2 7	0		
******	· * * * *	****		_	_	د * * * * * *	_	-	*****		*****		

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) `` Intersection #10 Reservation Rd/Crescent Ave ************************ Cycle (sec): 55 Critical Vol./Cap. (X): 0.483 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: 12.6 Approach: North Bound Movement: L - T - R South Bound East Bound West Bound L - T - R L - T - R L - T - RPermitted Permitted Protected Include Include Include Protected Control: Include Rights: 10 10 10 10 10 10 7 10 10 7 10 10 Min. Green: Lanes: 1 0 1 0 1 0 1 0 0 1 1 0 2 0 1 1 0 1 1 0 ______|__| Volume Module: 23 25 852 100 96 856 Base Vol: 160 27 119 53 39 Initial Bse: 160 27 119 53 39 23 25 852 100 96 856 24 PHF Volume: 170 29 127 56 41 27 906 106 102 911 Reduct Vol: 0 0 Reduced Vol: 170 29 0 0 0 .0 0 0 0 0 0 0 56 41 27 906 24 106 102 911 127 23 PCE Adj: MLF Adi: Final Vol.: 170 29 127 56 41 24 27 906 106 102 911 23 Saturation Flow Module: Adjustment: 0.69 1.00 0.85 0.83 0.83 0.85 0.95 0.95 0.85 0.95 0.95 Lanes: 1.00 1.00 1.00 0.58 0.42 1.00 1.00 2.00 1.00 1.00 1.95 0.05 Final Sat.: 1313 1900 1615 913 672 1615 1805 3610 1615 1805 3505 90 Capacity Analysis Module: Vol/Sat: 0.13 0.02 0.08 0.06 0.06 0.02 0.01 0.25 0.07 0.06 0.26 0.26 Crit Moves: **** **** Green/Cycle: 0.24 0.24 0.24 0.24 0.24 0.24 0.13 0.47 0.47 0.13 0.47 0.47 Volume/Cap: 0.55 0.06 0.33 0.26 0.26 0.06 0.12 0.53 0.14 0.44 0.55 0.55 Uniform Del: 18.4 16.3 17.4 17.1 17.1 16.3 21.3 10.2 8.2 22.2 10.3 10.3 0.5 0.4 0.4 0.1 0.2 0.3 0.1 1.4 0.4 IncremntDel: 2.1 0.1 Delay/Veh: 20.5 16.4 17.9 17.5 17.5 16.4 21.5 10.5 8.3 23.6 10.7 10.7 AdjDel/Veh: 20.5 16.4 17.9 17.5 17.5 16.4 21.5 10.5 8.3 23.6 10.7 10.7 HCM2kAvq: 4 0 2 2 2 0 1 6 1 2 6 6 **********************************

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #10 Reservation Rd/Crescent Ave ********************************** Cycle (sec): 55 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 42 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 0
 1
 0
 Volume Module: 105 38 152 55 29 34 Base Vol: 65 1237 182 153 939 Initial Bse: 105 38 55 29 34 65 1237 152 182 153 939 PHF Adj: 0.93 PHF Volume: 113 41 163 59 31 37 70 1330 196 165 1010 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 Reduced Vol: 113 41 163 59 31 37 70 1330 196 165 1010 MLF Adj: Final Vol.: 113 41 163 59 31 37 70 1330 196 165 1010 57 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.09 0.02 0.10 0.06 0.06 0.02 0.04 0.37 0.12 0.09 0.30 0.30 **** **** Crit Moves: Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.13 0.52 0.52 0.13 0.53 0.53 Volume/Cap: 0.47 0.12 0.56 0.33 0.33 0.12 0.30 0.70 0.23 0.70 0.56 0.56 Uniform Del: 20.1 18.8 20.5 19.6 19.6 18.8 21.8 9.8 7.1 22.9 8.8 8.8

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************** Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 70 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 180 Level Of Service: 12 (Y+R = 4 sec) Average Delay (sec/veh): 219.7 ************** South Bound East Bound Approach: North Bound L - T - R L - T - R L - T - R Movement: Protected Protected Protected Include Include Include Control: Protected Rights: Include Rights: Include Include Include Include Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 Lanes: 2 0 0 1 1 1 0 1 0 1 2 0 2 0 1 2 0 2 0 1 ______|___|___|____| Volume Module: 29 929 2 8 8 160 1411 778 192 14 1069 Base Vol: 11 11 0.87 184 1622 894 PHF Volume: 221 16 1229 2 9 9 33 1068 184 1622 894 0 0 0 0 0 0 0 0 2 9 9 33 1068 184 1622 894 1.3 0 10 -0 Reduct Vol: 0 Reduced Vol: 221 16 1229 13 PCE Adj: MLF Adj: Final Vol.: 221 16 1229 2 9 9 33 1068 184 1622 894 13 ______| Saturation Flow Module: Adjustment: 0.92 0.85 0.85 0.95 1.00 0.85 0.92 0.95 0.85 0.92 0.95 0.85 Capacity Analysis Module: Vol/Sat: 0.06 0.38 0.38 0.00 0.00 0.01 0.01 0.30 0.11 0.46 0.25 0.01 **** **** *** Crit Moves: Green/Cycle: 0.14 0.24 0.24 0.10 0.20 0.20 0.10 0.19 0.19 0.30 0.38 0.38 Volume/Cap: 0.44 1.57 1.57 0.01 0.02 0.03 0.10 1.57 0.60 1.57 0.65 0.02 Uniform Del: 27.5 26.4 26.4 28.4 22.3 22.4 28.6 28.4 26.0 24.7 17.7 13.4 IncremntDel: 0.6 262 262.4 0.0 0.0 0.0 0.1 263 3.4 261.0 1.1 0.0 Delay/Veh: 28.1 289 288.8 28.4 22.4 22.4 28.7 292 29.4 285.6 18.7 13.4 AdjDel/Veh: 28.1 289 288.8 28.4 22.4 22.4 28.7 292 29.4 285.6 18.7 13.4 HCM2kAvg: 3 43 43 0 0 0 0 37 5 58 9 0 **********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************************** Intersection #11 Reservation Rd/Imjin Rd ********************** Cycle (sec): 70 Critical Vol./Cap. (X): 0.704 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 55 Level Of Service: 25.5 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Protected Protected Protected Protected Ignore Include Include Include Control: Rights: Volume Module: 29 929 160 1411 778 Base Vol: 192 14 1069 2 8 8 Initial Bse: 192 14 1069 2 8 8 29 929 160 1411 778 11 PHF Volume: 221 16 0 2 9 9
Reduct Vol: 0 0 0 0 0 0
Reduced Vol: 221 16 0 2 9 9 0 0 0 0 0 Ω 33 1068 PCE Adj: MLF Adj: Final Vol.: 221 16 0 2 9 9 33 1068 184 1622 894 13 ______ Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 1.00 0.85 0.95 0.91 0.85 0.92 0.95 0.95 Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 3.00 1.00 3.00 1.97 0.03 Final Sat.: 3502 1900 1900 1805 1900 1615 1805 5187 1615 5253 3553 50 Capacity Analysis Module: Green/Cycle: 0.10 0.14 0.00 0.10 0.14 0.14 0.10 0.23 0.23 0.35 0.49 0.49 Volume/Cap: 0.63 0.06 0.00 0.01 0.03 0.04 0.18 0.88 0.49 0.88 0.52 0.52 0.0 28.4 25.8 25.9 28.9 25.8 23.2 21.3 12.4 12.4 Uniform Del: 30.3 25.9 IncremntDel: 3.7 0.1 0.0 0.0 0.1 0.1 0.5 7.6 1.0 5.2 0.3 Delay/Veh: 33.9 26.0 0.0 28.4 25.9 25.9 29.4 33.4 24.1 26.5 12.6 12.6 AdjDel/Veh: 33.9 26.0 0.0 28.4 25.9 25.9 29.4 33.4 24.1 26.5 12.6 12.6 HCM2kAvg: 4 0 0 0 0 1 11 4 15 7 7

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 75 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< ______1___1___1____1____1_____1 Volume Module: Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.51 0.51 0.00 0.00 0.02 0.00 0.32 0.13 0.33 0.30 0.00 **** **** Crit Moves: Green/Cycle: 0.17 0.33 0.33 0.09 0.25 0.25 0.09 0.21 0.21 0.21 0.32 0.32 Volume/Cap: 0.30 1.56 1.56 0.04 0.02 0.08 0.01 1.56 0.64 1.56 0.91 0.00 Uniform Del: 27.0 25.2 25.2 30.9 21.3 21.6 30.9 29.8 27.2 29.6 24.3 17.1 IncremntDel: 0.3 258 257.7 0.1 0.0 0.1 0.0 260 4.0 259.7 10.6 0.0 Delay/Veh: 27.3 283 282.9 31.0 21.3 21.7 30.9 289 31.2 289.2 34.8 17.1 AdjDel/Veh: 27.3 283 282.9 31.0 21.3 21.7 30.9 289 31.2 289.2 34.8 17.1 HCM2kAvg: 2 57 57 0 0 1 0 41 6 43 16 0 ******

_______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #11 Reservation Rd/Imjin Rd ************************************** Cycle (sec): 75 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 47 Level Of Service: ********************************* Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Include< Volume Module: Initial Bse: 169 9 1518 PHF Volume: 184 10 0 7 9 30 4 1163 212 1160 1067 MLF Adj: Final Vol.: 184 10 0 7 9 30 4 1163 212 1160 1067 2 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.01 0.00 0.00 0.00 0.02 0.00 0.22 0.13 0.22 0.30 0.30 Crit Moves: **** **** *** **** Green/Cycle: 0.09 0.13 0.00 0.09 0.13 0.13 0.09 0.31 0.31 0.30 0.52 0.52 Volume/Cap: 0.56 0.04 0.00 0.04 0.03 0.14 0.03 0.73 0.42 0.73 0.57 0.57 Uniform Del: 32.5 28.3 0.0 30.9 28.3 28.7 30.9 23.1 20.6 23.3 12.3 12.3

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #12 Reservation Rd/Blanco Rd ****************** Cycle (sec): Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 180 Level Of Service: 9 (Y+R = 4 sec) Average Delay (sec/veh): ************************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____|
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 0
 10
 7
 10
 10
 0
 10

 Lanes:
 0
 0
 0
 0
 0
 2
 0
 0
 0
 0
 0
 0
 1
 Volume Module: Base Vol: 0 0 0 21 0 1278 916 702 0 1351 25 Initial Bse: 0 0 0 21 0 1278 916 702 0 0 1351 25 PHF Volume: 0 0 0 23 0 0 1018 780 0 0 1501 0 28 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 1.00 0.85 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.01 0.00 0.00 0.29 0.22 0.00 0.00 0.79 0.02 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.11 0.00 0.00 0.22 0.80 0.00 0.00 0.58 0.58 Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 1.35 0.27 0.00 0.00 1.35 0.03 Uniform Del: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 38.3 0.0 0.0 37.3 2.4 0.0 0.0 19.7 8.3 IncremntDel: 0.0 0.0 0.0 0.1 0.0 0.0 166.6 0.1 0.0 0.0 164 0.0 Delay Adj: 0.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00 AdjDel/Veh: 0.0 0.0 0.0 38.4 0.0 0.0 203.9 2.5 0.0 0.0 184 8.3 0 0 0 0 0 35 3 0 0 92 HCM2kAvg: ************

د باز چند بید مند چند بیان پید سید سید دید دید.	ا بند شد منه	ب ند مد مد مد										
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)												

Intersection #12 Reservation Rd/Blanco Rd												
Cycle (sec): Loss Time (se	ec):	g) (Y+R	= 4 :	sec) A	verage	Dela	/ (sec	/veh):		26	. 3
Optimal Cycle	e:	67	7		I	evel C	f Serv	vice:			2.0	C
*****	****	****	****	****	*****	****	****	****	*****	****	****	****
Approach:	No.	rth Bo	ound	Soi	uth Bo	und	Ea	ast Bo	ound			
Movement:	L ·	- T	- R	L ·	- T	- R	L -	- T	- R	L -	- T	- R
					144 704							
Control: Rights:	Sp.	IIT Pr	lase	sp.	IIT Pr	ase	Pi	roteci	ced	Pı	rotect	ed
Min. Green:	0	THETE	ide 0	1:0	191101	10	7	1001	10e	. 0		
Lanes:	10	n n	0 0	2 (n n	0 2	່	J 2	0 0			10
	1					·	1		1	+		
Volume Module				1		J	1		1	1 .		
Base Vol:	0	0	0	21	0	1278	916	702	0	0	1351	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Initial Bse:		0	0	21	0	1278	916	702	0		1351	25
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
PHF Adj:			0.90	0.90	0.90	0.00	0.90	0.90	0.90		0.90	0.90
PHF Volume:	0		0	23	0	0	1018	780	0		1501	28
Reduct Vol:	0	.0	0	0	:0	0	0	0	0	0	0	0
Reduced Vol:			0	23	0	0	1018	780	0		1501	28
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
Final Vol.:				23		0		780	0		1501	28
							i					
Saturation F												
Sat/Lane:			1900		1900	1900		1900			1900	
Adjustment:						1.08		0.95			0.95	
Lanes:			0.00		0.00	2.00		2.00			1.96	
Final Sat.:			.0			4102		3610		0		
Capacity Ana											-, 	
Vol/Sat:				0 01	0.00	0.00	0 20	0 22	0.00	0 00	0 42	0.42
Crit Moves:	0.00	0.00	0.00	****		0.00	****	0.22	0.00	0.00	****	0.42
Green/Cycle:	0 00	0 00	0.00		0.00	0.00	0 33	0.80	0.00	0 00	0.47	0.47
Volume/Cap:		0.00	0.00		0.00	0.00		0.27	0.00		0.89	
Uniform Del:			0.0	38.3		0.0	30.5	2.4			22.8	22.8
IncremntDel:		0.0	0.0	0.1	0.0	0.0	9.3	0.1	0.0	0.0	6.5	6.5
Delay Adj:			0.00	-	0.00	0.00		1.00	0.00		1.00	1.00
Delay Naj: Delay/Veh:			0.0	38.4	0.0	0.0	39.8	2.5	0.0		29.3	29.3
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			0.0	38.4		0.0	39.8	2.5	0.0		29.3	29.3
HCM2kAvq:	0	0		0	0	0	19	3	0	0	24	24
*****	****	****	*****	****	*****	*****	****	****	*****	****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************ Intersection #12 Reservation Rd/Blanco Rd ******************************** Cycle (sec): 110 Critical Vol./Cap. (X): 0.883 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 98 Level Of Service: 31.5 ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 7
 10
 10
 0
 10

 Lanes:
 0
 0
 0
 0
 2
 0
 0
 0
 0
 1
 0
 1
 _____| Volume Module: Base Vol: 0 0 0 64 0 1118 1344 1184 0 0 684 Initial Bse: 0 0 0 64 0 1118 1344 1184 0 0 684 35 PHF Volume: 0 0 0 68 0 0 1430 1260 0 0 728 37 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 68 0 0 1430 1260 0 0 728 37 MLF Adj: Final Vol.: 0 0 0 68 0 0 1430 1260 0 0 728 37 Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.00 0.41 0.35 0.00 0.00 0.38 0.02 **** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.43 0.83 0.00 0.00 0.40 0.40 Volume/Cap: 0.00 0.00 0.00 0.21 0.00 0.00 0.96 0.42 0.00 0.00 0.96 0.06 Uniform Del: 0.0 0.0 0.0 46.4 0.0 0.0 30.5 2.5 0.0 0.0 32.0 20.2 0 0 0 1 0 0 30 6 'n 0 29 HCM2kAva:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************************* Intersection #12 Reservation Rd/Blanco Rd ************************************* Cycle (sec): 110 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh):
52 Level Of Service: 18.9 Loss Time (sec): Optimal Cycle: 52 Level Of Service: ***************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Control: Split Phase Split Phase Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 10 0 10 7 10 10 0 10 10 Lanes: 0 0 0 0 0 2 0 0 0 2 2 0 2 0 0 0 1 1 0 Volume Module: Base Vol: 0 0 0 64 0 1118 1344 1184 0 684 0 PHF Adj: PHF Volume: 0 0 0 68 0 0 1430 1260 0 0 728 0 37 MLF Adj: Final Vol.: 0 0 0 68 0 0 1430 1260 0 0 728 37 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.00 0.41 0.35 0.00 0.00 0.21 0.21 Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.54 0.83 0.00 0.00 0.28 0.28 Volume/Cap: 0.00 0.00 0.00 0.21 0.00 0.00 0.75 0.42 0.00 0.00 0.75 0.75 Uniform Del: 0.0 0.0 0.0 46.4 0.0 0.0 19.4 2.5 0.0 0.0 35.9 35.9 IncremntDel: 0.0 0.0 0.0 0.3 0.0 0.0 1.7 0.1 0.0 0.0 3.2 3.2 Delay/Veh: 0.0 0.0 0.0 46.7 0.0 0.0 21.1 2.6 0.0 0.0 39.0 39.0 *****************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #13 Reservation Rd/West Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 54 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Ovl Include Include Include Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0 Lanes: 0 1 0 1 0 0 0 1! 0 0 0 0 2 1 0 1 0 1 1 0 _____ Volume Module: Base Vol: 179 22 199 0 0 0 0 602 121 596 1197 18 Initial Bse: 179 22 199 0 0 0 0 602 121 596 1197 PHF Volume: 195 24 216 0 0 0 0 654 132 648 1301 Saturation Flow Module: Adjustment: 0.81 0.81 0.81 1.00 1.00 1.00 1.00 0.89 0.89 0.95 0.95 Lanes: 0.90 0.11 0.99 0.00 1.00 0.00 0.00 2.50 0.50 1.00 1.97 0.03 Final Sat.: 1382 170 1537 0 1900 0 0 4211 846 1805 3549 53 Capacity Analysis Module: Vol/Sat: 0.14 0.14 0.14 0.00 0.00 0.00 0.00 0.16 0.16 0.36 0.37 0.37 *** **** Crit Moves: Green/Cycle: 0.20 0.20 0.69 0.00 0.00 0.00 0.00 0.22 0.22 0.50 0.71 0.71 AdjDel/Veh: 41.9 41.9 5.5 0.0 0.0 0.0 38.8 38.8 22.5 6.6 6.6 HCM2kAvg: 8 8 3 0 0 0 0 9 9 17 9

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #13 Reservation Rd/West Pri Access ********************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.910 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 108 Level Of Service: 34.3 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R _____ Control: Permitted Permitted Protected Protected Rights: Ovl Include Include Include Rights: Ovl Include Include Include
Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0
Lanes: 1 0 0 0 1 0 1 0 0 0 0 2 1 0 1 0 2 0 0 Volume Module: Base Vol: 128 0 831 99 28 0 0 1018 230 343 591 Initial Bse: 128 0 831 99 28 0 0 1018 230 343 591 0 PHF Volume: 139 0 903 108 30 0 0 1107 250 373 642 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 139 0 903 108 30 0 0 1107 250 373 642 MLF Adj: Final Vol.: 139 0 903 108 30 0 0 1107 250 373 642 0 Saturation Flow Module: Lanes: 1.00 0.00 1.00 0.78 0.22 0.00 0.00 2.45 0.55 1.00 2.00 0.00 Final Sat.: 1292 0 1615 1175 332 0 0 4113 929 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.11 0.00 0.56 0.09 0.09 0.00 0.00 0.27 0.27 0.21 0.18 0.00 **** **** Crit Moves: **** Green/Cycle: 0.39 0.00 0.61 0.39 0.39 0.00 0.00 0.30 0.30 0.23 0.52 0.00 Volume/Cap: 0.28 0.00 0.91 0.24 0.24 0.00 0.00 0.91 0.91 0.91 0.34 0.00 HCM2kAvg: 4 0 28 4 4 0 0 17 17 16 6

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector ************* Average Delay (sec/veh): 14.9 Level Of Service: B ************* Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: _____| Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 Volume Module: 328 73 Base Vol: 0 0 0 0 714 0 0 542 0 714 328 73 0 0 542 Initial Bse: 0 0 0 0 0 0 PHF Volume: 0 0 0 0 0 776 357 79 0 0 589 0 Reduct Vol: 0 0 0 0 0 0 776 357 79 0 0 589 0 Reduced Vol: 0 0 0 0 776 357 79 0 0 589 0 Final Vol.: 0 0 0 0 776 357 79 0 0 589 0 ______| PCE Module:
 79
 0
 0
 589
 0

 0
 0
 0
 0
 0

 0
 0
 0
 0
 0

 0
 0
 0
 0
 0

 79
 0
 0
 589
 0
 0 0 0 0 776 357 AutoPCE: 0

BicyclePCE:	:0	0	0	0	-0	.0	.0	Ü	0	U	•0	
AdjVolume:	0	0	0	0	0	776	357	79	0	0	589	
Delay Module:	>> Tim	е Ре	riod:	0.25	hours	<<						
CircVolume:	4	36			589			0			357	
MaxVolume:	xxxx	ХХ			882			1200			1007	
PedVolume:		0			0			0			0	
AdjMaxVol:	xxxx	ХX			882			1200			1007	
ApproachVol:	XXXX	хх			776			436			589	
ApproachDel:	xxxx	xx			25.5			4.7			8.5	
Oueue:	xx	хx			11.7			1.7			3.9	
.=-												

											للارائك الشاركان مجارك			
		I	Level 0	f Ser	vice C	Computa	tion I	Report						
	FHWA Roundabout Method (Base Volume Alternative)													
								*****	****	****	****	****		
Intersection								*****	****	****	*****	*****		
Average Dela	y (se	c/veh)	:	14.2	*****	****	****		vel Of			В		
			ound						und	,				
										west bound L - T - R				
Control:	Yie	eld Si	lan	Yie	eld Si	.an	Yie	eld Si	an '	 Yield Sign				
Lanes:		1			1			2	٠,		1	· 5		
Volume Modul	e:													
Base Vol:	0	0	10	0	0	714	328	73	0	0	542	0		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	0	0	714	328	73	0	0	542	0		
User Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00		
PHF Adj:	0.92		0.92		0.92	0.92		0.92	0.92	0.92	0.92	0.92		
PHF Volume:	0	0	.0	0	0	776	357	79	0	0	589	0		
Reduct Vol:	0	0	0	0	:0	0	10	0	0	0	0	0		
Reduced Vol:		0	0	0	0	776	357		0	0	589	0		
PCE Adj:			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		
Final Vol.:	0	0	0	0	0	776	357	79	.0	0	589	0		
PCE Module:											ے نے شو شہ چنارے			
AutoPCE:	0	0	0	0	0	776	357	79	0	.0	589	0		
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	Ő		
ComboPCE:	0	0	0	:0	0	0	0	0	0	0	0	0		
BicyclePCE:	0	0	0	0	.0	10	0	-0	0	0	0	0		
AdjVolume:	0	0	0	0	.0	776	357	79	0	0	589	0		
	4]				1	-,						
Delay Module	: >> '		Period:	0.25		s <<								
CircVolume:		436			589			0			357			
MaxVolume:	X	XXXXX			882			2424			1007			
PedVolume:		.0			0			.0			0			
AdjMaxVol:		xxxxx			882			2424		1007				
ApproachVol:	X	XXXXX			776			436		589				
ApproachDel:	X	xxxxx			25.5			1.8			8.5			
Queue:		XXXX			11.7			0.7			3.9			

Level Of Service Computation Report													
FHWA Roundabout Method (Base Volume Alternative)													

	Intersection #14 Inter-Garrison Rd/new collector ************************************												
	Average Delay (sec/veh): 52.6 Level Of Service: F												
Approach: North Bound South Bound East Bound West Bound											und		
Movement:		- T			- T -			- T		L - T - R			
Control:										Yield Sign			
Lanes:		1	.9	11,	1	9-1		1	911	1101d bigii			
										1			
Volume Module	e:												
Base Vol:	0	0	0	0	0	520	946	285	0	0	88	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	.0	0	0	520	946	285	0	0	88	0	
User Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92		0.92	0.92		0.92	0.92	
PHF Volume:	0	0,0	0	.0	0	565	1028	310	0	0	96	0	
Reduct Vol:	0	0	0	0	0	0	.0	0	0	.0	0	0	
Reduced Vol:	0	0	0	0	0	565	1028	310	0	0	96	0	
PCE Adj:	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	
Final Vol.:	. 0	0	0	. 0	0	565	1028	310	0	. 0	96	. 0	
DOE M-4-1-													
PCE Module:	0	0	0	0	-0	565	1028	310	0	0	96	0	
AutoPCE: TruckPCE:	0	0	0	0	0	0	1020	210	0	0	.0	0	
ComboPCE:	0	0	.0	0	0	0	0	0	0	:0	0	0	
BicyclePCE:	0	0	0	0	0	0	.0	0	0	:0	0	0	
AdjVolume:	0	0	0	0	0	565	1028		.0	.0	96	0	
Adjvorume.				•		/	1			1			
Delay Module	: >> '	Time 1	eriod:	0.25	hours	<<	.*		•			,	
CircVolume:		1338			96			0			1028		
MaxVolume:	x	xxxxx			1148			1200			645		
PedVolume:		0			0			0			(O		
AdjMaxVol:	X	xxxxx			1148			1200		645			
ApproachVol:	X	xxxxx			565			1338			96		
ApproachDel:		xxxxx			6.1			75.5			6.6		
Queue:		xxxx			2.8			32.6			0.5		

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 4.3 Level Of Service: Approach: North Bound South Bound East Bound West Bound $L - T - R \quad L - T - R \quad L - T - R$ 1 - T - R Movement: Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 2 1 Volume Module: Base Vol: 0 0 0 0 0 520 946 285 0 0 88 Initial Bse: 0 0 0 0 520 946 285 0 0 88 0 PHF Volume: 0 0 0 0 0 565 1028 310 0 0 96 Reduct Vol: 0 0 0 0 0 565 1028 310 0 0 96 Reduced Vol: 0 0 0 0 0 565 1028 310 0 0 96 PCE Module: 0 0 0 0 565 1028 310 AutoPCE: 0 0 96 0 0 0 TruckPCE: 0 0 0 0 0 0 'n ComboPCE: 0 0 0 0 0 0 0 0 0 0 BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 565 1028 310 0 96 _____| Delay Module: >> Time Period: 0.25 hours << CircVolume: 1338 96 0 1028 XXXXXX MaxVolume: 1148 2424 645 PedVolume: 0
AdjMaxVol: xxxxxx
ApproachVol: xxxxxx
ApproachDel: xxxxxx 0 0 0 1148 2424 645 1338 565 96 6.1 3.3 6.6 3.6 Oueue: XXXX 2.8 0.5

_____ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) **************** Intersection #15 Reservation Rd/Main Pri Access Cycle (sec): 100 Critical Vol./Cap. (X): 0.731 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 56 56 Level Of Service: В Optimal Cycle: Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Movement: Permitted Protected Protected Protected Include Include Include Control: Rights: include include include Min. Green: 10 0 10 0 0 0 10 10 7 10 Riahts: Lanes: 0 0 1! 0 0 0 0 0 0 0 0 1 1 0 1 0 2 0 0 Volume Module: 0 719 82 40 1645 Base Vol: 148 0 77 0 0 0 Initial Bse: 148 0 77 0 0 0 719 82 40 1645 PHF Volume: 161 0 84
Reduct Vol: 0 0 0
Reduced Vol: 161 0 84
 0
 0
 0
 0
 782
 89
 43
 1788

 0
 0
 0
 0
 0
 0
 0
 0

 0
 0
 0
 0
 782
 89
 43
 1788
 PCE Adj: MLF Adj: Final Vol.: 161 0 84 0 0 0 782 89 43 1788 0 Saturation Flow Module: Adjustment: 0.76 1.00 0.76 1.00 1.00 1.00 1.00 0.94 0.94 0.95 0.95 1.00 Lanes: 0.66 0.00 0.34 0.00 0.00 0.00 0.00 1.80 0.20 1.00 2.00 0.00 Final Sat.: 944 0 491 0 0 0 0 3192 364 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.17 0.00 0.17 0.00 0.00 0.00 0.00 0.24 0.24 0.02 0.50 0.00 Crit Moves: **** Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.00 0.61 0.61 0.07 0.68 0.00 Volume/Cap: 0.73 0.00 0.73 0.00 0.00 0.00 0.00 0.40 0.40 0.34 0.73 0.00 Uniform Del: 35.5 0.0 35.5 0.0 0.0 0.0 0.0 10.2 10.2 44.3 10.3 0.0 IncremntDel: 8.0 0.0 8.0 0.0 0.0 0.0 0.0 0.1 0.1 1.6 1.2 Delay/Veh: 43.5 0.0 43.5 0.0 0.0 0.0 0.0 10.3 10.3 45.9 11.5 0.0 AdjDel/Veh: 43.5 0.0 43.5 0.0 0.0 0.0 0.0 10.3 10.3 45.9 11.5 0.0 HCM2kAvg: 9 0 10 0 0 0 7 7 2 18 0 *************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #15 Reservation Rd/Main Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 85 Level Of Service: Optimal Cycle: South Bound East Bound Approach: North Bound West Bound Movement: L - T - R L - T - R L - T - RControl: Permitted Permitted Protected Protected Rights: Include Include Include Include Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0 Lanes: 0 0 1! 0 0 0 0 0 0 0 1 1 0 1 0 2 0 0 Volume Module: Base Vol: 106 0 56 0 0 0 0 1581 367 93 828 Initial Bse: 106 0 56 0 0 0 1581 367 93 828 .0 PHF Adj: PHF Volume: 115 0 61 0 0 0 1718 399 101 900 Saturation Flow Module: Adjustment: 0.76 1.00 0.76 1.00 1.00 1.00 1.00 0.92 0.92 0.95 0.95 1.00 Lanes: 0.65 0.00 0.35 0.00 0.00 0.00 0.00 1.62 0.38 1.00 2.00 0.00 Final Sat.: 940 0 496 0 0 0 0 2848 661 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.12 0.00 0.00 0.00 0.60 0.60 0.06 0.25 0.00 Crit Moves: **** *** Green/Cycle: 0.14 0.00 0.14 0.00 0.00 0.00 0.00 0.70 0.70 0.77 0.00 Uniform Del: 42.0 0.0 42.0 0.0 0.0 0.0 0.0 11.5 11.5 45.8 3.6 0.0 0.0 0.0 3.5 IncremntDel: 29.7 0.0 29.7 0.0 Delay Adj: 1.00 0.00 1.10 Veh: 71.6 0.0 71.6 1.00 3.5 29.3 0.1 AdjDel/Veh: 71.6 0.0 71.6 0.0 0.0 0.0 15.0 15.0 75.1 3.6 HCM2kAvg: 10 0 10 0 0 0 27 27 5 4 0.0 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #16 Reservation Rd/East Prj Access *********************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.964 Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): 15.3 Optimal Cycle: 180 Level Of Service: B Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R _____ Control: Protected Protected Permitted Rights: Include Include Ignore Min. Green: 0 10 0 0 10 0 0 0 0 Protected Include 0 0 0 Volume Module: Final Vol.: 523 1832 0 0 865 0 0 0 0 0 0 Saturation Flow Module: Final Sat.: 1805 1900 0 0 3610 0 0 0 1900 0 0 Capacity Analysis Module: Crit Moves: Uniform Del: 14.4 0.0 0.0 0.0 19.7 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg: 11 11 0 0 10 0 0 0 0 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************** Intersection #16 Reservation Rd/East Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 44 Level Of Service: 6.0 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - RControl: Protected Protected Permitted Protected Rights: Include Include Ignore Include Min. Green: 7 10 0 0 10 0 0 0 10 0 0 Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0 Volume Module: Base Vol: 135 921 0 0 1637 ۰ 0 0 0 440 0 0 PCE Adj: MLF Adj: Final Vol.: 147 1001 0 0 1779 0 0 0 0 0 0 Saturation Flow Module: Capacity Analysis Module: Crit Moves: **** Uniform Del: 41.3 0.9 0.0 0.0 4.7 0.0 0.0 0.0 0.0 0.0 0.0 Delay/Veh: 46.8 1.4 0.0 0.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 AdjDel/Veh: 46.8 1.4 0.0 0.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg: 6 7 0 0 12 0 0 0 0 0 0 ********

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #17 Reservation Rd/S. Davis Rd Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 0 Volume Module: PHF Volume: 12 5 3 215 7 1363 597 346 7 2 858 216 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 12 5 3 215 7 1363 597 346 7 2 858 216 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 3199 2622 350 2518 2518 966 1074 xxxx xxxxx 354 xxxx xxxxx 657 xxxx xxxxx 1216 xxxx xxxxx Potent Cap.: 6 24 698 19 28 312 3 312 657 xxxx xxxxx 1216 xxxx xxxxx Move Cap.: 0 2 698 0 Volume/Cap: xxxx 2.33 0.00 xxxx 2.79 4.38 0.91 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 135.2 11.7 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 1550 41.6 xxxx xxxxx 8.0 xxxx xxxxx A * * LOS by Move: * * * * F E * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT ApproachLOS: F F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd Cycle (sec): 100 Critical Vol./Cap. (X): 0.707 27.1 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 52 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Control: Permitted Permitted Protected Protected
 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Include Lanes: 0 0 1! 0 0 0 1 0 0 1 2 0 0 1 0 1 0 1 0 Volume Module: 5 Base Vol: 12 3 209 7 1322 579 336 . 7 2 832 210 PHF Volume: 12 5 3 215 7 0 597 346 7 2 858 216 0 216 PCE Adj: MLF Adj: Final Vol.: 12 5 3 215 7 0 597 346 7 2 858 216 Saturation Flow Module: Adjustment: 0.83 0.83 0.83 0.71 0.71 1.00 0.92 1.00 1.00 0.95 0.92 0.92 Lanes: 0.60 0.25 0.15 0.97 0.03 1.00 2.00 0.98 0.02 1.00 1.60 0.40 Final Sat.: 941 392 235 1296 43 1900 3502 1856 39 1805 2796 706 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.17 0.17 0.00 0.17 0.19 0.19 0.00 0.31 0.31 **** **** Crit Moves: Green/Cycle: 0.24 0.24 0.24 0.24 0.24 0.00 0.24 0.67 0.67 0.00 0.43 0.43 Volume/Cap: 0.06 0.06 0.06 0.71 0.71 0.00 0.71 0.28 0.28 0.28 0.71 0.71 Uniform Del: 29.6 29.6 29.6 35.1 35.1 0.0 34.7 6.7 49.6 23.1 23.1 IncremntDel: 0.1 0.1 0.1 7.2 7.2 0.0 2.8 0.1 0.1 19.4 1.6 1.6 AdjDel/Veh: 29.7 29.7 29.7 42.3 42.3 0.0 37.5 6.8 6.8 69.1 24.7 24.7 HCM2kAvg: 1 1 1 10 10 0 10 4 4 0 14 14

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #17 Reservation Rd/S. Davis Rd Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Volume Module: Base Vol: 11 5 7 269 5 517 1183 869 15 7 528 Initial Bse: 11 5 7 269 5 517 1183 869 15 7 528 114 Ō 123 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 4411 4192 942 4137 4139 629 690 xxxx xxxxx 951 xxxx xxxxx Potent Cap.: 1 2 321 1 2 486 914 xxxx xxxxx 731 xxxx xxxxx 0 0 486 914 xxxx xxxxx 731 xxxx xxxxx 0 0 321 Move Cap.: Volume/Cap: xxxx xxxx 0.02 xxxx xxxx 1.14 1.39 xxxx xxxx 0.01 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 19.5 53.7 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 114.6 198.4 xxxx xxxxx 10.0 xxxx xxxxx F म ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd ******************************* Cycle (sec): 75 Critical Vol./Cap. (X): 0.888 Loss Time (sec):

9 (Y+R = 4 sec) Average Delay (sec/veh):

Optimal Cycle:

