NORTHEASTERN INDIANA REGIONAL COORDINATING COUNCIL

AIRPORT EXPRESSWAY CORRIDOR AND IMPACT ANALYSIS

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Introduction:

The main purpose of a corridor and impact analysis is to evaluate traffic impacts of future developments on an existing corridor. The corridor analysis estimates the number of new trips from anticipated developments that will be added to an existing facility to examine the changes in level of service (LOS). LOS is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. LOS is based upon the average stopped delay per vehicle for various movements within the intersection. LOS "A" describes operations with very low delays, most vehicles do not stop at all. LOS "C" describes operations with longer delays, stopping vehicles are significant but many still pass without stopping. LOS "F" describes operations with delays unacceptable to most drivers, the intersection is exceeding capacity.

Table 1 and 2 show the LOS and the corresponding delay as given in the Highway Capacity Manual Special Report 209, 2010. When service levels fall below acceptable levels, recommendations are tested to accommodate future traffic and relieve anticipated congestion problems along the corridor. Information provided by a corridor and impact analysis helps in developing a corridor protection plan that can be an efficient tool for mitigating potential congestion. Corridor and impact analysis also identify problem areas and develop recommendations for roadway improvements.

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Stopped Delay Per Vehicle (sec)
A	≤10.0
B	>10.0 and ≤20.0
C	>20.0 and ≤35.0
D	>35.0 and ≤55.0
E	>55.0 and ≤80.0
F	>80.0

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Stopped Delay Per Vehicle (sec)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

Methodology

The intersections were analyzed using Synchro 10. The analyses were performed for three different levels of land use development including existing conditions, phase I developments, and phase II developments. Phase I focuses on proposed/approved land use developments and phase II focuses on potential developments on currently vacant land within the defined study area. Phase I has a one to five year horizon, while phase II has a five to ten year horizon. In phase II, vacant land is reviewed for development potential, and likely future developments are assessed.

The future developments are based upon surrounding land uses, current zoning, community desires, and staff knowledge of development activity. Various maps, aerial photos, and field surveys assisted in reviewing the

three phases of land use developments. For the phase I and phase II future analyses, projected traffic from future developments was forecasted from the ITE Trip Generation Manual 9th edition. The number of trips was based upon the size and type of each development. After determining the number of trips from each residential or commercial development, the trips were distributed and assigned to the adjacent roads and intersections along the corridor based upon logic and existing travel distribution patterns.

Special attention was paid to the number of trips from multiple commercial developments to exclude internal trips and adjust for pass-by trips, to obtain net new trips. After trip generation, trip distribution and traffic assignment, trips from future developments were added to existing trips. Based upon the distribution patterns, turning volumes for each of the major intersections were established for both phase I and phase II scenarios. The new traffic volumes were used to perform intersection analyses for the phase I and phase II development schemes. When intersection analyses indicated level-of-service beyond LOS "D", geometric improvement recommendations were developed or were analyzed using Synchro 10. The program was used to optimize existing traffic signal phasing and to analyze potential signalization of currently unsignalized intersections.

Airport Expressway Corridor and Impact Analysis

The study of Airport Expressway was initiated by NIRCC in FY18 due to the developments along the corridor. Airport Expressway is classified as an arterial. It's a east/west corridor on the southwest side of the City of Fort Wayne. This study focuses on three separate sections of the corridor; the first section starts from Homestead Road on the west and ends at Coverdale Road on the east. The second section starts at Coverdale Road and ends at the Railroad Crossing. The third section starts at the Railroad Crossing and ends at Lower Huntington Road.

This report examines the following scenarios:

- Scenario 1: Existing Traffic Volumes
- Scenario 2: Existing volumes + traffic generated by the proposed developments(Phase I)
- Scenario 3: Existing volumes + traffic generated by the proposed developments(Phase I) + traffic generated by the areas with a potential for development (Phase II)

Table 3 shows the Airport Expressway average annual daily traffic (AADT) volumes. With the fluctuations in AADT volumes over the years the average annual growth rate was estimated to be 1.5% along Airport Expressway and 1.0% for all secondary roads. Figure 1 and 2 shows the corridor and impact analysis area boundary. The study focused on four signalized and eleven stop controlled intersections along the corridor.

Table 3: Airport Expressway AADT Traffic Volumes

Location	2018	2017	2014
Homestead Road to Interstate 69	7350		5840
Interstate 69 to Lwr Huntington Road	12740	12900	10400
Lwr Huntington Road to Coverdale Road	11300	11430	8900
Coverdale Road to Smith Road	16250	14400	12600
Smith Road to Aviation Drive	17700	15200	13700
Aviation Drive to Ardmore Avenue	15800	14100	11200
Ardmore Avenue to Bluffton Road	14300	13100	10800
Bluffton Road to Lwr Huntington Road	9800	9000	7700

Section 1: Airport Expressway/Lower Huntington Road:Homestead Rd to Coverdale Rd

Existing Analysis

Figure 3 shows existing average AADT on each link in the corridor and impact analysis area. This data is based upon 48-hour weekday counts averaged for a 24-hour daily volume. Axle correction factors and seasonal adjustment factors are applied to the volume data. The existing analysis is based on 2017/2018 turning movement counts and geometric configurations. The analysis is for the a.m. and p.m. peak periods. The outputs from Synchro 10 for both a.m./p.m. peaks for the intersections are listed in Appendix A.

Trip Generation

The distribution of the population within the area, the characteristics of the roadway system, and degree of

Figure 1

Airport Expressway Study Area Boundaries

Figure 2

Airport Expressway Study Area Boundaries

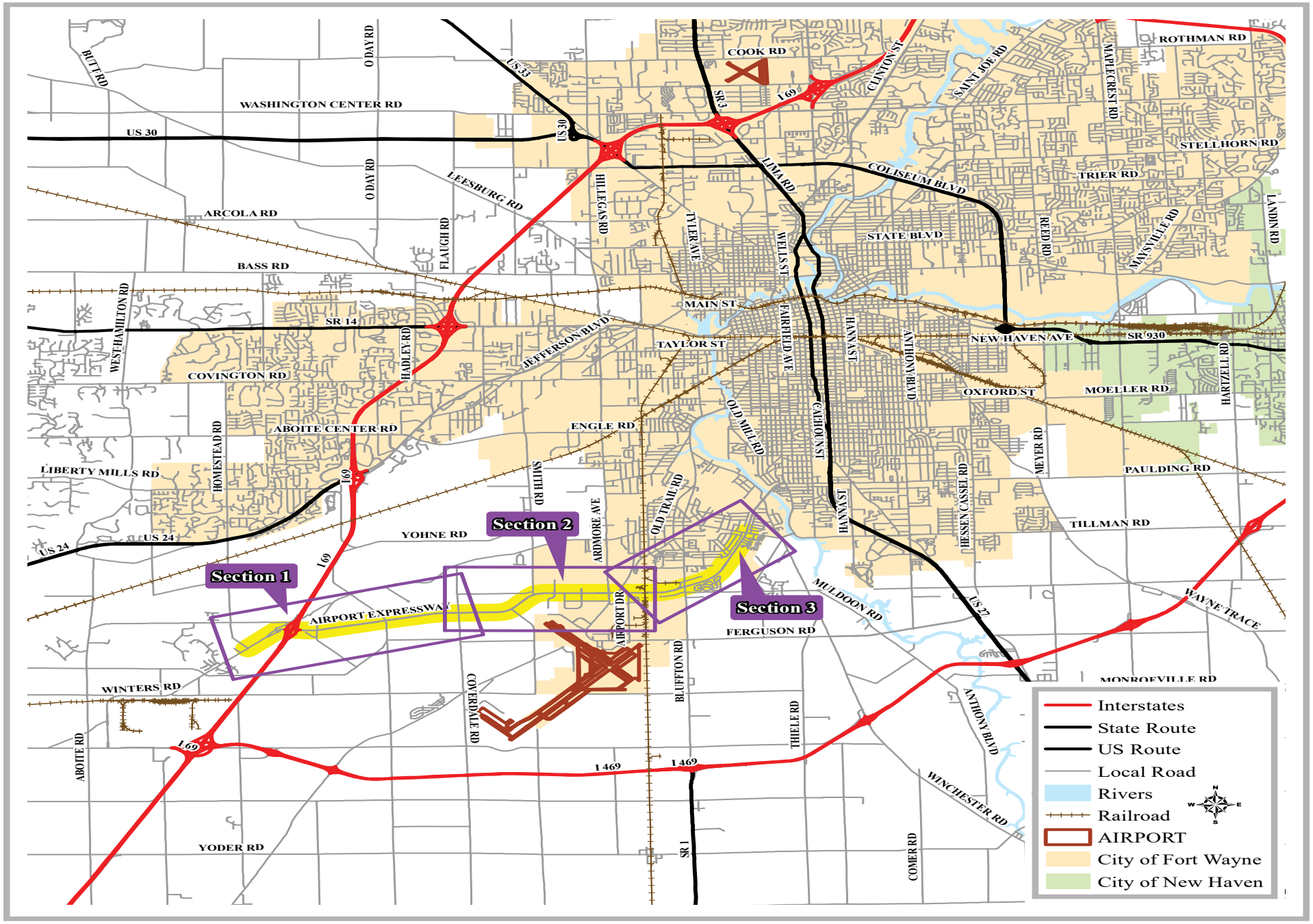
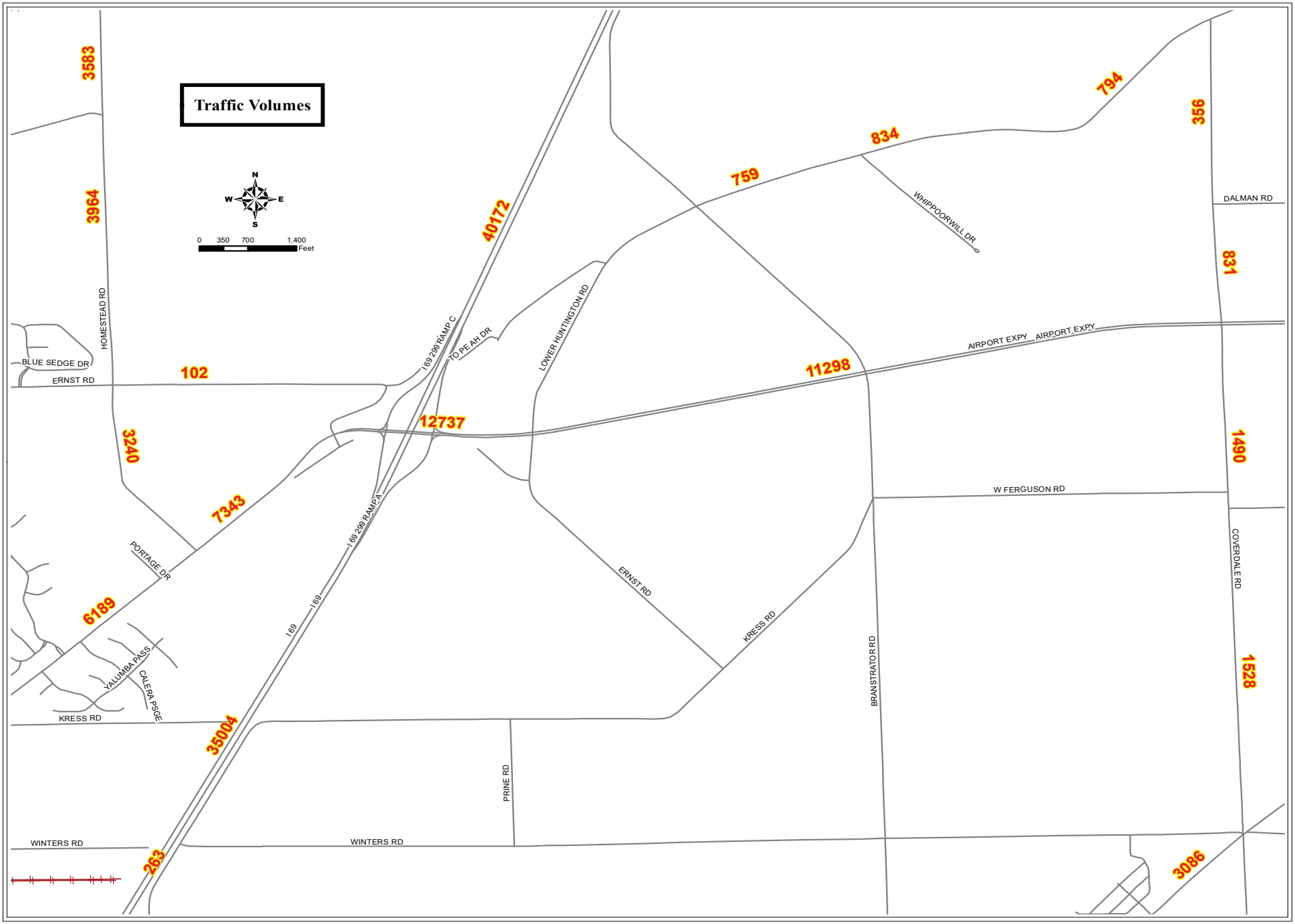


Figure 3

Existing Average Daily Traffic Distribution for Airport Expressway for Section 1



congestion on the corresponding roadway affect the directional distribution of site-generated traffic. The trip distributions for this study area were determined by examining the existing traffic counts, and by evaluating the major traffic generators in the vicinity of the study area.

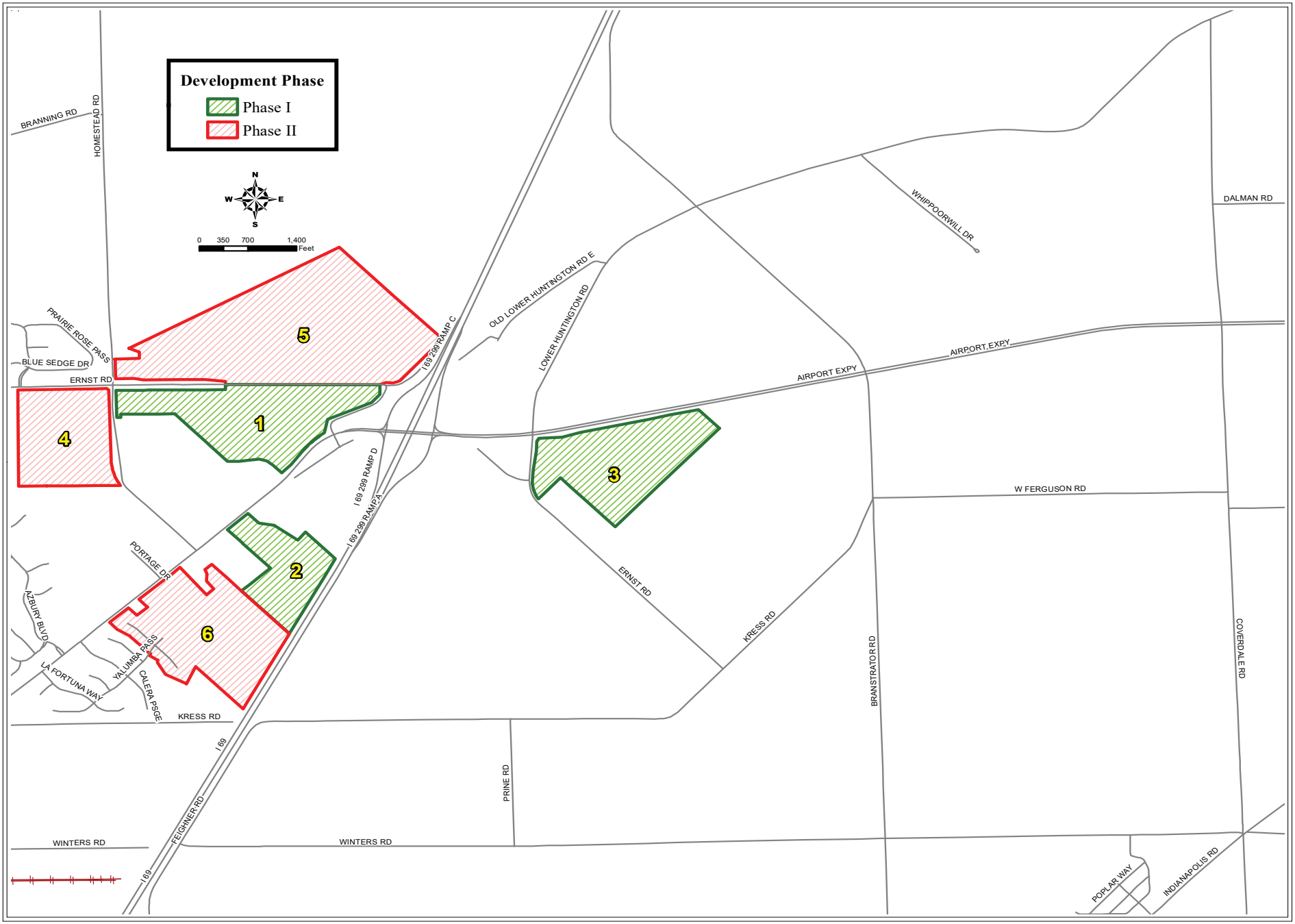
The ITE Trip Generation Manual, 9th edition was used to forecast the number of new trips from phase I and phase II residential and commercial developments. After determining the number of trips from each residential or commercial development, the trips were distributed and assigned to the adjacent roads and intersections along the corridor based upon existing traffic patterns of distribution as described earlier. The new trips were added to the existing traffic volumes to obtain the turning movement distributions for each intersection for the phase I and phase II scenarios. The new traffic volumes were used to perform the intersection analysis. The developments for section 1 are listed in Table 4 and shows their location in Figure 4. The outputs from Synchro 10 for both a.m./p.m. peaks for each intersection are listed in Appendix A.

Table 4: New Trips from Phase I Residential/Commercial Development (combined)

	Peak-Enter		Peak-Exit	
Site	**AM**	**PM**	**AM**	**PM**
1. Mixed Use - 60 Acres	220	659	135	715
2. Residential ~30 Acres	19	54	44	28
3. Industrial ~ 58 Acres	392	153	69	356
New Trips from Phase II Residential/Commercial Development for Section 2 (combined)				
4. Residential ~46 Acres	29	83	67	43
5. Mix Use - 130 Acres	81	234	189	121
6. Residential ~65 Acres	41	117	95	60

Figure 4

Residential/Commercial Developments for Airport Expressway for Section 1



Homestead Road at Lower Huntington Road

Scenario 1: - Existing Conditions

Homestead Road and Lower Huntington Road are 2-lane facilities. Figure 5 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a Level of Service (LOS) "F" for a.m. and "C" for p.m. peak hours for southbound movement.

Scenario 2: - Proposed Development Recommendations

The intersection will operate at a LOS "F" for a.m. and p.m. peak hour with the added trips of phase I for southbound movement. The intersection can be improved to a LOS "A" for a.m. and p.m. peak hours with adding exclusive turn lanes on all approaches and signalization. See Figures 6 and 7 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The intersection will operate at a LOS "B" for a.m. and "D" during the p.m. peak hour with the added trips of phase II. See Figure 8 for the a.m. and p.m. peak volumes, and LOS.

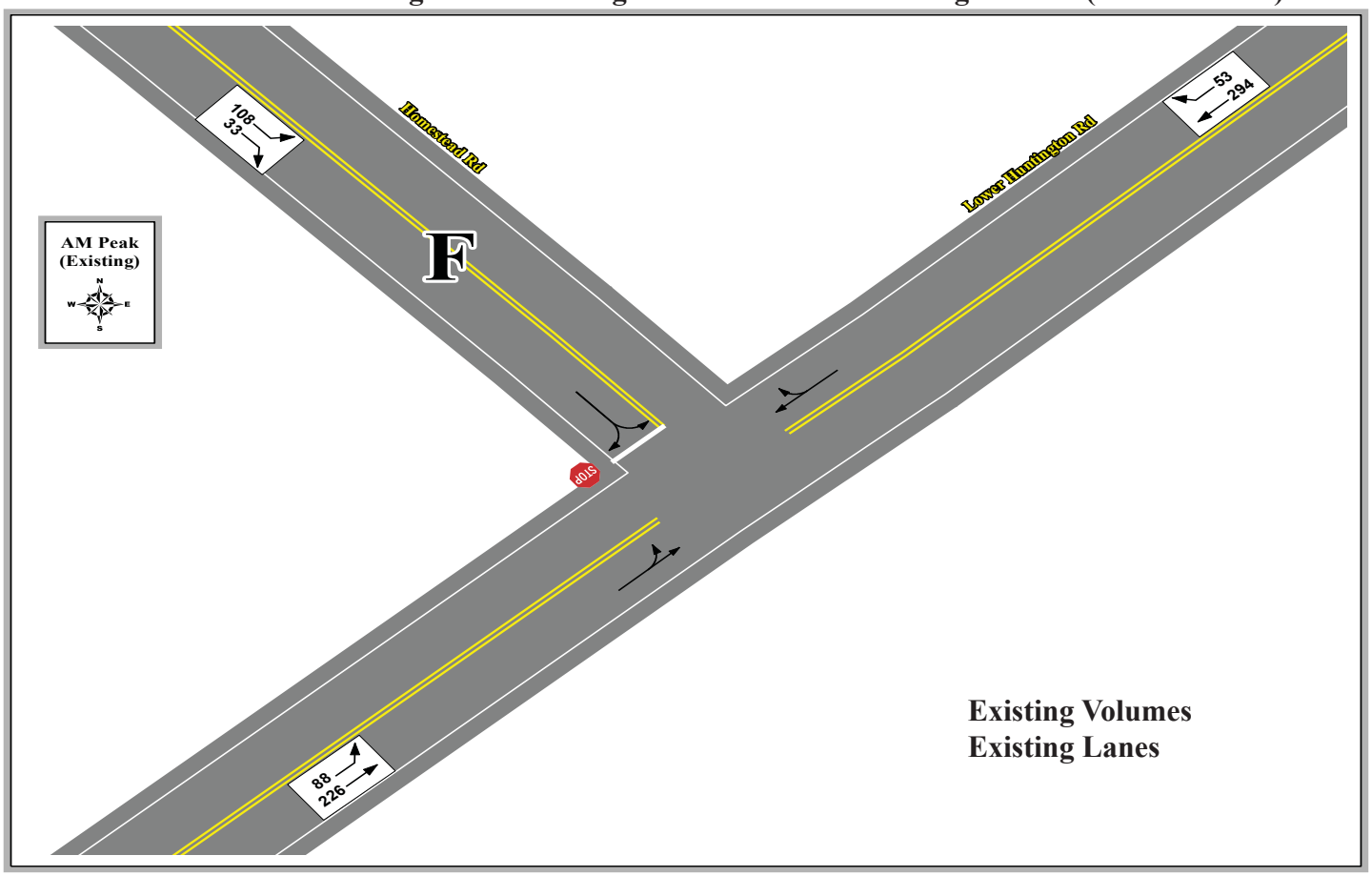
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Homestead Rd @ Lower Huntington Rd				
AM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	F	A	A	NA
Phase I Existing Lanes	F	A	A	NA
Phase I Modified	B	B	A	A
Phase II - Phase I Lanes	B	B	A	B

PM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	C	A	A	NA
Phase I Existing Lanes	F	B	A	NA
Phase I Modified	A	A	A	A
Phase II - Phase I Lanes	E	C	A	C

Figure 5

Homestead Rd / Lower Huntington Rd Existing Volumes and Lane Configurations (AM/PM Peak)



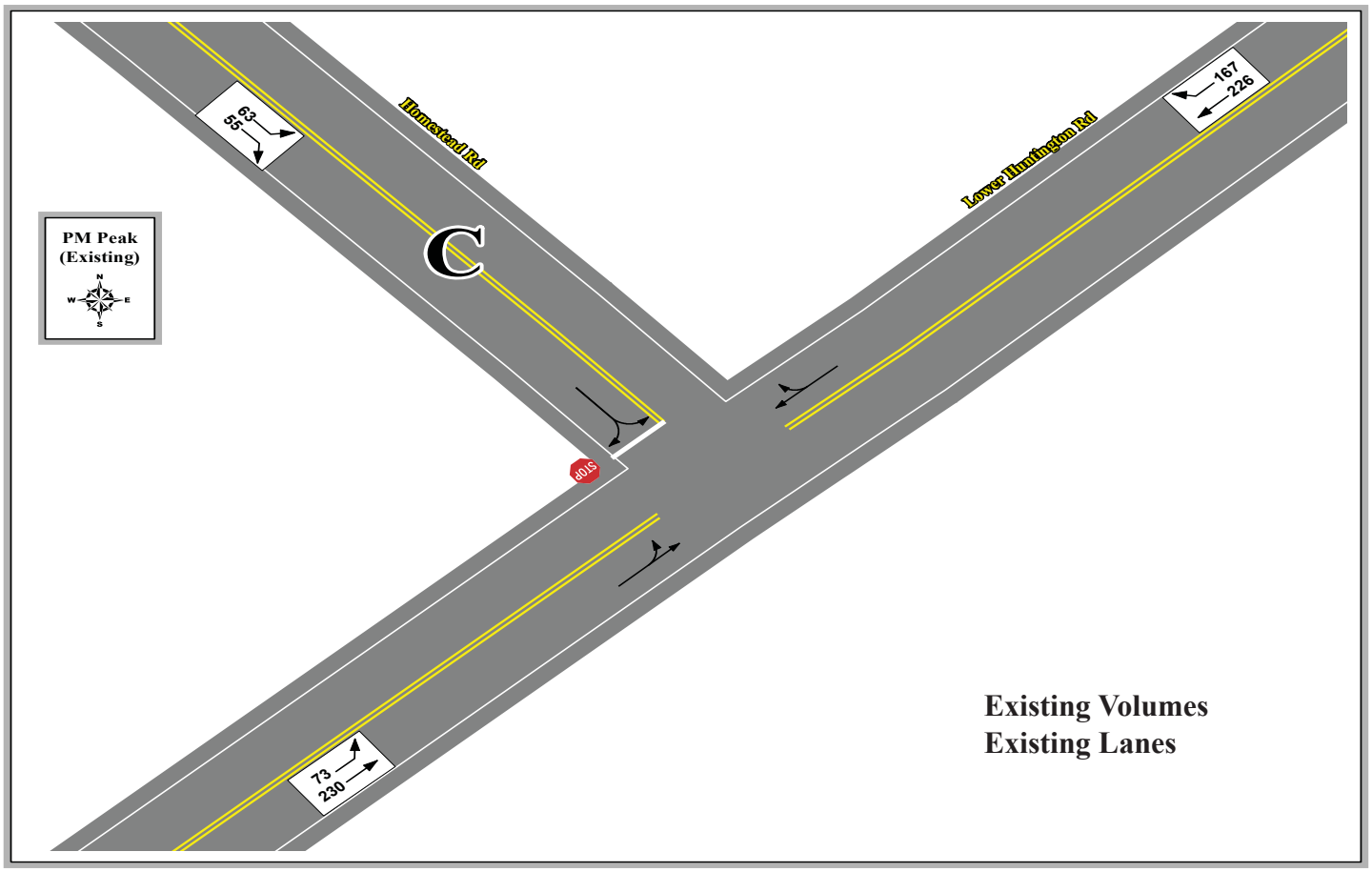
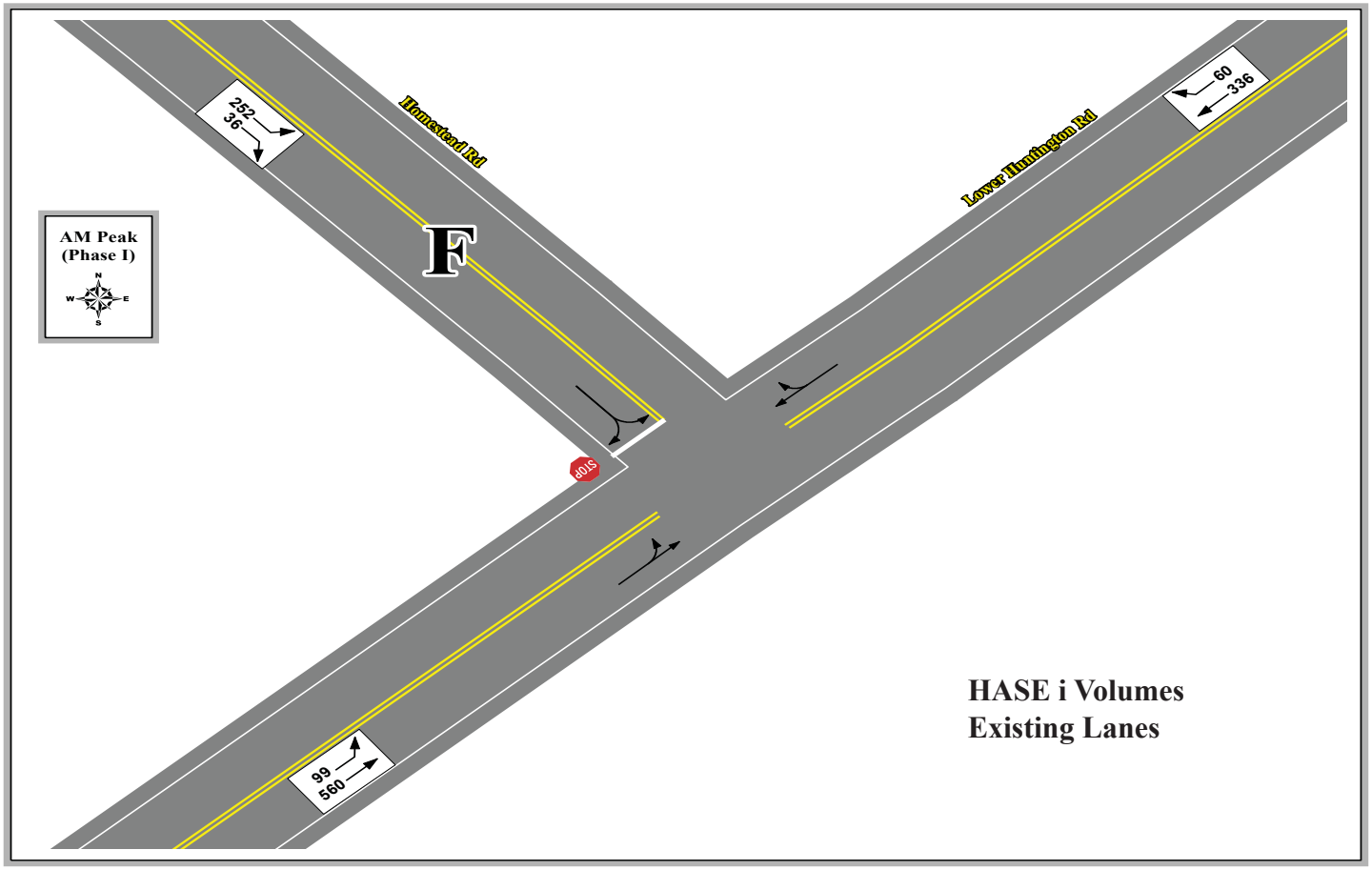


Figure 6

Homestead Rd / Lwr Huntington Rd Phase I Volumes and Existing / Proposed Improvements (AM Peak)