85 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 1! 0 0 0 1 0 0 1 2 0 0 1 0 1 1 0 Volume Module: 123 MLF Adj: Final Vol.: 12 5 8 289 5 0 1272 934 16 8 568 123 Saturation Flow Module: Adjustment: 0.82 0.82 0.82 0.70 0.70 1.00 0.92 1.00 1.00 0.95 0.92 0.92 Lanes: 0.48 0.22 0.30 0.98 0.02 1.00 2.00 0.98 0.02 1.00 1.64 0.36 Final Sat.: 742 337 472 1306 24 1900 3502 1862 32 1805 2889 624 _____| Capacity Analysis Module: Vol/Sat: 0.02 0.02 0.02 0.22 0.22 0.00 0.36 0.50 0.50 0.00 0.20 0.20 Crit Moves: Green/Cvcle: 0.25 0.25 0.25 0.25 0.25 0.00 0.41 0.63 0.63 0.01 0.22 0.22 Uniform Del: 21.5 21.5 21.5 27.1 27.1 0.0 20.6 10.6 10.6 37.3 28.3 28.3 IncremntDel: 0.1 0.1 0.1 23.9 23.9 0.0 7.1 4.0 4.0 177.8 12.1 12.1 *************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #18 Hwy 68 WB Ramps/Reservation Rd ************************** Cycle (sec): 45 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 60 Level Of Service: ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Split Phase Split Phase Protected Protected Include Include Include 0 0 0 10 0 10 0 10 7 10 Control: Rights: Min. Green: Lanes: 0 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0 _____| Volume Module: Base Vol: 0 0 0 240 0 342 0 407 139 229 630 0 0 442 0 0 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.97 0.97 0.95 1.00 1.00 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.75 0.25 1.00 1.00 0.00 Final Sat.: 0 0 0 1809 0 1615 0 1368 467 1805 1900 0 _____| Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.14 0.00 0.23 0.00 0.32 0.32 0.14 0.36 0.00 **** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.27 0.00 0.27 0.00 0.37 0.37 0.16 0.53 0.00 Volume/Cap: 0.00 0.00 0.00 0.54 0.00 0.86 0.00 0.86 0.86 0.86 0.86 0.00 Uniform Del: 0.0 0.0 0.0 14.2 0.0 15.7 0.0 13.0 13.0 18.4 7.6 0.0 IncremntDel: 0.0 0.0 0.0 1.3 0.0 16.4 0.0 11.1 11.1 22.7 1.8 0.0 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.0 0.0 0.0 15.4 0.0 32.2 0.0 24.1 24.1 41.1 9.5 0.0 Delay/Veh: AdjDel/Veh: 0.0 0.0 0.0 15.4 0.0 32.2 0.0 24.1 24.1 41.1 9.5 0.0 HCM2kAvg: 0 0 0 4 0 9 0 11 11 7 8

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************** Intersection #18 Hwy 68 WB Ramps/Reservation Rd Cycle (sec): 45 Critical Vol./Cap. (X): 9 (Y+R = 4 sec) Average Delay (sec/veh): 47 Level Of Service: Loss Time (sec): Optimal Cycle: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Control: Split Phase Split Phase Protected Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 10
 0
 10
 10
 7
 10
 0

 Lanes:
 0
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0

 n Volume Module: 0 Base Vol: 0 0 240 0 0 407 342 139 229 630 Initial Bse: 0 0 0 240 0 342 0 407 139 229 630 PHF Volume: 0 0 0 261 0 372 0 442 151 249 685 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 261 0 372 0 442 151 249 685 MLF Adj: Final Vol.: 0 0 0 261 0 372 0 442 151 249 685 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.23 0.00 0.23 0.09 0.14 0.36 0.00 **** **** Crit Moves: Volume/Cap: 0.00 0.00 0.00 0.24 0.00 0.75 0.00 0.75 0.30 0.75 0.73 0.00 Uniform Del: 0.0 0.0 0.0 11.7 0.0 14.1 0.0 14.0 11.8 17.4 9.0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************** Intersection #18 Hwy 68 WB Ramps/Reservation Rd *************** Cycle (sec): 80 Critical Vol./Cap. (X): 1.235 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____| _____ Volume Module: Base Vol: 0 0 0 523 0 311 0 941 216 131 294 Initial Bse: 0 0 0 523 0 311 0 941 216 131 294 0 PHF Volume: 0 0 0 581 0 346 0 1046 240 146 327 _____ Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.98 0.98 0.95 1.00 1.00 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.81 0.19 1.00 1.00 0.00 Final Sat.: 0 0 0 1809 0 1615 0 1507 346 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.32 0.00 0.21 0.00 0.69 0.69 0.08 0.17 0.00 **** Crit Moves: AdjDel/Veh: 0.0 0.0 0.0 167.3 0.0 43.3 0.0 147 147.1 85.3 6.6 0.0 0 0 0 34 0 11 0 67 67 7 4 HCM2kAvq: ********************

شار بنی نیم مینا بنیا کے میں میں سے میں سے میں میت میت											
Level Of Service Computation Report											
2000 HCM Operations Method (Base Volume Alternative)											
Intersection #18 Hwy 68 WB Ramps/Reservation Rd											
Cycle (sec): 80											C
Approach: Movement:	North Bound South Bound East Bound We L - T - R L - T - R L - T - R L -									West Bo L - T	ound - R
Control: Rights: Min. Green: Lanes:	0 0 0 10 0 10 0 10 7							Protect Incli 7 10 1 0 1	ed ide 0		
Volume Module			1	1			1			1	
Base Vol: Growth Adj: Initial Bse: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: Final Vol.:	0 1.00 1 0 1.00 1 0.90 0 0 0 1.00 1 1.00 1 0 	00000000000000000000000000000000000000	1.00 0 1.00 0.90 0 0 1.00 1.00 0	0.90 581 0 581 1.00 1.00 581 1	0 1.00 0.90 0 0 1.00 1.00 0	1900	1.00 0 1.00 0.90 0 0 1.00 1.00 1	1900	1.00 240	0 0 146 327 1.00 1.00 1.00 1.00 146 327	0 1.00 0 1.00 0.90 0 0 1.00 1.00
Adjustment:			1.00	- //	1.00	0.85		1.00	0.85	0.95 1.00	1.00
Lanes: Final Sat.:			0.00		0.00	1.00 1615	0.00	1.00	1.00 1615	1.00 1.00 1805 1900	0.00
 Capacity Anal			1								
Vol/Sat: Crit Moves:	0.00 0	0.00	0.00	0.16	0.00	0.21 ****	0.00	0.55	0.15	0.08 0.17 ****	0.00
	0.00 0 0.0 0.0 0.00 0 0.0 1.00 1 0.0	0.00	0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0	0.72 28.7 3.1 1.00 31.8 1.00 31.8	0.0 0.00 0.0 1.00 0.0	0.22 0.96 30.6 35.6 1.00 66.3 1.00	0.00 0.0 0.0 0.00 0.0 1.00 0.0	17.5 1.00 33.5 1.00 33.5 31	8.6 3	0.09 0.66 0.92 0.26 36.2 5.5 49.0 0.1 1.00 1.00 85.3 5.6 1.00 1.00 85.3 5.6 7	0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #19 Hwy 68 EB Ramps/Reservation Rd ************************* Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 87 Level Of Service: *********************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Protected Protected Rights: Include Include Include Include Include Min. Green: 10 0 10 0 0 0 7 10 0 0 10 10 Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 1 Volume Module: Base Vol: 177 0 108 0 0 0 294 425 0 0 773 Initial Bse: 177 0 108 0 0 0 294 425 0 0 773 PHF Volume: 208 0 127 0 0 0 346 500 0 0 909 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 208 0 127 0 0 0 346 500 0 0 0 0 909 779 Saturation Flow Module: Lanes: Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.08 0.00 0.00 0.00 0.19 0.26 0.00 0.00 0.48 0.48 Crit Moves: **** Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.22 0.76 0.00 0.00 0.54 0.54 AdjDel/Veh: 64.5 0.0 37.8 0.0 0.0 0.0 51.0 3.3 0.0 0.0 25.5 27.6 HCM2kAvg: 9 0 4 0 0 0 12 4 0 0 23 21

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #19 Hwy 68 EB Ramps/Reservation Rd Cycle (sec): 85 Critical Vol./Cap. (X): 0.936
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 42.3

Chiral Cycle (DETIMIZED Level Of Service: D Optimal Cycle: OPTIMIZED Level Of Service: ************************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Split Phase Split Phase Split Phase Rights: Include Include Include Include Rights: Include Include Include Include
Min. Green: 10 0 10 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 0 1 1 0 0 0 1 0 1 Volume Module: Base Vol: 177 0 108 0 0 0 294 425 0 0 773 662 Initial Bse: 177 0 108 0 0 0 294 425 0 0 773 662 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.93 0.93 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.82 1.18 0.00 0.00 1.00 Final Sat.: 1809 0 1615 0 0 0 1447 2091 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.08 0.00 0.00 0.00 0.24 0.24 0.00 0.00 0.48 0.48 Crit Moves: **** AdjDel/Veh: 79.6 0.0 42.3 0.0 0.0 47.5 47.5 0.0 0.0 33.7 36.8 HCM2kAvg: 9 0 4 0 0 0 16 16 0 0 27 24 *******************************

______ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #19 Hwy 68 EB Ramps/Reservation Rd Cycle (sec): 55 Critical Vol./Cap. (X): 0.988 9 (Y+R = 4 sec) Average Delay (sec/veh): 47.6 Loss Time (sec): Optimal Cycle: 107 Level Of Service: Approach: North Bound South Bound East Bound West Bound L + T - R L - T - R L - T - R Movement: Control: Split Phase Split Phase Protected Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 7
 10
 0
 0
 10
 10

 Lanes: 0 1 0 0 1 0 0 0 0 0 1 0 1 0 0 0 1 0 1 Volume Module: Base Vol: 145 0 220 0 0 0 361 1213 0 0 326 PHF Adj: 0 0 0 415 1394 0 0 375 PHF Volume: 167 0 253 392 PCE Adj: MLF Adj: Final Vol.: 167 0 253 0 0 0 415 1394 0 0 375 392 _____| Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.09 0.00 0.16 0.00 0.00 0.00 0.23 0.73 0.00 0.00 0.20 0.24 Crit Moves: **** Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.32 0.65 0.00 0.00 0.34 0.34 Volume/Cap: 0.51 0.00 0.86 0.00 0.00 0.00 0.72 1.12 0.00 0.00 0.59 0.72 Uniform Del: 20.3 0.0 21.8 0.0 0.0 0.0 16.6 9.5 0.0 0.0 15.1 16.0 IncremntDel: 1.3 0.0 21.9 0.0 0.0 0.0 4.5 65.6 0.0 0.0 1.4 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 21.6 0.0 43.7 0.0 0.0 0.0 21.1 75.1 0.0 0.0 16.5 20.7 HCM2kAvg: 3 0 7 ***** *********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #19 Hwy 68 EB Ramps/Reservation Rd Cycle (sec): 0 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 53.7 Optimal Cycle:OPTIMIZED Level Of Service: *************************** Approach: North Bound South Bound East Bound L - T - R L - T + R L - T - RL - T - R Movement: Control: Split Phase Split Phase Split Phase Split Phase Rights: Include Include Include Include Include Min. Green: 10 0 10 0 0 0 0 7 10 0 0 10 10 Lanes: 0 1 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1 Include Volume Module: Base Vol: 145 0 220 0 0 0 361 1213 0 0 326 341 341 1.00 0 0 0 415 1394 0 0 375 0 0 0 0 0 0 0 0 0 0 0 0 415 1394 0 0 375 PHF Volume: 167 0 253 Reduct Vol: 0 0 0 Reduced Vol: 167 0 253 392 PCE Adj: MLF Adi: Final Vol.: 167 0 253 0 0 0 415 1394 0 0 375 392 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.46 1.54 0.00 0.00 1.00 1.00 Final Sat.: 1809 0 1615 0 0 0 819 2751 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.09 0.00 0.16 0.00 0.00 0.00 0.51 0.51 0.00 0.00 0.20 0.24 Crit Moves: **** Green/Cvcle: 0.16 0.00 0.16 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.24 0.24 Volume/Cap: 0.59 0.00 1.01 0.00 0.00 0.00 1.01 1.01 0.00 0.00 0.82 1.01 Uniform Del: 35.7 0.0 38.4 0.0 0.0 0.0 22.6 22.6 0.0 0.0 32.6 34.5 IncremntDel: 3.3 0.0 58.1 0.0 0.0 0.0 22.5 22.5 0.0 0.0 10.9 47.0 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 39.1 0.0 96.6 0.0 0.0 45.1 45.1 0.0 0.0 43.6 81.5 AdjDel/Veh: 39.1 0.0 96.6 0.0 0.0 0.0 45.1 45.1 0.0 0.0 43.6 81.5 HCM2kAvg: 5 0 12 0 0 0 34 34 0 0 12 17 *****************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ******************* Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: _____ Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Include Include Include Lanes: 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 Volume Module: Base Vol: 0 0 0 548 2 0 0 0 0 1083 0 Initial Bse: 0 0 0 548 2 0 0 0 1083 0 0 PHF Volume: 0 0 0 623 2 0 0 0 0 1231 0 0 Reduct Vol: 0 0 0 623 2 0 0 0 0 0 1231 0 0 Final Vol.: 0 0 623 2 0 0 0 0 1231 0 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Level Of Service Module: Movement: LT - LTR - RT LT - LTR - RT F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy Cycle (sec): 100 Critical Vol./Cap. (X): 0.900 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 94 Level Of Service: 30.2 ******** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Rights:
 Include
 <t Volume Module: Base Vol: 0 0 0 548 2 0 0 0 1083 0 Initial Bse: 0 0 0 548 2 0 0 0 1083 0 0 Saturation Flow Module: Final Sat.: 0 0 0 3786 14 0 0 0 1805 0 0 Capacity Analysis Module: Crit Moves: 0.0 40.0 40.0 0.0 0.0 0.0 Uniform Del: 0.0 0.0 0.0 9.3 0.0 IncremntDel: 0.0 0.0 0.0 14.8 14.8 0.0 0.0 0.0 0.0 8.4 0.0 Delay/Veh: 0.0 0.0 0.0 54.8 54.8 0.0 0.0 0.0 17.7 0.0 0.0 AdjDel/Veh: 0.0 0.0 0.0 54.8 54.8 0.0 0.0 0.0 0.0 17.7 0.0 0.0 HCM2kAvg: 0 0 0 13 13 0 0 0 0 34 0 0 *******************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy *********************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 0 0 0 417 3 0 0 0 0 829 0 Initial Bse: 0 0 0 417 3 0 0 0 829 0 0 PHF Volume: 0 0 0 474 3 0 0 0 942 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 474 3 0 0 0 0 942 0 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 xxxxx xxxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Level Of Service Module: LOS by Move: * * * * * * * * * * * * * Movement: LT - LTR - RT ApproachLOS: F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************************* Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ******************************* Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 41 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Split Phase
 Rights:
 Include
 <t Volume Module: Base Vol: 0 0 0 417 3 0 0 0 0 829 0 Initial Bse: 0 0 0 417 3 0 0 0 829 0 0 PHF Adj: PHF Volume: 0 0 0 474 3 0 0 0 942 0 Reduct Vol: 0 0 0 0 474 3 0 0 0 0 942 0 0 Final Vol.: 0 0 0 474 3 0 0 0 942 0 0 _____| Saturation Flow Module: Final Sat.: 0 0 0 3773 27 0 0 0 1805 0 0 Capacity Analysis Module: **** Crit Moves: 0.0 38.2 38.2 0.0 0.0 0.0 0.0 6.1 0.0 Uniform Del: 0.0 0.0 IncremntDel: 0.0 0.0 0.0 2.9 2.9 0.0 0.0 0.0 0.0 1.5 0.0 0.0 Delay/Veh: 0.0 0.0 0.0 41.2 41.2 0.0 0.0 0.0 7.6 0.0 0.0 AdjDel/Veh: 0.0 0.0 0.0 41.2 41.2 0.0 0.0 0.0 7.6 0.0 0.0 HCM2kAvg: 0 0 0 8 8 0 0 0 16 0 0 **************************

______ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************ Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy Average Delay (sec/veh): 0.1 Worst Case Level Of Service: F[57.0] North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Movement: Stop Sign Uncontrolled Uncontrolled Include Include Control: Stop Sign
Rights: Ignore Lanes: ______ Volume Module: 0 0 6 571 0 0 1052 3 0 757 0 Base Vol: PHF Volume: 3 0 0 0 0 0 7 627 0 0 1156 276 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 3 0 0 0 0 0 0 7 627 0 0 1156 276 Critical Gap Module: Capacity Module: Cnflict Vol: 1935 xxxx xxxxx xxxxx xxxx xxxxx 1432 xxxx xxxxx xxxx xxxx xxxxx xxxxx Level Of Service Module: Stopped Del: 57.0 xxxx xxxxx xxxxx xxxxx xxxxx 12.6 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * * * * * B * * * * * LT - LTR - RT Movement: SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 12.6 xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * * B * * * * xxxxxx xxxxxx 57.0 XXXXXX ApproachDel: ApproachLOS: F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy Cycle (sec): 100 Critical Vol./Cap. (X): 0.864 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 87 Level Of Service: 87 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RL - T - R Volume Module: Base Vol: 3 0 757 0 0 0 6 571 0 0 1052 251 Final Vol.: 3 0 0 0 0 7 627 0 0 1156 276 Saturation Flow Module: Adjustment: 0.95 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.02 1.98 0.00 0.00 1.00 1.00 Final Sat.: 1805 0 1900 0 0 0 38 3572 0 0 1900 1615 Capacity Analysis Module: 0.17 Crit Moves: **** Uniform Del: 49.9 0.0 0.0 0.0 0.0 38.5 38.5 0.0 0.0 11.1 5.3 IncremntDel:349.1 0.0 0.0 0.0 0.0 10.4 10.4 0.0 0.0 6.1 0.1 Delay Adj: 1.00 0.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 399.0 0.0 0.0 0.0 0.0 48.9 48.9 0.0 0.0 17.2 5.4 AdjDel/Veh: 399.0 0.0 0.0 0.0 0.0 48.9 48.9 0.0 0.0 17.2 5.4 HCM2kAvg: 1 0 0 0 0 12 12 0 0 29 ******

_______ Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ************** Average Delay (sec/veh): 0.3 Worst Case Level Of Service: ************************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Ignore Include Include Include Rights: Ignore Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1 _____| Volume Module: 4 0 1119 0 0 0 14 414 0 0 822 478 Base Vol: Initial Bse: 4 0 1119 0 0 0 14 414 0 0 822 478 PHF Volume: 5 0 0 0 0 19 559 0 0 1111 646 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 5 0 0 0 0 0 19 559 0 0 1111 646 Critical Gap Module: FollowUpTim: 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxx xxxxx xxxxx Capacity Module: ______|__| Level Of Service Module: LOS by Move: F * * * * * C * * * * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT ApproachLOS: F

		1	evel 0	f Ser	vice (Computa	tion 1	Report				
	2000					-				(
2000 HCM Operations Method (Base Volume Alternative)												
Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ************************************												
	Cycle (sec): 100 Critical Vol./Cap. (X): 0.822											
Loss Time (se	20):			= 4		Average					20	
Optimal Cycle		7.4							2/ V C11/ •	20.9 C		
	Level Of Service:											
Approach:	No:	rth Bo	ound	Soi	ith Bo	ound	Ea	ast Bo	ound	West Bound		
Movement:	L ·	- T	- R						- R	L - T - R		
Control:	Sp.	lit Pł	nase	Sp.	lit Pl	nase	Sp.	lit Ph	nase	Split Phase		
Rights:		Ignor	re re		Inclu			Inclu		Include		
Min. Green:	0	0	0	0	0	.0	0	0	0	0 0 0		
Lanes:	1 (0 0	0 1	0 (0 0	0 0	0 :	1 1	0 0	0 (1	0 1
			-:1				1					
Volume Module	e:											
Base Vol:	4	0	1119	0	0	0	14	414		0	822	478
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	0	1119	0	0	0	14	414	.0	0	822	478
User Adj:		1.00	0.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		0.74	0.00	,	0.74	0.74		0.74	0.74	0.74		0.74
PHF Volume:	5	0	0	0	0	0	19	559	.0		1111	646
Reduct Vol:	0	0	0	0	0	0	0	0	.0	0	0	0
Reduced Vol:	5	0	0	.0	.0	0	19	559	0		1111	646
PCE Adj:		1.00	0.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:		1.00	0.00		1.00	1.00		1.00	1.00		1.00	1.00
Final Vol.:	5	0	0.	0	0	10	19		0		1111	646
Ostrostion T										1		
Saturation F.				1000	1000	1000	1 0 0 0	1000	1000	1000	1000	1000
Sat/Lane: Adjustment:		1900	1900 1.00		1900	$\frac{1900}{1.00}$		1900	1900 1.00		1900	1900
Lanes:		0.00	1.00		0.00	0.00		1.93	0.00		1.00	0.85 1.00
Final Sat.:	1805	0.00	1900	0.00	0.00	0.00		3485	0.00		1900	1615
rinar pat											1900	
Capacity Ana	•			्र		. 31	3			4		
Vol/Sat:		0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.58	0.40
Crit Moves:	****	0.00	0.00	0.00	0.00	0.00	****	0.10	0.00	0.00	****	0.40
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.71	0.71
Volume/Cap:		0.00	0.00		0.00	0.00		0.82	0.00		0.82	0.56
Uniform Del:		0.0	0.0	0.0	0.0	0.0		38.6	0.0		10.0	7.0
IncremntDel:		0.0	0.0	0.0	0.0	0.0	7.7	7.7	0.0	0.0	4.2	0.6
Delay Adj:		0.00	0.00		0.00	0.00		1.00	0.00		1.00	1.00
	281.9	0.0	0.0	0.0	0.0	0.0	46.3	46.3	0.0	0.0	14.2	7.6
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
AdjDe1/Veh:	281.9	0.0	0.0	0.0	0.0	0.0	46.3	46.3	0.0	0.0	14.2	7.6
HCM2kAvg:	1	:0	0	10	0	0	11	11	0	10	26	10
*****	****	****	****	****	****	*****	***	****	*****	****	***	****

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) Intersection #22 3rd St/4th Ave ***************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.807 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.9 Optimal Cycle: 0 Level Of Service: C**************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______| Volume Module: Initial Bse: 35 81 132 5 146 32 10 61 61 344 65 7 PHF Volume: 41 95 155 6 172 38 12 72 72 405 76 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 41 95 155 6 172 38 12 72 72 405 76 8 Final Vol.: 41 95 155 6 172 38 12 72 72 405 76 8 Saturation Flow Module: _____ Capacity Analysis Module: Vol/Sat: 0.51 0.51 0.51 0.41 0.41 0.41 0.29 0.29 0.29 0.81 0.81 0.81 Crit Moves: **** **** **** **** Delay/Veh: 14.1 14.1 14.1 12.8 12.8 12.8 11.1 11.1 11.1 27.0 27.0 27.0 AdjDel/Veh: 14.1 14.1 14.1 12.8 12.8 12.8 11.1 11.1 11.1 27.0 27.0 27.0 LOS by Move: B B B B B B B B D D D ApproachDel: 14.1 12.8
Delay Adj: 1.00 1.00
ApprAdjDel: 14.1 12.8
LOS by Appr: B 11.1 27.0 1.00 1.00 27.0 11.1 B *****************

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) ******************************* Intersection #22 3rd St/4th Ave Cycle (sec): 100 Critical Vol./Cap. (X): 0.906 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 24.9 Optimal Cycle: 0 Level Of Service: CCycle (sec): 100 ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Stop Sign
 Stop Sign
 Stop Sign
 Stop Sign
 Stop Sign
 Stop Sign
 Rights:
 Include
 Include</t Volume Module: Base Vol: 35 196 383 15 137 23 14 111 20 173 48 Initial Bse: 35 196 383 15 137 23 14 111 20 173 48 1 PHF Volume: 36 204 399 16 143 24 15 116 21 180 50 1 Final Vol.: 36 204 399 16 143 24 15 116 21 180 50 1 _____| Saturation Flow Module: Lanes: 0.06 0.32 0.62 0.09 0.78 0.13 0.10 0.76 0.14 0.78 0.21 0.01 Final Sat.: 40 225 440 48 437 73 50 398 72 411 114 2 Capacity Analysis Module: Vol/Sat: 0.91 0.91 0.91 0.33 0.33 0.39 0.29 0.29 0.29 0.44 0.44 0.44 **** **** **** Crit Moves: Delay/Veh: 35.7 35.7 35.7 11.6 11.6 11.6 11.8 11.8 11.8 13.9 13.9 13.9 LOS by Move: E E E B B B B B B B B B B ApproachDel: 35.7 11.6 11.8 13.9 Delay Adj: 1.00 1.00 1.00 11.0 1.00 Delay Adj:
ApprAdjDel: 11.8 B ApprAdjDel: 35.7 11.6
LOS by Appr: E B 13.9

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *************************** Intersection #23 Light Fighter Dr/1st Ave *********** Cycle (sec): 55 Critical Vol./Cap. (X): 1.204 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 78.5 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 0
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 1
 0
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0

 Volume Module: Base Vol: 551 0 213 10 2 36 0 912 437 291 907 Initial Bse: 551 0 213 10 2 36 0 912 437 291 907 0 PHF Volume: 680 0 263 12 2 44 0 1126 540 359 1120 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 680 0 263 12 2 44 0 1126 540 359 1120 0 MLF Adj: Saturation Flow Module: 1.00 0.00 1.00 0.83 0.17 1.00 0.00 2.00 1.00 1.00 2.00 0.00 Lanes: Final Sat.: 1436 0 1615 1422 284 1615 0 3610 1615 1805 3610 0 _____| Capacity Analysis Module: Vol/Sat: 0.47 0.00 0.16 0.01 0.01 0.03 0.00 0.31 0.33 0.20 0.31 0.00 **** Crit Moves: **** AdjDel/Veh: 124.3 0.0 12.5 10.2 10.2 10.5 0.0 88.7 131.1 142.0 13.8 0.0 HCM2kAvg: 38 0 4 0 0 0 0 22 24 18 9 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 55 Critical Vol./Cap. (X): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 100 Level Of Service: 29.4 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Permitted Permitted Protected Protected Include Include Include Control: Rights: Rights: Include Include Include Include Min. Green: 10 0 10 10 10 10 0 10 10 7 10 0 Lanes: 2 0 0 0 1 0 1 0 0 1 0 0 2 0 2 1 0 2 0 0 Volume Module: Base Vol: 551 0 213 10 2 36 0 912 437 291 907 Initial Bse: 551 0 213 10 2 36 0 912 437 291 907 -----| Saturation Flow Module: Adjustment: 0.59 1.00 0.85 0.89 0.89 0.85 1.00 0.95 0.75 0.95 0.95 1.00 Lanes: 2.00 0.00 1.00 0.83 0.17 1.00 0.00 2.00 2.00 1.00 2.00 0.00 Final Sat.: 2241 0 1615 1404 281 1615 0 3610 2842 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.30 0.00 0.16 0.01 0.01 0.03 0.00 0.31 0.19 0.20 0.31 0.00 Crit Moves: **** Green/Cycle: 0.31 0.00 0.31 0.31 0.31 0.31 0.00 0.32 0.32 0.20 0.52 0.00 Volume/Cap: 0.97 0.00 0.52 0.03 0.03 0.09 0.00 0.97 0.59 0.97 0.59 0.00 Uniform Del: 18.7 0.0 15.6 13.1 13.1 13.4 0.0 18.5 15.7 21.7 9.0 0.0 IncremntDel: 27.5 0.0 1.0 0.0 0.0 0.1 0.0 20.3 1.1 39.7 0.5 0.0 Delay Adj: 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 Delay/Veh: 46.2 0.0 16.6 13.2 13.2 13.5 0.0 38.8 16.7 61.5 9.5 0.0 AdjDel/Veh: 46.2 0.0 16.6 13.2 13.2 13.5 0.0 38.8 16.7 61.5 9.5 0.0 HCM2kAvq: 16 0 4 0 0 1 0 16 5 12 7 **********

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 40 Critical Vol./Cap. (X): 1.428 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R _____ Control: Permitted Permitted Protected Protected Rights: Include Inclu Protected Include Lanes: 1 0 0 0 1 0 1 0 0 1 0 0 2 0 1 1 0 2 0 0 Volume Module: PHF Volume: 618 0 320 2 1 84 0 1120 784 356 1129 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 618 0 320 2 1 84 0 1120 784 356 1129 0 MLF Adj: Final Vol.: 618 0 320 2 1 84 0 1120 784 356 1129 0 Saturation Flow Module: Adjustment: 0.77 1.00 0.85 0.91 0.91 0.85 1.00 0.95 0.85 0.95 0.95 1.00 Lanes: 1.00 0.00 1.00 0.67 0.33 1.00 0.00 2.00 1.00 1.00 2.00 0.00 Final Sat.: 1457 0 1615 1156 578 1615 0 3610 1615 1805 3610 0 ______|__|___|____| Capacity Analysis Module: Vol/Sat: 0.42 0.00 0.20 0.00 0.00 0.05 0.00 0.31 0.49 0.20 0.31 0.00 Crit Moves: **** Green/Cycle: 0.28 0.00 0.28 0.28 0.28 0.28 0.00 0.32 0.32 0.17 0.50 0.00 Volume/Cap: 1.52 0.00 0.71 0.01 0.01 0.19 0.00 0.97 1.52 1.13 0.63 0.00 Uniform Del: 14.4 0.0 12.9 10.4 10.4 10.9 0.0 13.4 13.6 16.5 7.4 IncremntDel:244.5 0.0 5.2 0.0 0.0 0.2 0.0 19.5 242.0 89.4 0.7 Delay/Veh: 258.9 0.0 18.1 10.4 10.4 11.1 0.0 32.9 255.6 105.9 8.2 0.0 AdjDel/Veh: 258.9 0.0 18.1 10.4 10.4 11.1 0.0 32.9 255.6 105.9 8.2 0.0 HCM2kAvg: 46 0 5 0 0 1 0 13 45 14 6 *******************************

__________ Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************************** Intersection #23 Light Fighter Dr/1st Ave ************************************ Cycle (sec): Critical Vol./Cap. (X): 0 994 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec Optimal Cycle: 81 Level Of Service: 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.6 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Includ Volume Module: Base Vol: 575 0 298 2 1 78 0 1042 729 331 1050 Initial Bse: 575 0 298 2 1 78 0 1042 729 331 1050 0 Saturation Flow Module: Adjustment: 0.62 1.00 0.85 0.91 0.91 0.85 1.00 0.95 0.75 0.95 0.95 1.00 Lanes: 2.00 0.00 1.00 0.67 0.33 1.00 0.00 2.00 2.00 1.00 2.00 0.00 Final Sat.: 2352 0 1615 1151 576 1615 0 3610 2842 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.26 0.00 0.20 0.00 0.00 0.05 0.00 0.31 0.28 0.20 0.31 0.00 Crit Moves: **** AdjDel/Veh: 49.2 0.0 20.8 10.8 10.8 11.6 0.0 39.0 23.5 61.9 7.6 0.0 HCM2kAvg: 13 0 6 0 0 1 0 14 9 11 6 **************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #24 Light Fighter Dr/2nd Ave ************************ Average Delay (sec/veh): 131.5 Worst Case Level Of Service: ************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R______| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 ______| Volume Module: Base Vol: 3 0 1 102 3 592 519 541 9 3 558 105 Initial Bse: 3 0 1 102 3 592 519 541 9 3 558 105 PHF Volume: 3 0 1 107 3 623 546 569 9 3 587 111 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 3 0 1 107 3 623 546 569 9 3 587 111 _____| Critical Gap Module: Critical Gp: 7.5 xxxx 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 xxxx 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx ______| Capacity Module: Cnflict Vol: 1968 xxxx 289 2026 2321 349 698 xxxx xxxxx 579 xxxx xxxxx 35 38 653 908 xxxx xxxxx 1005 xxxx xxxxx 18 15 653 908 xxxx xxxxx 1005 xxxx xxxxx Potent Cap.: 38 xxxx 713 Move Cap.: 1 xxxx 713 Volume/Cap: 4.05 xxxx 0.00 5.99 0.21 0.95 0.60 xxxx xxxx 0.00 xxxx xxxx ______| Level Of Service Module: Oueue: xxxxx xxxxx xxxxx 14.0 xxxx 2.6 4.2 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx 2672 xxxx 15.4 14.8 xxxx xxxxx 8.6 xxxx xxxxx LOS by Move: * * * F * C B * * A * * Movement: LT - LTR - RT Shrd StpDel:xxxxx 6765 xxxxx xxxxx xxxx 28.3 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * F * * * D * * * * * ApproachDel: 6764.9 409.8 xxxxxx xxxxxx ApproachDel: 6764.9 F F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave Cycle (sec): 100 Loss Time (sec):

9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle:
61 Level Of Sec. Critical Vol./Cap. (X): ********************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Inclu Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 Volume Module: Base Vol: 3 0 1 102 3 592 519 541 9 3 558 Initial Bse: 3 0 1 102 3 592 519 541 9 3 558 105 PHF Volume: 3 0 1 107 3 623 546 569 9
Reduct Vol: 0 0 0 0 0 0 0 0
Reduced Vol: 3 0 1 107 3 623 546 569 9 3 587 0 0 3 587 0 111 Final Vol.: 3 0 1 107 3 623 546 569 9 3 587 111 Saturation Flow Module: Adjustment: 0.89 1.00 0.89 0.77 0.85 0.85 0.95 0.95 0.95 0.95 0.93 0.93 Lanes: 0.75 0.00 0.25 1.00 0.01 1.99 1.00 1.97 0.03 1.00 1.68 0.32 Final Sat.: 1273 0 424 1465 16 3217 1805 3544 59 1805 2965 558 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.19 0.19 0.30 0.16 0.16 0.00 0.20 0.20 Crit Moves: **** *** Green/Cycle: 0.25 0.00 0.25 0.25 0.25 0.25 0.40 0.59 0.59 0.07 0.26 0.26 Volume/Cap: 0.01 0.00 0.01 0.29 0.76 0.76 0.76 0.27 0.27 0.02 0.76 0.76 Uniform Del: 27.9 0.0 27.9 30.0 34.5 34.5 26.1 10.2 10.2 43.3 34.2 34.2 IncremntDel: 0.0 0.0 0.0 0.4 4.3 4.3 4.9 0.1 0.1 0.1 3.8 Delay/Veh: 27.9 0.0 27.9 30.5 38.8 38.8 31.0 10.3 10.3 43.4 38.0 38.0 AdjDel/Veh: 27.9 0.0 27.9 30.5 38.8 38.8 31.0 10.3 10.3 43.4 38.0 38.0 HCM2kAvg: 0 0 0 4 11 11 17 4 4 0 12 12

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: ************************* North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RMovement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 _____| Volume Module: Base Vol: 1 5 7 141 3 755 701 583 9 2 671 130 Initial Bse: 1 5 7 141 3 755 701 583 9 2 671 130 PHF Volume: 1 5 7 150 3 803 746 620 10 2 714 138 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 1 5 7 150 3 803 746 620 10 2 714 138 Critical Gap Module: Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 2479 2973 315 2591 2909 426 852 xxxx xxxxx 630 xxxx xxxxx Potent Cap.: 16 14 687 13 16 582 795 xxxx xxxxx 962 xxxx xxxxx 0 1 687 0 1 582 795 xxxx xxxxx 962 xxxx xxxxx Move Cap.: Volume/Cap: xxxx 5.93 0.01 xxxx 3.23 1.38 0.94 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Oueue: xxxxx xxxx xxxxx xxxxx xxxx 5.4 13.9 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 23.8 41.4 xxxx xxxxx 8.7 xxxx xxxxx LOS by Move: * * * * * C E * * A * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT F * * * * * * * * * XXXXXX