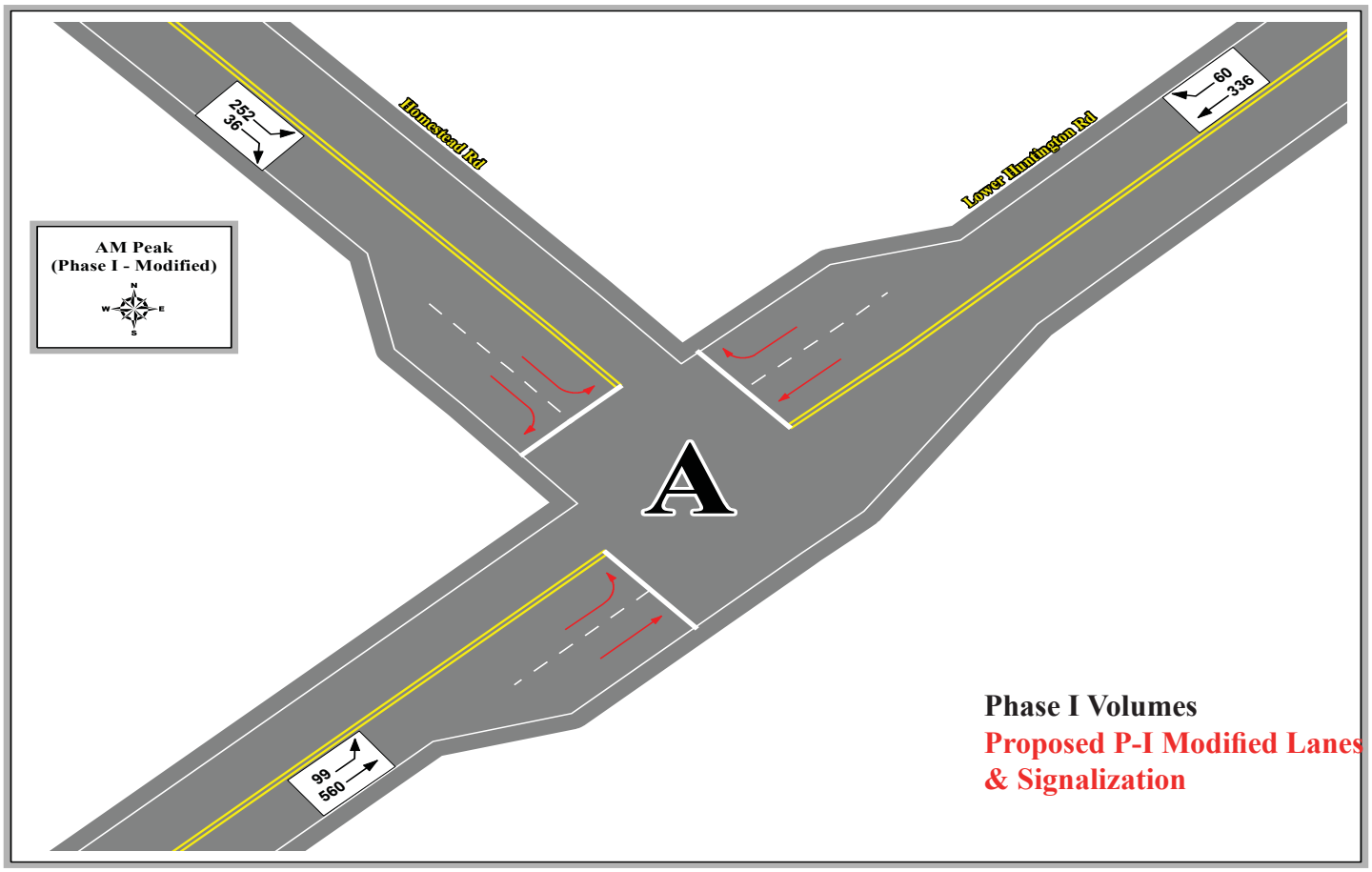
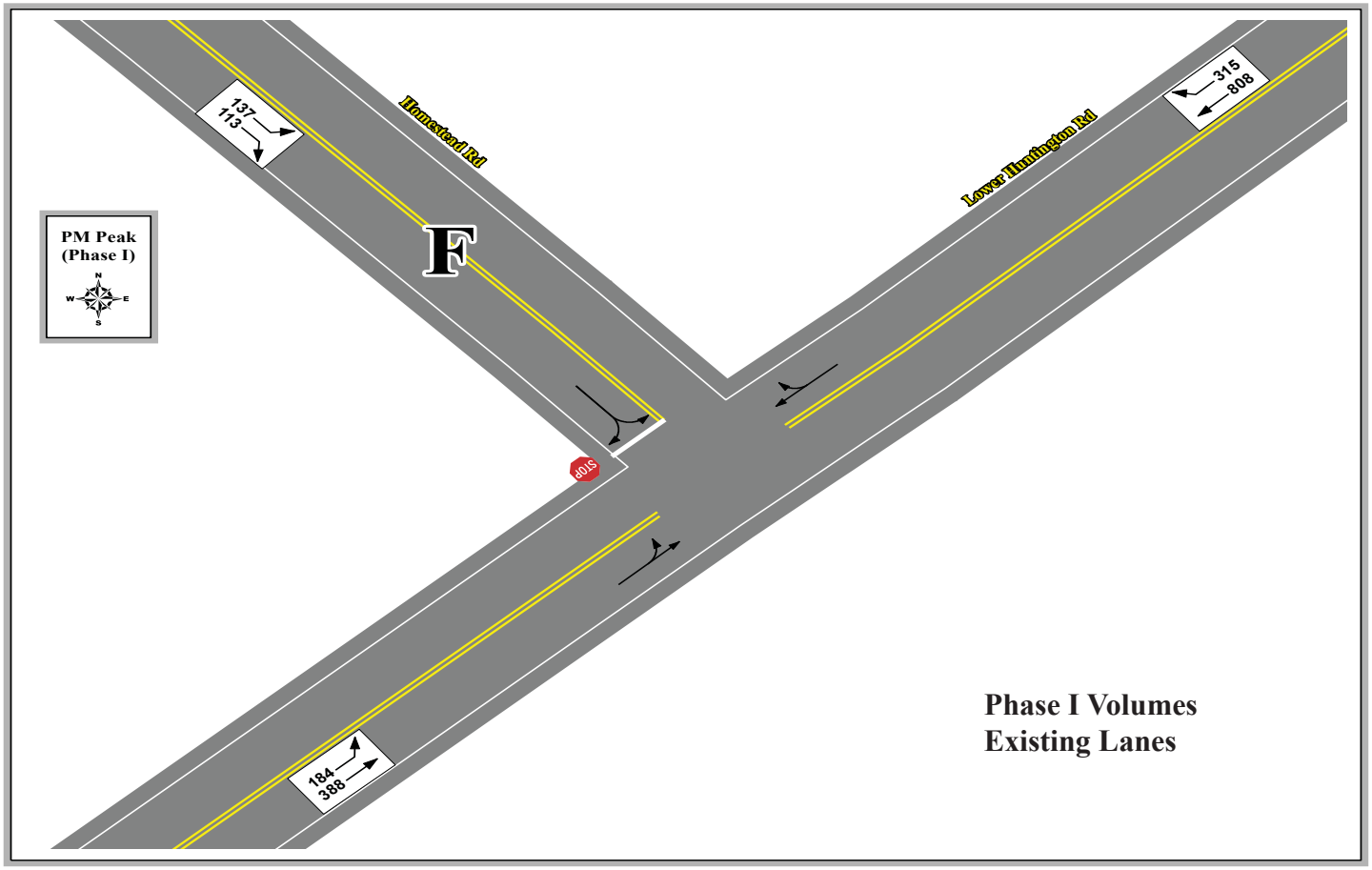


Figure 7

Homestead Rd / Lwr Huntington Rd Phase I Volumes and Existing / Proposed Improvements (PM Peak)



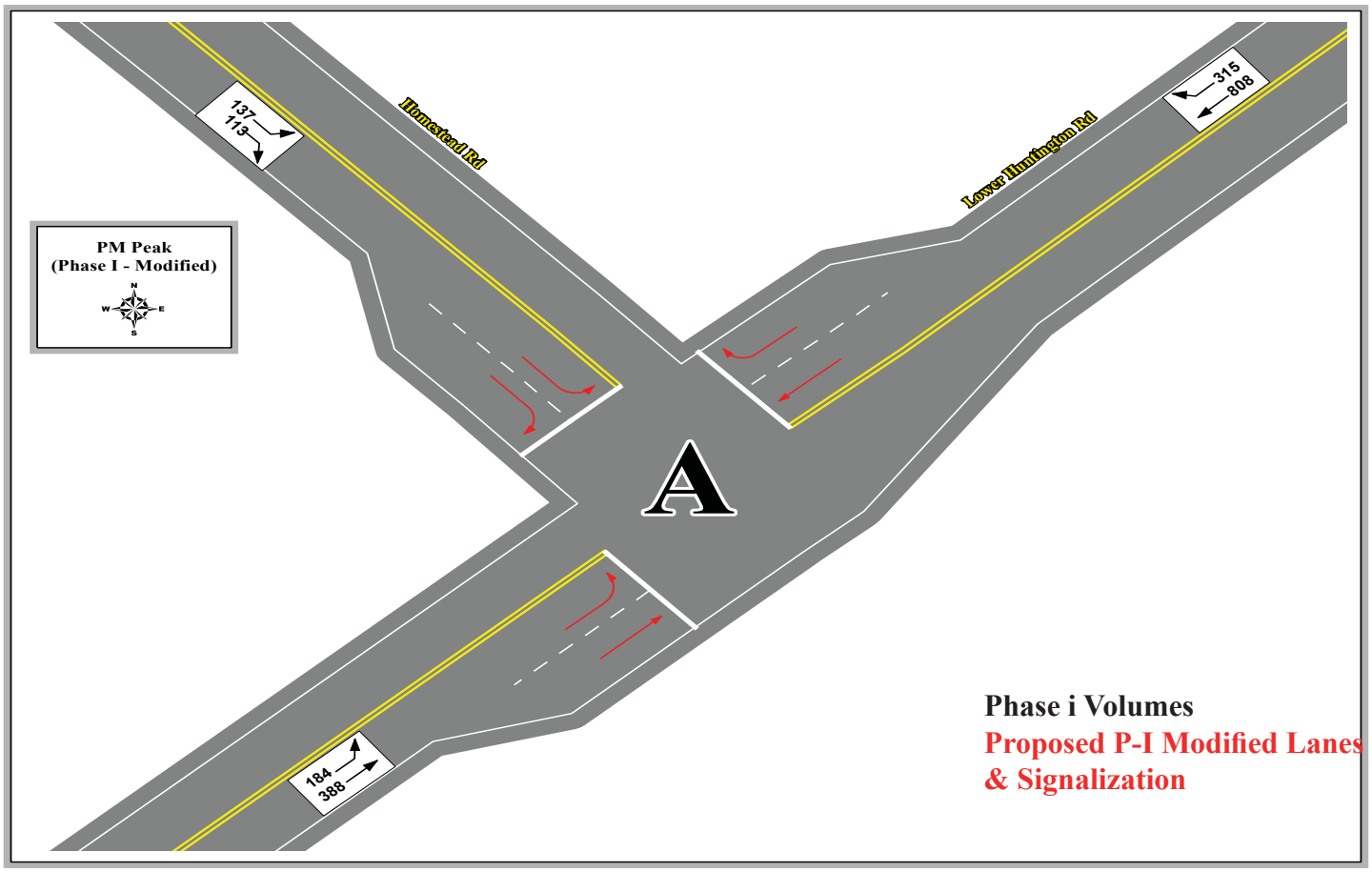
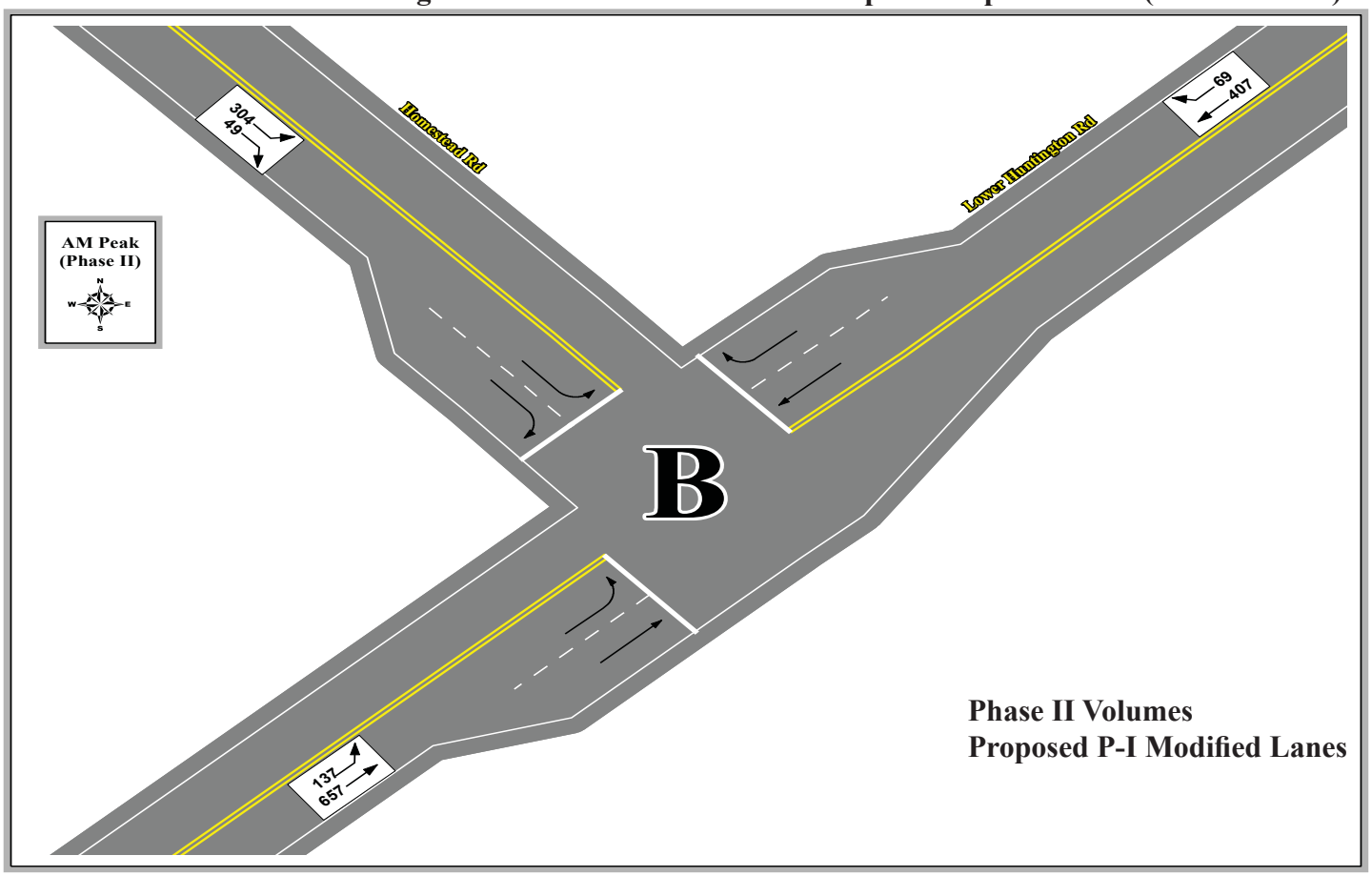
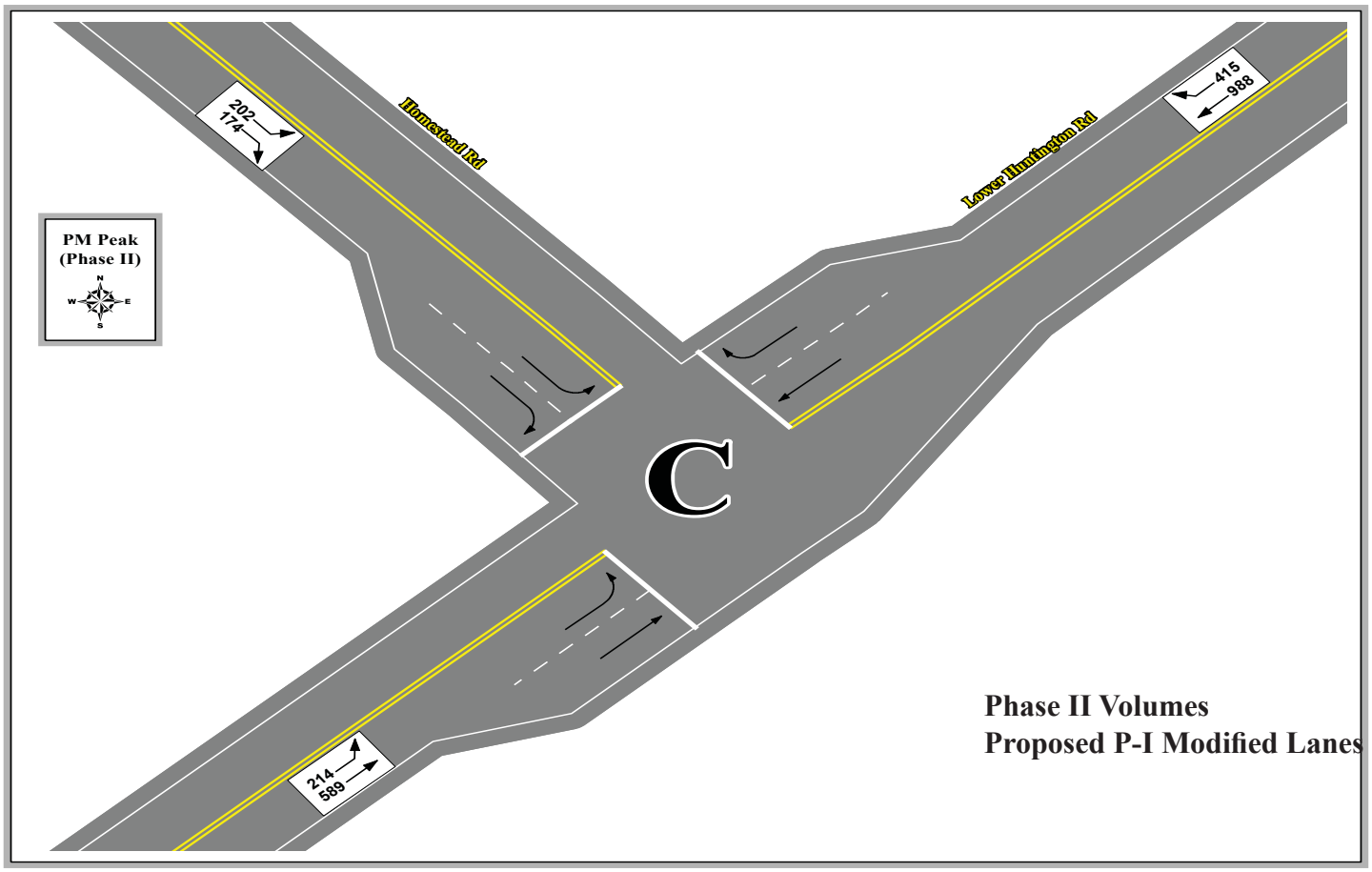


Figure 8

Homestead Rd / Lower Huntington Rd Phase II Volumes and Proposed Improvements (AM/PM Peak)





Airport Expressway at Interstate 69 Ramp C/D

Scenario 1: - Existing Conditions

Airport Expressway is a 2-lane facility and Interstate 69 Ramp C/D is a one lane facility at this intersection. Figure 9 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a Level of Service (LOS) "B" for a.m. and "A" for p.m. peak hours.

Scenario 2: - Proposed Development Recommendations

The intersection will operate at a LOS "F" for a.m. and an "B" during the p.m. peak hour with the added trips of phase I. The intersection can be improved to a LOS "C" for a.m. and "B" for p.m. peak hours with adding a second eastbound through lane. See Figures 10 and 11 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The intersection will operate at a LOS "E" for a.m. and "C" during the p.m. peak hour with the added trips of phase II. The intersection can be improved to a LOS "C" for a.m. and "B" p.m. peak hours with the addition of a second southbound left turn lane. See Figures 12 and 13 for the a.m. and p.m. peak volumes, and LOS.

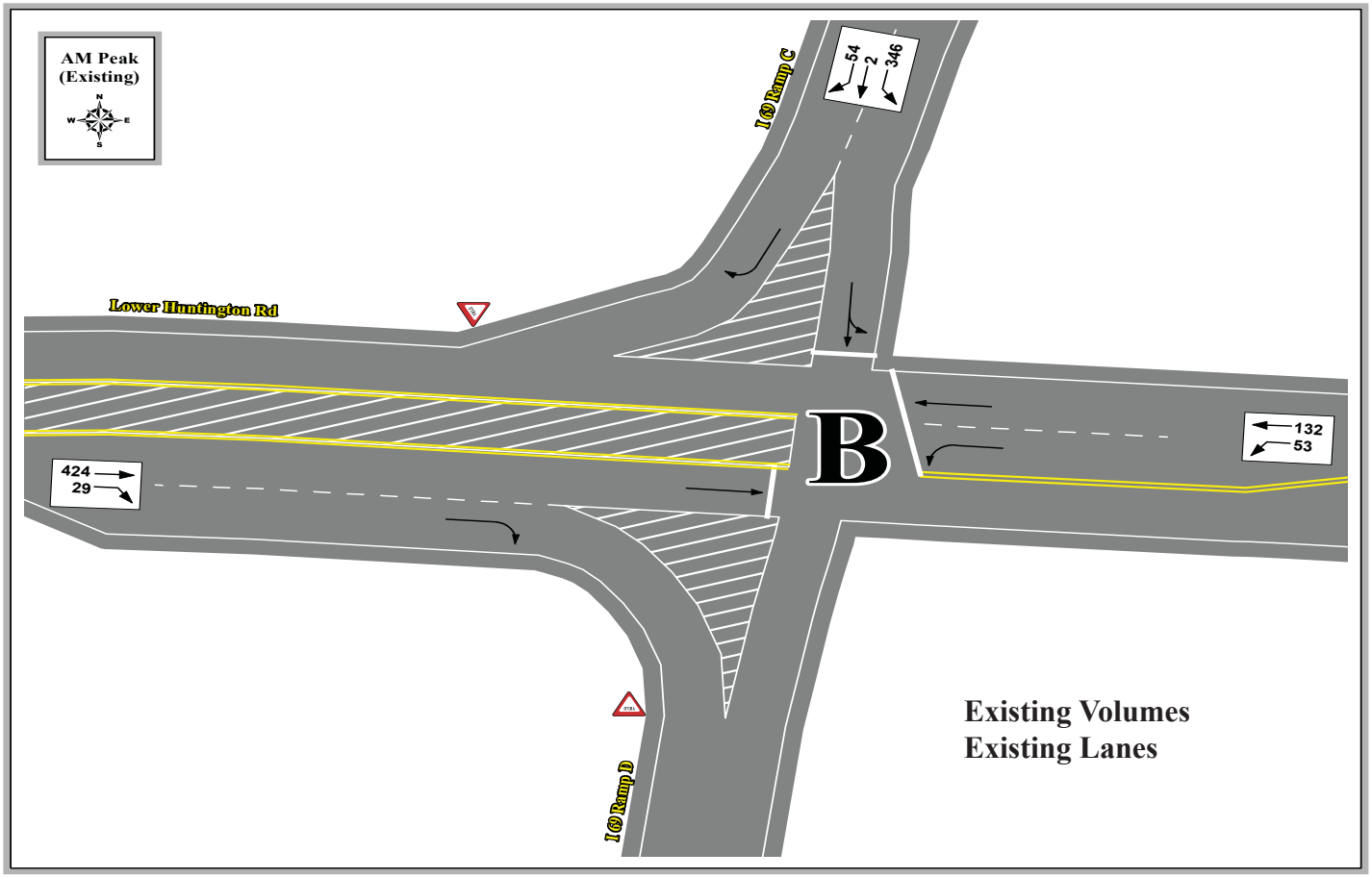
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Interstate 69 Ramp C/D				
AM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	C	B	A	B
Phase I Existing Lanes	F	F	E	F
Phase I Modified	D	C	C	C
Phase II - Phase I Lanes	F	E	E	E
Phase II Modified	D	C	B	C

PM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	A
Phase I Existing Lanes	C	A	B	B
Phase I Modified	C	A	B	B
Phase II - Phase I Lanes	D	A	C	C
Phase II Modified	D	A	B	B

Figure 9

Airport Expressway / Interstate 69 Ramp C/D Existing Volumes and Lane Configurations (AM/PM Peak)



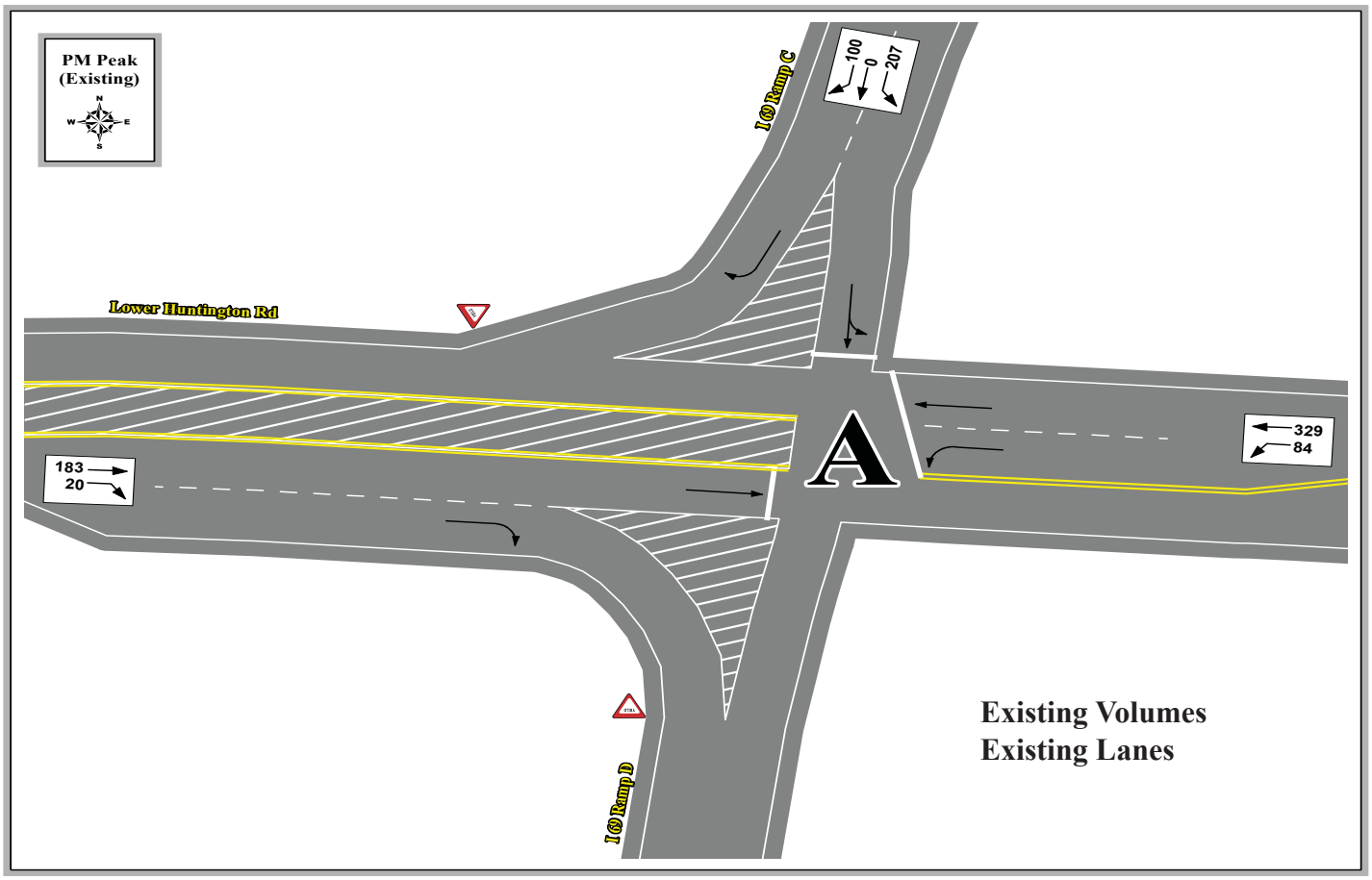
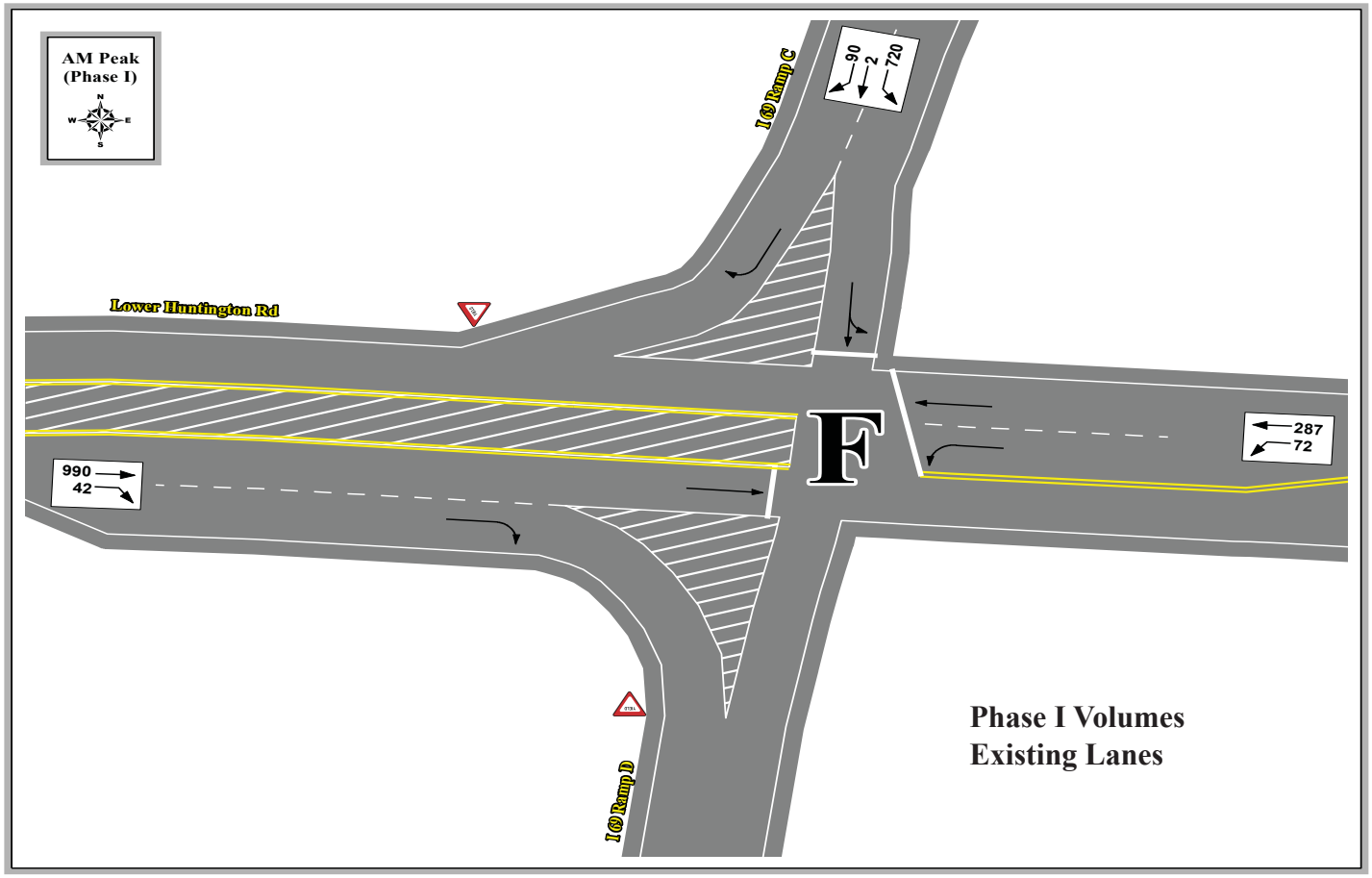


Figure 10

Airport Expressway / I-69 Ramp C/D Phase I Volumes and Existing / Proposed Improvements (AM Peak)