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave Cycle (sec): 100 Critical Vol./Cap. (X): 0.994 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Rights: Include Include Include Include
Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10
Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 0 1 0 7 10 10 Volume Module: Base Vol: 1 5 7 141 3 755 701 583 9 2 671 Initial Bse: 1 5 7 141 3 755 701 583 9 2 671 130 Saturation Flow Module: Adjustment: 0.92 0.92 0.92 0.76 0.85 0.85 0.95 0.95 0.95 0.95 0.93 0.93 Lanes: 0.08 0.38 0.54 1.00 0.01 1.99 1.00 1.97 0.03 1.00 1.68 0.32 Final Sat.: 134 672 941 1438 13 3221 1805 3548 55 1805 2952 572 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.10 0.25 0.25 0.41 0.17 0.17 0.00 0.24 0.24 Crit Moves: **** *** Delay/Veh: 28.3 28.3 28.3 32.1 67.4 67.4 60.3 10.3 10.3 43.3 66.9 66.9 AdjDel/Veh: 28.3 28.3 28.3 32.1 67.4 67.4 60.3 10.3 10.3 43.3 66.9 66.9 HCM2kAvg: 0 0 0 5 18 18 31 5 5 0 19 19 ********************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************** Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd ***************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.551 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 46 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - I L - T - R Control: Protected Protected Protected Rights: Include Include Ignore Protected

 Rights:
 Include
 Include
 Ignore
 Include

 Min. Green:
 7
 10
 10
 7
 10
 7
 10
 7
 7
 10
 10

 Lanes:
 2
 0
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0 Include _____| Volume Module: 68 95 88 534 Base Vol: 335 119 2 4 291 317 4 Initial Bse: 335 119 2 4 291 317 95 88 534 4 68 0 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.88 0.88 0.95 1.00 1.00 0.95 1.00 1.00 Final Sat.: 3502 1863 31 1805 1664 1664 1805 1900 1900 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.11 0.07 0.07 0.00 0.20 0.22 0.06 0.05 0.00 0.00 0.04 0.00 Crit Moves: **** **** **** Green/Cycle: 0.16 0.28 0.28 0.19 0.31 0.31 0.13 0.18 0.00 0.13 0.18 0.00 Volume/Cap: 0.70 0.26 0.26 0.01 0.64 0.70 0.48 0.29 0.00 0.02 0.23 0.00 Uniform Del: 21.9 15.5 15.5 17.9 16.2 16.5 22.3 19.4 0.0 21.0 19.2 0.0 IncremntDel: 3.9 0.3 0.3 0.0 1.3 2.2 1.6 0.5 0.0 0.0 0.3 0.0 AdjDel/Veh: 25.8 15.7 15.7 17.9 17.4 18.7 23.8 19.9 0.0 21.0 19.5 0.0 HCM2kAvg: 5 2 2 0 6 7 2 2 0 0 1 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd ************************************** Cycle (sec): 50 Critical Vol./Cap. (X): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 50 Level Of Service: 36.8 Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R - T - R Control: Protected Protected Protected Protected Rights: Include Include Ignore Include Min. Green: 7 10 10 7 10 10 7 10 7 7 10 Include 7 10 10 Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10

Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 Volume Module: Base Vol: 518 223 0 3 154 198 287 89 473 3 94 Initial Bse: 518 223 0 3 154 198 287 89 473 3 94 5 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Adj: 6 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.87 0.87 0.95 1.00 1.00 0.95 0.99 0.99 Final Sat.: 3502 1900 0 1805 1653 1653 1805 1900 1900 1805 1790 95 Capacity Analysis Module: Vol/Sat: 0.17 0.13 0.00 0.00 0.11 0.14 0.18 0.05 0.00 0.00 0.06 0.06 **** **** Crit Moves: **** Green/Cycle: 0.17 0.22 0.00 0.15 0.20 0.20 0.19 0.23 0.00 0.16 0.20 0.20 Volume/Cap: 0.97 0.61 0.00 0.01 0.53 0.68 0.97 0.23 0.00 0.01 0.30 0.30 0.0 17.9 17.9 18.5 20.2 15.8 0.0 17.7 17.0 17.0 0.0 0.0 0.7 3.2 40.6 0.3 0.0 0.0 0.4 0.4 Uniform Del: 20.5 17.6 0.0 IncremntDel: 28.7 2.6 Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 Delay/Veh: 49.2 20.1 0.0 18.0 18.6 21.8 60.8 16.0 0.0 17.7 17.5 17.5 AdjDe1/Veh: 49.2 20.1 0.0 18.0 18.6 21.8 60.8 16.0 0.0 17.7 17.5 17.5 HCM2kAvg: 10 5 0 0 3 5 11 1 0 0 2 2 ******************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ***************** Average Delay (sec/veh): 860.0 Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 Volume Module: Initial Bse: 0 0 0 415 5 21 0 57 61 522 80 Final Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 477 6 24 0 66 70 600 92 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 1393 1428 92 xxxx xxxx xxxx 136 xxxx xxxx Potent Cap.: xxxx xxxx xxxx 158 136 971 xxxx xxxx xxxx 1461 xxxx xxxx xxxx XXXX 80 52 971 xxxx xxxx xxxxx 1461 xxxx xxxxx Move Cap.: xxxx xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 5.95 0.11 0.02 xxxx xxxx xxxx 0.41 xxxx xxxx ______ Level Of Service Module: LT - LTR - RT LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx 53.8 xxxx 0.5 xxxxx xxxx xxxx 2.1 xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxx 2379 xxxx 23.7 xxxxx xxxx xxxx 9.2 xxxx xxxxx A * * Shared LOS: * * * F * C * * * XXXXXX ApproachDel: xxxxxx 2241.4 XXXXXX F ApproachLOS:

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 5.4 Level Of Service: A ******************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 0 2 1 1 Volume Module: Final Vol.: 0 0 0 477 6 24 0 66 70 600 92 0 PCE Module:
AutoPCE: 0 0 0 477 6 24 0 66 70 600 92
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 477 6 24 0 66 70 600 92 0 Delay Module: >> Time Period: 0.25 hours << CircVolume: 543 692

MaxVolume: xxxxxx 1926

PedVolume: 0 0

AdjMaxVol: xxxxxx 1926 1083 615 1200 0 υ 615 1200 507 136 692 ApproachVol: xxxxxx 2.5 7.5 7.0 ApproachDel: xxxxxx XXXX 1.1 0.8 3.9 Queue:

		T.	evel Of	Serv	ice Co	omputat	tion R	eport					
. 2	Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)												
2000 non onsignatized needed (2000 *********************************													
Intersection	#26 H	wv 1	SB Ramr	s/Can	yon De	el Ray	Blvd			9 2 6			
Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd													
F[838.3]													
Average Delay (Sec/Ven): 252.9 Worst State Delay (S													
Approach:	Nor	th Bo	und	Sou	th Bo	und	Ea	st Bo	und	We	st Bo	und	
www.companies.com	T	ന .	_ D	т. —	TT -	– R	T	Τ'	– R	ь –	1	A	
			1	1		-,,				1			
Control:	St	op Si	gn	St	op Si	gn	Unc	ontro	lled	Unc	ontro	lled	
Rights:		Inclu	de.		Inclu	de		Inclu	de	Uncontrolled Include			
	0 0	· ·	0 0	n 1	0	1 0	0 0	· :0	1 0	0 1	. 0	U U	
Lanes:				1			1		1				
Volume Module													
Base Vol:	0		0			60			212		225	1.00	
Growth Adj:	1.00	1.00	1.00			1.00		1.00			1.00 225	1.00	
Initial Bse:	. 0	0	. 0	347	2	60	-	144	212	383		1.00	
0000 + 1000 •	1.00		1.00	1.00		1.00		1.00	1.00	1.00	0.96	0.96	
PHF Adj:	0.96	0.96	0.96	0.96		0.96		0.96	0.96		234	0.90	
PHF Volume:	0		0	361	2	63	0		221	399	234	.0	
Reduct Vol:	0	-	0	0		0	-	1.0	0			0	
Final Vol.:	0	0	0	361	2	63	0	150	221		234		
rinal VOI.:						,	1			1		4	
Critical Gap	Modu.	le:		<i>~</i> .	~ F	× 5		*******	3123232323Z	и 1	·	VVVVV	
Critical Gap Critical Gp:	XXXXX	XXXX	XXXXX	6.4	0.5	0.2	XXXXX	XXXX	XXXXX	2.2	YYYY	XXXXX	
FollowUpTim:	XXXXX	XXXX	XXXXX	3.5	4.0	3.3	XXXXX						
				1			11		N.	1 1			
Capacity Mod	ule:			1.000	1403	234	VVVV	VXXX	xxxxx	371	xxxx	xxxxx	
Cnflict Vol:					141				xxxxx			xxxxx	
Potent Cap.:	XXXX	XXXX	XXXXX						XXXXX			xxxxx	
Move Cap: Volume/Cap:	XXXX	XXXX	XXXXX	2 00	U U3				XXXX	-		xxxx	
Volume/Cap:	XXXX	xxxx	XXXX	رون کے حصصصالا			11						
Level Of Ser		Madul		1 41			1-1						
	vice	MOUUL	e. xxxxx	VVVXX	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.5	xxxx	xxxxx	
Queue: Stopped Del:	XXXXX	AAAA	VVVVV	YXXXX	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	XXXXX	
ros pa Wone:	xxxxx	* XXXX	*	*	*	*	*	*	*	Ά	. *	*	
Movement:	ा नेप	TTPD	- рт	1.1	- LTR	- RT	LT	- LTR	- RT	$_{ m LT}$	- LTR	- RT	
Movement: Shared Cap.:	LL.	TIL	XXXXX						xxxxx	xxxx	xxxx	xxxxx	
Chamadouaua.	VVVVV	VYXX	XXXXX	34.3	XXXX	0.3	xxxxx	xxxx	xxxxx	1.5	xxxx	xxxxx	
SharedQueue: Shrd StpDel:		VYYY	XXXXX	985.3	XXXX	11.4					xxxx	xxxxx	
Shared LOS:		*	*	F	*	В	*	, *	*	A	*	*	
ApproachDel:					838.3		×	xxxxx	:	.24	XXXXX	:	
ApproachLOS		*			F			*			*		
TPPLOGOTILOO													

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative)													

Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd													
Average Delay (sec/veh): 5.7 Level Of Service: A													
Approach:	North Bound South Bound East Bound West Bo												
Movement:	L -	T	- R	L ·	- T	- R	L	- T	- R	L ·	- T	- R	
				1			1		1				
Control:	Yie	ld S	ign	Yield Sign 2			Yie	eld Si	gn	Yield Sign			
Lanes:		:()						1		1			
Trolling North 1							1			1		1	
Volume Module Base Vol:	e: :0	0	0	D 4 7	- 0	·C0		4 9 9	010	200			
Growth Adj:				347	1 00	60 1.00	1 00	144	212	383		0	
Initial Bse:		1.00	1.00	347	2	60	1.00	144	1.00 212		1.00	1.00	
User Adj:	1.00		1.00	1.00		1.00		1.00	1.00	383	225	0	
PHF Adj:	0.96		0.96	0.96		0.96		0.96	0.96		0.96	1.00 0.96	
PHF Volume:	0	0	0.50	361	2	63	0.50	150	221	399	234	0.96	
Reduct Vol:	10	0	0	0	0	.0	0	0	221	299	234	-0	
Reduced Vol:	-	0	. 0	361	2	63	Ö	150	221	399	234	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		1.00	1.00	
Final Vol.:	0	.0	0	361	2	63	0	150	221		234	0	
							1			1			
PCE Module:					. "							•	
AutoPCE:	0	. 0	0	361	2	63	0	150	221	399	234	.0	
TruckPCE:	0	0	0	0	0	0	0	.0	0	0	0	0	
ComboPCE:	0	0	0	0	0	0	0	0	.0	0	0	0	
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0	
AdjVolume:	. 0	0	0	361	2	63	. 0	150	221	399	234	0	
												1	
Delay Module	: >> 1		eriod:	0.25		<<	100	5.60					
CircVolume:		511			633			762			0		
MaxVolume: PedVolume:	XX	xxxx 0			1968		4	788			1200		
AdjMaxVol:	77.77				0 1968			700			0		
Adjmaxvol: ApproachVol:	XX				426			788 371			1200 633		
ApproachDel:		XXXX			2.3			8.6			6.3	4.1	
Queue:		XXXX			0.8			2.5			3.2		
, 											ے . د		

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ***************** Average Delay (sec/veh): 6.1 Worst Case Level Of Service: ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 1 0 1 Volume Module: 0 615 399 21 526 0 PHF Volume: 44 0 374 0 0 0 24 591 0 0 691 448 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 44 0 374 0 0 0 24 591 0 0 691 448 Critical Gap Module: Capacity Module: Level Of Service Module: Queue: 1.5 xxxx 6.1 xxxxx xxxx xxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx LOS by Move: F * D * * * B * * * * LT - LTR - RT Movement: Shared LOS: * * * * * * B * * * * XXXXXX ApproachDel: 31.2 XXXXXX XXXXXX D ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 3.6 Worst Case Level Of Service: C[18.2] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement:
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Rights:
 Include
 Include
 Include

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1
 Volume Module: Base Vol: 39 0 333 0 0 0 21 526 0 0 615 Initial Bse: 39 0 333 0 0 0 21 526 0 0 615 399 PHF Volume: 44 0 374 0 0 0 24 591 0 0 691 448 0 0 0 0 0 0 0 0 0 0 0 0 0 44 0 374 0 0 0 24 591 0 0 691 448 Reduct Vol: Final Vol.: Critical Gap Module: Capacity Module: ______| Level Of Service Module: LOS by Move: F * B * * * B * * * * * LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxx xxxxx Shared LOS: * * * * * B * * * *
ApproachDel: 18.2 xxxxxx xxxxx xxxxxx C ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************* Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ********************** Average Delay (sec/veh): 15.3 Worst Case Level Of Service: F[55.3] Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1! 0 0 0 0 1 0 1 Volume Module: Critical Gap Module: Capacity Module: Level Of Service Module: LOS by Move: F * F * * * B * * * * * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT F ApproachLOS:

Level Of Service Computation Report											
2000 HCM Unsignalized Method (Base Volume Alternative)											
Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd											
Average Delay (sec/veh): 7.3 Worst Case Level Of Service: D[26.3]											
Approach: North E	Bound So - R L	uth Bour	nd Ea	ast Bound - T -	West E R L - T	ound - R					
Control: Stop S Rights: Incl Lanes: 1 0 0	Sign S Lude 0 1 0	top Sign Include 0 0 0	und e 0 0 1	controlle Include 1 0 1	d Uncontr Incl 0 0 0 1	olled ude 0 1					
Volume Module:											
Base Vol: 101 0	522 0	0	0 15	494	5 0 499	631					
Growth Adj: 1.00 1.00	1.00 1.00	1.00 1	1.00	1.00 1.	00 1.00 1.00	0.01					
Initial Bse: 101 0	522 0	0	0 15	494	5 0 499	631					
User Adj: 1.00 1.00		1.00 1	1.00	1.00 1.	00 1.00 1.00	1.00					
PHF Adj: 0.97 0.97				0.97 0.	97 0.97 0.97	0.97					
PHF Volume: 104 0	538 0	0	0 15	509	5 0 514	651					
Reduct Vol: 0 0		-	0 0	0	0 0	0					
Final Vol.: 104 0			0 15	509	5 0 514						
0.2 + 3 1 . 0 24 - 3 - 1 - 1											
Critical Gap Module:											
Critical Gp: 6.4 xxxx FollowUpTim: 3.5 xxxx				XXXX XXX	XX XXXXX XXXX	xxxxx					
TOTIOWOPITM: 3.3 XXX			XXX	**** ***	XX XXXXX XXXX	XXXXX					
Capacity Module:	4.1		14								
Cnflict Vol: 1382 xxxx	257 xxxx	xxxx xx	xxx 1165	XXX XXX	xx xxxx xxxx	XXXXX					
Potent Cap.: 160 xxxx		xxxx xx		xxxx xxx							
Move Cap.: 157 xxxx	786 xxxx	xxxx xx	xxx 607	xxxx xxx							
Volume/Cap: 0.66 xxxx		xxxx x		xxxx xx							
			11								
Level Of Service Modul	= :										
Queue: 3.8 xxxx					xx xxxxx xxxx						
Stopped Del: 64.3 xxxx					xx xxxxx xxxx						
LOS by Move: F *	-	*	* B		* * *	*					
Movement: LT - LTR		- LTR -		- LTR - R							
Shared Cap.: xxxx xxxx				XXXX XXX							
SharedQueue:xxxxx xxxx					xx xxxxx xxxx						
Shrd StpDel:xxxxx xxxx Shared LOS: * *	* * * *			XXXX XXX	XX XXXXX XXXX						
Shared LOS: * * ApproachDel: 26.3			* B	×	* * *	*					
ApproachLOS: D	у Ж	xxxxx *	XX	XXXXX *	xxxxxx *						
Tippi occinion.					•						

										-,;		
		Le	evel Of	Serv	ice Co	omputat	tion R	eport				
	2000								rnative	2:)		
*****	2000	nom o	beracio	7112 FIG		10000	· · · · · ·	++++	*****	·****	****	*****
Intersection	#28 G	en. J	im Mooi	re Blv	d/Can	yon De.	l Ray					
*********	****	****	****	****	****	*****	****	****	****	*****	****	****
		55				ritica					1.34	
Cycle (sec):	4.	22	737 (D)	à _					/veh):		218.	À
Loss Time (se	c):			= 4 S	ec) A	verage	ретай	(560	A AGILA.			z E'
Optimal Cycle	*	180			Li	evel O	i Serv	ice:				
*********	****	****	****	*****	****	****	****	****	****	****	****	****
Approach:	Nor	th Bo	und	Sou	th Bo	und	Ea	st Bo	und	We	st Bo	und
		T			Т			Т		L -	Т	- R
Movement:	نه	7	- ĸ.			- 1 ×						
										,		3
Control:	Sp1	it Ph	ase	Spl	it Ph	ase	Pr	otect	ed		otect	
Rights:		Inclu	de		Inclu	de		Inclu	ıde		Inclu	de
-	0	0	0	10	0	10	10	10	0	0	10	10
Min. Green:	-			1 0			1 0		0 0	0 0	0	1 0
Lanes:	0 0	0	.0 .0	. 1 0								_
Volume Module	:											
Base Vol:	0	0	0	777	0	74	61	723	0	0	688	127
	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:						74	61	723	0	0	688	127
Initial Bse:	0	0	0	777	0				_			1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	0	0	0	971	:0	93	76	904	0	.0	860	159
	10	ő	Õ	0	0	0	0	.0	i)	0	0	0
Reduct Vol:				-		_	76	904	Ō	0	860	159
Reduced Vol:	0	0	0	971	0	93						
PCE Adj:	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
Final Vol.:	0	0	0	971	0	93	76	904	.0	0	860	1 59
= -		-		_		1			1			
	,			1			1		3			-1
Saturation F	low Mo	odule:	;								4 '0 0'0	1.000
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900
Adjustment:	1.00		1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.98	0.98
		0.00	0.00		0.00	1.00	1.00	1.00	0.00	0.00	0.84	0.16
Lanes:					0.00	1615		1900			1570	290
Final Sat.:	0	0	0	1805		1010						
			1						1	1		
Capacity Ana	lvsis	Modu.	le:									
Vo1/Sat:		0.00	0.00	0.54	0.00	0.06	0.04	0.48	0.00	0.00	0.55	0.55
· ·	.000	.0 ,0 ,0	0,000	****			****				***	
Crit Moves:					0 00	0.00	0 10	0.51	0.00	0.00	0.33	0.33
Green/Cycle:			0.00		0.00	0.32						
Volume/Cap:	0.00	0.00	0.00	1.66	0.00	0.18	-	0.93			1.66	1.66
Uniform Del:		0.0	0.0	18.6	0.0	13.3	19.2	12.5	0.0	0.0	18.4	18.4
IncremntDel:	0.0	0.0		304.0		0.2	0.4	14.7	0.0	0.0	304	303.7
						1.00		1.00		0.00	1.00	1.00
Delay Adj:		0.00	0.00		0.00					0.0		322.1
	0.0		0.0	322.6		13.5		27.2				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	1.00
AdjDel/Veh:	0.0		0.0	322.6		13.5	19.6	27.2	0.0	0.0	322	322.1
-	0.0	0	0	69	0	1	1		0	0	69	69
HCM2kAvg:	U	U	an an are the state of		T T T T T		*****	****				
*****	****	****	***	****	****	~ ~ ~ ~ ~ ~ ~ ~ ~	A-A-A-A-A-A					

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Cycle (sec): 55 Critical Vol./Cap. (X): 0.845 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 58 Level Of Service: 17.1 North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: North Bound Movement: Control: Split Phase Split Phase Permitted Permitted Rights: Include Include Include Include Include Min. Green: 0 0 0 10 0 10 10 10 0 0 10 10 Volume Module: Base Vol: 0 0 0 777 0 74 61 723 0 0 688 PHF Volume: 0 0 0 971 0 93 76 904 0 0 860 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 971 0 93 76 904 0 0 860 PCE Adj: MLF Adj: Final Vol.: 0 0 0 971 0 93 76 904 0 0 860 159 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 0.13 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 1615 249 1900 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.28 0.00 0.06 0.31 0.48 0.00 0.00 0.45 0.10 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.33 0.00 0.33 0.56 0.56 0.00 0.00 0.56 0.56 Volume/Cap: 0.00 0.00 0.00 0.85 0.00 0.17 0.54 0.85 0.00 0.00 0.80 0.17 Uniform Del: 0.0 0.0 0.0 17.2 0.0 13.2 7.6 10.0 0.0 0.0 9.6 5.8 IncremntDel: 0.0 0.0 0.0 5.9 0.0 0.2 4.4 6.3 0.0 0.0 4.5 Delay/Veh: 0.0 0.0 0.0 23.1 0.0 13.3 12.0 16.4 0.0 0.0 14.1 AdjDel/Veh: 0.0 0.0 0.0 23.1 0.0 13.3 12.0 16.4 0.0 0.0 14.1 5.9 0 0 0 11 0 1 7 16 0 0 14 HCM2kAvg: 1

												<u></u>
		Le	vel Of	Servi	.ce Co	mputat	ion Re	DOLL POLL		Λ.		
.2	2000 H	ICM Op	eratio	ns Met	hod (Base V	olume	Arter	native	ili. Ali ali ali ali ali ali ali		44444
******	*****	****	****	*****	****	*****	****	****	.x - x - x - x - x			
Intersection	#28 G€	en. Ji	m Moor	e Blvc	l/Cany	on Del	Ray		0 0 2 2 2 1	an di di da da da da	بالوجالة بالويان	++++
Intersection	*****	****	****	*****	****	****	****	*****	****	****	1 227	***
Cycle (sec):		120			Cr	itical	Vol.	Cap.	(X):		1.33/	
Loss Time (se	c):	9	(Y+R =	4 se	ec) Av	rerage	Delay	(sec/	veh):		158.U	_
		180			Le	evel Of	Serv	ice:			E	
*****	*****	****	*****	****	*****	*****	****	****	*****	*****	****	****
Approach:	Nort	th Bou	ınd	Sout	th Bou	ınd	Eas	st Bou	ınd	wes	ST BOL	liia
	-	- m		т	- TO -	- 12		(II) ==	- K	. Ļ -	T -	R
Movement:			11			1						
Control:	ടമി	it Pha	se	Spl	it Pha	ase	Pro	otecte	ed	Pro	otecte	ed
Rights:		Includ	de	*	Inclu	de	-	Includ	de	3	Includ	ie
Min. Green:		0	.0		0	10	10	10	0	.0	10	10
	^ ^	^ ′	2 0	1 0	n	0 1	1 0	1 (0 0	0 0	0 1	
Lanes:			1									
			4	'								
Volume Module	··• ··0	0	0	189	0	46	92	444	0	.0	974	576
Base Vol:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
.0_0	_	0	0	189	0	46	92	444	0	0	974	576
Initial Bse:			1.00	1.00	_	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	1.00		0.82	0.82		0.82	0.82		0.82	0.82	0.82	0.82
	0.82	0.02	0.02	230	0	56	112	541	0	0	1188	702
PHF Volume:	-	-	0	230	.0	0	0	.0	0	0	0	0
Reduct Vol:	0	0	0	230	:0	5 6	112	541	.0	0	1188	702
Reduced Vol:		0	-	1.00		1.00	1.00		1.00	1.00	1.00	1.00
	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
MLF Adj:	1.00		1.00		0	56	112		0		1188	702
Final Vol.:	.0	O	0	2.30			1			4		
							3					
Saturation F			1000	1.000	1000	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900		1900	1900		0.85	0.95		1.00	1.00		0.95
Adjustment:	1.00		1.00	0.95				1.00	0.00	0.00		0.37
Lanes:	0.00		0.00	1.00		1.00		1900	0.00		1134	671
Final Sat.:	.0	.0	0	1805	0	1615	1000	1900				
Final Sat.:							1			:i		4
Capacity Ana	lysis	Modu]	Le:			0.03	0 00	0 00	0.00	0.00	1 05	1.05
Vol/Sat:	0.00	0.00	0.00		0.00	0.03	U.U6	0.28	0.00	.0.0.0	****	
Crit Moves:				***		0 00		0 00	0 00	0 00	0.75	0.75
Green/Cycle:	0.00	0.00	0.00		0.00	0.09		0.83	0.00		1.40	1.40
Volume/Cap:	0.00	0.00	0.00		0.00	0.38		0.34			15.0	15.0
Uniform Del:	0.0		0.0	54.5	0.0	51.3	53.8	2.3	0.0	0.0		182.7
IncremntDel:	0.0			210.7	0.0	1.6	18.3		0.0		1.00	1.00
Delay Adj:	0.00	0.00	0.00		0.00	1.00		1.00	0.00			197.7
Delay/Veh:	0.0	0.0		265.2		52.9	72.1		0.0	0.0	1.00	1.00
User DelAdj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00			197.7
AdjDel/Veh:	0.0	0.0		265.2		52.9	72.1		0.0	0.0	133	133
	_	- ^	0	19	0	2	6	5	0			
HCM2kAvg:	****	****	*****	*****	****	*****	****	****	~ <i>~</i> ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	n.o.o.o.o.o.o.		

ے کے بعد کے نے نے نے کے بعد Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Cycle (sec): 120 Critical Vol./Cap. (X): Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 47 9.1 47 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Permitted
 Permitted

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 10
 10
 0
 0
 10
 10

 Lanes:
 0
 0
 0
 0
 0
 1
 1
 0
 0
 0
 1
 0
 Volume Module: Base Vol: 0 0 0 189 0 46 92 444 0 0 974 Initial Bse: 0 0 0 189 0 46 92 444 0 0 974 PHF Volume: 0 0 0 230 0 56 112 541 0 0 1188 Reduct Vol: 0 0 0 230 0 56 112 541 0 0 1188 702 0 702 MLF Adj: Final Vol.: 0 0 0 230 0 56 112 541 0 0 1188 702 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.03 0.33 0.28 0.00 0.00 0.63 0.43 Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.09 0.86 0.86 0.00 0.00 0.86 0.86 Volume/Cap: 0.00 0.00 0.00 0.73 0.00 0.38 0.38 0.33 0.00 0.00 0.73 0.51 Uniform Del: 0.0 0.0 0.0 53.1 0.0 51.4 1.8 1.7 0.0 0.0 3.2 AdjDel/Veh: 0.0 0.0 0.0 61.3 0.0 53.1 2.6 1.8 0.0 0.0 4.8 2.4 HCM2kAvg: 0 0 0 6 0 2 5 4 0 0 17 7 ********** ****************

APPENDIX G – LEVEL OF SERVICE WORKSHEETS: CUMULATIVE YEAR 2020 PLUS PROJECT (2,887 HOMES)

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #28 Gen. Jim Moore Blvd/Canyon Del Ray Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 47 Level Of Service: A Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R 0 10 10 Volume Module: Base Vol: 0 0 0 196 0 46 92 437 0 0 979 558 Initial Bse: 0 0 0 196 0 46 92 437 0 0 979 558 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 0.18 1.00 1.00 1.00 1.00 0.85 Final Sat.: 0 0 0 3502 0 1615 334 1900 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.03 0.34 0.28 0.00 0.00 0.63 0.42 Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.09 0.86 0.86 0.00 0.00 0.86 0.86 Volume/Cap: 0.00 0.00 0.00 0.73 0.00 0.37 0.39 0.33 0.00 0.00 0.73 0.49 Uniform Del: 0.0 0.0 0.0 53.0 0.0 51.1 1.8 1.7 0.0 0.0 3.3 2.1 IncremntDel: 0.0 0.0 0.0 8.3 0.0 1.6 0.9 0.1 0.0 0.0 1.8 0.3 Delay/Veh: 0.0 0.0 0.0 61.3 0.0 52.7 2.7 1.8 0.0 0.0 5.1 2.4 AdjDel/Veh: 0.0 0.0 0.0 61.3 0.0 52.7 2.7 1.8 0.0 0.0 5.1 2.4 HCM2kAvg: 0 0 0 6 0 2 5 4 0 0 18 7 *************************

					_							
****	2000 I	ICM Ox	vel Of eratio	ne Mat	hod /	Rase V	olume	Alter	native	·) *****	****	****
	100 0	- Ti	m Moor	o Blazo	1/Canu	on Del	Rav					
****	****	*****	****	*****	****	***** itical	****	***** /^-~	****** /¥\•	*****	1.332	****
Cycle (sec): Loss Time (se	c) •	120	(Y+R =	4 se	ci ec) Av	nticai erage	Delay	(sec/	veh):		156.€	
		100			100	177 I OT	Serv	1.0.0 :			Ē	
*****	****	****	*****	****	*****	*****	****	****** c+ Bo:	****** md	***** • = [k]	st Bou	ind
3.5	т _	т -	ind - R	т	平 -	- R	L -	Т -	- R	L -	Т -	- R
Movement:			11						1			
Control:	Spl	it Pha	ase	Spl	it Pha	ise	Pr	otecte Inclu	ed	Pro	otecte Inclu	ea
Rights:	0	Includ	ie 0		Includ 0		10	110140	ле О			10
Min. Green: Lanes:	0 0	0 1	ר ה	1 .0	0 (1	1 0	1 (0 0	0 0	0	1 0
						1						
Volume Module	0	0	0	196	0	46	92	437	-0	0	979	558
Base Vol: Growth Adj:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Initial Bse:		0	0	196	0	46	92	437	0	_	979	558
User Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
	0.82		0.82	0.82		0.82	0.82 112	533	0.82		1194	680
PHF Volume:	0	0	0	239 0	0	56 0	112	0	. 0	0	0	0
Reduct Vol:	0	0	0	239	0	56	112	533	0		1194	680
Reduced Vol:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
PCE Adj: MLF Adj:		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00
	^	0	0	239	0	56	112	533	0		1194	680
							1			1		
Saturation F		odu⊥e: 1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane: Adjustment:		1.00	1.00		1.00	0.85		1.00	1.00	1.00	0.95	0.95
Lanes:	0.00	0.00	0.00		0.00	1.00	1.00	1.00	0.00		0.64	0.36
	0	0	0	1805	0	1615	1805	1900	0		1151	656
Final Sat.:							1					
Capacity Ana Vol/Sat:	TASIS	0 00 Modul	0.00	0.13	0.00	0.03	0.06	0.28	0.00	0.00	1.04	1.04
Crit Moves:	0.00	.0.00	0.00	****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.10	0.00	0.10		0.83	0.00		0.75	0.75 1.39
Volume/Cap:	0.00	0.00	0.00		0.00	0.36		0.34	0.00		1.39 15.2	15.2
Uniform Del:			0.0	54.3		50.9 1.5	53.8 18.3		0.0	0.0		180.1
IncremntDel:			0.00	207.0	0.00	1.00		1.00	0.00		1.00	1.00
Delay Adj: Delay/Veh:		0.00		261.3		52.3	72.1		0.0	0.0		195.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	261.3		52.3	72.1		0.0	0.0		195.3 132
HCM2kAvg:	_	٠.	0	20	0	2	6	5	0 *****	0 *****	132	
******	****	****	****	****	****	****						

Level of Service Computation Report 2000 HCM Operations Nethod (Base Volume Alternative) 1		······································											
The proper line The proper													
The property The			I	evel 0	f Ser	vice (Computa	tion I	Report	:			
Cycle (sec):		2000	HCM C)perati	ons Me	ethod	(Base	Volume	e Alte	ernativ	e)		
Cycle (sec): 55	****	****	*****	*****	****	*****	*****	****	****	*****	****	****	*****
Loss Time (sec):									****	*****	****	****	*****
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/ven): 17.6	Cycle (sec):		5.5	; ·		C	ritica	1 Vol	./Cap	(X):		0.8	41
Optimal Cycle: 57	Loss Time (se	ec):	6	(Y+R									
Approach: North Bound Movement: L - T - R R L - T - R R L										.,,, .			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			*****	*****	****	****	*****	****	****	*****	*****	****	*****
Movement: L - T - R													
Control: Split Phase Include													
Control: Split Phase Tinclude							1			·	<u>.</u>	- K	
Rights:													
Min. Green: 0 0 0 0 10 0 10 10 10 10 10 10 0 10 10		op.			op.	Tnal	ido ido				. I		
Lanes: 0 0 0 0 0 0 2 0 0 0 1 1 0 1 0 0 0 0 1 0 1		'n			1.0						· 0		
Volume Module: Base Vol: 0 0 0 821 0 74 60 693 0 0 681 126 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			-			-							
Volume Module: Base Vol: 0 0 0 821 0 74 60 693 0 0 681 126 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													-
Base Vol: 0 0 0 0 821 0 74 60 693 0 0 681 126 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0								1					
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			n	· n	0.01	- 6	7.4	·C0	C O O	0	·		
Initial Bse: 0 0 0 821 0 74 60 693 0 0 681 126 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0						-							
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_												
PHF Adj: 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.8													
PHF Volume: 0 0 0 1026 0 93 75 866 0 0 851 158 Reduct Vol: 0 0 0 0 1026 0 93 75 866 0 0 851 158 Reduct Vol: 0 0 0 0 1026 0 93 75 866 0 0 0 851 158 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	-												
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												
Reduced Vol: 0 0 0 1026 0 93 75 866 0 0 851 158 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0				-									
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0				-	-				_		-		
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0											0	851	158
Final Vol.: 0 0 0 1026 0 93 75 866 0 0 851 158	-												
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	_										1.00	1.00	1.00
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190			-	-		-					-	851	158
Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 0.13 1.00 1.00 1.00 1.00 0.85 Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 1.00		•]		بر حب حث صب بد				
Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 0.13 1.00 1.00 1.00 1.00 0.85 Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 1.00	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1 900
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 1.00													
Final Sat:: 0 0 0 3502 0 1615 255 1900 0 0 1900 1615	_												
Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.06 0.29 0.46 0.00 0.00 0.45 0.10 Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.35 0.00 0.35 0.54 0.54 0.00 0.00 0.54 0.54 Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.16 0.54 0.84 0.00 0.00 0.83 0.18 Uniform Del: 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 5.4 0.0 0.1 4.4 6.3 0.0 0.0 5.6 0.1 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.0													
Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.06 0.29 0.46 0.00 0.00 0.45 0.10 Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.00 0.35 0.00 0.35 0.54 0.54 0.00 0.00 0.54 0.54 Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.16 0.54 0.84 0.00 0.00 0.83 0.18 Uniform Del: 0.0 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 5.4 0.0 0.1 4.4 6.3 0.0 0.0 5.6 0.1 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.0		I											
Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.29 0.46 0.00 0.00 0.00 0.05 0.10 Crit Moves: **** **** **** **** Green/Cycle: 0.00 0.00 0.00 0.35 0.00 0.54 0.54 0.00 0.00 0.54 0.54 0.54 Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.16 0.54 0.84 0.00 0.00 0.00 0.83 0.18 Uniform Del: 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 0.0 0.0 0.0 12.4 0.0 1.00 1.00 1.00 1.00 0.0 0.0 0.0 0.0	Capacity Ana	Ivsis	Modu 1		•		.,			- 3	(1		, ,
Crit Moves:	_				0.29	0.00	0.06	0.29	0.46	0.00	0 00	0 45	0 10
Green/Cycle: 0.00 0.00 0.00 0.35 0.00 0.35 0.54 0.54 0.00 0.00 0.54 0.54 Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.16 0.54 0.84 0.00 0.00 0.83 0.18 Uniform Del: 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 5.4 0.0 0.1 4.4 6.3 0.0 0.0 5.6 0.1 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.0		0.00					0.00	0.23		0.00	0.00	0.43	0.10
Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.16 0.54 0.84 0.00 0.00 0.00 0.83 0.18 Uniform Del: 0.0 0.0 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 0.0 0.0 0.0 1.00 0.0 1.00 1.00 1.00 0.0 0.		0.00	0 00	0.00	ስ 35	0 00	0 35	0.54	0 57	0.00	0.00	0 54	0.54
Uniform Del: 0.0 0.0 0.0 16.5 0.0 12.4 8.2 10.6 0.0 0.0 10.4 6.4 IncremntDel: 0.0 0.0 0.0 5.4 0.0 0.1 4.4 6.3 0.0 0.0 5.6 0.1 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.0													
IncremntDel: 0.0 0.0 0.0 5.4 0.0 0.1 4.4 6.3 0.0 0.0 5.6 0.1 Delay Adj: 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 0.0 0.0 0.0 21.9 0.0 12.5 12.6 16.9 0.0 0.0 1.00 1.00 1.00 AdjDel/Veh: 0.0 0.0 0.0 21.9 0.0 12.5 12.6 16.9 0.0 0.0 1.00 1.00 1.00 AdjDel/Veh: 0.0 0.0 0.0 12.9 0.0 12.5 12.6 16.9 0.0 0.0 16.0 6.5 HCM2kAvg: 0 0 0 12 0 1 7 15 0 0 15 1													
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 Delay/Veh: 0.0 0.0 0.0 21.9 0.0 12.5 12.6 16.9 0.0 0.0 16.0 6.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.5												
Delay/Veh: 0.0 0.0 0.0 21.9 0.0 12.5 12.6 16.9 0.0 0.0 16.0 6.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
AdjDel/Veh: 0.0 0.0 0.0 21.9 0.0 12.5 12.6 16.9 0.0 0.0 16.0 6.5 HCM2kAvg: 0 0 0 12 0 1 7 15 0 0 15 1	-												
HCM2kAvg: 0 0 0 12 0 1 7 15 0 0 15 1													
	-												
		-				* * * * * * * . O	ىك ئەنىدىدەن بىلەن بىلەن ئىلاردىلاردىلاردىلاردىلاردىلاردىلاردىلارد			-	-		