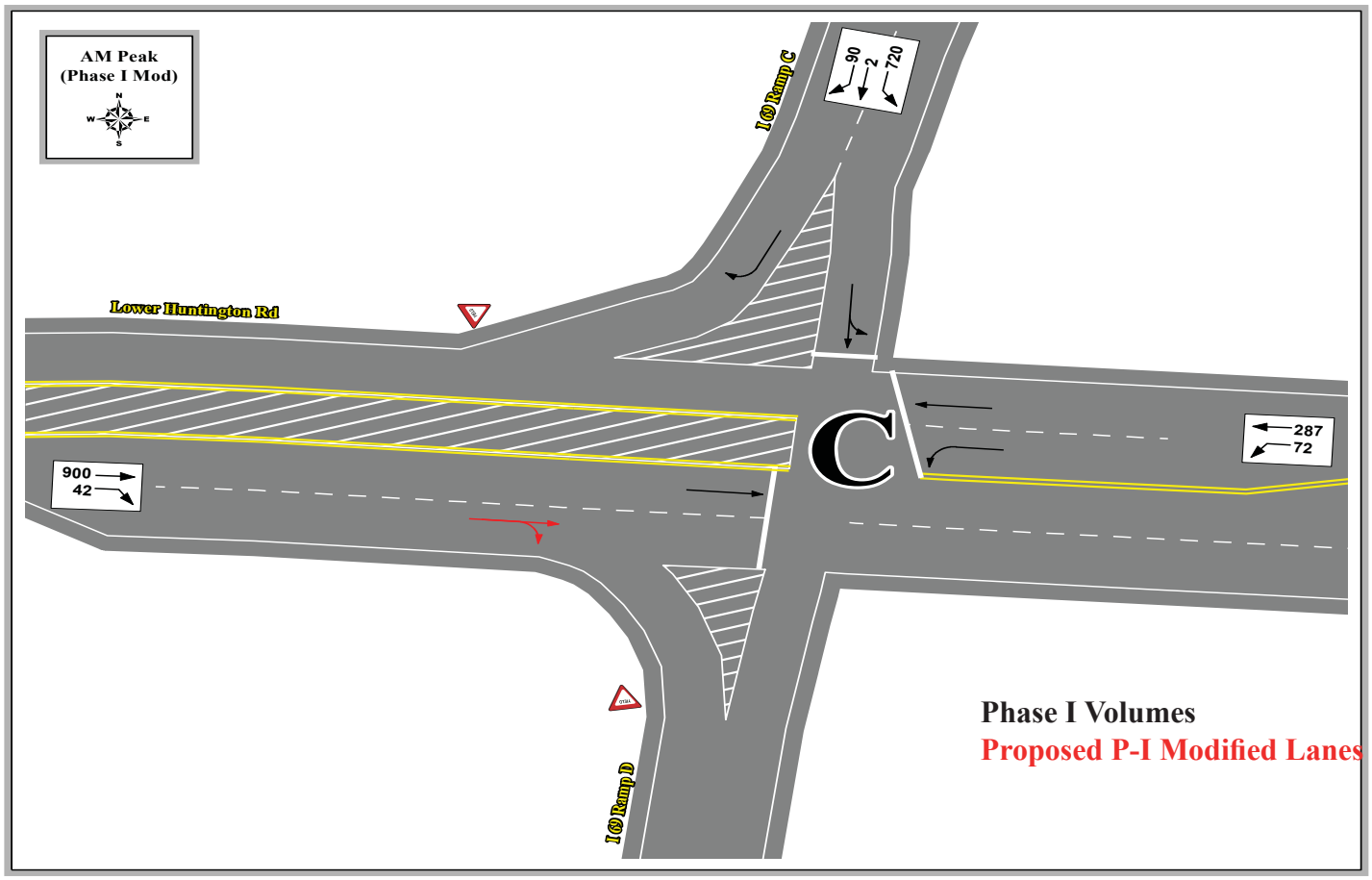
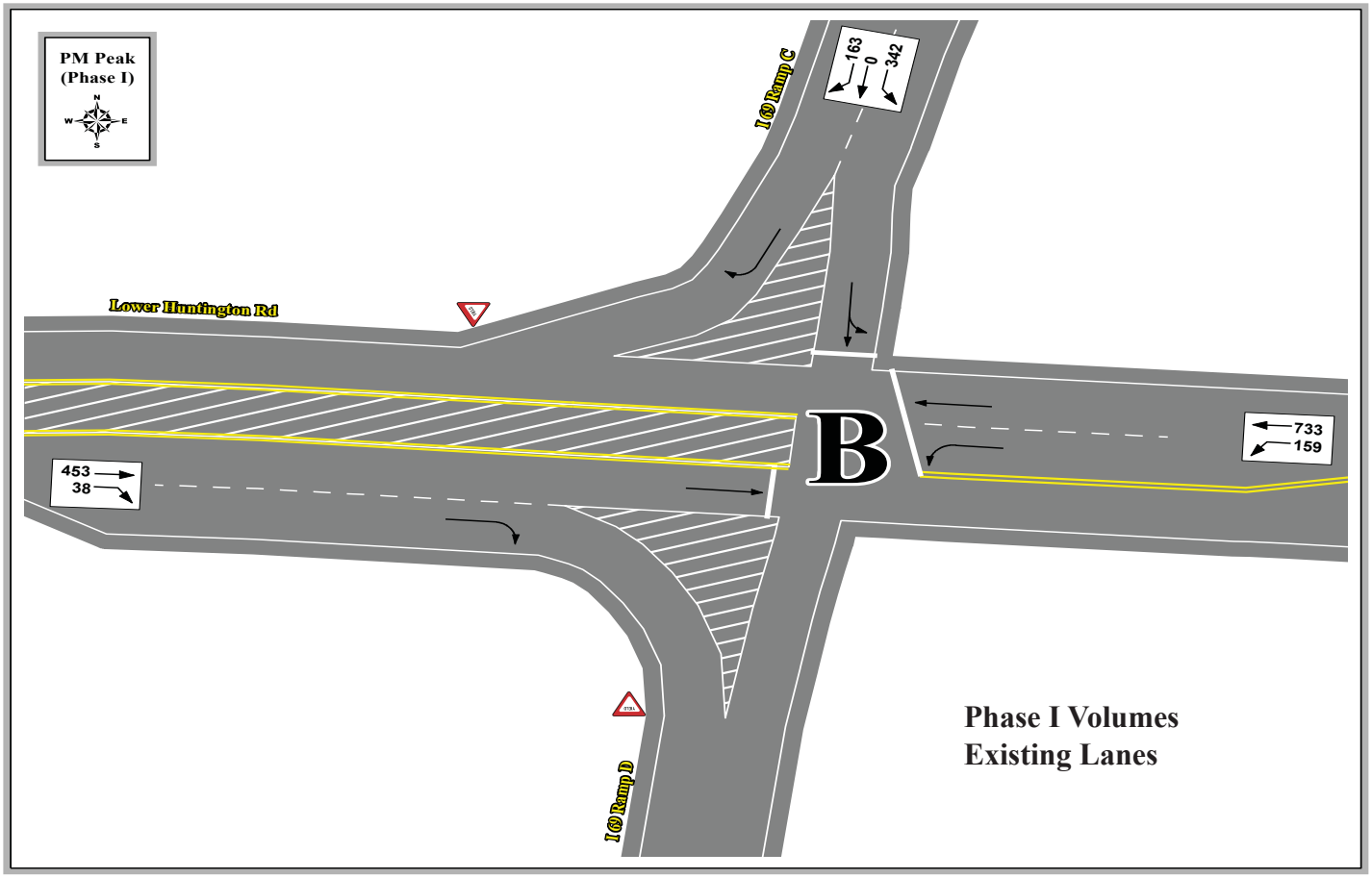


Figure 11

Airport Expressway / I-69 Ramp C/D Phase I Volumes and Existing / Proposed Improvements (PM Peak)



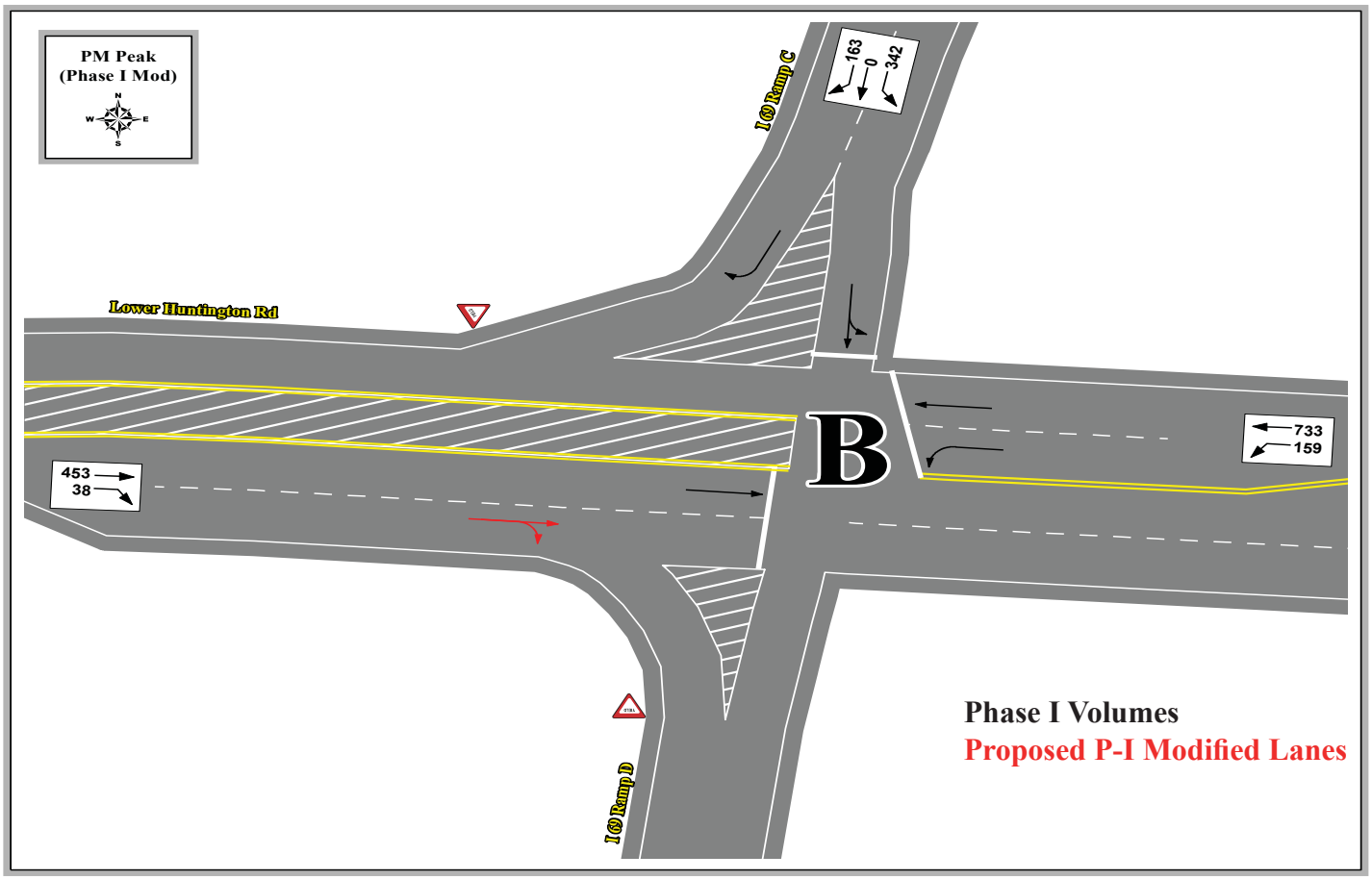
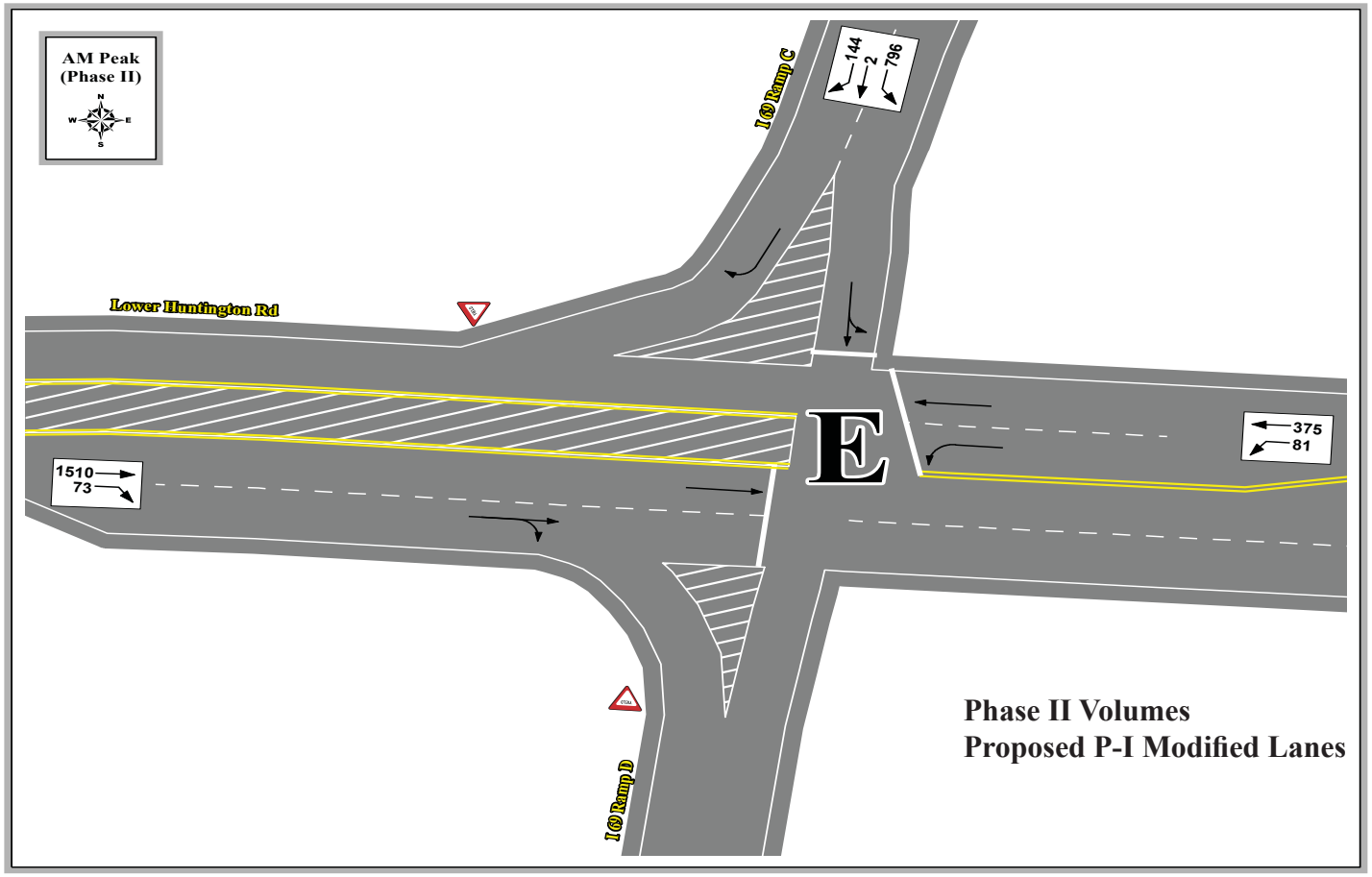


Figure 12

Airport Expressway / I-69 Ramp C/D Phase II Volumes and Existing / Proposed Improvements (AM Peak)



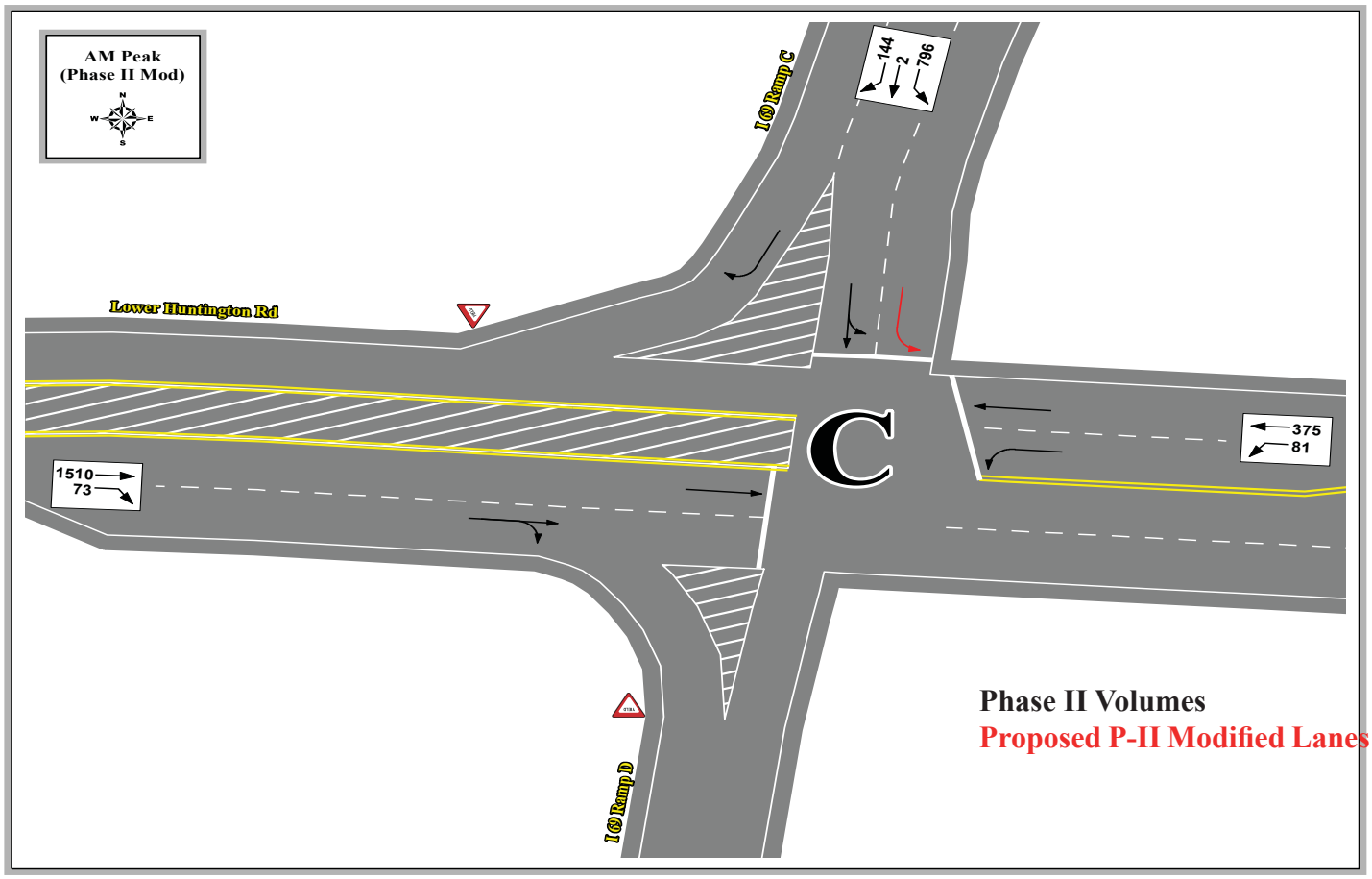
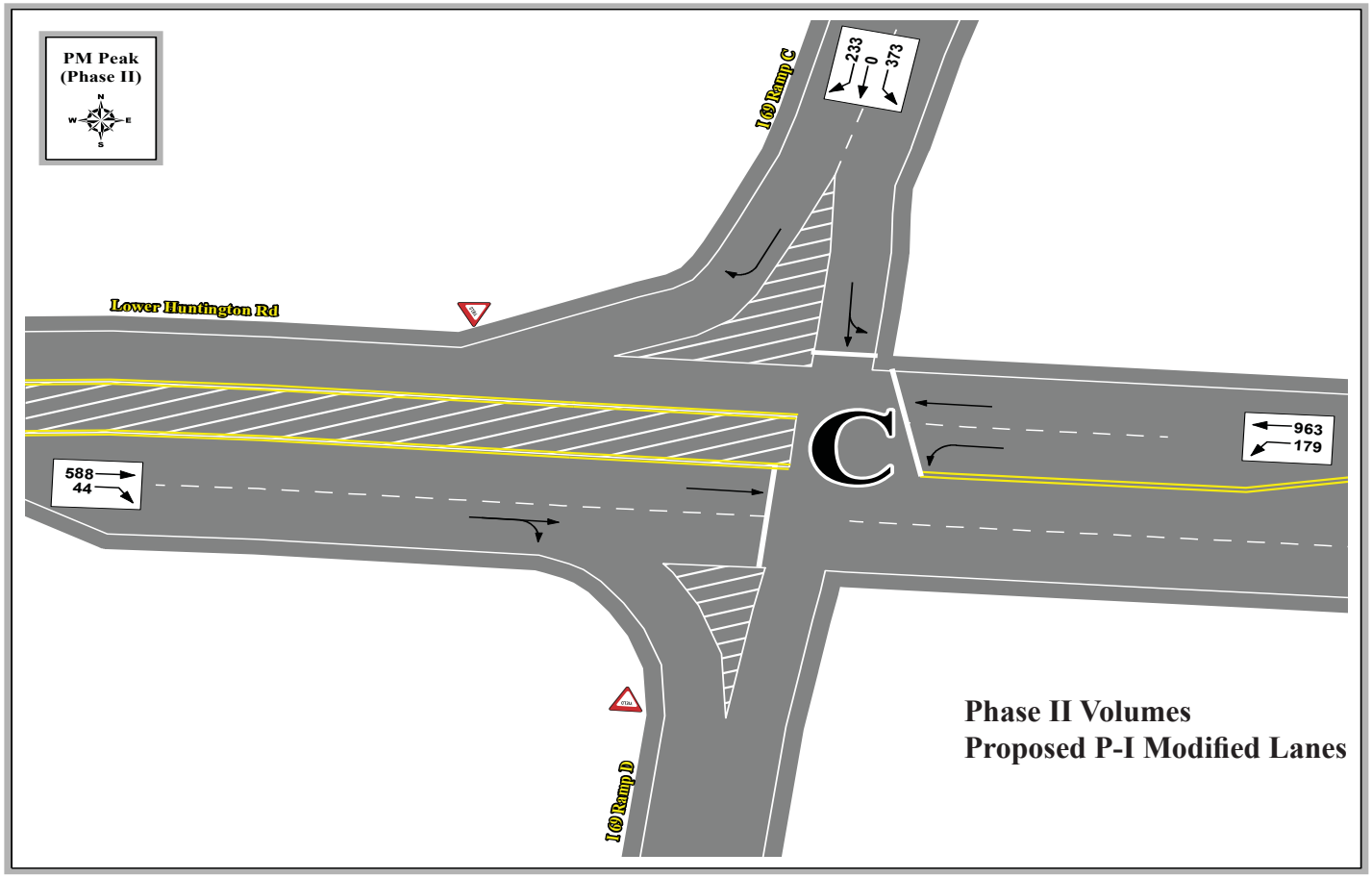
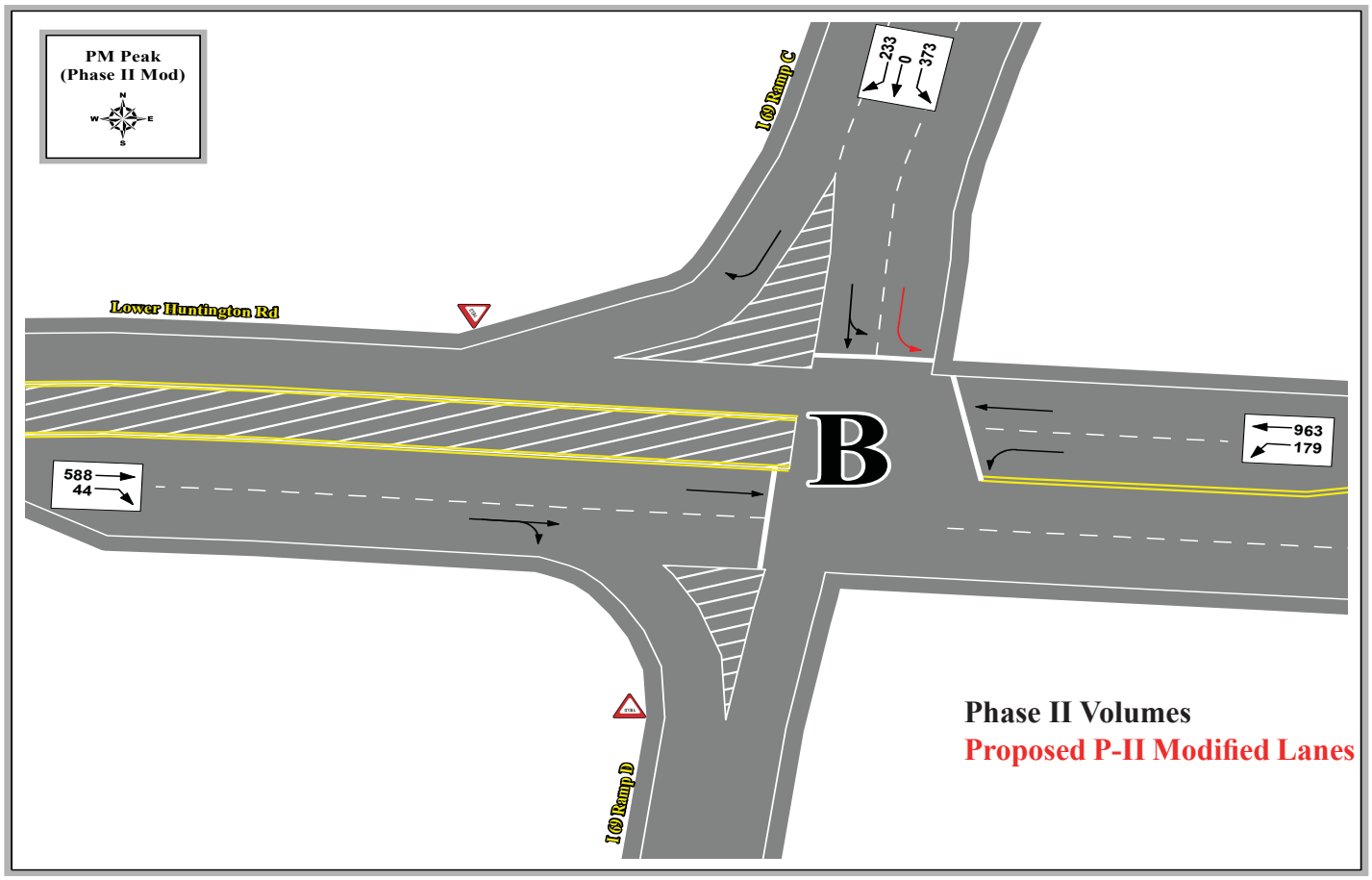


Figure 13

Airport Expressway / I-69 Ramp C/D Phase II Volumes and Existing / Proposed Improvements (AM Peak)





Airport Expressway at Interstate 69 Ramp A/B

Scenario 1: - Existing Conditions

Airport Expressway is a 2-lane facility and Interstate 69 Ramp A/B is a single lane. Figure 14 show the geometry at this intersection, along with the current a.m. and p.m. peak volumes and LOS. The intersection analysis indicates that the northbound movement is currently operating at a Level of Service (LOS) "C" during the a.m. and "B" during the p.m. peak hours for the northbound movement.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate with the added trips of phase I at a LOS "F" during the a.m. peak and a "D" during the p.m. peak hours for the northbound movement. The northbound movement can be improved to a LOS "C" for a.m. and p.m. peak hours with adding a second eastbound through lane. See Figures 15 and 16 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the northbound movement will operate at a LOS "F" during the a.m. peak and p.m. peak with the added trips of phase II. The intersection can be improved to a LOS "D" during the a.m. and p.m. peak hours, with an added exclusive northbound right turn lane and signalization. See Figures 17 and 18 for the a.m. and p.m. peak volumes, and LOS.

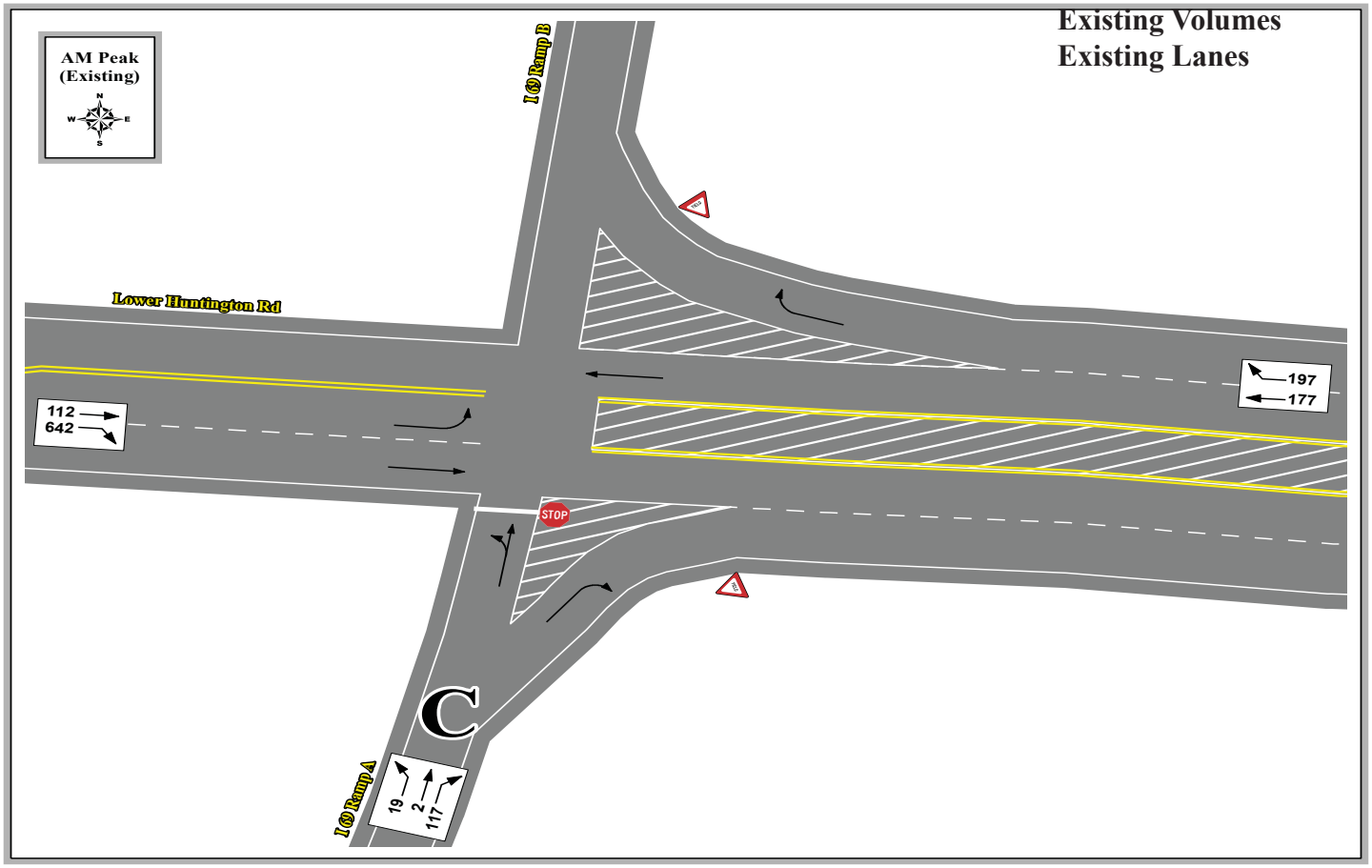
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Interstate 69 Ramp A/B				
AM Peak	**NB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	C	A	A	NA
Phase I Existing Lanes	F	A	A	NA
Phase I Modified	C	A	A	NA
Phase II - Phase I Lanes	F	A	A	NA
Phase II Modified	E	C	A	C

PM Peak	**NB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	NA
Phase I Existing Lanes	D	A	A	NA
Phase I Modified	C	A	A	NA
Phase II - Phase I Lanes	E	A	A	NA
Phase II Modified	C	B	A	B

Figure 14

Airport Expressway / Interstate 69 Ramp A/B Existing Volumes and Lane Configurations (AM/PM Peak)