	2000 H	ON 0-	vel Of eratio	nc Mot	had C	Base V	olime	Alter	native)	****	****
*****	*****	****	****	****	****	*****	*****	****	****	* * * * * * * * *		
Intersection ****	#28 G€	n. Ji	m Moor	***** BTAC	1/Cany	***** OU DET	*****	****	****	****	****	****
Cycle (sec): Loss Time (sec) Optimal Cycle	eC):	55 9	(Y+R =	4 se	Cr ec) Av	itical erage	Vol./ Delay	Cap. (sec/	(x): veh):		233.0 F	
	Nort	h Bou	ınd	Sout	th Bou	nd R	Eas	st Bou	ind - R	wes	т Бог Т -	ии · R
Control: Rights: Min. Green: Lanes:	Spl.	it Pha Includ	ise de 0	Spl. 10	it Pha Incluc O O (se le 10	10 1 0	Includ 10 1 (ed de 0 0	0 0	Includ 10 0 1	ie 10
Volume Module Base Vol: Growth Adj: Initial Bse: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: Final Vol.:	0 1.00 0 1.00 0.80 0 0 1.00 1.00	0 1.00 0 1.00 0.80 0 0 0 1.00 1.00	0 1.00 0 1.00 0.80 0 0 1.00 1.00	821 1.00 821 1.00 0.80 1026 0 1026 1.00 1.00	0 1.00 0 1.00 0.80 0 0 1.00	74 1.00 74 1.00 0.80 93 0 93 1.00 1.00	60 1.00 60 1.00 0.80 75 0 75 1.00 1.00	693 1.00 693 1.00 0.80 866 0 866 1.00 1.00 866	0 1.00 0 1.00 0.80 0 0 0 1.00 1.00	0 1.00 0 1.00 0.80 0 0 0 1.00 1.00	681 1.00 681 1.00 0.80 851 0 851	126 1.00 126 1.00 0.80 158 0 158 1.00 1.00
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	1900 1.00 0.00	1900 1.00 0.00	1900 1.00 0.00	0.95	n	1900 0.85 1.00 1615	1.00	1.00 1.00	1900 1.00 0.00 0		0.98 0.84 1570	1900 0.98 0.16 290
Capacity Ana	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Modul 0.00 0.00 0.00 0.0 0.0 0.00 0.0 0.0	0.00 0.00 0.00 0.0 0.0 0.00 0.00 0.0	0.57 **** 0.34 1.70 18.3 320.8 1.00 339.1 1.00 339.1	0.00 0.00 0.00 0.0 0.0 0.0 0.0 1.00	0.06 0.34 0.17 12.9 0.2 1.00 13.1 1.00	0.04 **** 0.18 0.23 19.2 0.4 1.00 19.6 1.00	0.46 0.50 0.91 12.6 12.4 1.00 25.0 1.00 25.0	0.00 0.00 0.00 0.0 0.0 0.00 0.0 1.00	0.00 0.00 0.00 0.0 0.0 0.00 0.0 1.00	0.54 **** 0.32 1.70 18.7 321 1.00 340 1.00 340 70	0.54 0.32 1.70 18.7 320.9 1.00 339.6 1.00 339.6 70

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ********************************* Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 6.6 Worst Case Level Of Service: D[25.1] Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Volume Module: 101 0 Base Vol: 478 0 0 0 15 492 5 0 499 Initial Bse: 101 0 478 0 0 0 15 492 5 0 499 PHF Volume: 104 0 493 0 0 0 15 507 5 0 514 651 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 104 0 493 0 0 0 15 507 5 0 514 651 Critical Gap Module: Capacity Module: Level Of Service Module: Stopped Del: 64.0 xxxx 16.9 xxxxx xxxx xxxxx 11.1 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * C * * * B * * * * * Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 11.1 xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * * B * * * * * * ApproachDel: 25.1 xxxxxx xxxxxx xxxxxx XXXXXX D ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ****************** Average Delay (sec/veh): 11.5 Worst Case Level Of Service: E[43.9] ******************* Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Movement: Stop Sign Uncontrolled Uncontrolled Include Include Control: Stop Sign Rights: Include Rights: Include Includ Volume Module: 0 499 15 492 0 0 0 101 0 478 Base Vol: PHF Volume: 104 0 493 0 0 0 15 507 5 0 514
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 104 0 493 0 0 0 15 507 5 0 514 0 0 0 0 514 Critical Gap Module: Capacity Module: Level Of Service Module: LOS by Move: F * E * * * B * * * * * LT - LTR - RT Movement: Shared LOS: * * * * * * * * * * * * XXXXXX XXXXXX XXXXXX 43.9 ApproachDel: ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 3.6 Worst Case Level Of Service: C[17.7] Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Rights:
 Include
 Include
 Include
 Include

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1
 0 0 1 0 1 0 1
 Volume Module: Base Vol: 38 0 342 0 0 0 21 501 0 0 617 PHF Volume: 43 0 384 0 0 0 24 563 0 0 693 453 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 43 0 384 0 0 0 24 563 0 0 693 453 Critical Gap Module: Capacity Module: Level Of Service Module:

ب نے کے بات کی بات کی بات کی بات کی بات کی بات ک Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #27 Hwy 1 NB Ramps/Canyon Del Ray Blvd ************************ Average Delay (sec/veh): 6.0 Worst Case Level Of Service: D[29.7] ********************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 1 Volume Module: Critical Gap Module: Capacity Module: Level Of Service Module: 0.1 xxxx xxxxx xxxxx xxxx xxxxx Queue: 1.4 xxxx 6.0 xxxxx xxxx xxxxx Stopped Del: 47.4 xxxx 27.7 xxxxx xxxx xxxxx 11.1 xxxx xxxxx xxxxx xxxxx xxxxx B * * * * * LOS by Move: E * D * * * LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 11.1 xxxx xxxxx xxxxx xxxxx xxxxx Shared LOS: * * * * * B * * * * 29.7 XXXXXX XXXXXX XXXXXX ApproachDel: ApproachLOS: D

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 5.7 Level Of Service: A *************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 0 2 1 1 Volume Module: Base Vol: 0 0 0 347 2 60 0 143 212 383 224 PCE Module: AutoPCE: 0 0 0 361 2 63 0 149 221 399 233
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 361 2 63 0 149 221 399 233 Delay Module: >> Time Period: 0.25 hours << CircVolume: 510
MaxVolume: xxxxx
PedVolume: 0
AdjMaxVol: xxxxx 632 762 0 1969 788 1200 0 0 0 1969 788 1200 ApproachVol: xxxxxx 426 370 632 ApproachDel: xxxxxx 2.3 8.5 6.3 0.8 Queue: XXXX 2.5 3.2

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd ****************** Average Delay (sec/veh): 252.0 Worst Case Level Of Service: F[834.3] ******************* Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - R Movement: Volume Module: 212 383 224 347 2 60 0 143 0 0 0 Base Vol: Initial Bse: 0 0 0 347 2 60 0 143 212 383 224 0 PHF Adj: 0 0 0 361 2 63 0 149 221 399 233 PHF Volume: Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 361 2 63 0 149 221 399 233 -0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: 233 xxxx xxxx xxxxx 370 xxxx xxxxx Cnflict Vol: xxxx xxxx xxxxx 1291 1401 Volume/Cap: xxxx xxxx xxxx 2.98 0.03 0.08 xxxx xxxx xxxx 0.33 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * * * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shrd StpDel:xxxxx xxxx xxxxx 980.5 xxxx 11.4 xxxxx xxxx xxxxx 9.5 xxxx xxxxx B * * * A * Shared LOS: * * * F * XXXXXX 834.3 XXXXXX XXXXXX ApproachDel: F ApproachLOS:

												·	
	Level Of Service Computation Report												
FHWA Roundabout Method (Base Volume Alternative) ************************************													
Intersection								*****	*****	*****	****	****	
********	π20 J	*****	*****	25/Ca.	*****	*****	*****	****	****	****	*****	*****	
Average Dela	y (se	c/veh)	:	5.4				L€	evel Of	Serv	ice:	Æ	

Approach:													
Movement:	L .	- T	- R ∤	ь.	- T	- R	L -	- T	- R	L -	- T	- R	
Control:	Yie	eld Si	an	Yi	-1d Si	an	Yi.	 -1d Si		V		an	
Lanes:		0	-9	وعقرتك	2	.911	1.4.	1	.gn	, L ; L 7	1 1	.gn	
	1								1			1	
Volume Modul												·	
Base Vol:	,0	0		390	.5	21	.0	56	61	526		0	
Growth Adj:				1.00		1.00			1.00		1.00	1.00	
Initial Bse:		0	.0	390	5	21	0	56	61	526	77	. 0	
	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
	0.87		0.87		0.87	0.87		0.87			0.87	0.87	
PHF Volume:	0	0	0	448	6	24	0	64	70	605	89	0	
Reduct Vol:	0	.0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:		0	0	448	6	24	0	64	70	605		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	1.00	1.00	1.00	1.00	1.00	
Final Vol.:		0	0	448		24	0		70	605		0	
PCE Module:	1									1			
AutoPCE:	0	0		448	6	24	0	64	70	605	89	- 0	
TruckPCE:	.0	0	0	0	0	0	0	0	70	0	0	0	
ComboPCE:	0	0	.0	0	.0	0	0	0	0	0	:0	0	
BicyclePCE:	0	0	0	.0	.0	0	0	0	0	0	.0	0	
AdjVolume:	0	0	0	448	6	24	0	64	70	605	89	0	
Adj vorume.	-				•				I	1		1	
Delay Module							'		,	31		. 4	
CircVolume:		513			693			1059			0		
MaxVolume:	X	xxxxx			1925			628			1200		
PedVolume:		0			0			0			0		
AdjMaxVol:	X.	xxxxx			1925			628			1200		
ApproachVol:	x	xxxxx			478		134			693			
ApproachDel:	X	xxxxx			2.5			7.3			7.0		
Queue:		xxxx			1.0			0.8			3.9		

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #26 Hwy 1 SB Ramps/Canyon Del Ray Blvd Average Delay (sec/veh): 787.6 Worst Case Level Of Service: F[2127.3] ************************** Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - RMovement: Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Include Include Include Lanes: 0 0 0 0 0 0 1 0 1 0 0 0 1 0 0 0 0 _____| Volume Module: 0 56 61 526 77 390 5 21 0 0 0 Base Vol: 0 390 5 21 0 56 61 526 77 0 Initial Bse: 0 0 User Adj: PHF Adj: PHF Volume: 0 0 0 448 6 24 0 64 70 605 89 0 Reduct Vol: 0 0 0 0 448 6 24 0 64 70 605 89 0 Final Vol.: 0 0 0 448 6 24 0 64 70 605 89 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: 89 xxxx xxxx xxxxx 134 xxxx xxxxx Cnflict Vol: xxxx xxxx xxxxx 1397 1432 Potent Cap.: xxxx xxxx xxxx 157 135 975 xxxx xxxx xxxx 1462 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 79 51 975 xxxx xxxx xxxx 1462 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 5.69 0.11 0.02 xxxx xxxx xxxx 0.41 xxxx xxxx Level Of Service Module: A * * LOS by Move: * * * * * * * * Movement: LT - LTR - RT C * * * A * Shared LOS: * * * F * 2127.3 XXXXXX ApproachDel: xxxxxx F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************** Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd ************************** Cycle (sec): 50 Critical Vol./Cap. (X): 0.740 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 52 Level Of Service: 39.1 ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - F L - T - R Control: Protected Protected Protected Protected Rights: Include Include Ignore Include Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10 Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 Volume Module: Base Vol: 517 257 0 3 154 296 89 472 3 94 215 Initial Bse: 517 257 0 3 154 215 296 89 472 3 94 5 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.88 0.88 PHF Adj: 0 3 107 0 0 0 0 3 107 PHF Volume: 588 292 0 3 175 244 336 101 0 0 0 0 0 3 175 244 Reduct Vol: 0 0 0 0 Reduced Vol: 588 292 336 101 6 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 MLF Adj: Final Vol.: 588 292 0 3 175 244 336 101 0 3 107 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.87 0.87 0.95 1.00 1.00 0.95 0.99 0.99 Final Sat.: 3502 1900 0 1805 1648 1648 1805 1900 1900 1805 1790 95 Capacity Analysis Module: Vol/Sat: 0.17 0.15 0.00 0.00 0.11 0.15 0.19 0.05 0.00 0.00 0.06 0.06 Crit Moves: **** *** *** Green/Cycle: 0.17 0.22 0.00 0.15 0.20 0.20 0.19 0.23 0.00 0.16 0.20 0.20 Volume/Cap: 0.98 0.71 0.00 0.01 0.53 0.74 0.98 0.23 0.00 0.01 0.30 0.30 0.0 18.0 17.9 18.8 20.2 15.7 0.0 17.7 17.0 17.0 Uniform Del: 20.7 18.1 IncremntDel: 32.6 5.5 0.0 0.0 0.7 5.2 44.1 0.3 0.0 0.0 0.4 Delay/Veh: 53.2 23.5 0.0 18.0 18.6 24.0 64.3 16.0 0.0 17.7 17.5 17.5 AdjDel/Veh: 53.2 23.5 0.0 18.0 18.6 24.0 64.3 16.0 0.0 17.7 17.5 17.5 HCM2kAvg: 10 6 0 0 3 6 11 1 0 0 2 2 ***** *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #25 Light Fighter Dr/Gen. Jim Moore Blvd *********************************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.606 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 46 Level Of Service: 22.1 ********************* Approach: North Bound South Bound East Bound Movement: L - T - R L - T - R L - T - R Control: Protected Protected Protected Protected Rights: Include Include Ignore Include Min. Green: 7 10 10 7 10 10 7 10 7 7 10 10 Lanes: 2 0 0 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 Volume Module: 377 95 88 567 Base Vol: 337 119 2 4 307 4 68 Initial Bse: 337 119 2 4 307 377 95 88 567 4 68 :0 PHF Volume: 387 137 2 5 353
Reduct Vol: 0 0 0 0 0
Reduced Vol: 387 137 2 5 353 0 5 78 0 0 0 0 5 78 433 109 101 0 0 0 0 109 101 Reduced Vol: 387 137 433 -0 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 0.87 0.87 0.95 1.00 1.00 0.95 1.00 1.00 Final Sat.: 3502 1863 31 1805 1655 1655 1805 1900 1900 1805 1900 0 Capacity Analysis Module: Vol/Sat: 0.11 0.07 0.07 0.00 0.21 0.26 0.06 0.05 0.00 0.00 0.04 0.00 **** **** Crit Moves: **** Green/Cycle: 0.14 0.28 0.28 0.19 0.33 0.33 0.13 0.18 0.00 0.13 0.18 0.00 Volume/Cap: 0.79 0.26 0.26 0.01 0.64 0.79 0.48 0.29 0.00 0.02 0.23 0.00 Uniform Del: 22.8 15.5 15.5 17.9 15.6 16.6 22.3 19.4 0.0 21.0 19.2 0.3 0.0 1.2 4.3 1.6 0.5 0.0 0.0 0.3 IncremntDel: 8.3 0.3 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 Delay/Veh: 31.1 15.7 15.7 17.9 16.7 20.9 23.8 19.9 0.0 21.0 19.5 0.0 AdjDel/Veh: 31.1 15.7 15.7 17.9 16.7 20.9 23.8 19.9 0.0 21.0 19.5 0.0 HCM2kAvq: 6 2 2 0 6 9 2 2 0 0 1 ***************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave Cycle (sec): 100 Critical Vol./Cap. (X): 0.981 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 49.8 Optimal Cycle: 173 Level Of Service: D Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include
 Include
 Include
 Include
 Include

 10
 10
 10
 10
 7
 10
 10
 7
 10
 10
 Min. Green: Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 0 1 0 Volume Module: Base Vol: 1 5 7 140 3 746 678 592 2 688 129 Initial Bse: 1 5 7 140 3 746 678 592 9 2 688 129 Saturation Flow Module: Adjustment: 0.92 0.92 0.92 0.76 0.85 0.85 0.95 0.95 0.95 0.95 0.93 0.93 Lanes: 0.08 0.38 0.54 1.00 0.01 1.99 1.00 1.97 0.03 1.00 1.68 0.32 Final Sat.: 134 672 941 1438 13 3221 1805 3549 54 1805 2967 556 Capacity Analysis Module: Vol/Sat: 0.01 0.01 0.01 0.10 0.25 0.25 0.40 0.18 0.18 0.00 0.25 0.25 Crit Moves: **** **** Delay/Veh: 28.3 28.3 28.3 32.0 64.0 64.0 57.6 10.4 10.4 43.3 62.7 62.7 AdjDel/Veh: 28.3 28.3 28.3 32.0 64.0 64.0 57.6 10.4 10.4 43.3 62.7 62.7 HCM2kAvg: 0 0 0 5 18 18 30 5 5 0 19 19 ******************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 1 0 _____ Critical Gap Module: Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx _____1___1____1____1____1____1 Capacity Module: Cnflict Vol: 2449 2951 320 2565 2887 435 869 xxxx xxxxx 639 xxxx xxxxx Potent Cap.: 16 15 682 13 16 575 784 xxxx xxxxx 954 xxxx xxxxx Move Cap.: 0 1 682 0 1 575 784 xxxx xxxxx 954 xxxx xxxxx Volume/Cap: xxxx 4.48 0.01 xxxx 2.44 1.38 0.92 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 5.4 13.0 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 24.0 38.8 xxxx xxxxx 8.8 xxxx xxxxx LOS by Move: * * * * * C E * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT F ApproachLOS: F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #24 Light Fighter Dr/2nd Ave ************************************ Cycle (sec): 100 Critical Vol./Cap. (X): 0.769 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 62 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Include Include Include
Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10
Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 0 1 0 1 1 0 7 10 10 Volume Module: Base Vol: 3 0 1 103 3 573 508 586 9 3 620 Initial Bse: 3 0 1 103 3 573 508 586 9 3 620 Saturation Flow Module: Adjustment: 0.89 1.00 0.89 0.77 0.85 0.85 0.95 0.95 0.95 0.95 0.93 0.93 Lanes: 0.75 0.00 0.25 1.00 0.01 1.99 1.00 1.97 0.03 1.00 1.71 0.29 Final Sat.: 1272 0 424 1461 17 3217 1805 3548 54 1805 3023 507 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.19 0.19 0.30 0.17 0.17 0.00 0.22 0.22 **** **** Crit Moves: AdjDel/Veh: 28.7 0.0 28.7 31.4 39.8 39.8 32.1 9.9 9.9 43.4 36.7 36.7 HCM2kAvg: 0 0 0 4 11 11 17 5 5 0 12 12 ********************************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #24 Light Fighter Dr/2nd Ave ********************** Average Delay (sec/veh): 159.0 Worst Case Level Of Service: F[11899.1 ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 1 0 0 1 1 1 0 1 1 0 1 0 1 0 Volume Module: PHF Volume: 3 0 1 108 3 603 535 617 9 3 653 109
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 3 0 1 108 3 603 535 617 9 3 653 109 Critical Gap Module: Critical Gp: 7.5 xxxx 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 xxxx 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Cnflict Vol: 2025 xxxx 313 2092 2409 381 762 xxxx xxxxx 626 xxxx xxxxx Potent Cap.: 35 xxxx 689 31 33 623 859 xxxx xxxxx 965 xxxx xxxxx Move Cap.: 0 xxxx 689 15 13 623 859 xxxx xxxxx 965 xxxx xxxxx Volume/Cap: 7.01 xxxx 0.00 7.03 0.25 0.97 0.62 xxxx xxxx xxxx 0.00 xxxx xxxx Capacity Module: _____ Level Of Service Module: Queue: xxxxx xxxx xxxx 14.4 xxxx 2.6 4.5 xxxx xxxx 0.0 xxxx xxxx Stopped Del:xxxxx xxxx xxxx 3199 xxxx 16.1 15.8 xxxx xxxx 8.7 xxxx xxxx LOS by Move: * * * * F * C C * * A * * Movement: LT - LTR - RT Shared LOS: * F * * * D * * * * * * * * * ApproachDel: xxxxxx 506.6 xxxxxx xxxxx F F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ****************************** Intersection #23 Light Fighter Dr/lst Ave Cycle (sec): 55 Critical Vol./Cap. (X): 0.926
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 25.1
Optimal Cycle:OPTIMIZED Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Include Rights: Include Include Include Include Min. Green: 10 0 10 10 10 10 0 10 10 7 10 0 Lanes: 2 0 0 0 1 0 1 0 0 1 0 0 2 0 2 1 0 2 0 0 n Volume Module: Base Vol: 579 0 297 2 1 78 0 1028 735 332 1057 Initial Bse: 579 0 297 2 1 78 0 1028 735 332 1057 0 PHF Volume: 623 0 319 2 1 84 0 1105 790 357 1137 0 Saturation Flow Module: Adjustment: 0.61 1.00 0.85 0.93 0.93 0.85 1.00 0.95 0.75 0.95 0.95 1.00 Lanes: 2.00 0.00 1.00 0.67 0.33 1.00 0.00 2.00 2.00 1.00 2.00 0.00 Final Sat.: 2304 0 1615 1182 591 1615 0 3610 2842 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.27 0.00 0.20 0.00 0.00 0.05 0.00 0.31 0.28 0.20 0.31 0.00 Crit Moves: **** **** Green/Cycle: 0.29 0.00 0.29 0.29 0.29 0.00 0.33 0.33 0.21 0.54 0.00 AdjDel/Veh: 37.7 0.0 21.1 13.8 13.8 14.7 0.0 29.9 23.9 49.1 8.8 HCM2kAvg: 13 0 6 0 0 1 0 14 9 11 7 0.0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #23 Light Fighter Dr/1st Ave *************** Cycle (sec): 40 Critical Vol./Cap. (X): 1.438 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: ************************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R , L-T-R , L-T-RL - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 10
 10
 7
 10
 0

 Lanes:
 1
 0
 0
 1
 0
 1
 0
 0
 2
 0
 1
 1
 0
 2
 0

 Volume Module: Base Vol: 579 0 297 2 1 78 0 1028 735 332 1057 Initial Bse: 579 0 297 2 1 78 0 1028 735 332 1057 0 PHF Adj: PHF Volume: 623 0 319 2 1 84 0 1105 790 357 1137 Saturation Flow Module: Lanes: 1.00 0.00 1.00 0.67 0.33 1.00 0.00 2.00 1.00 1.00 2.00 0.00 Final Sat.: 1457 0 1615 1156 578 1615 0 3610 1615 1805 3610 0 Capacity Analysis Module: Vol/Sat: 0.43 0.00 0.20 0.00 0.00 0.05 0.00 0.31 0.49 0.20 0.31 0.00 **** **** Crit Moves: **** Green/Cycle: 0.28 0.00 0.28 0.28 0.28 0.28 0.00 0.32 0.32 0.18 0.50 0.00 Volume/Cap: 1.53 0.00 0.71 0.01 0.01 0.19 0.00 0.96 1.53 1.13 0.64 0.00 Uniform Del: 14.4 0.0 12.9 10.4 10.4 10.9 0.0 13.3 13.6 16.5 7.4 0.0 IncremntDel: 249.6 0.0 5.1 0.0 0.0 0.2 0.0 16.9 247.1 90.6 0.8 0.0 HCM2kAvg: 47 0 5 0 0 1 0 13 46 14 6 0 ******************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #23 Light Fighter Dr/1st Ave Cycle (sec): 70 Critical Vol./Cap. (X): 0.960 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 31.0 Optimal Cycle:OPTIMIZED Level Of Service: C ************************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 10
 10
 10
 10
 7
 10
 0

 Lanes:
 2
 0
 0
 1
 0
 1
 0
 2
 0
 2
 1
 0
 2
 0
 0
 Volume Module: Base Vol: 561 0 213 10 2 36 0 945 437 293 949 Initial Bse: 561 0 213 10 2 36 0 945 437 293 949 0 PHF Volume: 693 0 263 12 2 44 0 1167 540 362 1172 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 693 0 263 12 2 44 0 1167 540 362 1172 MLF Adj: Final Vol.: 693 0 263 12 2 44 0 1167 540 362 1172 0 Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.31 0.00 0.16 0.01 0.01 0.03 0.00 0.32 0.19 0.20 0.32 0.00 Crit Moves: **** **** Volume/Cap: 0.96 0.00 0.50 0.03 0.03 0.08 0.00 0.96 0.56 0.96 0.59 0.00 HCM2kAvg: 18 0 5 0 0 1 0 18 6 13 9 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #23 Light Fighter Dr/1st Ave *************** Cycle (sec): 55 Critical Vol./Cap. (X):
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 180 Level Of Service: Critical Vol./Cap. (X): 1.216 ******************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______|
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10 0 10 10 10 10 0 10 7 10 7 10 0

 Lanes:
 1 0 0 0 1 0 1 0 0 1 0 0 1 0 0 2 0 1 1 0 2 0 0
 Volume Module: PHF Volume: 693 0 263 12 2 44 0 1167 540 362 1172 0 Reduct Vol: 0 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 693 0 263 12 2 44 0 1167 540 362 1172 Final Vol.: 693 0 263 12 2 44 0 1167 540 362 1172 0 _____ Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.48 0.00 0.16 0.01 0.01 0.03 0.00 0.32 0.33 0.20 0.32 0.00 Crit Moves: **** **** Green/Cycle: 0.40 0.00 0.40 0.40 0.40 0.40 0.00 0.27 0.27 0.16 0.44 0.00 Volume/Cap: 1.22 0.00 0.41 0.02 0.02 0.07 0.00 1.18 1.22 1.22 0.74 0.00 Uniform Del: 16.6 0.0 12.0 10.1 10.1 10.3 0.0 19.9 19.9 23.0 12.8 0.0

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) Intersection #22 3rd St/4th Ave Cycle (sec): 100 Critical Vol./Cap. (X): 0.984 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 34.2 Optimal Cycle: 0 Level Of Service: nApproach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Stop Sign
 Stop Sign
 Stop Sign
 Stop Sign

 Rights:
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: Base Vol: 35 196 429 15 137 22 14 112 20 190 46 Final Vol.: 36 204 447 16 143 23 15 117 21 198 48 1 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.98 0.98 0.98 0.33 0.33 0.30 0.30 0.30 0.47 0.47 0.47 **** **** **** Crit Moves: Delay/Veh: 51.7 51.7 51.7 12.0 12.0 12.0 12.2 12.2 12.2 15.0 15.0 15.0 AdjDel/Veh: 51.7 51.7 51.7 12.0 12.0 12.0 12.2 12.2 12.2 15.0 15.0 15.0 LOS by Move: F F F B B B B B C C C ApproachDel: 51.7 12.0 12.2
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 51.7 12.0 12.2
LOS by Appr: F B B 1.00 12.2 15.0

Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative) ******************** Intersection #22 3rd St/4th_Ave ******************* Critical Vol./Cap. (X): 0.956 Cycle (sec): 100 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 30.5
Optimal Cycle: 0 Level Of Service: ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: PHF Volume: 41 95 172 6 192 36 12 69 72 482 76 8 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 41 95 172 6 192 36 12 69 72 482 76 8 Saturation Flow Module: Lanes: 0.13 0.31 0.56 0.02 0.82 0.16 0.08 0.45 0.47 0.86 0.13 0.01 Final Sat.: 74 171 308 13 423 80 39 231 239 505 80 9 Capacity Analysis Module: Vol/Sat: 0.56 0.56 0.56 0.45 0.45 0.45 0.30 0.30 0.30 0.96 0.96 0.96 **** **** Crit Moves: **** 16.3 11.9 49.8 1.00 14.6 ApproachDel: 1.00 1.00 1.00 Delay Adj: 49.8 E ApprAdjDel: 16.3 LOS by Appr: C 14.6 B 11.9 B

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************* Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ********************************* Cycle (sec): 100 Critical Vol./Cap. (X): 0.809 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 70 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Split Phase Split Phase Rights: Ignore Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 1 0 1 Volume Module: PHF Volume: 5 0 0 0 0 0 19 554 0 0 1096 643 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 5 0 0 0 0 0 19 554 0 0 1096 643 0 0 0 1096 Final Vol.: 5 0 0 0 0 19 554 0 0 1096 643 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.93 0.00 0.00 1.00 1.00 Final Sat.: 1900 0 1900 0 0 0 119 3484 0 0 1900 1615 Capacity Analysis Module: Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.00 0.00 0.20 0.20 0.00 0.00 0.71 0.71 Uniform Del: 50.0 0.0 0.0 0.0 0.0 0.0 38.4 38.4 0.0 0.0 9.7 IncremntDel: 0.4 0.0 0.0 0.0 0.0 0.0 6.9 6.9 0.0 0.0 3.7 Delay Adj: 1.00 0.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 50.4 0.0 0.0 0.0 0.0 0.0 45.3 45.3 0.0 0.0 13.4 7.4 AdjDel/Veh: 50.4 0.0 0.0 0.0 0.0 45.3 45.3 0.0 0.0 13.4 7.4 HCM2kAvg: 0 0 0 0 0 11 11 0 0 24

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy **************** Average Delay (sec/veh): 0.3 Worst Case Level Of Service: F[67.3] North Bound South Bound East Bound West Bound Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Ignore Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1 Volume Module: PHF Volume: 5 0 0 0 0 0 19 554 0 0 1096 643 Reduct Vol: 0 0 0 0 0 0 0 19 554 0 0 1096 643 Final Vol.: 5 0 0 0 0 0 19 554 0 0 1096 643 Critical Gap Module: FollowUpTim: 3.5 xxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx Capacity Module: Cnflict Vol: 2009 xxxx xxxxx xxxx xxxx xxxxx 1739 xxxx xxxxx xxxx xxxx xxxxx Level Of Service Module: Queue: 0.3 xxxx xxxxx xxxxx xxxxx 0.2 xxxx xxxxx xxxxx xxxxx xxxxx Stopped Del: 67.3 xxxx xxxxx xxxxx xxxx xxxxx 15.4 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * * * * * C * * * * * LT - LTR - RT Movement: Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 15.4 xxxx xxxxx xxxxx xxxxx F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy Cycle (sec): 100 Critical Vol./Cap. (X): 0.840 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 24.3 Optimal Cycle: 79 Level Of Service: C Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Split Phase Split Phase Split Phase Rights: Ignore Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0 Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1 Volume Module: Base Vol: 3 0 755 0 0 0 6 556 0 0 1022 252 Growth Adj: $1.00\ 1.00\ 1.00\ 1.00\ 1.00\ 1.00\ 1.00\ 1.00\ 1.00\ 1.00$ PHF Volume: 3 0 0 0 0 0 7 611 0 0 1123
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 0 0 0 0 0 7 611 0 0 1123 277 Final Vol.: 3 0 0 0 0 0 7 611 0 0 1123 277 Saturation Flow Module: Adjustment: 0.95 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.02 1.98 0.00 0.00 1.00 1.00 Final Sat.: 1805 0 1900 0 0 0 39 3568 0 0 1900 1615 Capacity Analysis Module: Crit Moves: **** Uniform Del: 49.9 0.0 0.0 0.0 0.0 38.2 38.2 0.0 0.0 10.7 5.3 IncremntDel:324.7 0.0 0.0 0.0 0.0 0.0 8.5 8.5 0.0 0.0 4.9 Delay Adj: 1.00 0.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 374.6 0.0 0.0 0.0 0.0 46.8 46.8 0.0 0.0 15.6 5.4 AdjDel/Veh: 374.6 0.0 0.0 0.0 0.0 46.8 46.8 0.0 0.0 15.6 5.4 HCM2kAvg: 1 0 0 0 0 12 12 0 0 27 3 ************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #21 Hwy 1 NB Ramps/Imjin Pkwy ***************** Average Delay (sec/veh): 0.1 Worst Case Level Of Service: F[53.3] **************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Ignore Include Include Include Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 1 0 1 PHF Volume: 3 0 0 0 0 0 7 611 0 0 1123 277 Reduct Vol: 0 0 0 0 0 0 0 7 611 0 0 1123 277 Final Vol.: 3 0 0 0 0 0 0 7 611 0 0 1123 277 Critical Gap Module: Capacity Module: Level Of Service Module: Queue: 0.1 xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx Stopped Del: 53.3 xxxx xxxxx xxxxx xxxx xxxxx 12.4 xxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: F * * * * * B * * * * * LT - LTR - RT Movement: SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.4 xxxx xxxxx xxxxx xxxxx xxxxx