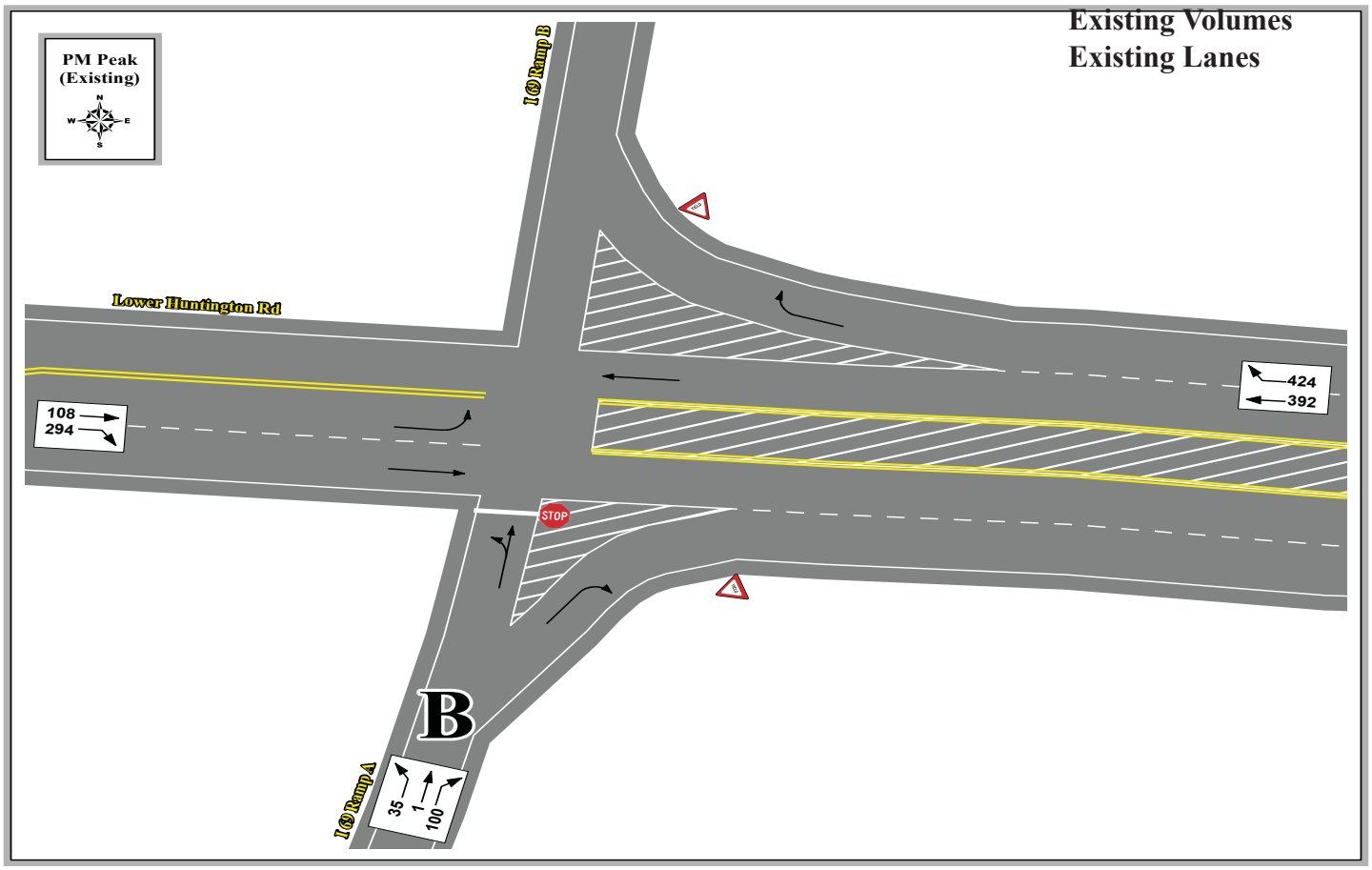
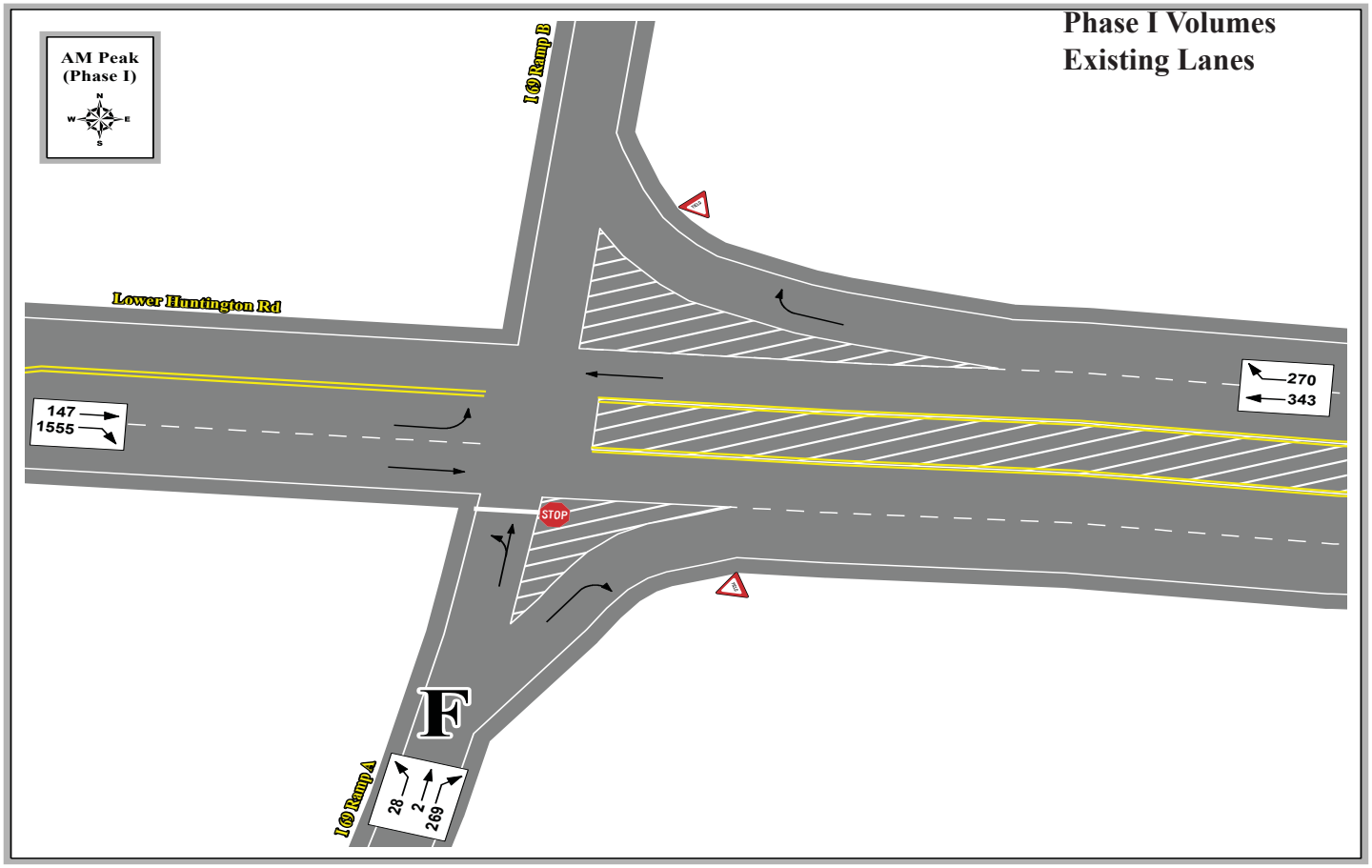


Figure 15

Airport Expressway / I-69 Ramp A/B Phase I Volumes and Existing / Proposed Improvements(AM Peak)



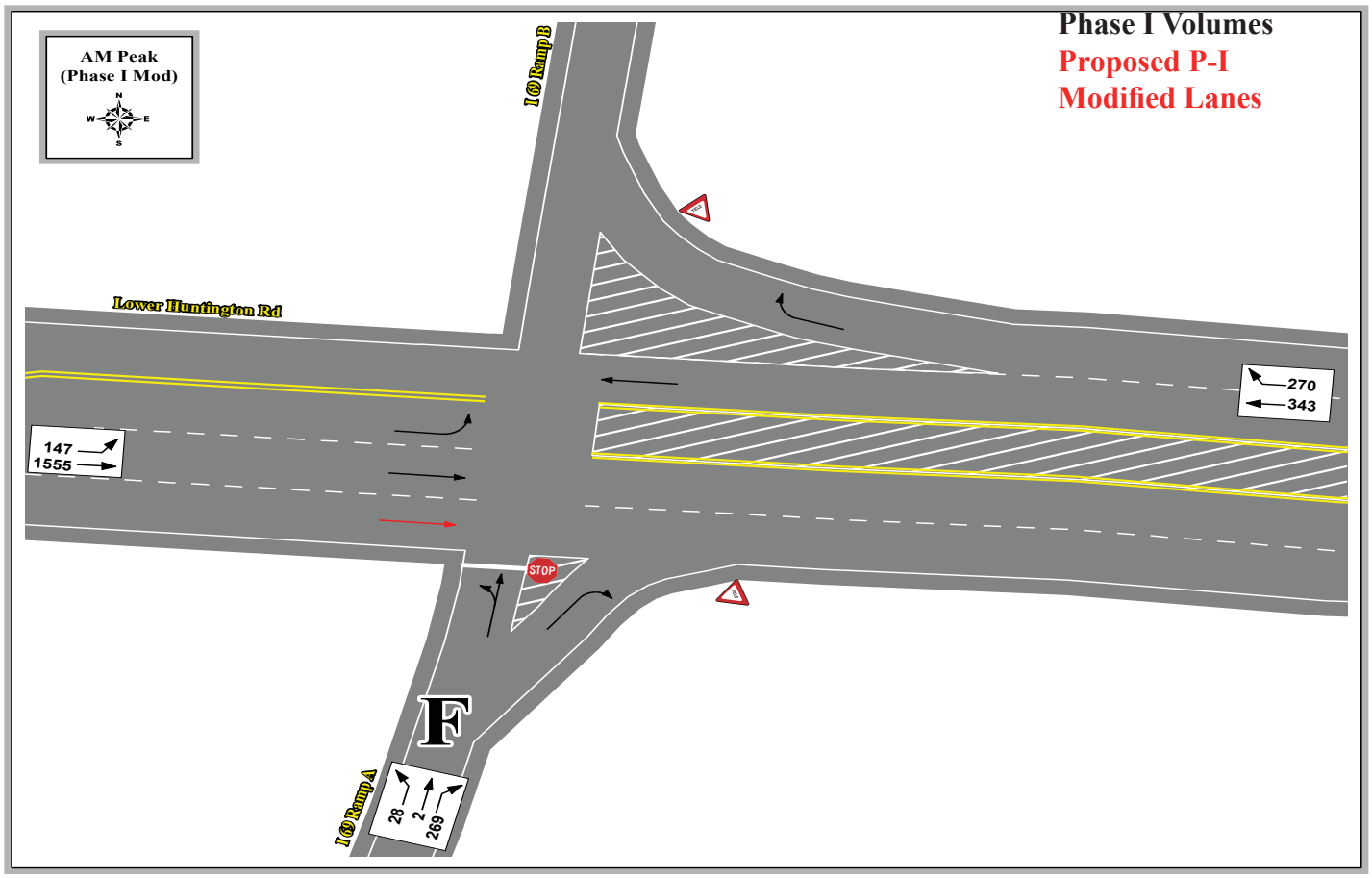
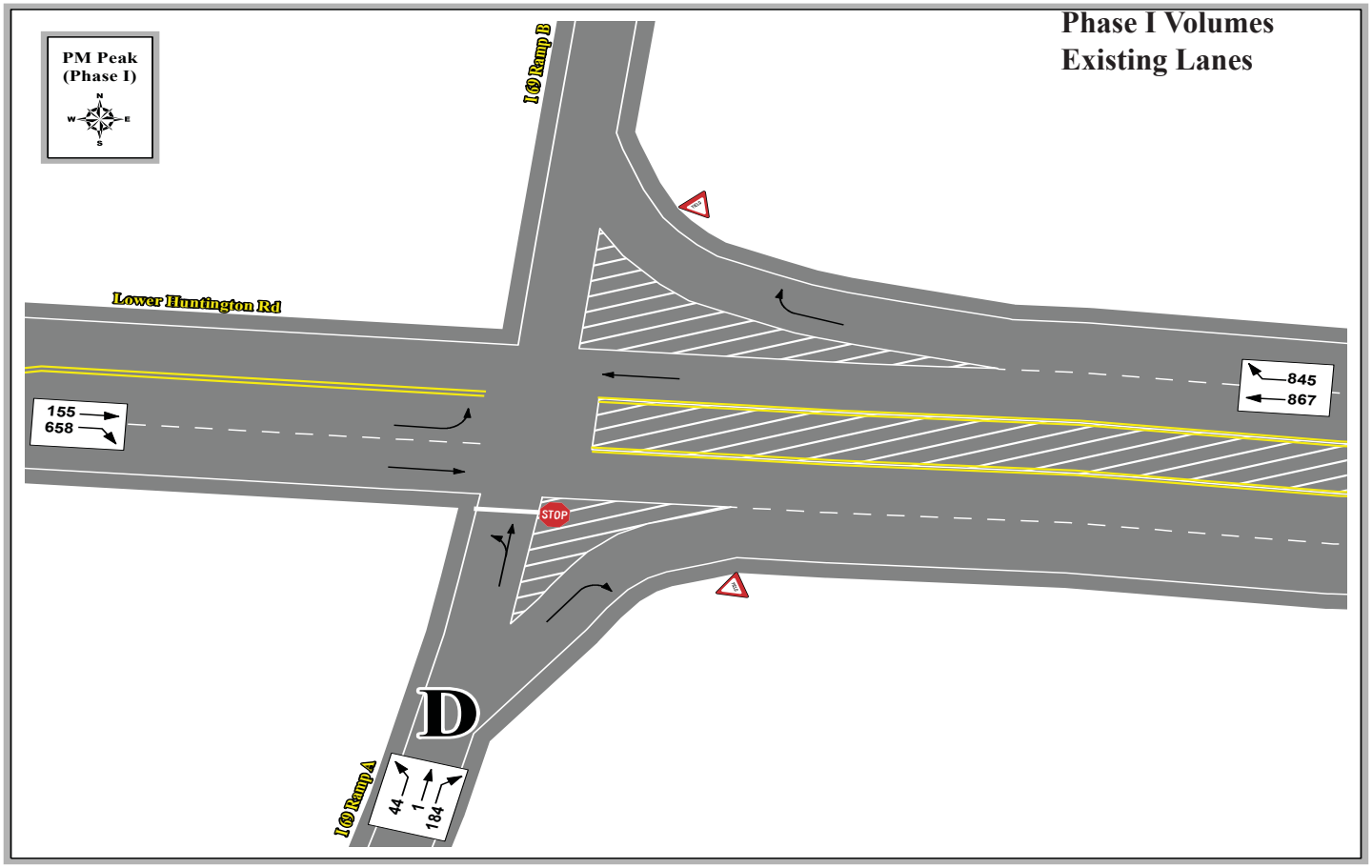


Figure 16

Airport Expressway / I-69 Ramp A/B Phase I Volumes and Existing / Proposed Improvements(PM Peak)