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

Cycle (sec): Loss Time (se Optimal Cycle	<pre>Cycle (sec): 100</pre>											
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R												ound - R
Control: Split Phase Split Phase Split Phase Rights: Include Include Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0										nase ide 0		
Volume Module Base Vol: Growth Adj: Initial Bse: User Adj:	0 1.00 0	0 1.00 0	0 1.00 0 1.00 0.88	413 1.00 413 1.00	3 1.00 3 1.00 0.88	0 1.00 0 1.00 0.88	0 1.00 0 1.00	0 1.00 0 1.00 0.88	0 1.00 0 1.00 0.88	818 1.00 1 818 1.00 1 0.88 0	0 .00 0	0 1.00 0 1.00 0.88
	1.00	0 0 0 1.00 1.00	0 0 1.00 1.00	1.00 469	3 0 3 1.00 1.00 3	0 0 0 1.00 1.00	1.00	0 0 0 1.00 1.00	0 0 0 1.00 1.00	930 0 930 1.00 1 1.00 1 930		0 0 0 1.00 1.00
Saturation Fl Sat/Lane: Adjustment:	ow Mc 1900 1.00 0.00	1900 1.00 0.00	1900 1.00 0.00	1900 1.00 1.99 3773	1900 1.00 0.01 27	1900 1.00 0.00	1900 1.00 0.00	1900 1.00 0.00	0	1900 1 0.95 1 1.00 0 1805	.00.	1900 1.00 0.00 0
Capacity Anal Vol/Sat: Crit Moves:	ysis 0.00	Modul 0.00	e: 0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.51 0	.00	0.00
Uniform Del: IncremntDel:	0.00 0.0 0.0 0.0	0.00 0.0 0.0 0.00 0.0	0.00 0.00 0.0 0.0 0.00 0.0 1.00 0.0	0.68 38.1 2.7 1.00 40.9 1.00	0.18 0.68 38.1 2.7 1.00 40.9 1.00 40.9 8	0.00 0.00 0.0 0.0 0.00 0.0 1.00 0.0	0.00 0.0 0.0 0.00	0.00 0.00 0.0 0.0 0.00 0.0 1.00 0.0	0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0	1.4 1.00 0 7.5 1.00 1	.00 0.0 0.0 .00	0.00 0.00 0.0 0.0 0.00 0.00 1.00 0.0

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ***************** Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy **************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] ***************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 Volume Module:
Base Vol: 0 0 0 413 3 PHF Volume: 0 0 0 469 3 0 0 0 0 930 0 0 Reduct Vol: 0 0 0 469 3 0 0 0 0 0 930 0 0 0 Final Vol.: 0 0 0 469 3 0 0 0 0 0 930 0 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 1859 1859 xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx Level Of Service Module: LOS by Move: * * * * * * * * * * * Shared LOS: * * * * * * * * * * * xxxxxx xxxxxx F XXXXXX XXXXXX ApproachDel: ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************************ Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy Cycle (sec): 100 Critical Vol./Cap. (X): 0.875 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 27.6 Optimal Cycle: 81 Level Of Service: C Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Include
 Volume Module: Base Vol: 0 0 0 533 2 0 0 0 0 1053 0 Initial Bse: 0 0 0 533 2 0 0 0 1053 0 0 PHF Volume: 0 0 0 606 2 0 0 0 1197 0 0 Saturation Flow Module: Final Sat.: 0 0 0 3786 14 0 0 0 1805 0 0 Capacity Analysis Module: Crit Moves: Delay/Veh: 0.0 0.0 0.0 51.8 51.8 0.0 0.0 0.0 15.4 0.0 AdjDel/Veh: 0.0 0.0 0.0 51.8 51.8 0.0 0.0 0.0 15.4 0.0 0.0 HCM2kAvg: 0 0 0 12 12 0 0 0 0 31 0 0 *******

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************************ Intersection #20 Hwy 1 SB Ramps/Imjin Pkwy ****************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] *************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Stop Sign Stop Sign Uncontrolled Uncontrolled Include Include Include Control: Rights: Include Includ Volume Module: PHF Volume: 0 0 0 606 2 0 0 0 1197 0 Reduct Vol: 0 0 0 606 2 0 0 0 0 1197 0 Final Vol.: 0 0 0 606 2 0 0 0 0 1197 0 Critical Gap Module: Capacity Module: Level Of Service Module: LT - LTR - RT LT - LTR - RT Movement: LT - LTR - RT F ApproachLOS:

3534

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

Intersection #19 Hwy 68 EB Ramps/Reservation Rd												
Cucle (sec) .		ΩF	,			'ri+ico	1 7701	/Can	101.		0.93	
Loss Time (se	ec):	ç	(Y+R	= 4 9	sec) I	verage	Dela	y (sec	c/veh):		43.	0
Optimal Cycle	e:OPT	IMIZE)			Level C						D
**************************************												*****
Approach: North Bound South Bound East Bound West Bound												ound
Movement: $L-T-R$ $L-T-R$ $L-T-R$												- R
Control: Split Phase Split Phase Split Phase Split Phase												ase
Rights: Include Include Include Include												ıde
Min. Green:		.0			0	0			.0	0	10	10
Lanes:	0 .				0 0	0 0	0	1 1	0 0	0 0) 1	
]	1]		
Volume Module		_				_						
Base Vol:	178	.0	108	.0		0		427	0	0	773	661
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		.0	108	0	0	0	301	427	0	0	773	661
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:		0.85	0.85		0.85	0.85		0.85	0.85	0.85	0.85	0.85
PHF Volume:	209	0	127	0	0	0	354	502	0	0	909	778
Reduct Vol:	0	0	0	0	0	0	0	0		0	:0	0
Reduced Vol:		0	127	0	0	0	354	502	0	0	909	778
PCE Adj:		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
Final Vol.:	209	0	127	. 0	0	0		502	0	0	909	778
Saturation F.	,1		•			1			1	1		
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	0.93	0.93	1.00	1.00	1.00	0.85
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.83	1.17	0.00	0.00	1.00	1.00
Final Sat.:	1809	0	1615	.0	0	0	1463	2075	0	0	1900	1615
				1						1		
Capacity Ana	lysis	Modul	e:									
Vol/Sat:		0.00	0.08	0.00	0.00	0.00	0.24	0.24	0.00	0.00	0.48	0.48
Crit Moves:	***							***				****
Green/Cycle:			0.12		0.00	0.00		0.26	0.00	0.00	0.51	0.51
Volume/Cap:	0.94	0.00	0.64	0.00	0.00	0.00	0.94	0.94	0.00	0.00	0.93	0.94
Uniform Del:		0.0	35.5	0.0	0.0	0.0		30.9	0.0		19.3	19.4
IncremntDel:		0.0	6.7	0.0	0.0	0.0		16.9	0.0		15.3	18.1
Delay Adj:		0.00	1.00		0.00	0.00		1.00	0.00	0.00		1.00
Delay/Veh:			42.2	0.0	0.0	0.0		47.8	0.0		34.6	37.6
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:			42.2	0.0	0.0	0.0		47.8	0.0		34.6	37.6
HCM2kAvg:	10	0	4	0	.0	0	16	16	0	0	27	24
*****	****	*****	****	****	****	****	****	****	*****	****	****	****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #19 Hwy 68 EB Ramps/Reservation Rd ***************** Cycle (sec): 80 Critical Vol./Cap. (X): 0.891 29.3 9 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 89 Level Of Service: North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: North Bound
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 7
 10
 0
 0
 10
 10

 Lanes:
 0
 1
 0
 0
 0
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 1
 0
 0
 0
 0
 1
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 0
 Volume Module: 178 0 108 0 0 0 301 427 0 0 773 661 Base Vol: Initial Bse: 178 0 108 0 0 0 301 427 0 0 773 661 PHF Adj: PHF Volume: 209 0 127 0 0 0 354 502 0 0 909

Reduct Vol: 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 209 0 127 0 0 0 354 502 0 0 909 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 0.85 Capacity Analysis Module: Vol/Sat: 0.12 0.00 0.08 0.00 0.00 0.00 0.20 0.26 0.00 0.00 0.48 0.48 Crit Moves: **** Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.22 0.76 0.00 0.00 0.54 0.54 Volume/Cap: 0.89 0.00 0.61 0.00 0.00 0.00 0.89 0.35 0.00 0.00 0.89 0.90 0.0 30.3 3.2 0.0 0.0 16.4 16.5 0.0 21.3 0.1 0.0 0.0 9.9 11.9 Uniform Del: 34.2 0.0 32.9 0.0 0.0 IncremntDel: 31.4 0.0 5.0 0.0 0.0 IncremntDel: 31.4 0.0 5.0 0.0 0.0 0.0 21.3 0.1 0.0 0.0 9.9 11.9 Delay Adj: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 0.0 0.0 0.0 51.5 3.3 0.0 0.0 26.3 28.4 Delay/Veh: 65.7 0.0 37.8 AdjDel/Veh: 65.7 0.0 37.8 0.0 0.0 0.0 51.5 3.3 0.0 0.0 26.3 28.4 HCM2kAvg: 9 0 4 0 0 0 13 4 0 0 24 21 ***************** *****

رہے جبو منی بلتے ہیں سر سر سے ست سے سے			1 Of C								
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)											

Intersection							****	*****	*****	*****	
Cycle (sec): Loss Time (se		80		. 1	Critica	1 Vol	./Cap	. (X):	0.9	74	
Loss Time (s	ec):	9 (Y	+R = 4	sec)	Average	e Delay	y (sed	c/veh):	37	. 4	
Optimal Cycle: 137 Level Of Service: D ************************************											
Approach:											
Movement:	L -	T -	R L	- T	- R	L -	- T	- R	L - т	- R	
						1					
Control:	Spli	t Phase	Sp	olit P	hase	Pi	rotect	ted	Protec	ted	
Rights:											
									7 10	0	
Lanes:	0 0	0 0	0 1	1 0	0 1	0 (1	0 1	1 0 1	0 0	
Volume Module	**		1								
Base Vol:		0	0 526	5 0	344	10	934	216	132 310	^	
Growth Adi:					1.00		1.00	1.00	1.00 1.00	0 1.00	
Initial Bse:		0			344	0	934	216	132 310	1.00	
User Adj:				1.00	1.00		1.00	1.00	1.00 1.00	1.00	
PHF Adj:				0.90	0.90		0.90	0.90	0.90 0.90	0.90	
PHF Volume:	0_	0	0 584		382		1038	240	147 344	0.50	
Reduct Vol:		0	0 (0	0	.0	0		0 0	0	
Reduced Vol:	0		0 584		382	.0	1038		147 344	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	
Final Vol.:		-	0 584		382	0		240	147 344	0	
						1					
Saturation F											
Sat/Lane:	1900 1			1900			1900	1900	1900 1900	1900	
Adjustment:				1.00	0.85		1.00		0.95 1.00	1.00	
Lanes:				0.00			1.00		1.00 1.00		
Final Sat.:			0 3616	3 0	1615	. 0			1805 1900	0	
Capacity Ana			11			1					
Vol/Sat:			00 0.16	0.00	0.24	0.00	0.55	0.15	0.08 0.18	0.00	
Crit Moves:	0.00		00 0.1		****	0.00	****	.0 • 10	****	0.00	
Green/Cycle:	0.00 0	0.00 0.	00 0.24	0.00	0.24	0.00	0.56	0.56	0.09 0.65	0.00	
Volume/Cap:	0.00 0			0.00	0.98		0.98	0.27	0.93 0.28	0.00	
Uniform Del:			.0 27.4		30.1		17.2	9.2	36.3 6.1	0.0	
IncremntDel:			.0 2.0		39.7		22.5	0.2	50.9 0.1	0.0	
Delay Adj:				0.00	1.00		1.00	1.00	1.00 1.00	0.00	
Delay/Veh:			.0 29.4		69.8	0.0			87.1 6.3	0.0	
User DelAdj:		.00 1.	00 1.00	1.00	1.00		1.00		1.00 1.00	1.00	
AdjDe1/Veh:	0.0		.0 29.4	0.0	69.8	0.0	39.7	9.3	87.1 6.3	0.0	
HCM2kAvg:	0	•	0 8	0	15		33	.3	7 4	0	
******	*****	*****	*****	****	*****	****	****	*****	*****	*****	

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #18 Hwy 68 WB Ramps/Reservation Rd ************************* Cycle (sec): 80 Critical Vol./Cap. (X): 1.233
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 116.9
Optimal Cycle: 180 Level Of Service: F Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 0
 10
 7
 10
 0

 Lanes:
 0
 0
 0
 0
 1
 0
 0
 1
 0
 0
 1
 0
 0
 Volume Module: Base Vol: 0 0 0 526 0 344 0 934 216 132 310 Final Vol.: 0 0 0 584 0 382 0 1038 240 147 344 0 _____|__|___| Saturation Flow Module: _____ Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.32 0.00 0.24 0.00 0.69 0.69 0.08 0.18 0.00 *** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.26 0.00 0.26 0.00 0.54 0.54 0.09 0.63 0.00 Volume/Cap: 0.00 0.00 0.00 1.27 0.00 0.93 0.00 1.27 1.27 0.93 0.29 0.00 ******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #19 Hwy 68 EB Ramps/Reservation Rd Cycle (sec): 90 Critical Vol./Cap. (X): 1.007 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 54.2Optimal Cycle:OPTIMIZED Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Split Phase
 Rights:
 Include
 Volume Module: Base Vol: 152 0 224 0 0 0 362 1208 0 0 336 339 Initial Bse: 152 0 224 0 0 0 362 1208 0 0 336 339 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.85 Lanes: 1.00 0.00 1.00 0.00 0.00 0.46 1.54 0.00 0.00 1.00 1.00 Final Sat.: 1809 0 1615 0 0 0 823 2747 0 0 1900 1615 Capacity Analysis Module: Vol/Sat: 0.10 0.00 0.16 0.00 0.00 0.00 0.51 0.51 0.00 0.00 0.20 0.24 Crit Moves: **** Uniform Del: 35.3 0.0 37.9 0.0 0.0 0.0 22.4 22.4 0.0 0.0 32.7 34.2 IncremntDel: 3.8 0.0 58.0 0.0 0.0 0.0 22.9 22.9 0.0 0.0 13.9 47.5 Delay/Veh: 39.1 0.0 95.9 0.0 0.0 45.3 45.3 0.0 0.0 46.6 81.7 AdjDel/Veh: 39.1 0.0 95.9 0.0 0.0 0.0 45.3 45.3 0.0 0.0 46.6 81.7 HCM2kAvg: 6 0 12 0 0 0 34 34 0 0 13 17 *******

		· · · · · · · · · · · · · · · · · · ·										
Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)												
2000 HCM Operations Method (Base volume Arternative)												
Intersection #19 Hwy 68 EB Ramps/Reservation Rd												
	Cycle (sec): 55 Critical Vol./Cap. (X): 0.989											
Cycle (sec): Loss Time (se			(Y+R =	= 4 s							46.8	-
Ontimal Cuclo		108			Ta	evel 0	f Serv	ice:				D
********	****	****	*****	****	****	****	*****	* * * * *	*****	*****	****	****
Approach:	Nor	th Bo	ınd	Sou				st Bo			st Bo	
Movement:	ь -	T	- R	L -	T	- R	. L -	Т	- R		T ·	
				C		ase	Dr	otect	I	Pr		
Control: Rights:	Spr	it Ph Inclu	ase do	_	Inclu			Inc1u			Inclu	
Min. Green:		0		0	0	0	7		0	0	10	10
Lanes:	0 1	. 0	0 1	.0 0	0	0 0	1 0	1		0 0	_	0 1
							1]			
Volume Module				-	_		2.60	1000	'n	. 0	227	220
Base Vol:	152	0	224	1 00	1 00	1 00	362	1208	0 1.00	1.00	336	339 1.00
Growth Adj:	1.00		1.00 224	1.00	1.00	1.00		1208	1.00	1.00	336	339
	152 1.00	1 00	1.00	1.00		1.00	1.00		1.00	1.00		1.00
User Adj: PHF Adj:	0.87		0.87	0.87		0.87	0.87		0.87	0.87		0.87
PHF Volume:	175	0	257	0	0	0	416	1389	0	0	386	390
Reduct Vol:	0	0	0	0	0		0	. 0	0	0	0	0
	175	0	257	0	.0	0		1389	0	0	386	390
PCE Adj:	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	386	1.00 390
Final Vol.:	175	0	257	0	0	0 1		1389				
Saturation F	•			1		1	4 1		•	4		4
Saturation T		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	0.85	1.00	1.00	1.00		1.00	1.00		1.00	0.85
Lanes:		0.00	1.00		0.00	0.00			0.00			1.00
Final Sat.:	1809	0	1615	0	0	0		1900	0		1900	1615
	•											
Capacity Ana		0.00	.e: 0.16	0 00	0.00	0.00	0.23	0.73	0.00	0.00	0.20	0.24
Vo1/Sat: Crit Moves:	****	0.00	0.10	0.00	0.00	0.00	0.20	****	0.000	****		
Green/Cycle:		0.00	0.18	0.00	0.00	0.00	0.32	0.65	0.00	0.00	0.33	0.33
Volume/Cap:	0.53	0.00	0.88	0.00	0.00	0.00	0.72	1.12	0.00	-	0.61	0.72
Uniform Del:			21.9	0.0	0.0	0.0	16.5	9.5	0.0		15.3	16.0
IncremntDel:			24.3	0.0	0.0	0.0		63.8	0.0	0.0	1.7	4.7
Delay Adj:		0.00	1.00		0.00	0.00		1.00	0.00		1.00 17.0	1.00 20.8
Delay/Veh:			46.2	0.0		0.0 1.00		73.3	$0.0 \\ 1.00$		1.00	1.00
User DelAdj:	T.00	0.0	1.00 46.2	0.0	1.00	0.0		73.3			17.0	20.8
AdjDel/Veh: HCM2kAva:	Λ	Λ	8	0	0	0	8	46	0	0	6	8
HCM2 KAV9:	****	****	*****	****	****	****	****	****	*****	*****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************************* Intersection #18 Hwy 68 WB Ramps/Reservation Rd Cycle (sec): 45 Critical Vol./Cap. (X): 0.768 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 48 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-R
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Include
 Include

 Min. Green:
 0
 0
 0
 10
 0
 10
 10
 7
 10
 0

 Lanes:
 0
 0
 0
 1
 1
 0
 1
 1
 0
 0
 0
 Volume Module: Initial Bse: 0 0 0 236 0 355 0 420 139 225 636 PHF Volume: 0 0 0 257 0 386 0 457 151 245 691 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 257 0 386 0 457 151 245 691 Final Vol.: 0 0 0 257 0 386 0 457 151 245 691 0 _____ Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.24 0.00 0.24 0.09 0.14 0.36 0.00 **** Crit Moves: **** Volume/Cap: 0.00 0.00 0.00 0.23 0.00 0.77 0.00 0.77 0.30 0.77 0.74 0.00

			evel Of	Cont			ion R	enort				
	0.000	LC MOU	evel Or peratio	Serv.	tce co	Mpurat Maco I	.TOIL IN	zport △+1⊼	rnative	۱ م		
****	2000 I	HCM U	******	****		*****	****	****	****	~, *****	****	*****
Tetamonation	#10 U	68	WR Ran	ns/Re	serva	tion Ro	1					
**********	****	****	*****	****	****	*****	****	****	*****	*****	****	****
Cycle (sec):		45			C	ritical	Vol.	/Cap.	(X):		0.88	2
Loss Time (se	c):		(Y+R =	= 4 s	ec) A	verage	Delay	(sec	/veh):		23.	
0.21	-	63			T.a	evel Of	Serv	ice:				C
*******	****	****	****	****	****	*****	****	****	*****			
Approach:	Nor	th Bo				und					st Bo	
Morromont.	T	. m.	– R	Т -	T	- R	Г -	T	- R	' · F :=		
										1		
Control:	_		ase	Spl	it Ph	ase		otect		Pr	otect Inclu	
Rights:		Inclu			Inclu		0	Inclu 10	.ae 10	7	11010	0
Min. Green:	0	,0	0	10 0 1		10 0 1	0 0			1 0		0 0
Lanes:	0 0	U	0 0								_	
Volume Module				1			1 .		- 1	4		
Base Vol:	0	0	0	236	0	355	0	420	139	225	636	0
Growth Adj:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	236	0	355	0	420	139	225	636	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92		0.92
PHF Volume:	0	0	0	257	0	386	0	457	151	245	691	0
Reduct Vol:	0	0	10	0	:0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	257	0	386	0	457	151	245	691	1 00
PCE Adj:	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	151	245	691	1.00
Final Vol.:	. 0	0	0	257	0	386 1		457	I	24J 		1
	.,			1			4			1 1		'
Saturation F. Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	1.00		1.00	0.85	1.00	0.97	0.97	0.95	1.00	1.00
Lanes:		0.00	0.00	1.00	0.00	1.00	0.00	0.75	0.25	1.00	1.00	
Final Sat .	i O	.0	0	1809	0	1615		1379			1900	
Tinai bac												
Capacity Ana	lysis	Modu	le:				0.00	0 00	V . J. J	0 14	0.36	0.00
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.24	0.00	0.33	0.33	****	0.30	0.00
Crit Moves:			2 22	0 07	0 00		0.00		0.37		0.53	0.00
Green/Cycle:			0.00		0.00	0.27		0.37			0.69	
Volume/Cap:		0.00	0.00	14.0	0.00	0.88		13.2		18.6		
Uniform Del:			0.0	1.1	0.0	18.9		13.1		24.2		
IncremntDel:		0.0			0.00	1.00		1.00			1.00	
Delay Adj:	0.00			15.0		34.6		26.2				
Delay/Veh: User DelAdj:					1.00	1.00		1.00			1.00	1.00
AdjDel/Veh:	0.0	0.0		15.0		34.6	0.0	26.2				
** C1 (O 1 - T)	0	Λ	Ω	4	Ω	9	0	12	12	7	8	0
HCMZKAVG:	****	****	*****	*****	****	*****	****	****	*****	*****	****	****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************************** Intersection #17 Reservation Rd/S. Davis Rd Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 90 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 1! 0 0 0 1 0 0 1 2 0 0 1 0 1 1 0 Volume Module: Base Vol: 14 5 6 268 5 604 1160 876 18 7 593 112 Initial Bse: 14 5 6 268 5 604 1160 876 18 7 593 112 Saturation Flow Module: Adjustment: 0.80 0.80 0.80 0.70 0.70 1.00 0.92 1.00 1.00 0.95 0.93 0.93 Lanes: 0.56 0.20 0.24 0.98 0.02 1.00 2.00 0.98 0.02 1.00 1.68 0.32 Final Sat.: 848 303 363 1302 24 1900 3502 1856 38 1805 2964 560 Capacity Analysis Module: Vol/Sat: 0.02 0.02 0.02 0.22 0.22 0.00 0.36 0.51 0.51 0.00 0.22 0.22 **** **** Crit Moves: 0.1 21.0 21.0 0.0 6.1 3.3 3.3 163.0 9.5 IncremntDel: 0.1 0.1 Delay/Veh: 28.4 28.4 28.4 56.8 56.8 0.0 33.2 15.7 15.7 212.7 45.7 45.7 AdjDel/Veh: 28.4 28.4 28.4 56.8 56.8 0.0 33.2 15.7 15.7 212.7 45.7 45.7 HCM2kAvg: 1 1 1 16 16 0 22 22 22 1 14 14 *********************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd **************** Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx] ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 0 Volume Module: Base Vol: 14 5 6 268 5 604 1160 876 18 7 593 112 Initial Bse: 14 5 6 268 5 604 1160 876 18 7 593 112 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 4487 4219 952 4165 4169 698 758 xxxx xxxxx 961 xxxx xxxxx Potent Cap.: 1 2 318 1 2 444 862 xxxx xxxxx 724 xxxx xxxxx Move Cap.: 0 0 318 0 0 444 862 xxxx xxxxx 724 xxxx xxxxx Volume/Cap: xxxx xxxx 0.02 xxxx xxxx 1.46 1.45 xxxx xxxx 0.01 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 33.1 56.4 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxxx xxxxx xxxxx xxxxx 244.5 222.8 xxxx xxxxx 10.0 xxxx xxxxx F ApproachLOS: F

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Reservation Rd/S. Davis Rd Cycle (sec): 100 Critical Vol./Cap. (X): 0.724 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 55 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 Lanes: 0 0 1! 0 0 0 1 0 0 1 2 0 0 1 0 1 1 0 Volume Module: Final Vol.: 15 5 3 215 7 0 700 384 12 2 806 215 Saturation Flow Module: Adjustment: 0.80 0.80 0.80 0.70 0.70 1.00 0.92 1.00 1.00 0.95 0.92 0.92 Lanes: 0.65 0.22 0.13 0.97 0.03 1.00 2.00 0.97 0.03 1.00 1.58 0.42 Final Sat.: 997 332 199 1292 43 1900 3502 1831 59 1805 2758 737 Capacity Analysis Module: Vol/Sat: 0.02 0.02 0.02 0.17 0.17 0.00 0.20 0.21 0.21 0.00 0.29 0.29 Crit Moves: **** **** Green/Cycle: 0.23 0.23 0.23 0.23 0.00 0.28 0.68 0.68 0.00 0.40 0.40 Volume/Cap: 0.07 0.07 0.07 0.72 0.72 0.00 0.72 0.31 0.31 0.31 0.72 0.72 Uniform Del: 30.1 30.1 30.1 35.6 35.6 0.0 32.8 6.6 6.6 49.7 25.1 25.1 IncremntDel: 0.1 0.1 0.1 8.3 8.3 0.0 2.7 0.1 0.1 24.7 1.9 1.9 Delay/Veh: 30.2 30.2 30.2 43.8 43.8 0.0 35.5 6.8 6.8 74.4 27.0 27.0 AdjDel/Veh: 30.2 30.2 30.2 43.8 43.8 0.0 35.5 6.8 6.8 74.4 27.0 27.0 HCM2kAvg: 1 1 1 10 10 0 12 5 5 0 14 14 *******************

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ************* Intersection #17 Reservation Rd/S. Davis Rd Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 0 Lanes: Volume Module: 3 209 7 1329 679 372 12 2 782 209 Base Vol: 15 5 209 7 1329 679 372 12 2 782 209 Initial Bse: 15 5 3 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 3396 2815 390 2712 2714 914 1022 xxxx xxxxx 396 xxxx xxxxx Potent Cap.: 4 18 663 14 21 334 687 xxxx xxxxx 1174 xxxx xxxxx Move Cap.: 0 0 663 0 0 334 687 xxxx xxxxx 1174 xxxx xxxxx 14 21 334 687 xxxx xxxxx 1174 xxxx xxxxx 0 0 334 687 xxxx xxxxx 1174 xxxx xxxxx Volume/Cap: xxxx xxxx 0.00 xxxx xxxx 4.10 1.02 xxxx xxxx 0.00 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx 133.4 17.0 xxxx xxxxx 0.0 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 1427 63.6 xxxx xxxxx 8.1 xxxx xxxxx LOS by Move: * * * * F F * * A * * LT - LTR - RT Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared LOS: * * * * * * * * * * * xxxxxx xxxxxx XXXXXX XXXXXX ApproachDel: F ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #16 Reservation Rd/East Prj Access Cycle (sec): 100 Critical Vol./Cap. (X): 0.742 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 57 Level Of Service: ************************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Permitted
 Protected

 Rights:
 Include
 Include
 Ignore
 Include

 Min. Green:
 7 10 0 0 10 0 0 0 10 0 0 0 0
 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0

 Lanes:
 1 0 1 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0 0
 Volume Module: Base Vol: 364 847 0 0 1514 0 0 540 0 0 Initial Bse: 364 847 0 0 1514 0 0 0 540 0 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 PHF Volume: 396 921 0 0 1646 0 0 0 0 0 0 Saturation Flow Module: Final Sat.: 1805 1900 0 0 3610 0 0 0 1900 0 0 ______| Capacity Analysis Module: Crit Moves: **** Uniform Del: 31.8 0.8 0.0 0.0 13.7 0.0 0.0 0.0 0.0 0.0 0.0 1ncremntDel: 5.5 0.3 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 AdjDel/Veh: 37.3 1.1 0.0 0.0 15.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #16 Reservation Rd/East Prj Access ************* Cycle (sec): 100 Critical Vol./Cap. (X): 0.978
Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 180 Level Of Service: B ************************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Permitted
 Protected

 Rights:
 Include
 Include
 Ignore
 Include

 Min. Green:
 0 10 0 0 10 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0
 0 0 0 0 0 0

 Lanes:
 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0
 0 0 0 0 0 0
 Volume Module: Base Vol: - 402 1709 0 0 729 0 0 0 352 0 0 Initial Bse: 402 1709 0 0 729 0 0 0 352 0 0 Saturation Flow Module: Capacity Analysis Module: Crit Moves: **** **** AdjDel/Veh: 15.3 15.6 0.0 0.0 17.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HCM2kAvg: 9 13 0 0 8 0 0 0 0 0 0 0

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #15 Reservation Rd/Main Prj Access ********************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.932 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 122 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 0
 10
 7
 10
 0

 Lanes:
 0
 0
 1!
 0
 0
 0
 0
 0
 1
 0
 1
 0
 2
 0
 Volume Module: 174 0 52 0 0 0 0 1462 Base Vol: 516 89 758 Initial Bse: 174 0 52 0 0 0 1462 516 89 758 PHF Volume: 189 0 57 0 0 0 1589 561 97 824 Final Vol.: 189 0 57 0 0 0 0 1589 561 97 824 0 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.17 0.00 0.17 0.00 0.00 0.00 0.00 0.62 0.62 0.05 0.23 0.00 Crit Moves: **** *** **** Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.00 0.66 0.66 0.07 0.73 0.00 Uniform Del: 40.3 0.0 40.3 0.0 0.0 0.0 0.0 15.6 15.6 45.7 4.9 0.0 IncremntDel: 41.0 0.0 41.0 0.0 0.0 0.0 0.0 9.1 9.1 24.0 0.1 1.00 0.0

		\mathbf{L}_{i}	evel Of	Serv	ice C	omputat	tion R	eport				
	2000	HCM O	peration	ons Me	thod	(Base)	Volume	Alte	rnativ	e)		
*****	****	****	*****	*****	****	****	*****	****	*****	****	****	****
Intersection												
********	# T O IV	+++++	******	k****	****	*****	*****	****	*****	*****	****	****
						ritica.					0.85	
01010 (000)											23.	
Loss Time (se				= 4 S					:/veh):			
Optimal Cycle	:1	85			L	evel O	i Serv	ıce:				C
********	****	****	****									
Approach:	Nor	th Bo			th Bo		Ea				st Bo	
Movement:	1 -	T	– R	. L -	·Τ	– R	T -	Т	- R		T	
		_:										
Control:		ermit			otect	ed	Pr	otect	:ed		otect	
Rights:		Inclu			Inclu			Inclu			Inclu	de .
-		0	10	-0		0	0		10	7	10	0
Min. Green:		1!		-) 0			1		1 0	2	0 0
Lanes:						-						
. '				::			1		1	1		,
Volume Module							•	CE 7	100	20	1671	0
Base Vol:	286	0	72	0	0	0		657	135		1671	-
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00
Initial Bse:	286	0	72	0	0	0	0	657	135		1671	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	311	:0	78	0	0	0	0	714	147	41	1816	0
Reduct Vol:	0	:0	.0	0	0	0	0	0	.0	0	0	0
Reduced Vol:	311	0	78	0	0	0	0	714	147	41	1816	0
	1.00		1.00	-	1.00	1.00	1.00	100	1.00	1.00	1.00	1.00
PCE Adj:			1.00		1.00	1.00	1.00		1.00	1.00		1.00
MLF Adj:	1.00		78	1.00	0	0		714	147		1816	0
Final Vol.:	311	0		-	.0			7,114	1 1		10,10	
				ļ			1			1		
Saturation F									1000	1000	1000	1.000
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900		1900	1900
Adjustment:	0.74	1.00	0.74	1.00	1.00	1.00		0.93		0.95		1.00
Lanes:	0.80	0.00	0.20	0.00	0.00	0.00	0.00			-	2.00	
Final Sat.:	1119	0	282	. 0	0	0		2920			3610	:0
Capacity Ana	1vsis	Modu.	Le:									
Vol/Sat:		0.00	0.28	0.00	0.00	0.00	0.00	0.24	0.24	0.02	0.50	0.00
Crit Moves:	****	,0.,00	,0.2.0				****				****	
		0.00	0.32	0 00	0.00	0.00	0.00	0.52	0.52	0.07	0.59	0.00
Green/Cycle:					0.00	0.00		0.47			0.86	0.00
Volume/Cap:		0.00	0.86					15.5			17.2	0.0
Uniform Del:			31.7	0.0		0.0				1.5	3.8	0.0
IncremntDel:		0.0	15.0	0.0		0.0	0.0	0.2				0.00
Delay Adj:	1.00	0.00	1.00		0.00	0.00	- T	1.00			1.00	
Delay/Veh:	46.7		46.7	0.0		0.0		15.7			21.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	1.00
AdjDe1/Veh:			46.7	0.0	0.0	0.0	0.0	15.7			21.0	0.0
HCM2kAvg:	15	0	18	0	0	0	0	9	9	, 2	26	0
*******	****	****	*****	*****	****	****	*****	****	****	*****	****	****

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 4.3 Level Of Service: A Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 2 1 Volume Module: Base Vol: 0 0 0 0 0 479 873 398 0 0 141 0 Initial Bse: 0 0 0 0 0 479 873 398 0 0 141 0 PCE Module:
AutoPCE: 0 0 0 0 0 521 949 433 0 0 153
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 0 521 949 433 0 0 153 Delay Module: >> Time Period: 0.25 hours << CircVolume.

MaxVolume: xxxxxx
PedVolume: 0
AdjMaxVol: xxxxxx
ApproachVol: xxxxxx
xxxxx
xxxx 2424 0 2424 153 0 949 688 1117 . 0 0 1117 521 6.0 688 153 1382 3.4 3.9 6.7 0.8 2.5

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) ***************************** Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 61.9 Level Of Service: F ``` Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ______| Control: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 Volume Module: Base Vol: 0 0 0 0 479 873 398 0 141 0 0 PHF Volume: 0 0 0 0 0 521 949 433 0 0 153 0 Reduct Vol: 0 0 0 0 0 521 949 433 0 0 153 0 Reduced Vol: 0 0 0 0 0 521 949 433 0 0 153 0 Final Vol.: 0 0 0 0 521 949 433 0 0 153 0 PCE Module: Autopce: 0 0 0 0 0 521 949 433 0 0 153
Truckpce: 0 0 0 0 0 0 0 0 0 0 0 0 0
Combopce: 0 0 0 0 0 0 0 0 0 0 0 0
Bicyclepce: 0 0 0 0 0 0 0 0 0 0 0
Adjvolume: 0 0 0 0 0 521 949 433 0 0 153 Delay Module: >> Time Period: 0.25 hours << CircVolume: 1382 153
MaxVolume: xxxxxx 1117
PedVolume: 0 0
AdjMaxVol: xxxxxx 1117 .0 1200 949 688 1117 0 1117 1200 521 1382 6.0 89.1 36.8 0 688 153 ApproachVol: xxxxxx 6.7 ApproachDel: xxxxxx 0.8 Queue: XXXX

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) Intersection #14 Inter-Garrison Rd/new collector Average Delay (sec/veh): 30.9 Level Of Service: D Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 2 1 Volume Module: Initial Bse: 0 0 0 0 0 879 313 123 0 0 487 0 0 PCE Module: AutoPCE: 0 0 0 0 0 0 0 0 340 134 0 0 529 BicyclePCE: 0 0 0 0 0 0 AdjVolume: 0 0 0 0 0 955 0 340 134 Delay Module: >> Time Period: 0.25 hours << CircVolume: 474
MaxVolume: xxxxx
PedVolume: 0
AdjMaxVol: xxxxx 529 340 914 2424 1016 0 0 0 914 2424 1016 ApproachVol: xxxxxx 955 474 529 ApproachDel: xxxxxx 58.3 1.8 7.3 21.7 0.7 3.1 Queue: XXXX

Level Of Service Computation Report FHWA Roundabout Method (Base Volume Alternative) ****************** Intersection #14 Inter-Garrison Rd/new collector ***************** Level Of Service: D Average Delay (sec/veh): 31.6 ******************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Yield Sign Yield Sign Yield Sign Yield Sign Lanes: 1 1 1 1 Volume Module: _____| PCE Module:
AutoPCE: 0 0 0 0 0 955 340 134 0 0 529
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 0 0 0 0 0 955 340 134 0 0 529 0 0 Delay Module: >> Time Period: 0.25 hours << CircVolume: 474 529
MaxVolume: xxxxxx 914
PedVolume: 0 0
AdjMaxVol: xxxxxx 914 1200 0 0 0 1016 1200 529 474 955 ApproachVol: xxxxxx ApproachDel: xxxxxx 7.3 3.1 58.3 4.9 1.9 21.7 Oueue: XXXX

ء. با ميا ميا مياسي سو شو مي شو شو شو مي شو مي												
		1	Level O	f Serv	vice (Computa	tion I	Repor	 t			
2000 HCM Operations Method (Base Volume Alternative)												

Intersection	#13 I *****	?eser *****	ation *****	Rd/Wes	st Pr	j Acces ******	S ****	****	*****	*****	****	*****
Cycle (sec):		100				Critica					0.88	82
Loss Time (se				= 4 9		Average			c/veh):		31	. 6
Optimal Cycle		94	-			Level C				Sec.		C

Approach: Movement:		rth Bo - T			ith Bo	- R		ast B	ouna - R		st Bo	- : ,
				1	- 1 	- K						- R
Control:		Permit			Permit			rotec				.,
Rights:	Permitted Permitted Protected Protected Ovl Include Include Include											
Min. Green:	10	10	10	0	0	0	0	10	10	7	10	0
Lanes:	1 (0 0	0 1	0	L O	0 0	0 (2	1 0	1 0	2	0 0
				·	د ت ساسد بدرسد د					1		
Volume Module		•	7.00		0.5							
Base Vol:	121	1 00	768	97	26	1 00		1113		314	618	0
Growth Adj:	1.00		1.00		1.00	1.00	1.00		1.00	1.00		1.00
Initial Bse:	121	1 00	768 1.00	97	26 1.00	0 1.00		1113	218	314	618	0
User Adj: PHF Adj:	0.92		0.92		0.92	0.92		1.00	1.00	1.00		1.00
PHF Volume:	132	0.92	835	105	28	0.92		0.92	0.92 237	0.92 341	672	0.92
Reduct Vol:	132	-0	0.55	100	20	. 0	0	1210	237	341	0/2	0
Reduced Vol:	132	.0	835	105	28	0	-	1210	237	341	672	0
PCE Adj:	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
Final Vol.:	132	0	835	105	28	0		1210	237	341	672	1.00
	1		- 1							1		
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900	1900		1900
Adjustment:			0.85		0.79	1.00		0.89		0.95		1.00
Lanes:	1.00		1.00		0.21	0.00		2.51		1.00		0.00
Final Sat.:	1300	0	1615 	1185	318	0 1		4229	828	1805		.0 1
Capacity Ana	1			1						1		
Vol/Sat:	-	0.00	0.52	0.09	0.09	0.00	0.00	0.29	0.29	0.19	n 19	0.00
Crit Moves:	0.10	000	****	0.05	0.03	0.00	0.00	****	0.23	****	U. ±,5	0.00
Green/Cycle:	0.37	0.00	0.59	0.37	0.37	0.00	0.00	0.32	0.32	0.21	0.54	0.00
Volume/Cap:		0.00	0.88		0.24	0.00		0.88	0.88	0.88		0.00
Uniform Del:		0.0	17.8		21.7	0.0		32.0	32.0	38.1		0.0
IncremntDel:	0.3	0.0	9.8	0.2	0.2	0.0	0.0	6.0	6.0	20.4	0.1	0.0
Delay Adj:	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	22.3	0.0	27.5	21.9	21.9	0.0	0.0	38.0	38.0	58.5	13.2	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	22.3	0.0	27.5		21.9	0.0		38.0	38.0	58.5	_,,_	0.0
HCM2kAvg:	4	0	25	4	4	0	0	17	17	14	6	0
*****	^ × × × × ×	· × × × × ×	· * * * * * * *	***	* * * * * * * * * * * * * * * * * * *	* * * * * * *	****	* * * * *	*****	*****	****	*****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #13 Reservation Rd/West Prj Access ****************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.825 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 75 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Ovl
 Include
 Include
 Include

 Min. Green:
 10
 0
 10
 0
 0
 0
 10
 7
 10
 0

 Lanes:
 0
 1
 0
 1
 0
 0
 0
 2
 1
 0
 1
 0
 1
 0
 Volume Module: Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.14 0.14 0.14 0.00 0.00 0.00 0.05 0.15 0.46 0.36 0.36 **** **** **** Crit Moves: Green/Cycle: 0.16 0.16 0.73 0.00 0.00 0.00 0.00 0.18 0.18 0.56 0.75 0.75 Volume/Cap: 0.83 0.83 0.19 0.00 0.00 0.00 0.00 0.83 0.83 0.83 0.48 0.48 Uniform Del: 40.4 40.4 4.4 0.0 0.0 0.0 0.0 39.2 39.2 17.9 5.1 5.1 *****************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #12 Reservation Rd/Blanco Rd Cycle (sec): 110 Critical Vol./Cap. (X): 0.714 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 54 Level Of Service: *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Control: Split Phase Split Phase Protected Protected Rights: Include Ignore Include Include Min. Green: 0 0 0 10 0 10 7 10 10 0 10 10 Lanes: 0 0 0 0 0 2 0 0 0 2 2 0 2 0 0 0 1 1 0 ~~~~~~|~~~~|, Volume Module: Base Vol: 0 0 0 77 0 1118 1359 1254 0 699 0 MLF Ad: Final Vol.: 0 0 0 82 0 0 1446 1334 0 0 744 43 Saturation Flow Module: Adjustment: 1.00 1.00 1.00 0.92 1.00 1.08 0.92 0.95 1.00 1.00 0.94 0.94 Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.00 0.41 0.37 0.00 0.00 0.22 0.22 Crit Moves: **** **** Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.54 0.83 0.00 0.00 0.29 0.29 Volume/Cap: 0.00 0.00 0.00 0.26 0.00 0.00 0.76 0.45 0.00 0.00 0.76 0.76 Uniform Del: 0.0 0.0 0.0 46.5 0.0 0.0 19.8 2.6 0.0 0.0 35.8 35.8 IncremntDel: 0.0 0.0 0.0 0.4 0.0 0.0 1.9 0.1 0.0 0.0 3.5 3.5 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 Delay/Veh: 0.0 0.0 0.0 47.0 0.0 0.0 21.7 2.7 0.0 0.0 39.3 39.3 AdjDel/Veh: 0.0 0.0 0.0 47.0 0.0 0.0 21.7 2.7 0.0 0.0 39.3 39.3 HCM2kAvg: 0 0 0 2 0 0 21 6 0 0 14 14 *******************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #12 Reservation Rd/Blanco Rd ***************** Critical Vol./Cap. (X): 0.901 Cycle (sec): 110 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 108 Level Of Service: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Approach: North Bound Movement:
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0 0 0 0 0 10 0 10 7 10 10 0 10
 0 10 10 10

 Lanes:
 0 0 0 0 0 0 2 0 0 0 2 2 0 0 0 0 10 10
 0 0 0 0 0 10 10
 PHF Volume: 0 0 0 82 0 0 1446 1334 0 0 744 43 Reduct Vol: 0 0 0 82 0 0 1446 1334 0 0 744 43 Reduced Vol: 0 0 0 82 0 0 1446 1334 0 0 744 43 MLF Adi: Final Vol.: 0 0 0 82 0 0 1446 1334 0 0 744 43 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.00 0.41 0.37 0.00 0.00 0.39 0.03 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.09 0.00 0.00 0.42 0.83 0.00 0.00 0.40 0.40 Volume/Cap: 0.00 0.00 0.00 0.26 0.00 0.00 0.97 0.45 0.00 0.00 0.97 0.07 Uniform Del: 0.0 0.0 0.0 46.5 0.0 0.0 31.0 2.6 0.0 0.0 32.3 20.2 IncremntDel: 0.0 0.0 0.0 0.0 0.4 0.0 0.0 17.1 0.1 0.0 0.0 25.7 0.0 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 0.0 58.0 20.2 HCM2kAvg: 0 0 0 2 0 0 31 6 0 0.0 58.0 20.2 0 0 31 1 *****************************

									·			
Level Of Service Computation Report												
2000 HCM Operations Method (Base Volume Alternative)												
Intersection #12 Reservation Rd/Blanco Rd ************************************												
Cycle (sec): Loss Time (sec) Optimal Cycle	ec): e:	95 9 63) (Y+R }	= 4 \$	sec) A	ritica verage evel O	l Vol. Delay f Serv	./Cap. y (sec vice:	(X): c/veh):		0.78 25	30 .2 .C
Approach:												
Movement: L - T - R L - T - R L - T - R I - T -											- R	
Control: Rights: Min. Green: Lanes:	Include Ignore Include Green: 0 0 10 0 10 7 10 10 0 10 10: 0 <td>ed ude 10 1 0</td>										ed ude 10 1 0	
Volume Module												1
Base Vol: Growth Adj: Initial Bse: User Adj:	0 1.00 0 1.00	1.00 0 1.00	0 1.00 0 1.00		1.00 0 1.00	1278 1.00 1278 0.00	1.00 916 1.00	698 1.00 698 1.00	$\begin{matrix} 0\\1.00\\0\\1.00\end{matrix}$	1.00 0 1.00	1301 1.00	32 1.00 32 1.00
	0.90		0.90	0.90 12	0.90	0.00	0.90 1018	0.90 776	0.90	0.90		0.90
PHF Volume: Reduct Vol:		0	0	12	0	0	1018	0 / /	0	0	1446	36 0
Reduced Vol:		0	.0	12	0	0	1018	77.6	. 0	_	1446	36
	1.00		1.00		1.00	0.00		1.00			1.00	1.00
MLF Adj:		1.00	1.00		1.00	0.00		1.00			1.00	1.00
Final Vol.:	0	0	0	12	0	0	1018	776	0		1446	36
				1			1					
Saturation F		odule: 1900		1.000	1000	1.000	1000	1.000	1000	1000	1000	1.000
Sat/Lane: Adjustment:			1900 1.00		1900	1900 1.08		1900	1900 1.00		1900	1900 0.95
Lanes:			0.00		0.00	2.00		2.00			1.95	
	0		0		0	4102		3610	0		3509	86
							1					
Capacity Ana												
Vo1/Sat: Crit Moves:	0.00	0.00	0.00	0.00 ****	0.00	0.00	0.29 ****	0.21	0.00	0.00	0.41	0.41
Green/Cycle:	0.00	0.00	0.00	0.11	0.00	0.00	0.33	0.80	0.00	0.00	0.47	0.47
Volume/Cap:	0.00	0.00	0.00	0.03	0.00	0.00		0.27	0.00	0.00	0.88	0.88
Uniform Del:		0.0	0.0	38.2	0.0	0.0	30.0	2.4	0.0	0.0	22.8	22.8
IncremntDel:		0.0	0.0	0.0	0.0	0.0	7.9	0.1	0.0	0.0	5.6	5.6
Delay Adj:			0.00	1.00		0.00		1.00	0.00	0.00		1.00
Delay/Veh:		0.0	0.0	38.2	0.0	0.0	37.9	2.5	0.0		28.4	28.4
User DelAdj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00
AdjDe1/Veh: HCM2kAvg:	0.0	0.0	0.0	38.2	0.0	0.0	37.9 18	2.5	0.0	0.0	28.4	28.4 23
#*******					-							

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #12 Reservation Rd/Blanco Rd *************** Cycle (sec): 95 Critical Vol./Cap. (X): 1.165
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 132.8
Optimal Cycle: 180 Level Of Service: F ******************* Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Movement:
 Control:
 Split Phase
 Split Phase
 Protected
 Protected

 Rights:
 Include
 Ignore
 Include
 Include

 Min. Green:
 0 0 0 0 0 0 2 0 0 0 2
 2 0 2 0 0 0 10
 0 0 0 0 0 10
 10 0 0 10

 Lanes:
 0 0 0 0 0 0 2 0 0 0 2
 2 0 0 0 0 0 0 10
 0 0 0 0 0 0 10
 0 0 0 0 0 0 10
 Volume Module: PHF Volume: 0 0 0 12 0 0 1018 776 0 0 1446
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 12 0 0 1018 776 0 0 1446 36 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.29 0.21 0.00 0.00 0.76 0.02 **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.11 0.00 0.00 0.22 0.80 0.00 0.00 0.58 0.58 ******************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd **************************** Cycle (sec): 75 Critical Vol./Cap. (X): 0.613 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 47 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RL - T - R Control: Protected Protected Protected Protected Rights: Ignore Include Include Include Include Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 Lanes: 2 0 0 1 1 1 0 1 0 1 1 0 3 0 1 3 0 1 1 0 Volume Module: Base Vol: 169 9 1538 6 8 28 4 1070 195 1062 977 Initial Bse: 169 9 1538 6 8 28 4 1070 195 1062 977 PHF Adj: 0 PHF Volume: 184 10 0 7 9 30 4 1163 212 1154 1062 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 184 10 0 7 9 30 4 1163 212 1154 1062 n Final Vol.: 184 10 0 7 9 30 4 1163 212 1154 1062 Saturation Flow Module: Adjustment: 0.92 1.00 1.00 0.95 1.00 0.85 0.95 0.91 0.85 0.92 0.95 0.95 Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 3.00 1.00 3.00 1.99 0.01 Final Sat.: 3502 1900 1900 1805 1900 1615 1805 5187 1615 5253 3603 7 Capacity Analysis Module: Vol/Sat: 0.05 0.01 0.00 0.00 0.02 0.00 0.22 0.13 0.22 0.29 0.29 Crit Moves: **** **** **** Green/Cycle: 0.09 0.13 0.00 0.09 0.13 0.13 0.09 0.31 0.31 0.30 0.52 0.52 Volume/Cap: 0.56 0.04 0.00 0.04 0.03 0.14 0.03 0.72 0.42 0.72 0.57 0.57 Uniform Del: 32.5 28.3 0.0 30.9 28.3 28.7 30.9 23.0 20.6 23.3 12.3 12.3 IncremntDel: 2.2 0.1 0.0 0.1 0.1 0.3 0.1 1.7 0.6 1.7 0.4 Delay/Veh: 34.8 28.4 0.0 31.0 28.4 29.0 31.0 24.7 21.1 25.0 12.7 12.7 AdjDel/Veh: 34.8 28.4 0.0 31.0 28.4 29.0 31.0 24.7 21.1 25.0 12.7 12.7 HCM2kAvg: 3 0 0 0 0 1 0 10 4 10 9 9 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 75 Critical Vol./Cap. (X): 1.399 12 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 180 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 7 10 10 7 10 10
 7 10 10 10
 7 10 10
 10

 Lanes:
 2 0 0 1 1 1 1 0 1 0 1 2 0 2 0 1 2 0 1
 2 0 2 0 1
 2 0 2 0 1
 _____| Volume Module: Base Vol: 169 9 1538 6 8 28 4 1070 195 1062 977 Initial Bse: 169 9 1538 6 8 28 4 1070 195 1062 977 _____ Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.52 0.52 0.00 0.00 0.02 0.00 0.32 0.13 0.33 0.29 0.00 **** Green/Cycle: 0.17 0.33 0.33 0.09 0.25 0.25 0.09 0.21 0.21 0.21 0.32 0.32 Volume/Cap: 0.30 1.57 1.57 0.04 0.02 0.08 0.01 1.57 0.64 1.57 0.91 0.00 Uniform Del: 26.9 25.1 25.1 30.9 21.2 21.5 30.9 29.8 27.3 29.6 24.4 17.3 IncremntDel: 0.3 261 260.8 0.1 0.0 0.1 0.0 263 4.2 262.8 11.0 0.0 Crit Moves: **** **** AdjDel/Veh: 27.2 286 285.8 31.0 21.2 21.6 30.9 293 31.4 292.4 35.4 17.3 HCM2kAvg: 2 58 58 0 0 1 0 41 6 43 16 *******************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #11 Reservation Rd/Imjin Rd Cycle (sec): 70 Critical Vol./Cap. (X): 0.696 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.0 Optimal Cycle: 54 Level Of Service: CApproach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Ignore
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 7 10 10 7 10 10
 7 10 10 10
 7 10 10

 Lanes:
 2 0 0 1 1 1 1 0 1 0 1 1 0 3 0 1 3 0 1 3 0 1 1 0
 Volume Module: Final Vol.: 221 16 0 2 9 9 33 1056 184 1598 894 13 Saturation Flow Module: ______| Capacity Analysis Module: Vol/Sat: 0.06 0.01 0.00 0.00 0.00 0.01 0.02 0.20 0.11 0.30 0.25 0.25 Crit Moves: **** *** **** Green/Cycle: 0.10 0.14 0.00 0.10 0.14 0.14 0.10 0.23 0.23 0.35 0.49 0.49 Volume/Cap: 0.63 0.06 0.00 0.01 0.03 0.04 0.18 0.87 0.48 0.87 0.52 0.52 Uniform Del: 30.3 25.9 0.0 28.4 25.8 25.9 28.9 25.7 23.1 21.2 12.4 12.4 IncremntDel: 3.7 0.1 0.0 0.0 0.1 0.1 0.5 6.8 1.0 4.7 0.3 0.3

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ********************************* Intersection #11 Reservation Rd/Imjin Rd ***************** Cycle (sec): 70 Critical Vol./Cap. (X): 1.365
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 212.9
Optimal Cycle: 180 Level Of Service: F ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R______|
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected

 Rights:
 Include
 Volume Module: PHF Volume: 221 16 1217 2 9 9 33 1056 184 1598 894 13 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 Reduced Vol: 221 16 1217 2 9 9 33 1056 184 1598 894 13 MLF Adj: Final Vol.: 221 16 1217 2 9 9 33 1056 184 1598 894 13 Saturation Flow Module: Capacity Analysis Module: vol/sat: 0.06 0.38 0.38 0.00 0.00 0.01 0.01 0.29 0.11 0.46 0.25 0.01 *** Crit Moves: **** **** Green/Cycle: 0.14 0.25 0.25 0.10 0.20 0.20 0.10 0.19 0.19 0.29 0.38 0.38 Volume/Cap: 0.44 1.55 1.55 0.01 0.02 0.03 0.10 1.55 0.60 1.55 0.65 0.02 Uniform Del: 27.5 26.4 26.4 28.4 22.3 22.3 28.6 28.4 26.0 24.7 17.7 13.4 ***** Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) *********************************** Intersection #10 Reservation Rd/Crescent Ave ************************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.669 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 42 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - RControl: Permitted Permitted Protected Protected Rights: Include Include Include Rights: Include Include Include Include
Min. Green: 10 10 10 10 10 7 10 10 7 10 10 Lanes: 1 0 1 0 1 0 1 0 0 1 1 0 2 0 1 1 0 1 1 0 Volume Module: Base Vol: 103 38 151 56 29 34 65 1237 178 152 931 54 PHF Volume: 111 41 162 60 31 37 70 1330 191 163 1001 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 111 41 162 60 31 37 70 1330 191 163 1001 Saturation Flow Module: Adjustment: 0.70 1.00 0.85 0.79 0.79 0.85 0.95 0.95 0.85 0.95 0.94 0.94 Lanes: 1.00 1.00 1.00 0.66 0.34 1.00 1.00 2.00 1.00 1.00 1.89 0.11 Final Sat.: 1322 1900 1615 986 511 1615 1805 3610 1615 1805 3385 196 Capacity Analysis Module: Vol/Sat: 0.08 0.02 0.10 0.06 0.06 0.02 0.04 0.37 0.12 0.09 0.30 0.30 **** **** **** Crit Moves: Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.13 0.53 0.53 0.53 0.53 Volume/Cap: 0.46 0.12 0.55 0.34 0.34 0.12 0.30 0.70 0.23 0.70 0.56 0.56 Uniform Del: 20.1 18.8 20.5 19.6 19.6 18.8 21.8 9.8 7.0 22.9 8.7 IncremntDel: 1.4 0.2 2.3 0.7 0.7 0.2 0.8 1.2 0.1 9.2 0.4 0.4 Delay/Veh: 21.5 19.0 22.8 20.3 20.3 19.0 22.5 11.0 7.2 32.1 9.1 9.1 AdjDel/Veh: 21.5 19.0 22.8 20.3 20.3 19.0 22.5 11.0 7.2 32.1 9.1 9.1

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ******************* Intersection #10 Reservation Rd/Crescent Ave ****************** Cycle (sec): 55 Critical Vol./Cap. (X): 0.485 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 36 Level Of Service: ************************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RVolume Module: 96 856 54 39 25 843 101 23 161 27 119 Base Vol: 57 41 24 27 897 107 102 911 24 0 0 0 0 0 0 0 0 0 0 57 41 24 27 897 107 102 911 24 PHF Volume: 171 29 127 Reduct Vol: 0 0 0 Reduced Vol: 171 29 127 Saturation Flow Module: Vol/Sat: 0.13 0.02 0.08 0.06 0.06 0.02 0.01 0.25 0.07 0.06 0.26 0.26 Crit Moves: **** Green/Cycle: 0.24 0.24 0.24 0.24 0.24 0.24 0.13 0.47 0.47 0.13 0.47 0.47 Volume/Cap: 0.55 0.06 0.33 0.26 0.26 0.06 0.12 0.53 0.14 0.44 0.55 0.55 Uniform Del: 18.4 16.3 17.4 17.1 17.1 16.3 21.3 10.2 8.2 22.2 10.4 10.4 AdjDel/Veh: 20.5 16.3 17.9 17.5 17.5 16.3 21.5 10.5 8.3 23.6 10.8 10.8 HCM2kAvg: 5 0 2 2 2 0 1 6 1 2 6 6 ******

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #9 Reservation Rd/De Forest Rd Cycle (sec): 80 Critical Vol./Cap. (X): 0.515 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 36 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Permitted
 Permitted
 Protected
 Protected

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 10
 10
 10
 10
 7
 10
 10
 7
 10
 10

 Lanes:
 0
 1
 0
 1
 0
 1
 0
 2
 0
 1
 1
 0
 2
 0
 1
 Volume Module: 72 11 Base Vol: 89 44 6 56 42 1279 93 49 1089 Initial Bse: 72 11 89 44 6 56 42 1279 93 49 1089 PHF Volume: 74 11 92 45 6 58 43 1319 96 51 1123 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 52 Final Vol.: 74 11 92 45 6 58 43 1319 96 51 1123 52 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.06 0.06 0.06 0.04 0.04 0.04 0.02 0.37 0.06 0.03 0.31 0.03 *** Crit Moves: **** **** Green/Cycle: 0.13 0.13 0.13 0.13 0.13 0.09 0.67 0.67 0.09 0.67 0.67 Volume/Cap: 0.51 0.51 0.45 0.31 0.31 0.29 0.27 0.54 0.09 0.32 0.46 0.05 Uniform Del: 32.7 32.7 32.5 31.9 31.9 31.8 34.1 6.7 4.5 34.3 6.1

		T.C	vel Of	Servi	ice Co	omouta	tion	Report				
	2000 1	JOM Or	pratio	ns Met	hod :	(Base	Volum	e Alte	rnative	∋)		
****	****	*****	****	***	****	*****	****	*****	****	****	****	*****
	# 0 P 0	contrat	ion Rd	/De Ed	rest	Rd						
********	****	****	****	****	****	****	****	****	*****	****	****	*****
Cycle (sec):		90			С	ritica	1 Vol	./Cap.	(X):		0.34	5
Loss Time (se	c):	9	(Y+R =	4 s	ec) A	verage	Dela	y (sec	:/veh):	.*	8.	
0 1 7 7 7		3.6			Τ.,	evel O	f Ser	vice:				Ą
********	****	****	*****	****	****	*****	****	*****	*****	*****	****	*****
Approach:	Nor	th Bo	ınd	Sou	th Bo	und		Cast Bo			st Bo	
Massamonta	L -	Ť	- R	L -	Ţ	- R	L	- · T	- R		T	
Movement:						1	1					
Control:	P	ermit	ted				I				otect	
Rights:		Inclu			Inclu		. 4	Inclu			Inclu	
Min. Green:	10	10	10	10		10		7 10	10	7	10	10 0 1
Lanes:	0 1	0	0 1	0 1	0			0 2		1 0	_	0 1
							1			1		1
Volume Module					_		<u> </u>		.4.E	39	914	33
Base Vol:	33	.3	38	44		41	20		45 1.00	1.00	-	1.00
Growth Adj:	1.00		1.00	1.00		1.00	2.00	1.00 768	45	39	914	33
Initial Bse:	33	3	38	44	8	41	_	0 1.00	1.00	1.00		1.00
User Adj:	1.00		1.00	1.00		1.00		7 0.97	0.97	0.97		0.97
PHF Adj:	0.97		0.97	0.97	0.97	0.97 42	2				942	34
PHF Volume:	34	3	39	45 0	.0	0		0 0	- 0	0	0	.0
Reduct Vol:	0	0	0	45	8	42	2			40	942	34
Reduced Vol:	34	3	39	1.00		1.00		0 1.00		1.00		1.00
PCE Adj:	1.00		1.00	1.00		1.00		01.00		1.00		1.00
MLF Adj:	1.00		1.00 39	45	8	42		1 792		40	942	34
Final Vol.:	34	3										
Saturation F				1					,			
		1900	1900	1900	1900	1900	190	0 1900	1900	1900	1900	1900
Sat/Lane:		0.73	0.85	0.73		0.85		5 0.95			0.95	0.85
Adjustment:			1.00		0.15	1.00	1.0	0 2.00	1.00	1.00	2.00	1.00
Lanes: Final Sat.:		115	1615	1178	214	1615	180	5 3610	1615	1805	3610	1615
rinai bac							11					
Capacity Ana				•								
Vol/Sat:		0.03		0.04	0.04	0.03			0.03	0.02	0.26	0.02
Crit Moves:					****		***	*			****	
Green/Cycle:	0.11	0.11	0.11	0.11	0.11	0.11		8 0.71			0.71	0.71
Volume/Cap:	0.24	0.24	0.22	0.35	0.35	0.24		5 0.31			0.37	0.03
Uniform Del:			36.4	37.0	37.0	36.5				39.1	5.1	3.8
IncremntDel:			0.6	1.4	1.4					1.1		0.0
Delay Adj:		1.00	1.00		1.00			00 1.00			1.00	1.00
Delay/Veh:		37.4	37.1		38.3							3.8
User DelAdj:	1.00	1.00	1.00		1.00			00 1.00			1.00	1.00 3.8
AdjDel/Veh:		37.4	37.1		38.3						5.2 5	3.8 0
C1 T	-1	1	1	2	2	1		L 4	0	1		
HCMZKAVG:	****	****	****	*****	****	*****	C***	* * * * * * *	****			

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #8 Reservation Rd/Seacrest Ave ************************************ Cycle (sec): 65 Critical Vol./Cap. (X): 0.823 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 64 Level Of Service: ************************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: Base Vol: 213 0 90 0 0 0 0 1320 223 253 952 Initial Bse: 213 0 90 0 0 0 1320 223 253 952 0 Saturation Flow Module: Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 0.85 0.95 0.95 1.00 Final Sat.: 1805 0 1615 0 0 0 0 3610 1615 1805 3610 0 ______| Capacity Analysis Module: Vol/Sat: 0.13 0.00 0.06 0.00 0.00 0.00 0.00 0.42 0.16 0.16 0.30 0.00 Crit Moves: **** **** Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.00 0.50 0.50 0.19 0.70 0.00 AdjDel/Veh: 43.1 0.0 25.3 0.0 0.0 0.0 0.0 16.8 9.7 39.6 4.3 0.0 HCM2kAvg: 8 0 2 0 0 0 0 15 3 9 5 ************************

		Le	vel Of	Servi	ce Co	mputat	ion Re	port				
·	2000 I	ICM On	oratio	ns Met	hod (Base V	olume	Alter	native	·)		
*****	****	****	*****	****	*****	*****	*****	****	*****	*****	****	****
Intersection ******	#8 Res	servat	ion Rd	/Seaci	rest A	ve	****		*****	****	****	****
****	****	*****	****	****	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Vol.	/Can	(X) :		0.473	3
<pre>cycle (sec): Loss Time (sec)</pre>		60	/VID =	. /1 5	TO CI	rticai erage	Delav	(sec	veh):		8.5	5
		2 (1.0	TTO 1 (1)	Serv	LCEI				2
Optimal Cycle	****	****	*****	****	****	****	****	****	*****	****	*****	****
Approach:	Nor	th Bou	ind	Sou	th Bou	ınd	Eas	st Bo	ınd	Wes	st Bou	ind
Movement:	(L -	Т -	- R	Т	Т -	R	Г -	T	- R		Т -	
Movement:						11				Dr.	otoct	I
Control:	Sp1	it Pha	ise	Spl	it Pha	ise	Pro	Inclu	ed de	TI.	Inclu	te de
Rights:				'n	Inciuc	ie 0	0		.10	7		0
Min. Green:		0 (10		0 (2		1 0	2 (0 0
Lanes:	1 U								1			
Volume Module			. 4									
Base Vol:	95	0	48	0	0	0,0		893	91	112		0
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	931	1.00
Initial Bse:	95	0	48	0	. 0	0	0	893	91	112		1.00
User Adj:	1.00		1.00	1.00		1.00	1.00		1.00	0.90		0.90
PHF Adj:	0.90		0.90	0.90	0.90	0.90	0.90	992	101	124		0
PHF Volume:	106	0	53 0	· .0	0	0	. 0	0	. 0	0	0	0
Reduct Vol:	0 106	0	53	0	.0	Ö	0	992	101	124	1034	0
Reduced Vol:	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00
PCE Adj: MLF Adj:	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Final Vol.:	106	0	53	0	- 0	₀ O	-	992	101		1034	0
				1	_:		1,			1		
Saturation F			4		1000	1000	1000	1000	1900	1900	1900	1900
Sat/Lane:		1900	1900		1900	1900	1900	0.95	0.85	0.95		1.00
Adjustment:		1.00	0.85		$1.00 \\ 0.00$	0.00		2.00	1.00	1.00		0.00
Lanes:		0.00	$1.00 \\ 1615$	0.00		0.00		3610	1615	1805		0
Final Sat.:	1			1			1					
Capacity Ana	lvsis	Modu]	e:									
Vol/Sat:		0.00	0.03	0.00	0.00	0.00	0.00	0.27	0.06	0.07	0.29	0.00
Crit Moves:	****							****	0 -		0 60	0.00
Green/Cycle:	0.17	0.00	0.17		0.00	0.00		0.55	0.55 0.11		0.68	0.00
Volume/Cap:		0.00	0.20		0.00	0.00	0.00	0.50 8.5	6.6	24.0	4.2	0.0
Uniform Del:			21.5	0.0		0.0	0.0		0.1	1.6	0.1	0.0
IncremntDel:	: 0.7		$0.4 \\ 1.00$	0.0	0.00	0.00		1.00			1.00	
Delay Adj:		0.00	21.9	0.00		0.0	0.0		6.6	25.6		0.0
Delay/Veh: User DelAdj			1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			21.9	0.0		0.0	0.0		6.6	25.6		0.0
	_		1	0	0	0	10	6	1	3	5	0
HCM2kAvg:	****	****	****	****	****	****	****	****	*****	*****	****	****

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #7 Reservation Rd/Vista Del Camino ************************************ Cycle (sec): 90 Critical Vol./Cap. (X): 0.550 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 37 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Permitted Permitted Protected Protected Rights: Include Include Include Include Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10 Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1 Volume Module: 49 38 1179 Initial Bse: 41 4 18 116 7 40 143 1321 User Adj: PHF Adj: PHF Volume: 42 4 19 120 7 41 147 1362 51 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 42 4 19 120 7 41 147 1362 51 39 1215 0 0 0 39 1215 Final Vol.: 42 4 19 120 7 41 147 1362 51 39 1215 144 Saturation Flow Module: Adjustment: 0.71 0.71 0.85 0.69 0.69 0.85 0.95 0.95 0.85 0.95 0.95 0.85 Lanes: 0.91 0.09 1.00 0.94 0.06 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Final Sat.: 1226 120 1615 1244 75 1615 1805 3610 1615 1805 3610 1615 Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.01 0.10 0.10 0.03 0.08 0.38 0.03 0.02 0.34 0.09 *** **** Crit Moves: Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.14 0.66 0.66 0.08 0.59 0.59 Volume/Cap: 0.21 0.21 0.07 0.58 0.58 0.15 0.57 0.58 0.05 0.28 0.57 0.15 Uniform Del: 32.3 32.3 31.6 34.5 34.5 32.0 36.0 8.6 5.5 39.1 11.4 IncremntDel: 0.5 0.5 0.1 3.7 3.7 0.3 3.0 0.4 0.0 1.1 0.4 Delay/Veh: 32.8 32.8 31.7 38.3 38.3 32.3 39.0 8.9 5.5 40.2 11.8 8.4 AdjDel/Veh: 32.8 32.8 31.7 38.3 38.3 32.3 39.0 8.9 5.5 40.2 11.8 8.4 HCM2kAvg: 2 2 0 5 5 1 5 11 0 1 11 2 **************************

		T.c	vel Of	Serv	ice Co	omputat	tion R	eport				
	2000	HCM Or	eratio	ns Mei	hod	(Base)	Volume	A1te	rnativ	e)		
****	****	*****	****	****	****	****	****	****	****	****	*****	****
Intersection *******	#7 Re	servat	ion Ro	1/Vist	a Del	Camin	O *****	****	****	****	****	****
Cvcle (sec):		90					1 Vol.				0.47	
Loss Time (se	c):		(Y+R =						/veh):		8.	5
Ontimol Cyclo		36			Ta	evel 0	f Serv	ice:				A
********	****	****	****	****	****	****	****	****	*****			
Approach:	Nor	th Bo	ınd		th Bo			st Bo			st_Bo	
Movement:	Г -	Т .	- R	L -	Т	- R	L -	T	- R		T -	
 Control:		ermit		 P	ermit	ted	Pr	otect	ed	Pr	otect	ed
Rights:		Inclu			Inclu			Inclu			Inc1u	
Min. Green:	10		10	10	10	10	7		10	7		10
Lanes:	0 1		0 1		0		1 0		0 1	1 0	2	0 1
							1			1		
Volume Module							Ε'n	0.4.4	10	1.4	1158	7.0
Base Vol:	10	2	0	66	1 00	52 1.00	53 1.00	944	1.00	1.00		1.00
Growth Adj:	1.00	1.00	1.00	1.00 66	3	52	53	944	100		1158	70
Initial Bse:	10		1.00	1.00		1.00	1.00		1.00	1.00		1.00
User Adj: PHF Adj:	0.93		0.93	0.93		0.93	0.93		0.93	0.93		0.93
PHF Volume:	11	2	0.50	71	3	56	57	1015	11	15	1245	7.5
Reduct Vol:	0	0	0	0	0	0	0	. 0	0	0	0	0
Reduced Vol:	11	2	0	71	.3	56		1015	11		1245	75
PCE Adj:	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
Final Vol.:	11	2	0	71	3	56 		1015	11		1245	.75
	4						1			11		
Saturation F. Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		0.80	1.00	0.71		0.85	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:		0.17		0.96	0.04	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1273		1900	1296	59	1615		3610			3610	1615
				1						1 1		
Capacity Ana	lysis	Modul	e:	0.00	. O OF	0 03	0 03	0.28	0.01	0.01	0 3/	0.05
Vol/Sat:	0.01	0.01	0.00	0.05	0.05	0.03	****	0.28	0.01	0.01	****	O . O.J
Crit Moves:	0 11	0 11	0.00	0 11	0.11	0.11		0.71	0.71	0.08	0.71	0.71
Green/Cycle:		0.11	0.00		0.49	0.31		0.40			0.49	0.07
Volume/Cap: Uniform Del:			0.0		37.5	36.7	39.5	5.3		38.6	5.8	4.0
IncremntDel:			0.0	2.4	2.4	1.0	1.9	0.1	0.0		0.1	0.0
Delay Adj:		1.00	0.00	1.00	1.00	1.00		1.00		T 1 1 1 1 1	1.00	1.00
Delay/Veh:	35.9	35.9	0.0		39.9	37.7	41.4	5.4			5.9	4.0
User DelAdj:			1.00		1.00	1.00		1.00			1.00	1.00
AdjDel/Veh:	35.9	35.9	0.0		39.9	37.7	41.4 2	5.4 6	3.8 0	38.9 0	5.9 8	4.0
HCM2kAvg:	0	0	0	3	3 ****	2 *****	∠ *****					
******	****	***	^ ^ X X X X X	V - V - V - V - V - V								

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #6 Reservation Rd/Del Monte Blvd ********************* Cycle (sec): 75 Critical Vol./Cap. (X): 0.879 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Optimal Cycle: 87 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Protected Protected Split Phase Split Phase Rights: Include Include Include Include

 Include
 Include
 Include
 Include
 Include

 7
 10
 10
 7
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 10
 Min. Green: Volume Module: Base Vol: 115 961 833 218 253 7 20 346 106 615 341 376 PHF Volume: 117 981 850 222 258 7 20 353 108 628 348 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 117 981 850 222 258 7 20 353 108 628 348 384 0 Final Vol.: 117 981 850 222 258 7 20 353 108 628 348 384 Saturation Flow Module: Adjustment: 0.95 0.95 0.75 0.92 0.95 0.95 0.92 0.92 0.92 0.92 1.00 0.85 Lanes: 1.00 2.00 2.00 2.00 1.95 0.05 0.08 1.47 0.45 2.00 1.00 1.00 Final Sat.: 1805 3610 2842 3502 3499 97 147 2551 782 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.07 0.27 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.24 **** Crit Moves: * * * * Green/Cycle: 0.17 0.33 0.33 0.09 0.25 0.25 0.15 0.15 0.15 0.26 0.26 0.26 Volume/Cap: 0.37 0.82 0.90 0.68 0.30 0.30 0.90 0.90 0.90 0.68 0.70 0.90 Uniform Del: 27.3 23.1 24.0 32.9 22.8 22.8 31.2 31.2 31.2 24.8 24.9 26.7 IncremntDel: 0.7 4.7 12.0 5.7 0.2 0.2 18.8 18.8 18.8 2.1 4.3 22.3 Delay/Veh: 28.1 27.7 35.9 38.7 23.0 23.0 50.0 50.0 50.0 26.9 29.2 49.0 AdjDel/Veh: 28.1 27.7 35.9 38.7 23.0 23.0 50.0 50.0 50.0 26.9 29.2 49.0 HCM2kAvg: 3 13 13 4 3 3 9 9 9 8 9 13 *****************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ***************** Intersection #6 Reservation Rd/Del Monte Blvd ****************** Cycle (sec): 75 Critical Vol./Cap. (X): 1.138
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 75.0
Optimal Cycle: 180 Level Of Service: E ******************************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RL - T - R Movement:
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10
 10 10 10

 Lanes:
 1 0 1 0 2 2 0 1 1 0 0 1 0 1 0 2 0 1 0 1
 2 0 1 0 1
 Volume Module: PHF Volume: 117 981 850 222 258 7 20 353 108 628 348 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 117 981 850 222 258 7 20 353 108 628 348 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.07 0.52 0.30 0.06 0.07 0.07 0.14 0.14 0.14 0.18 0.18 0.24 **** *** **** Crit Moves: Green/Cycle: 0.21 0.42 0.42 0.09 0.30 0.30 0.13 0.13 0.13 0.19 0.19 HCM2kAvg: 3 48 10 4 2 2 11 11 11 12 13 21

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) ************************* Intersection #6 Reservation Rd/Del Monte Blvd Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): Detimal Cycle: 73 Level Of Service: ************************************ Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10 10 10

 Lanes:
 1 0 2 0 2 2 2 0 1 1 0 0 1 0 1 0 1 0 2 0 1
 10 10 10 Volume Module: Base Vol: 88 324 574 363 466 13 31 275 85 747 159 Initial Bse: 88 324 574 363 466 13 31 275 85 747 159 Saturation Flow Module: Adjustment: 0.95 0.95 0.75 0.92 0.95 0.95 0.91 0.91 0.91 0.92 1.00 0.85 Lanes: 1.00 2.00 2.00 2.00 1.95 0.05 0.16 1.41 0.43 2.00 1.00 1.00 Final Sat.: 1805 3610 2842 3502 3498 98 276 2445 756 3502 1900 1615 Capacity Analysis Module: Vol/Sat: 0.05 0.10 0.22 0.11 0.14 0.14 0.12 0.12 0.12 0.23 0.09 0.20 Crit Moves: **** *** **** IncremntDel: 0.6 0.2 Delay/Veh: 25.4 20.5 31.9 41.0 24.5 24.5 37.6 37.6 37.6 29.5 19.7 28.5 AdjDel/Veh: 25.4 20.5 31.9 41.0 24.5 24.5 37.6 37.6 37.6 29.5 19.7 28.5 HCM2kAvg: 2 3 9 7 6 6 7 7 7 11 3 8 *************************************

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #6 Reservation Rd/Del Monte Blvd ***************** Cycle (sec): 67 Critical Vol./Cap. (X): 0.836
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.5
Optimal Cycle: 73 Level Of Service: C ******************* Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RMovement:
 Control:
 Protected
 Protected
 Split Phase
 Split Phase

 Rights:
 Include
 Include
 Include
 Include

 Min. Green:
 7 10 10 7 10 10 10 10 10 10 10 10
 10 10 10 10 10
 10 10 10 10 10

 Lanes:
 1 0 1 0 2 2 0 1 1 0 0 1 0 1 0 10
 2 0 1 0 1
 Volume Module: 88 324 574 363 466 13 31 275 85 747 159 Base Vol: Initial Bse: 88 324 574 363 466 13 31 275 85 747 159 303 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 96 352 624 395 507 14 34 299 92 812 173 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.05 0.19 0.22 0.11 0.14 0.14 0.12 0.12 0.12 0.23 0.09 0.20 *** **** Crit Moves: Green/Cycle: 0.16 0.26 0.26 0.13 0.23 0.23 0.15 0.15 0.15 0.28 0.28 0.28 Volume/Cap: 0.33 0.71 0.84 0.84 0.62 0.62 0.82 0.82 0.82 0.84 0.33 0.74 Uniform Del: 24.8 22.4 23.4 28.3 23.1 23.1 27.6 27.6 27.6 22.9 19.3 22.1

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #5 Hwy 1 NB Ramps/Reservation Rd Average Delay (sec/veh): 4.3 Worst Case Level Of Service: C[17.8] Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R Volume Module: Base Vol: 25 1 288 0 0 0 19 396 0 0 261 344 PHF Volume: 26 1 294 0 0 0 19 404 0 0 266 351 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 26 1 294 0 0 0 19 404 0 0 266 351 Critical Gap Module: FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx _____| Capacity Module: Level Of Service Module: ApproachLOS: C

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #5 Hwy 1 NB Ramps/Reservation Rd **************** Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[14.5] **************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include PHF Volume: 32 0 144 0 0 0 8 284 0 0 640 235 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 Final Vol.: 32 0 144 0 0 0 0 8 284 0 0 640 235 Critical Gap Module: Capacity Module: Level Of Service Module: ApproachLOS:

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd Cycle (sec): 100 Critical Vol./Cap. (X): 0.457 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 32 Level Of Service: ******************************** Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Volume Module: 0 0 357 3 Base Vol: 22 0 78 47 212 123 0 78 47 Initial Bse: 0 0 0 357 3 22 212 123 0 PHF Volume: 0 0 0 368 3 23 0 80 48 219 127 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 368 3 23 0 80 48 219 127 Final Vol.: 0 0 0 368 3 23 0 80 48 219 127 0 Saturation Flow Module: 0.00 0.00 0.00 1.00 0.12 0.88 0.00 0.62 0.38 1.00 1.00 0.00 Lanes: 0.00 0.00 0.00 1.00 0.12 0.88 0.00 0.62 0.38 1.00 1.00 0.00 Final Sat.: 0 0 0 1649 198 1451 0 1125 678 1805 1900 0 Capacity Analysis Module: **** **** Crit Moves: Green/Cycle: 0.00 0.00 0.00 0.49 0.49 0.49 0.00 0.16 0.16 0.27 0.42 0.00 Volume/Cap: 0.00 0.00 0.00 0.46 0.03 0.00 0.46 0.46 0.46 0.16 0.00 Uniform Del: 0.0 0.0 0.0 16.8 13.3 13.3 0.0 38.3 38.3 30.7 17.9 0.0 0 0 0 9 0 0 0 4 4 6 2 HCM2kAva:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) **************** Intersection #4 Hwy 1 SB Ramps/Reservation Rd Average Delay (sec/veh): 33.6 Worst Case Level Of Service: F[69.6] **************** Approach: North Bound South Bound East Bound West Bound Movement: L-T-R L-T-R L-T-RControl: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 Volume Module: Base Vol: 0 0 0 357 3 22 0 78 47 212 123 Initial Bse: 0 0 0 357 3 22 0 78 47 212 123 PHF Volume: 0 0 0 368 3 23 0 80 48 219 127 Reduct Vol: 0 0 0 0 00 0 0 0 0 0 0 0 0 0 Final Vol.: 0 0 0 368 3 23 0 80 48 219 127 0 Critical Gap Module: Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxxx 669 693 127 xxxx xxxx xxxxx 129 xxxx xxxxx Potent Cap.: xxxx xxxx xxxx 426 369 929 xxxx xxxx xxxx 1469 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 378 314 929 xxxx xxxx xxxx 1469 xxxx xxxx xxxx Volume/Cap: xxxx xxxx xxxx 0.97 0.01 0.02 xxxx xxxx xxxx 0.15 xxxx xxxx Level Of Service Module: A * * A * * * * * * Shared LOS: * * * * * XXXXXX XXXXXX 69.6 ApproachDel: xxxxxx F ApproachLOS: *

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #4 Hwy 1 SB Ramps/Reservation Rd ********************************** Cycle (sec): 100 Critical Vol./Cap. (X): 0.574 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh):
Optimal Cycle: 39 Level Of Service: Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
 Control:
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Protected
 Include
 Incl Volume Module: Base Vol: 0 0 0 233 3 21 0 33 32 556 66 1.00 Initial Bse: 0 0 0 233 3 21 0 33 32 556 66 PHF Volume: 0 0 0 251 3 23 0 35 34 598 71 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 0 0 251 3 23 0 35 34 598 71 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.00 0.15 0.02 0.02 0.00 0.04 0.04 0.33 0.04 0.00 **** *** Crit Moves: **** Green/Cycle: 0.00 0.00 0.00 0.26 0.26 0.26 0.00 0.07 0.07 0.58 0.65 0.00 Volume/Cap: 0.00 0.00 0.00 0.57 0.06 0.06 0.00 0.57 0.57 0.57 0.06 0.00 Uniform Del: 0.0 0.0 0.0 31.9 27.5 27.5 0.0 45.2 45.2 13.4 6.5 AdjDel/Veh: 0.0 0.0 0.0 33.8 27.5 27.5 0.0 51.7 51.7 14.2 6.5 0.0 0 3 3 12 0 0 0 8 1 1 HCM2kAvg: 1

شرها فالفراج بالمواجع والمواجع Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************** Intersection #4 Hwy 1 SB Ramps/Reservation Rd ************** Average Delay (sec/veh): 143.6 Worst Case Level Of Service: F[508.5] ****************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R ------Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Rights: Include Includ Volume Module: Base Vol: 0 0 0 233 3 21 0 33 32 556 66 PHF Volume: 0 0 0 251 3 23 0 35 34 598 71 Reduct Vol: 0 0 0 0 251 3 23 0 35 34 598 71 Final Vol.: 0 0 0 251 3 23 0 35 34 598 71 Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxx xxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 1319 1337 71 xxxx xxxx xxxx 70 xxxx xxxxx Potent Cap.: xxxx xxxx xxxxx 175 155 997 xxxx xxxx xxxxx 1544 xxxx xxxxx Move Cap.: xxxx xxxx xxxx 122 95 997 xxxx xxxx xxxx 1544 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 2.05 0.03 0.02 xxxx xxxx xxxx 0.39 xxxx xxxx Level Of Service Module: Queue: xxxxx xxxx xxxxx 20.6 xxxx xxxxx xxxxx xxxx xxxxx 1.9 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx 559.5 xxxx xxxxx xxxxx xxxxx xxxx 8.8 xxxx xxxxx B * * * * * * Shared LOS: * * * *

ApproachDel: XXXXXX 508.5 xxxxxx xxxxxx ApproachDel: xxxxxx F ApproachLOS: *

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #3 S. Davis Rd/W. Blanco Rd Cycle (sec): 75 Critical Vol./Cap. (X): 0.912 12 (Y+R = 4 sec) Average Delay (sec/veh): Loss Time (sec): Optimal Cycle: 98 Level Of Service: Approach: North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-RControl: Protected Protected Protected Protected Volume Module: 484 1.00 0.94 PHF Volume: 39 1353 478 689 799 462 1335 715 40 280 623 515 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 0 Reduced Vol: 39 1353 478 689 799 462 1335 715 40 280 623 515 MLF Adj: Final Vol.: 39 1353 478 689 799 462 1335 715 40 280 623 515 Saturation Flow Module: Capacity Analysis Module: Vol/Sat: 0.01 0.26 0.30 0.13 0.22 0.11 0.25 0.14 0.03 0.08 0.12 0.18 Crit Moves: **** **** **** Green/Cycle: 0.09 0.29 0.38 0.14 0.34 0.61 0.28 0.32 0.32 0.09 0.13 0.28 Volume/Cap: 0.08 0.91 0.78 0.91 0.66 0.18 0.91 0.43 0.08 0.86 0.90 0.65 Uniform Del: 31.1 25.9 20.6 31.7 21.3 6.3 26.2 20.2 17.9 33.5 32.0 23.9 IncremntDel: 0.1 9.1 6.5 15.7 1.4 0.0 9.2 0.2 0.1 19.4 15.0 2.0 AdjDel/Veh: 31.1 35.0 27.0 47.3 22.6 6.3 35.4 20.4 18.0 52.9 47.0 25.9 0 14 12 9 9 2 15 5 1 6 8 6 HCM2kAvg:

2	OOO HOM ON	vel Of eration	ns Met	hod (Base V	olume	Alter	native	e)		
*****	*****	****	*****	****	****	****	****	*****	*****	****	****
Intersection # ********	3 S. Davis	Rd/W.	Blanc ****	:0 Rd *****	*****	****	****	****	*****	*****	****
Cycle (sec): Loss Time (sec Optimal Cycle: ************	125 :): 12	(Y+R =	4 se	Cr ec) Av	itical erage vel Of	Vol., Delay	/Cap. (sec/ ice:	(X): 'veh):		1.781 265.3	_ } !
**************************************			Sout	h Bou	nd	Eas	st Boı	ınd	Wes	st Bou	ind
Movement:	ৰ ক	TD	т. —	Ψ -	· R	L	Т -	- R	L -	T -	- R
Control: Rights: Min. Green:	Protecte Includ 7 10	d le 10	Pro 7	otecte Includ 10	ed le 10	Pro 7 2 0	otecte Includ 10	ed de 10 10	Pro 7 1 0	Include 10 2 (ed de 10 0 1
Lanes:		11	، خدا در جد معر خد						1		
Initial Bse: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: Final Vol.:	37 1272 1.00 1.00 37 1272 1.00 1.00 0.94 0.94 39 1353 0 0 39 1353 1.00 1.00 1.00 1.00 39 1353 ow Module: 1900 1900	1.00 1.00 478 	1900	751 1.00 0.94 799 0 799 1.00 1.00 799	1900	1255 1.00 1255 1.00 0.94 1335 0 1335 1.00 1.00 1335 	672 1.00 0.94 715 0 715 1.00 1.00 715	1.00 38 1.00 0.94 40 0 40 1.00 1.00	1900	586 1.00 0.94 623 0 623 1.00 1.00 623	484 1.00 484 1.00 0.94 515 0 515 1.00 1.00 515
Adjustment:	0.95 0.91	0.91	0.95		0.85		1.89		1.00	-	1.00
	1.00 1.48 1805 2564	0.52 905	1805	1900	1615	3502	3389	192	1805	3610	1615
final Sat.:						1			1		
Capacity Anal Vol/Sat: Crit Moves: Green/Cycle: Volume/Cap: Uniform Del: IncremntDel: Delay Adj:	0.02 0.53 **** 0.06 0.30 0.39 1.78 56.9 44.0 2.5 355 1.00 1.00	0.53 0.30 1.78 44.0 355.3 1.00	**** 0.21 1.78 49.1 361.6 1.00	0.92 32.1 15.4 1.00	0.45 0.63 26.0 1.7	**** 0.21 1.78 49.1 356.7 1.00	1.00	0.23 0.93 47.4 17.1 1.00	0.93 51.4 34.1 1.00	0.18 0.96 50.9 26.7 1.00	0.32 **** 0.18 1.78 51.3 365.0 1.00
Delay/Veh:	59.4 399	399.2		47.5 1.00	27.8 1.00	405.8 1.00	64.5 1.00	64.5 1.00	1.00	1.00	416.3 1.00
User DelAdj: AdjDel/Veh: HCM2kAvg: *********	59.4 399	399.2	410.7	47.5	27.8 14	405.8	64.5 18	64.5 18	85.5 15	77.6 16	416.3 48 ******

						· 					
		Level Of									
******	2000 HCM (Operatio *****	ns Me	thod	(Base	Volume	e Alte	ernativ	e)	de Alexandronia	de Standardo (1787) i
Intersection	#3 S. Dav	is Rd/W.	B1ar	nco Ro	i						
Cycle (sec): Loss Time (sec) Optimal Cycle	7. ec): 1. e:OPTIMIZE	5 2 (Y+R = D	4 s	sec) <i>I</i>	Critica Average Level C	l Vol. Delay	./Cap / (sed	(X): c/veh):		0.9 30	20 .7 .C
Approach: Movement:	North Bo	ound - R	Sou L -	ith Bo	ound - R	Ea L	ast Bo	ound - R	We	est Bo	ound - R
Control: Rights: Min. Green: Lanes:	Protect Include 7 10 2 0 3	ted ude 10 0 1	7 3 0	otect Ovl 10) 2	10 0 3	P1 7 3 (rotect Inclu 10 3	ted 1de 10 0 1	P: 7 2 (rotec Ovl 10	ted 10
Trobom omriovi	1						-,]			
Volume Module Base Vol: Growth Adj: Initial Bse: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: Final Vol.: Saturation F: Sat/Lane:	246 684 1.00 1.00 246 684 1.00 1.00 0.94 0.94 262 728 0 0 262 728 1.00 1.00 262 728	418 1.00 0.94 445 0 445 1.00 1.00 445	1.00 509 1.00 0.94 541 0 541 1.00 1.00 541	1451 1.00 1451 1.00 0.94 1544 0 1544 1.00 1.544	1900	602 1.00 0.94 640 0 640 1.00 640 1.00	1900	37 1.00 37 1.00 0.94 39 0 39 1.00 1.00 39	529 1.00 0.94 563 0 563 1.00 563 	738 0 738 1.00 1.00 738	369 1.00 1.00 369
	0.92 0.91			0.95			0.91	0.85		0.91	0.75
Lanes: Final Sat.:	2.00 3.00 3502 5187			2.00	3.00 4264		3.00 5187	$1.00 \\ 1615$		3.00 5187	2.00 2842
Capacity Anal Vol/Sat: Crit Moves:	lysis Modu 0.07 0.14 ****		0.10	0.43	0.33	0.12	0.11	0.02	0.16	0.14	0.13
Green/Cycle:				0.45	0.58		0.13	0.13		0.16	0.31
Volume/Cap: Uniform Del:	0.80 0.36			0.96	0.56 9.6		0.82	0.18 28.9		0.88	0.42 20.6
IncremntDel:		3.5		14.0	0.3	11.8	7.8	28.9 0.4		10.4	0.3
Delay Adj:	1.00 1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Delay/Veh:	46.5 16.2			34.1	9.9		39.4	29.3		41.1	20.9
User DelAdj:	1.00 1.00 46.5 16.2			1.00 34.1	$\frac{1.00}{9.9}$		1.00	1.00		1.00	1.00
AdjDe1/Veh: HCM2kAvg:	5 4	10	33.4 6	24	9.9 7	43.5	39.4	29.3 1	58.1 11	41.1	20.9 4
******					•	_					*****

	2000	Le LCM Ox	evel Of peratio	Serv	ice Co	mputat	ion Re	eport Altei	rnative	e)		9 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
****	****	*****	*****	****	****	*****	****	****	****	- , * * * * * *	*****	***
Intersection	മാര	Dorri	DA/W	Blan	co Rd							
Cycle (sec): Loss Time (secontimal Cycle		130			Cı	ritical	l Vol.	/Cap.	(X):		1.648	3
Loss Time (se	ec):	12	(Y+R =	= 4 s	ec) At	rerage	ретау	(sec	ven):		249.	ر -
Optimal Cycle)	180			±****	******	E SELV. *****	***** TC6:	****	****	*****	*****
Approach:	*****	+ h Po	und	SOU	th Boi	ınd	Ea	st Bo	ind	We	st Boı	und
Marramant	T	Tr.	- R	- 35a ←	T -	R	L -	Т -	- R	L -	Т -	- R
Movement.			a a	1.		4:	1		1	J		1
Control:	' Pr	otect	ed de	Pr	otecte	ed	Pr	otect	ed	Pr	otecte	ed
Rights:		Inclu	de			de		Inclu	de		Inclu	
Min. Green:	7		10	7	10	10	7	10	10	7		10
Lanes:	1 0	1	1 0	1 0	1 (0 1	2 0	1	1 0	1 0	2 (
Lanes:												
Volume Modul		60.4	410	E O O	1 / 51	1320	602	534	37	529	694	347
	246		418 1.00	1.00	1451	1.00	1.00		1.00	1.00		1.00
Growth Adj: Initial Bse:	246	694	418		1451	1320		534	37	529	694	347
	1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
	0.94		0.94	0.94		0.94	0.94		0.94	0.94	0.94	0.94
PHF Volume:		728		541	1544	1404	640	568	39	563	738	369
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		728	445	-	1544	1404	640	568		563	738	369
PCE Adj:	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 39	1.00	738	1.00 369
Final Vol.:	262	728	445	541	1544	1404	640					
							1			31		
Saturation F	1900		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane: Adjustment:			0.90		1.00	0.85		0.94	0.94	0.95		0.85
Lanes:	1.00	1.24	0.76			1.00	2.00	1.87	0.13	1.00	2.00	1.00
Tiral Cat :	1905	2113	1291	1805	1900	1615	3502	3342	232		3610	1615
	-											
Capacity Ana	lysis	Modu.	le:				0 10	0 17	0 17	0 31	0.20	0 22
Vol/Sat:	0.14	0.34	0.34	0.30	0.81	0.87	0.18	0.17	0.17	****	0.20	0.23
Crit Moves:	****			0 00	·Λ .Ε.Э	0.53	0 12	0.10	0.10		0.16	0.16
Green/Cycle:	: 0.09	0.33	0.33		0.53 1.54	1.65		1.65	1.65		1.26	1.41
Volume/Cap:	1.65	1.U5	1.05 43.6		30.7	30.7		58.3	58.3		54.4	54.4
Uniform Del	: 39.3 .210 ?	43.0	40.1	52.4			196.3		303.7			204.8
Delay Adj:	. J L O . Z	1.00			1.00	1.00		1.00	1.00	1.00	1.00	1.00
Delay/Veh:	377.5	83.7	83.7	98.8	279	327.8	252.9		362.0			259.2
User DelAdj	: 1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:	377.5	83.7	83.7				252.9		362.0			259.2
HCM2kAvg:	0.0	3.3	2.3	31	126	122	27	28	28	53	26	30 ******
******	****	****	****	****	****	*****	*****	****	****	A A A A A A		

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd Average Delay (sec/veh): 6.5 Worst Case Level Of Service: C[17.3] *********************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Volume Module: 28 26 6 19 82 8 139 35 Base Vol: 8 11 59 PHF Volume: 10 14 73 35 32 7 23 101 10 Reduct Vol: 0 0 0 0 0 0 0 0 0 Final Vol.: 10 14 73 35 32 7 23 101 10 79 172 43 ______| Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 599 619 106 622 584 83 122 xxxx xxxxx 111 xxxx xxxxx Potent Cap.: 417 407 954 402 426 982 1478 xxxx xxxxx 1491 xxxx xxxxx Move Cap.: 344 350 954 321 366 982 1478 xxxx xxxxx 1491 xxxx xxxxx Volume/Cap: 0.03 0.04 0.08 0.11 0.09 0.01 0.02 xxxx xxxx 0.12 xxxx xxxx ______| Level Of Service Module: Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx 0.4 xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx 7.5 xxxx xxxxx 7.7 xxxx xxxxx A * * LOS by Move: * * * * * A * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT ApproachLOS: В C

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ******************* Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd **************** Average Delay (sec/veh): 4.5 Worst Case Level Of Service: B[13.8] ***************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Rights: Include Include Include Include Rights: Include Includ Volume Module: Base Vol: 2 7 29 34 14 6 4 94 4 91 39 Initial Bse: 2 7 29 34 14 6 4 94 4 91 39 86 PHF Volume: 2 9 36 42 17 7 5 116 5 112 48 106 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 2 9 36 42 17 7 5 116 5 112 48 106 Critical Gap Module: Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: 467 507 119 477 457 101 154 xxxx xxxxx 121 xxxx xxxxx Potent Cap.: 510 471 939 502 503 960 1438 xxxx xxxxx 1479 xxxx xxxxx Move Cap.: 460 431 939 445 461 960 1438 xxxx xxxxx 1479 xxxx xxxxx Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxx xxxx 0.08 xxxx xxxx Level Of Service Module: В ApproachLOS: В

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) ****************************** Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd ********************************** Average Delay (sec/veh): 8.3 Worst Case Level Of Service: B[10.1] ****************************** Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Volume Module: 0 0 0 0 PHF Volume: 0 0 0 119 2 8 1 8 6 61 6 0 Reduct Vol: 0 0 0 119 2 8 1 8 6 61 6 0 Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx 6.4 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx Capacity Module: Cnflict Vol: xxxx xxxx xxxx 142 145 6 6 xxxx xxxxx 14 xxxx xxxxx Potent Cap: xxxx xxxx xxxx 856 750 1083 1628 xxxx xxxxx 1617 xxxx xxxxx Move Cap: xxxx xxxx xxxx 830 720 1083 1628 xxxx xxxx 1617 xxxx xxxxx Volume/Cap: xxxx xxxx xxxx 0.14 0.00 0.01 0.00 xxxx xxxx 0.04 xxxx xxxx Level Of Service Module: LOS by Move: * * * * * A * * A * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx xxxxx xxxxx 0.1 xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.1 xxxxx xxxxx xxxxx 7.3 xxxx xxxxx Shared LOS: * * * * B * * * * A * *
ApproachDel: xxxxxx 10.1 xxxxxx xxxxx ApproachDel: xxxxxx 10.1 XXXXXX XXXXXX В ApproachLOS:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative) Intersection #1 V

Average Dela-
Approach: North Bound South Bound South Bound
Rights: Stop Sign Stop Sign Uncontrolled Uncontrolled
Base Vol: 0 0 0 184 22 1 0 5 2 35 1 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Level Of Service Module: Queue:

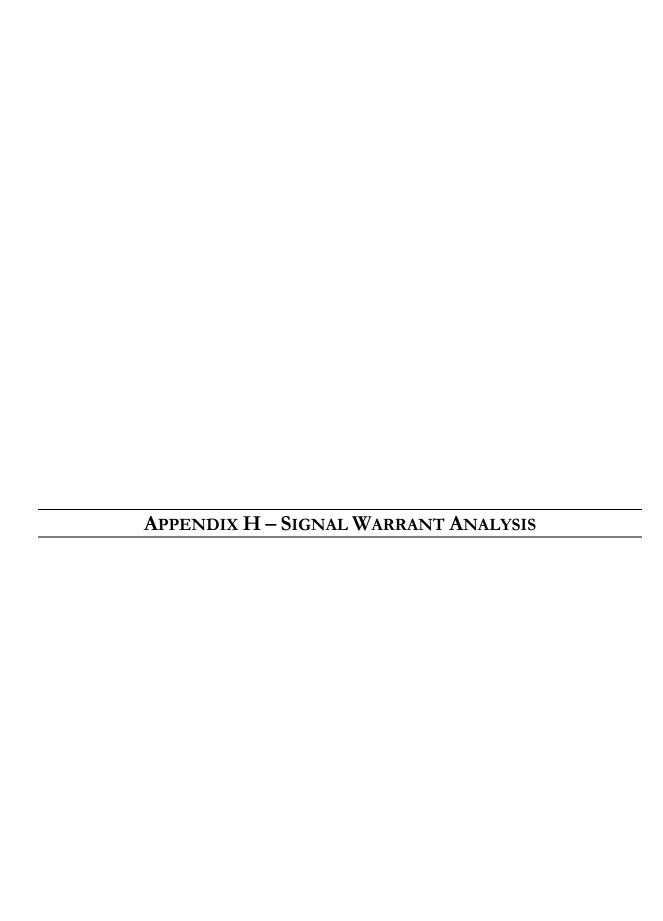
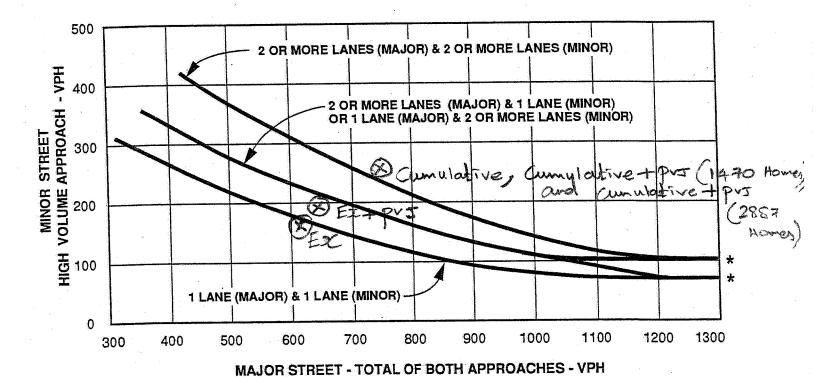


Figure 9-9
PEAK HOUR VOLUME WARRANT
(Rural Areas)

Int #4, Highway 1 SB Ramps/Reservation Road
(2 lanes on major and 2 lanes on Minor)

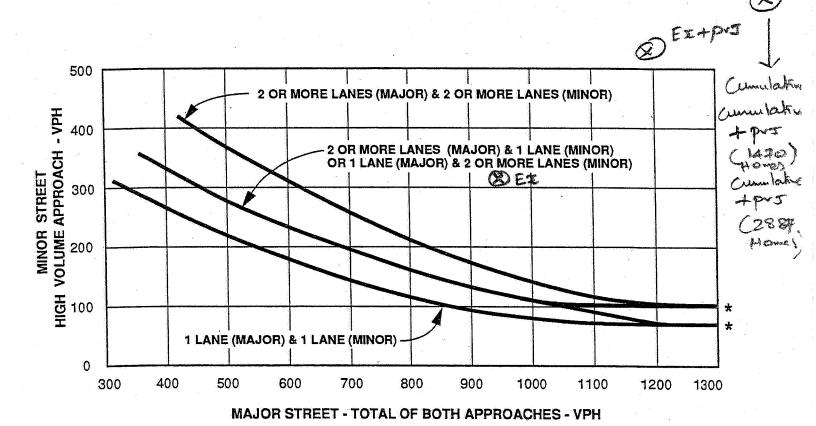


* NOTE:

Figure 9-9 PEAK HOUR VOLUME WARRANT

(Rural Areas) pood) Dows street the Blugs.

(2 lones on mason and

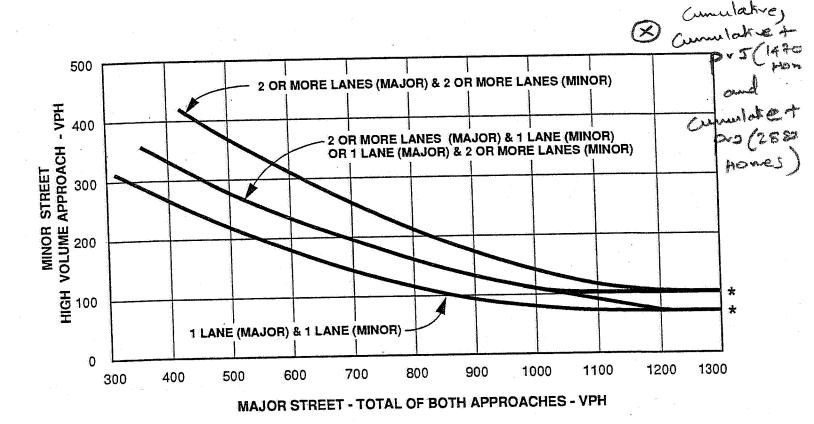


* NOTE:

Figure 9-9
PEAK HOUR VOLUME WARRANT
(Rural Areas)

20) Highway & SB Roumps / In 5th picuy.

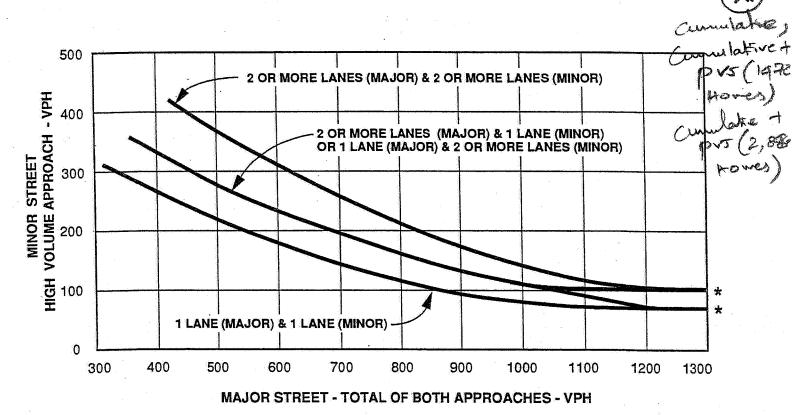
(2 lanes on minor, I lane on major



* NOTE:

Figure 9-9 PEAK HOUR VOLUME WARRANT (Rural Areas)

21) Highway & NS Ramps / In 5m plemy
(2 lones on nosor, 2 lones on nosor)



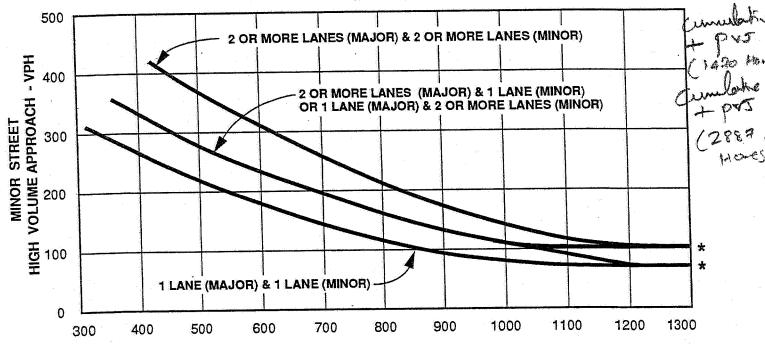
* NOTE:

Figure 9-9 PEAK HOUR VOLUME WARRANT (Rural Areas)

24) Light Fighten Drive / 2nd Averne

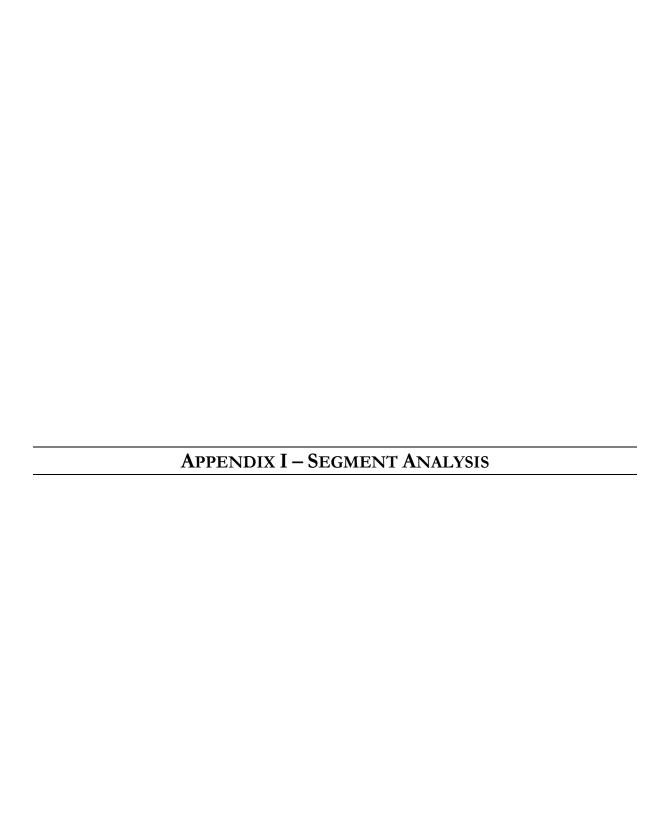
(8 comes on major, 3 lones on minor)

(8 comes on major, 3 lones on minor)



MAJOR STREET - TOTAL OF BOTH APPROACHES - VPH

* NOTE:



Secure 1				Link Segment	Analysis Using Five (5) Scenarios			
Seyment	Lane SPEED DIR (2001-03) ADT PM Total Plow BPTSF : f (4/np)	Existing Model 2001-2003	Exi	risting Pius Project		2020 (1470 Homes)	E.Gar in 2020 (Z.887 Homes)	
Class I Highways		Plan I (hp) Ala Cus Am (loss Flow 18975P 1(d/hp) PTSF 1(hp)	ATS LOS ADT PM Total Flow SPTSF (dinp) PTSF ((np))	ATS LOS AM Total Flow BPTSF 1 (d/np) PTSF f (np)	ATS LOS AGT PM Total Flow BPTSF [(dinp) PTSF f(np) AT	TS LOS AM ITatal Flow SPTSF f(dinp) PTSF f(np) ATS Lo	OS ADT PM Total Flow BPTSF Littlen PTSF Line ATS LOS AM Total Flow BPTSF Littlen BTTSF	E.Gar in 2020 (NO-Build)
		والمراجع والمراجع والمناجع والمراجع والمراجع والمراجع					والمن المنت المنت المنت المناس المنت المناس المنت	27 ATS LOS FOLLOW PRINTED TO ATT TO A
Bierico Rd.	1 56 W 11.113 12339 1238	1240	12329 1245	1229	17382 1399			
Steines River Bridge and Reservation Rd. Note: Currently, Segment portion nonth of Research Dr. (s.a. 4-lane Rd.	1 55 E 11,222 12166 1288 2525 39.14 2.6	1.0 (340) E 1139 2379 67.65 3.0 (340) 1.1	35 E 12131 1275) 2520 88.09 2.6 120 1.0	34 E 1151 2380 87.66 2.9 91 11	20 F 150177 15044 204 NA NA NA	CONTRACTOR CONTRACTOR OF THE PARTY OF THE PA	17294 1407 17294 1407 17294 1729 17294 1729 17294 1729 17294 17294 1729 17294 1729 17294 1729 17294 17294 1729	15176 1428
Mit Add one lane in each direction south of Research Dr.							18154 (1952) (18539) NA INA NA NA NA WF 1422 3162 NA NA NA NA	NA SE 19002 896 388F NA NA NA NA NA NA 146 3 2245 NA NA NA NA NA AA
	2 65 W 122331 1238 55 11 A		Ave. Speed Density LOS	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave Speed Denisty LOS	Ave. Speed Density LOS Ave. Speed Density LOS	
	2 55 E 12166 1288 55 12 B	1139 55 10 A	12131 1275 55 11/A	1229 55 11 A	17382 1399 55 13 B	1771 55 18 8	1407 55 13 8 1740 55 16 9	Ave. Speed Density LOS Ave. Speed Density LOS
			1210 IZIO III IZIO	1101 55 30 A	19017 1944 55 18 8	1429 55 13 B	1932 55 18 B 1422 55 13 B	19002 1956 PS 16B 1 1756 S
Blanco Rd,	1 80 W 11.043 12160 1204	1228	11908 1170	1199	10346 1340			30 38
Saimes River Bridge & Devis Rd. Mit: Add one lens in each direction	f 90 E 11,043 11785 1252 2456 88.45 1.9		41 0E 11541 1226 2396 87.83 3.0 91 0.8	46% E 1061 2250 88.28 3.0 89 0.9	47 16 16556 1800 3116 NA NA NA NA NA	F 1327 2986 92.75 2.0 98 0.7 888 3	16245 1320 1625 1826 1826 1827 1827 1828 1828 1828 1828 1828 1828	17072 1386 1685
	2 60 W 12160 1204 50 10 A	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave. Speed Dentity LOS	Ave. Speed Density LOS	Ave. Speed Density LOS Ave. Speed Density LOS Ave. Speed Density LOS	0.7 36 E 17649 1741 3107 NA NA NA NA NA 1368 3061 83.22 2.0 365 0.7 366
	2 60 E 11765 1252 60 10 A	1977 FOI 91 A	11908 1170 80 10 A	1199 60 10 A	16318 1316 60 11 A	1659 601 14 8	16245 1320 60 111A 1626 60 141B	Ave. Speed Density LOS Ave. Speed Density LOS
	1 65 S 1,127 1926 99		1 1120 20 00	10811 60 9IA	16858 18001 60 16 B	1327 60 11 A	15843 1795 60 15 B 1319 50 11 A	1745 80 15 0 16 16 16 16 16 16 16 16 16 16 16 16 16
Cooper Rd.	1 65 S 1.127 1026 59	1 105	1218 1371		2100 454		2133 166 273	
Blanco RdHery 153		36 1.6 52 B 121 228 18.02 17.5 36 1.6	52 B 1407 141 278 21,68 18.0 40 1.9	51 B 141 255 20.08 17.5 39 1.8 I	51 8 2804 394 565 2861 159 55 25 4			2189 1501 271
Devis Road.	1 80 N 2300 2804 238					9 0 100 42 3117 100 47 27 49 1	2 2540 390 546 38.12 15.9 54 2.5 48 C 142 415 30.57 17.2 48	27 49 C 2808 385 535 37.52 15.8 53 2.5 48 C 141 412 20.38 17.2 48 2.7 69
from Reservation Rd to the Salinas River Bridge		55 24 53 C 774 545 3841 178 84 78	4493 380	489	10068 1361	637	10462 1364 778	
Mit. Add one lane in each direction		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	35 C 3033 560 940 5623 9.4 86 17 1%	650 0. 368 857 52.92 9.9 63 1.8	25 0 10001 010 2011 0000) 271 magain 40 174	2 E 1446 2083 83.97 4.9 259 0.6 43.9 %E	10056 926 2290 85.64 2.4 89 0.6 42 88 1445 223 85.83 1.8 80	0.6 342 50 5283 700 1987 52.56 4.1 57 0.6 144 5 1351 1786 7882 52 84 07 286
	2 60 N		4493 380 60 31A	Ave. Speed Density LOS	Ave. Spreed Density LC3	Ave. Speed Density LOS	Ave. Speed Density LOS Ave. Speed Density LOS	Ave, Speed Density LOS Ave, Speed Density LOS Ave, Speed Density LOS
	2 80 8		6033 560 60 5IA	368 60 3A	10066 540 50 71A	537) 80 51A	10452 1384 60 11 A 778 60 6 A	7594 1297 60 11 A 415 60 3A
Devis Rd .	1 55 N 34/341 114779 1507			والمصروب والمراز المراز المراجع المراز المراز			10606 928 60 8 A 1445 50 12 B	2283 700 601 6A 1351 60 11A
from Ambrose to Central Ave	1 55 8 13.089 14033 1302 2809 91.53 2.5	1212	15305 1535	1299	24160 2743 ATS=55, density=24.6	9 C 1735 ATS+55, density=15.8 E	1 24356 2670 ATS-55 Denstre24.3 C 1806 Security	
	النارات والمساورة وا	35 VALUE HIO 2022 SU02 24 (%SQ2%) 1.0	34 E 14641 1377 2912 92.27 1.9 94 0.8	220 E 1429 2728 90.91 2.2 89 0.9	33 E 22557 18491 4592 NA NA ATS=55, Gensely=15.5	8 8 2690 4425 NA NA ATS=55 density=24.5 C	Trees trees John Co. Land Co	Density=18.4 B 22867 2599 Speed=55, Density=28.6 C 1932 Speed=55, Density=18.8 Density=28.6 C 24545 1741 4340 NA Speed=55, Density=15.8 B 2502 4234 NA NA Speed=55 Density=27.7
Mitigation for Ex, and Ex+Prt Add one lane in each direction	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave Speed Density 10S		(4 ianes)		(4 lanes)	Dentity=23.5 C 2/545 1741 43401MA NA Speed=55 Dentity=15.8 B 2602 4234 NA NA Speed=55 Dentity=23.7
		1212 55 11 A	15305 1535 55 14 8	1299 M 178				
	2 55 5 14033 1302 55 12 5	1410 55 13 B	14641 1377 55 13 8	1429) 55 13/B				و و المناطق المناطق المناطق و المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق
Reservation Road	1 80 E 2500 2527 2591	 						و يؤون مرد منون نبيب منحب المحدد المجاز المدارات المحار المارة المحار المحدد المحدد المارة المحدد المحار المحد
From Wittern's Gate to Davis Rd	1 80 W 2500 2633 273 532 3738 191	46 28 50 C 220 405 2058 405 80 20	53 C 4689 541 932 55.92 10.71 (0.57%) 1.9	478	12157 1944	675	12956 1983	
Mit Add one lene in each direction	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave. Speed Density LOS		51 C 11531 946 2890 NA NA NA NA NA	F 1965 2540 NA NA NA NA NA	12839 1108 3071 NA	NA 355 8784 8780 247700 big
	2 50 E 2527 259 60 2 A	238 90 2 A	4379 391 80 3A	Ave Speed Densty LOS	Ave. Speed Density LOS		Ave. Speed Density LOS Ave. Speed Density LOS	Ave. Speed Density 1.05 Ave. Seed Density 1.05
	2 60 W 2533 273 60 2 A	229 60 2 A	4689 541 50 5 A	335 60 3A	11831 945 60 84	8/51 (0) 5/A	129581 19631 BO 16 B 8701 BO 7 A	9068 1778 60 15 B 396 60 3A
Reservation Road.	1 80 W 4.018 4656 472	 	1905 890	والمراز والمراجع المساوي والمراجع والمساوية		- 	12839 1108 60 9 A 2003 60 17 B	8784 G39 G0 5 A 1808 G0 15 B
from Portoia Dr. to Hwy/68	1 60 E 4.018 5358 537 1009 58.81 10.3	356 356 1.6 51 00 466 852 52.71 11.8 65 1.8			8217 699	587	8604 754	
Mit Add one tene in each direction	Sun Bused Donney 100	Ave. Speed Density LOS		950⊗ ⊗50⊗ 453 840 52.21 11.9 64 1.8	52 C 8693 1126 1825 79.89 4.1 84 0.7 45	5 E 656 1543 74.24 4.9 79 0.8 72 0	8875 1126 1890 80.84 3.9 25% 0.6 45% E 589 1601 75.521 4.71% ap. 1	0.8 47 00 8146 1081 1673 77.02 5.1 82 0.8 48 2 512 1457 77.22 5.3 78 0.9 48
	2 60 W 4656 472 50 4 A 2 50 E 5356 537 50 4 A	386 80 3 A	Ava. Speed Density LOS 4985 525 60 49A	387 80 3IA	Ave. Speed Dentity LOS	Ave. Soced Density LOS	Ave. Speed Density LOS Ave. Speed Density LOS	0.5 S44 00 5146 1091 1673 77.02 5.1 S22 0.8 S86 S5 512 1457 77.22 5.3 S78 0.9 S45 S Ans. Speed Dentary LOS Ans. Speed Dentary LOS
	2 60 E 5356 537 80 4 A	466 60 44 A	5193 518 60 4A	453 60 41A	660 1136 M DA	987 50 31A	8604 754 60 8A 1012 60 8A	7212 562 60 5A 945 80 8A
Sprecides Bivit.	1 55 W 4.200 4400 516		ور برور سے منہ البلا الساما بھار کے کا مارا				8979 1126 601 91A 1 599 60 5[A	8146 1091 00 9A 512 00 4A
Highway 68-Screddes	1 55 E 4.200 4195 3101 826 51.62 0.0	52 0.0 49 C 479 764 48,91 0.0 49 0.0	4380 515	283	6193 636	463	9530 692	
			49 C 4158 305 820 51,36 0.0 51 0.0 1	49 C 478 761 48.77 0.01 49 0.0	49 C 8388 468 1154 63.74 0.0 64 0.0 46	S C 504 1067 60.85 0.0 51 0.0 47 C	6388 475 1167 84.15 0.0 64 0.0 48 C 612 1096 81.84 0.0 62	10 45 C 8419 671 1150 5100 00 C 90 00 00 00 00 00 00 00 00 00 00 00 00
Highway 183	1 56 S 8.500 8544 817	788	8783 863	725	 		والمنافقين بنزار إنساب فازيرا بالمساوات الساوات الساوات المساوات المساوات	0.0 46 C 8419 471 1159 50.901 0.0 64 0.0 46 C 6071 1072 61,03 0.0 61 0.0 47
Cooper Rd-Espinosa Rd Mit: Add one tane in each direction	1 55 N 5.500 5080 819 1636 76.26 6.0	82 1.1 51 E 784 1550 74.40 EO 80 1.1	52 D 9235 827 16901 77.36 5.0 32 1.1	51 E 822 1608 75.67 5.0 62 1.1 W	51 E 10180 995 1941 81.84 4.0 86 0.9 845	9/11 200 (201) 000 4004 4405 40 (200) 100	10988 9671 9671	11105 334 965
THE PRODUCTION OF THE PRODUCTI	2 55 S 8544 517 65 6 A	Ave. Speed Density LOS	Ave. Speed Density LOS	Ave. Social Density LOS	Ave. Speed Density LOS		10226 988 1955 82.071 4.0 886 Q.9 849 E 9411 1908 81,31 4.0 855 1	
	2 65 N 9080 at9 65 6 A		9235 827 65 6 A	788 65 6 A	109321 946 65 71A	971 65 7A	Ave. Speed Density LOS Ave. Speed Density LOS	Ave. Speed Density LOS Ave. Speed Density LOS
	1 50 S 2,201 2168 174			822 55 6 A	103801 995 651 8 A	923 66 7[A	10928 988 55 8A 941 65 7A	11105 999 601 (A 965 65 7A
General Am Moore Bivd,	1 50 S 2,201 2168 174	246	2234 175	260	3547 284		و المراوي والمراوي والمراوي المراوي المراوي المراوي المراوي المراوي المراوي المراوي المراوي المراوي	3.05 (8)
Broedway-S, Boundary Rd.	1 50 N 2.315 2144 258 432 31:60 16.1	48 27 44 D 137 383 28.58 16.6 45 2.7	44 D 2213 273 448 32.55 16.5 49 2.6	44 O 137 397 29.48 16.7 45 2.7	44' D 3494 542' 826 51.62 10.4 62 1.9 42	0 249	3628 285 331	5578 283 496
						C 0 218 108 40.33 13.1 39 21 1 42 U	3530 523 308 30.85 10.4 81 1.9 42 D 221 752 48,371 11.8 60 1	20 42 D 3472 643 626 51.62 10.4 62 19 42 D 216 712 46.52 13.1 60 21 42
Class il Highways	Existing Model 2001-2003 ADT Total Flow BPTSF ((date))	ptes to the Tariff Control to the Co	Existing Plus Project		س بسير بيري مساوي ويستن نظ افرا الله الله		 	
Intergarisson Road.	ADT Total Flow BPTSF 1(ding)	PTSF LOS AM Total Flow BPTSF 1 (dep) PTSF	LOS (ADT Total Flow BPTSF (f(chip) PTSF	LOS AM Total Flow BPTSF (Ghp) PTSF	LOS ADT PM Total flow (8PTSF ((shp) PTSF	LOS AM Total Flow (BPTSF 1(dire) PTSF LO	S ADT PM TOTAL Flow IBPTSF (1(dho) PTSF 10S AM TOTAL Flow IBPTSF (1(dho) PTSF	LOS ANT. DU TAS S. DOTTE V
Abrams-7th Avenue	1 45 E 1.700 1726 232 345 26.22 20.1	45 8 92 309 23.78 20.7 44	B 3390 454 714 46.61 14.4 51	C 195 555 47 97 15 8 60	C 4328 345 1496 73.20 6.9 80	302	6435 1191 335	79 6 Drise Tourist Prise Tourist Prise LOS AM Tourist Prise (Idea) Prise L
A6t Add one V/B lane	2 45 W				Ave. Speed Density LOS	80 654 956 55.84 11.2 68 C	4675 371 1562 74.67 7.0 62 0 728 1063 60.72 9.3 70	C 83 11 17 1.48 19.9 21 A 5 15 131 72.1 73
	2 45 W				6197 1153 45 13(8	Ave. Speed Density LOS	Ave. Speed Density LOS Ave. Speed Density LOS	
		 			4/26 345 45 8IA	654 45 15 B	64.55 1181 45 1319 335 45 4 A	
General Jim Moore Bivd	1 45 5 3.722 3883 371						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Gigging - Normandy	1 46 N 3.989 4273 432 803 50.63 13.2	64 C 334 868 44.41 18.4 61	C 4373 453 828 51.20 13.01 65	358	7170 673	639	7169) 6031 694	797, 50
				C 330 694 45.67 15.1 61	C 8862 687 1380 69.74 6.1 76	D 534 1173 54.34 9.5 74 D	66721 7151 1383 70.35 8.1 76 D 538 1230 66.08 9.4 75	D 8996 787 1431 7157 51 78 D 823 1249 78 64 74 74
Intergerisson Road	1 45 W 0 0 0	0	2853 257	322	6813 506			
West Camp to Abrans Mit Add one sine in each direction	1 1 45 E 0 0 0		2554 300 557 38.71 16.5 55	B 199 521 36.74 15.6 52	B 7019 1231 1839 80.14 5.1 85°	D 401 1657 7670 5 1 60	1 (410) 510) 1368	86 11
	2 45 W				Ave. Speed Density LOS	Ave. Speed Density LOS	Ave Speed Dentity LOS	8D 81 6 17 1.46 17.2 19 A 10 15 1.31 19.1 20
	1 2 45 E				6813 608 45 7 A	1256 45 14 B	7418 615 45 7 A 1368 45 1618	
	TERMS (12) 1211 (12) (12) (12) (12) (12) (12)			- - - - - - - - - 	70191 1231 45 14 B	401 45 4A	7301 1273 45 14 B 435 45 5IA	
E Garrison	1 35 W 0 0 0 0 1 35 E 0 0 0 0	0	1393 152	74	1163 128	 		
Entrance at Weltign's Gate	1 35 E 0 0 0	9 0	1293 97 279 21.78 24.0 46	B 172 246 19.45 24.0 43	B 1456 4351 571 39.48 23.0 62	C 126 813 4156 22.2 65	3382 384 556	
Reservation Road	1 45 W - 2813 273						3192 542 906 54.90 12.01 67 C 351 917 55.34 12.0 67	C 0 0 0
from Watter's Gate to Central Entrance	1 45 E - 2506 255 528 37.13 22.5	60 C 235 460 33.96 278 47	3294 350	260	10067 810	1477	9459 745 1400	
Mit. Add one lane in each direction			C 3087 295 554 43.72 19.1 83	C 306 566 39.20 21.9 61	C 10699 1508 2318 98.96 3.7 91	E 548 2025 83.14 4.2 8876 SE	9764 1421 2166 85.10 4.0 888 8E 519 1957 82.10 4.3 88	E: 9068 3778 2417 58.06 NA NA FF 396 2204 85.50 NA NA S
	121451WI 1 1 1				Ave. Speed Density LOS 10067 610 45 9A	Ave. Speed Density LOS	2015 2015	
	2 45 E				100671 8101 451 9 A	1477 45 16 B	9459 7451 45 81A 1438 45 16 B	5754 639 45 7A 1506 45 20 C
						1 1 040 401 BIA 1 1	9/84(1421) 45 18[8 519] 45 6[A	9068 1776 45 20C 396 45 46

Issai I vo Lane Highway (High Speed Attentis with free flow speed greater than or equal to 50 mph) Issai II vo Lane Highway (Low Speed Collector Roods with free flow speed legis than 60 mph) PTSP= Base Percent Time Spent Following; PTSP=Percent Time Spent Following TSP4Varquef Truet Speed: (Figure Adjustment to reflect of no-passing zones on ATS (extilibit 20.11)

I (unity) -- Aujustament for communication and effect or unactional distribution of trainic and percentage of no-passing zones on PT

PISH was used to determine the	rever of service (LOS) I	or a C	ass II two lane nighway segment	as per the 2000 HCM	methodology and is show
PTSF		LOS	7	- 1	. 22 12
<=40	4	A	d .		
>40-55		В	1		
>55-70		č		4	
>70-85		D		4	
>85		E		1	
If total flow>3200 voh or direction	onal spillo-1700 vob	F	8	1	44
Both PTSF and ATS were us ATS	sed to determine the LC PTSF	S for	a Class I highway segment		
>55	43 5	A		il i	
>50-55	>35-50	В		· 1	
×46-80	>60-65	ċ			
>40-45	>65-80	D			
C=40	>60	E			
If total flower 3200 units or elicantic	anal enlits 1700 umb	-		I	

		1		unt				xisting									Frietin	ia Pius F	Project							-1- 0000	14 470																						
	l and	SPEED D	P /200	1-031	ADT								1		2	e. speed [(1470 Ho								in 2020									E.G	ar in 202	0 (NO-B	uild)		
	- Luin	P. LL4 D	1200	1-03)	AUI I	PM AVE	e. speed	Densit	y LUS	AM A	ve. Speed	Densit	y LOS	ADT	PM Av	e. speed	Density	LOS	AM Ave	. Speed i	Density	LOS	ADT PR	M Ave.	Speed D	nsity LC	OS AM	Ave. Spec	ed Dens	sity LO	S AD	T PM	Ave. Sp	peed De	nsity L	OS A	VI Ave.	. speed	Densin	Los	ADT	PM	Ave Sr	ped De	neihr i	08 4	M Ave.	Cnoor	JD
oott Rd.		60		6.008	5438	FFO	50		A			-																												1777	1.2.	+	- Ave. op	JEU DEI	HOILY L	00 A	A Ave.	. opeeu	Densi
inas C.L. Harris Rd.				4.900	4484		50				50		A					A			3		8037 7		50	7. 7	A 659	50	. 7	A	79	971 706	50		7	A E	42	50	- 6	1	945	9 746	50		7	_	684	50	7
		- 20	-	4,300	4404	302	3U	1 3	A	439	50	4	A	4741	326	50	3	A	476	50	5	Α.	9488 7	44	50	7 /	A 750	50	8	A	94	422 745	50		7			50		A		56 777	50		8			50	8
nco Rd,		55 1	. 	9,471	9167	070	55	9	+1			+	4				1									2														+	300	7-11		-+-	<u> </u>	^	7/6	DU	- 8
ris RdW.Alisal St.		55	1	9.211	7423		55		B		55		Α.	9725				Α			7		12212 11				1169		. 11	. A	123	388 1194	65		11	A 11	48	55	10	A	1228	1152	55		10	-	1205	55	11
		1		5,211	1423	709	30	1 30		808	55	15	В	8417	777	55	14	В	949	55	17	В	11464 12	88	55	23 (1056	55	19	С	118	806 1292	55			C 11		65	20			3 1267						55	
bway 1,	,	65		38,387	37182	2004	64	1	1		-		1																											1-	1120	7 120/1			23	-	991	. 56	18
nyon Del Rey-Del Monte		65		36,899	39153		63		С			3 29						С 3			29		41353 34				3973		62 32	D :	415	522 3470	N.	64	27	D 39	33	62	32	n	12/6	3425		- 04	27		3926		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		- 00		30,899	39153	3043	63	29	D	2807	6	5 22	C	39386	3662	63	29	D 2	2814	65	22	С	41357 38	80	62	31 E	3360		64 26	С	416	603 3897			31				26			5 4007			32		3926		32 32
hway 68,	2	65		14,500	14082	4276	60	<u> </u>	+				4	-												4											-		1	 	1	1 -001		- 02 -3	32	<u>- </u>	346	- 64	34 26
tola I/C-River Rd I/C		65 \		14,500	13849		65		A			5 10						A 1			10		19101 17		65	14 E	1540		65 12	2 В	190	022 1770		65	14	B 15	21	65	12	-	1012	3 1784		- 00	44	В			جحدك
		1 00	-	14,000	13049	1384	65	11	A	1257	- 6	5 10	Α.	13832	1375	65	11.	A 1	1253	65	10	Α	18798 170	07	65	13 E	1742		65 13	В	187	736 1706			13				13			8 1724			13				5 12
servation Road.		50		13.335					1 1			4																							-	- "	-		- 1		10/8	1724		- 0011	13	в .	1756	65	5 14
m Imjin Parkway to Blanco Rd.		50 1		13,538			50		В			0 14		13963		50		B 1			13		22041 209		50	21 (2180		50 22	C	224	475 2162	-	50	22	C 21	601	50	22	-	2075	50 3044			31				4
III MIGHT WILLIAM TO BARICO NO.	". ' -	30 1	-	13,538	14940	1510	50	15	В	1463		0 15	В	13914	1391	50	14	B 1	1381	50	14	В	22029 22	70	50	23 (1822		50 18			164 2280		50		C 18			18			34 2706					2422		0 24
in Parkway.		45						 	4			4																									-		10		2093	* 2700		30 2	27	U	2786	50	0 28
eston Park-Abrams		45 \		4,515 4,515	5777		45		A			5 6		4610				Α			5		13932 139		45	15 E	1277		45 14	В	142	244 1415		45	16	B 12	61	ÀS	14	B	1850	9 1728			10			أجسبنين	4
MOUT BE E-MUIDING		40 1	<u>' </u>	4,515	6512	690	45	8	A	545	. 4	5 6	A	5199	543	45	6	Α	436	45	5	Α	13675 12	71		14 E						745 1284			14				13			8 1892			19		1811		5 20
									1		عبيب ويحومنه	1	1				1														1	1			-	- 1 11	-	40	13	P -	1062	1692		45 2	21	ا ا	1561	45	15 17
Laurel Dr		45 V						-	4	- 1				L I					. 1												1						+			-	 	+							4
v 101- Davis Rd					18593		45		В			5 13				45	13	B 1	1753	45	13	В	26125 228	81	45	17 E	2599	*, ,	45 19		262	207 2295		45	17	D 20	70	90	20		0570	2 2241			- 1		_		4
y 101- Davis Rd	3	45	-	21,724	20605	2143	45	16	В	1600	4	5 12	В	20835	2153	45	16	8 1	1646	45	12	В	30059 293	26			2269		45 17			945 2900			21				17						17		2574		5 19
Market,				-1-	- 1 -			-					3															***		-	1					- 1	021	40	1 1/	В	2948	0 2913		45 2	22	c i	2212	45	15 16
is Rd-Clark St.		45		9,023		737	45	8	A	717		5 8		8237		45	8	A	729	45	8	Α	10905 110	08	45	12 5	896		45 10	A	109	901 1111	-	45	12		or -		10			4	نببب						
75 RO-Clark St.	2	45 V	' 	10,454	8210	750	45	8	A	673	4	5 7	A	8299 .	761	45	8	A	675	45	8	A	10140 87	74	45	10 0	1016					33 875			10				11			3 1112			В		888		5 10
Alisai.																					3						100		7		101	0/0			****	^ "	911	45	1 11	I A	1063	0 871		45 1	10	A 1	1021	45	5 11
anco RdAcacia St.		40 [3,907			40	.5		423		0 5		401D	389	40	5	Α.	460	40	6	Α	5195 58	84	40	7 A	485		40 6	A	53	341 583		40	7		-			1		1		_					1
INCO KOACRCIA ST.	2	40 V		4,300	4061	463	40	-6	A	327	40	0 4	Α	4343	506	40	6	A	338	40	4		5392 54				522		40 7			563 567			7				6 7			4 595			7		447		0 6
anco Rd.																								7					-		1	300				^ -3		40		Α.	5146	6 503		40 1	6	A .	546	40	0 7
		55			10500		55	9		1056		5 10		11036	1014	55	9	A 1	140	55	10	Α	12978 130	03	55	12 F	1195		55 11	- I - A	130	034 1304		55	12			55				+							1
uth Main-Pajaro St.	2	55 V	<u> </u>	12,221	10684	1166	55	11	A	840	55	5 8	A	11183	1239	55	11	Α	866	55	8	Α	12890 130	00			1137	· · · · · · · · · · · · · · · · · · ·		A		352 1332			12			55				8 1275			12		1177	55	5 11
			_1						1 1															1		-	,,,,,,,	····	- 10		125	1332		30	12	B -11	161	- 55	10	Α.	1300	2 1310		55 1	12	B 1	1104	55	5 10
		<u> </u>																						_			3 111		_		_						-			1		+							
neral Jim Moore Blvd,		45 5		4,200	6824		45		A		4	5 8	Α	7913	652	45	7.	Α	886	45	10	A	6974 60	04	45	7 4	797		45 9		72	340 617		45		. .						4-4							
intfighter-Engineer Dr.	2	45 1		4,900	6141	705	45	-8	A	431	4	5 5	A	7063	842	45	9	Α	470		5		6440 75				422		45 5			339 800	 		9				10			5 518			6		601		5 7
,								<u> </u>																		-	-	· · · · · · · · · · · · · · · · · · ·	~	- ^	 "	339 000		ADI .	9	A 4	361	45	5	Α	4973	3 599		45	7	Δ	362	45	5 4
eservation Road,		55 V			11750 1		55		A		55	5 11	A	11726	1127	55	10	A 1	208	55	11	Α	9554 110	20	.55	10 4	761	 	55 7	A	06	97 1096			10					1		1							
m Salinas Road to Imjin Parkwa	way 2	55 E		10,995	12234 1	1328	55	12	В	1070	55	5 1D	Α	12397	1345	55	12	B 1	073		10		9392 85				990		55 9			193 898			8			55	7			1 1059			10		109	55	5 10
			4									L																		+-	+	1000		221	0	A 9	25	55	9	A	9329	9 1289		55 1	12	3	937	55	5 9
ris Road,		55 N			15305 1		55		В		55	5 11	A	15716	1602	55	15	B 1	322	55	12	8	24171 270	37	55	25 0	1778	1 10 10 10 10 10 10 10 10 10 10 10 10 10	55 16	-	242	264 2708	-		25							1							1
n Market St to Rossi St.	2	55 5		16,000	14889 1	1394	55	13	В	1451	- 55	13	В	15325	1443	55	13	B 1	470	55	13		23004 193				2619		55 24				· · · · · · · · · · · · · · · · · · ·		18			55	17			8 2632			24		708		5 16
		ν													1									-							2011	1970		- 20	16	8 26	32	55	24	С	2224	6 1854		55 1	17	3 2	.555	55	5 23
																								1			+ 1				+	-					+		-	-		1-1							4
inway 101,		65 8			27666 2		65		В		65	21	С	27656	2283	65	18	B 2	699	65	21	С	39560 343	30	84	27 0	3544	· · · · · · · · · · · · · · · · · · ·	es 30		305	76 3438	-	64		-4						4-4							4
rel I/C-Boronda I/C	2	65 N		30,102	29070 3	3087	65	24	С	1771	65	14	В	29049	3083	65	24	C 1	788		14		39819 366				2890		65 22			395 3650			27				29			3 3414			27		3555	63	3 28
																						-				23 1	2000		<u>∞ </u>		390	3030		63	29	D 29	311	65	22	C	39659	9 3658		63 2	29) 2	2867	65	5 22
hway 1,		65 5			42659 3		65	18	В	4612	65	24	С	42993	3459	65	18	В 4	684	65	24	c	56477 463	32	65	24 C	5867		61 32			20.4										\perp							4
ttlighter VC-Freemont VC		65 N		46,139	44225 4	1955	64	26	С	2987	65	15	В	44592	5018			C 2					60027 653			36 E			65 21						24				32			4 4613				5 5		61	1 32
Add one NB HOV Lane	4	65 N																					653			26 C			65 16						97				21		60062	2 6678			37		100	65	5 21
									1 1										-				- 1 - 0	7			4110		16	18		6575		6U 3	27	U 41	1/	65	16	В		6678		60 2	28) 4	100	65	5 16
way 68,		65 E			15262 1		65	11	A	1469	65	11.	A	15194	1413	65	11.	A 1	465	65	11	A	20231 194	12	65	15 B	4777	·	00 10													1							1
Rd I/C-Spreckles I/C	2	65 V		15,815	14515 1	1538	65	12	В	1191	65	9	A	14869				B 1					19860 192			15 B			65 13			89 1965	<u> </u>		15				13			3 1902		65 15			725	65	5 13
												1						<u> </u>					15500 192	-	- 00	19. B	1877		00 14	B	1998	1965		65	15	B 18	30	65	14	В	19268	8 1837		65 14	14	3 1	841	65	5 14
arrison	2	35 V		0	. 0	0				0	· · · · · · · · · · · · · · · · · · ·			1449	131	35	2	Α -	162	35	2	 -	6090 96	4					_		4															T			
st Entrance	2	35 E		0	0	0			1	o		1	1	1861				A			2		5871 60				403		35 6			05 889			13				- 6		C	0 0					0		
									1							- 33	· ·	-^-		20		-	38/1 60	А	35	9 A	717		35 10	. A	550	506 553		35	8	A 7	17	35	10	Α.	C	0 0					0		1
arrison	2	25 V		. 0	0	0			1	0		1	1	1596	139	26		A	167		3	$\overline{}$	2161 16				224		25 - 4		-	56 225					1												1
		25 E																																25		A 3													

Multi Lane Highways (more than two lanes)

Density in vehicles per mile per lane (vpmpl) = Flow/(Average Travel speed X Number of Lanes)

Average Travel Speed derived from Exhibit 21-3 in 2000 HCM manual

Density is used to determine the level of service (LOS) for a multi-lane highway segment as per the 2000 HCM method:

Density Range (vpmpl) LOS

0 - 11 A

>11 - 18 B

>18 - 26 C

>26 - 35 D

>35 - 46 E

>46 F

Traffic conditions with unacceptable Levels of service are highlighted