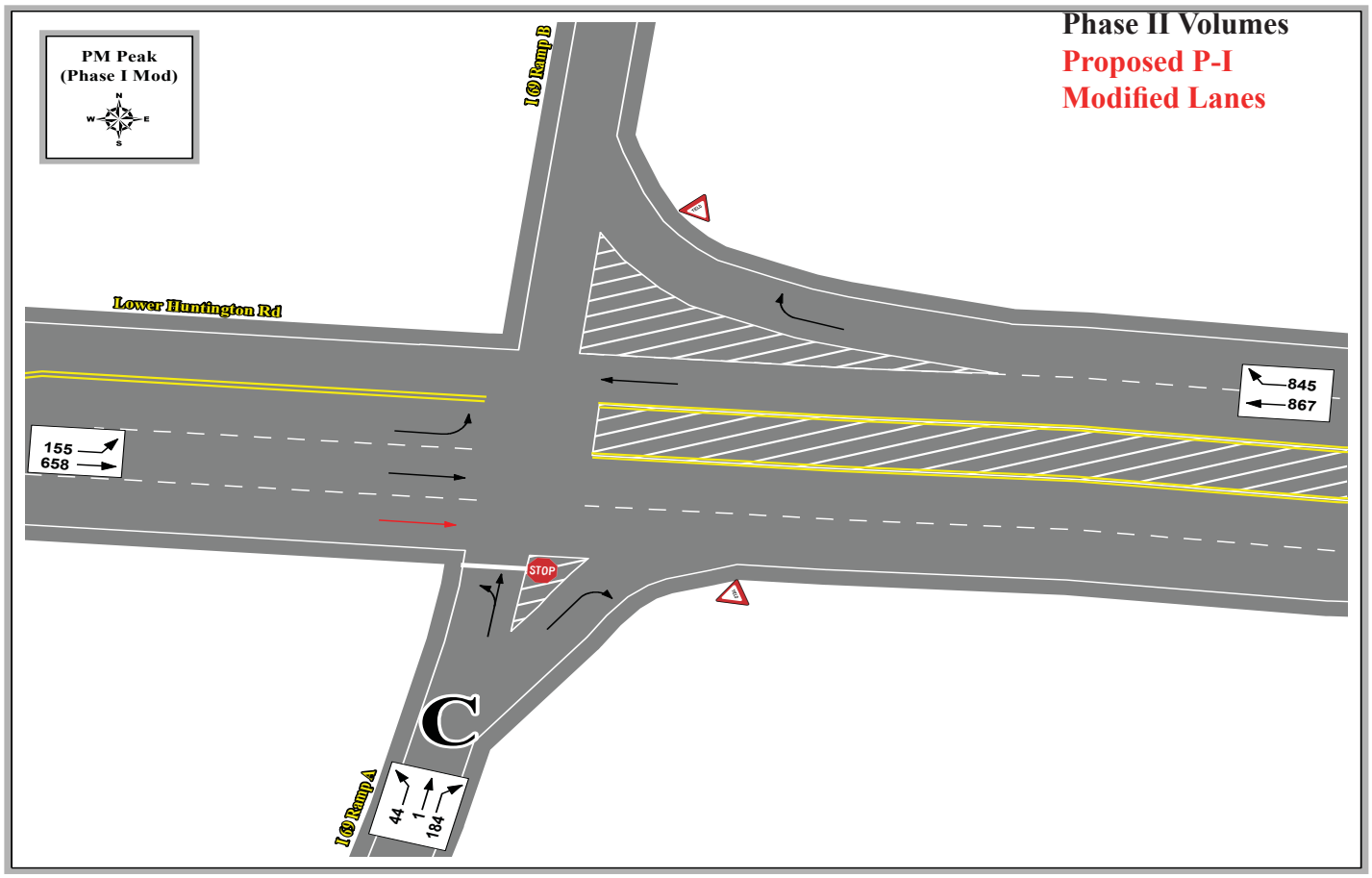
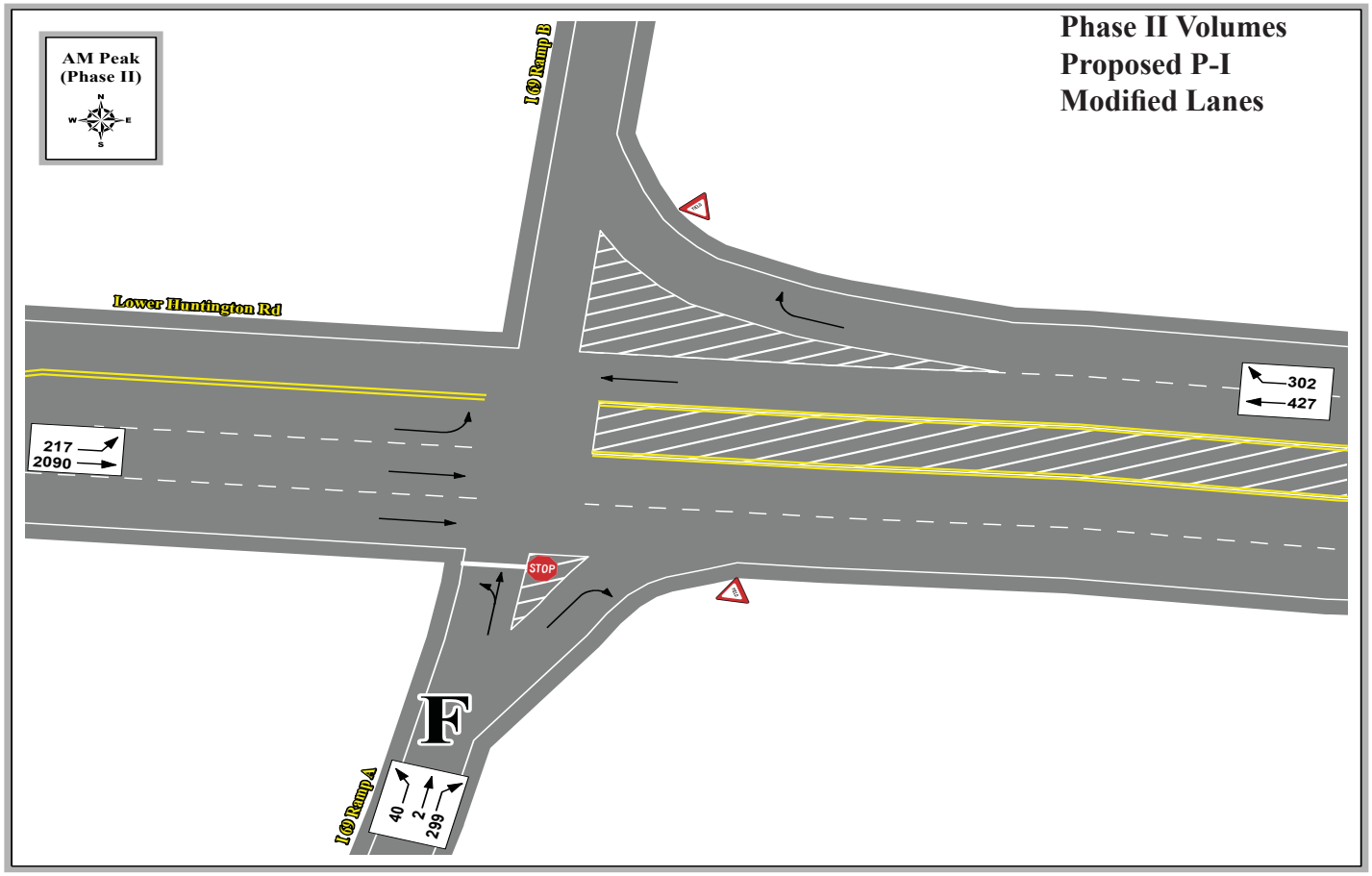


Figure 17

Airport Expressway / I-69 Ramp A/B Phase II Volumes and Existing / Proposed Improvements(AM Peak)



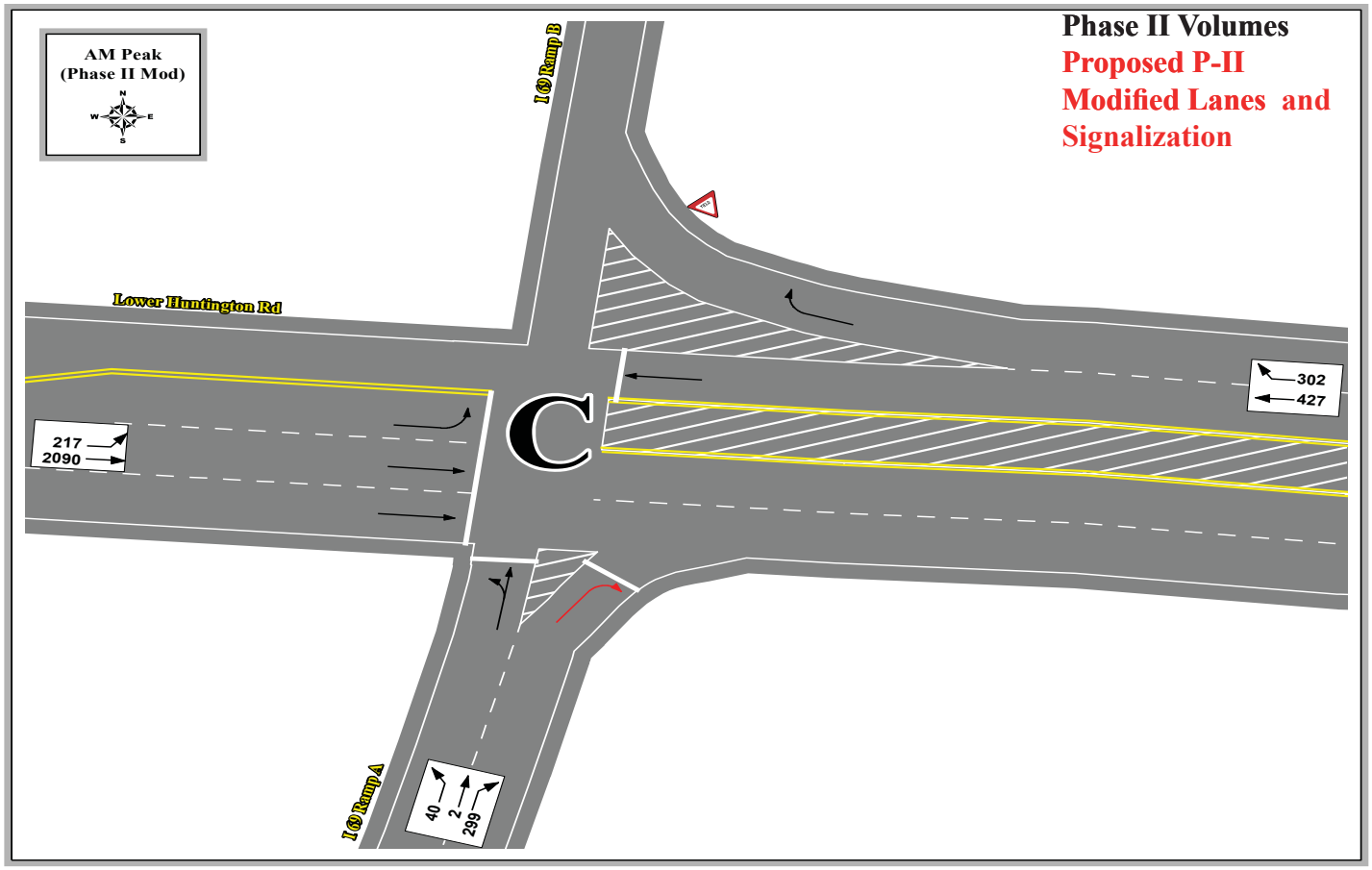
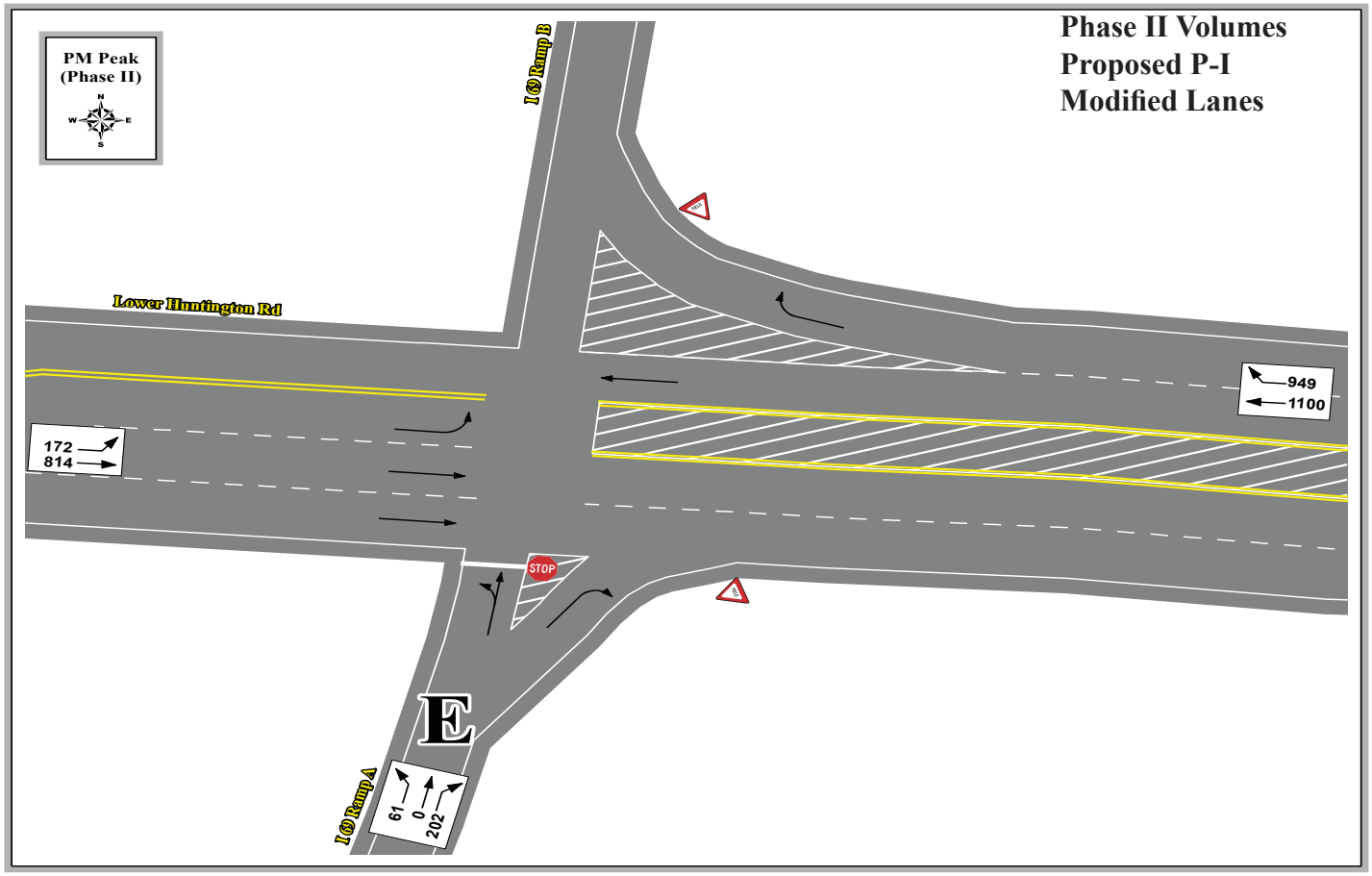
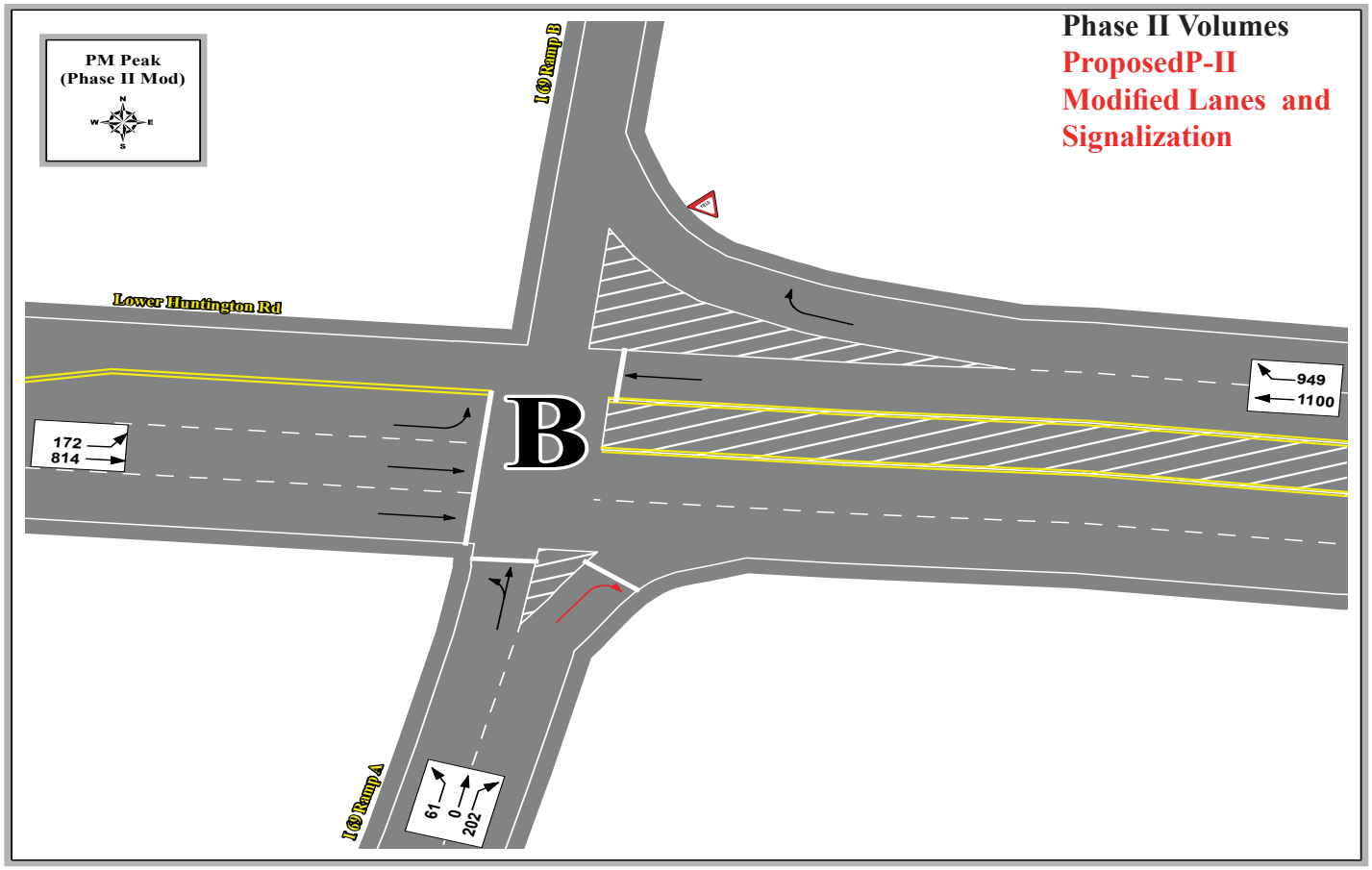


Figure 18

Airport Expressway / I-69 Ramp A/B Phase II Volumes and Existing / Proposed Improvements(PM Peak)





Airport Expressway @ Ernst Road/ Lower Huntington Road

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Ernst Road / Lower Huntington Road are 2-lane facilities. Figure 19 show the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that northbound is currently operating at a LOS "B" during the a.m. and p.m. peak hours and southbound is currently operating at a LOS "A" during the a.m. and "B" during the p.m. peak hours.

Scenario 2: - Proposed Development Recommendations

The intersection analysis indicates that the northbound will operate at a LOS "F" during the a.m. and "D" during p.m. peak hours, the southbound will operate at a LOS "F" during the a.m. and "C" during the p.m. peak hours. No modifications recommended during this phase. See Figure 20 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

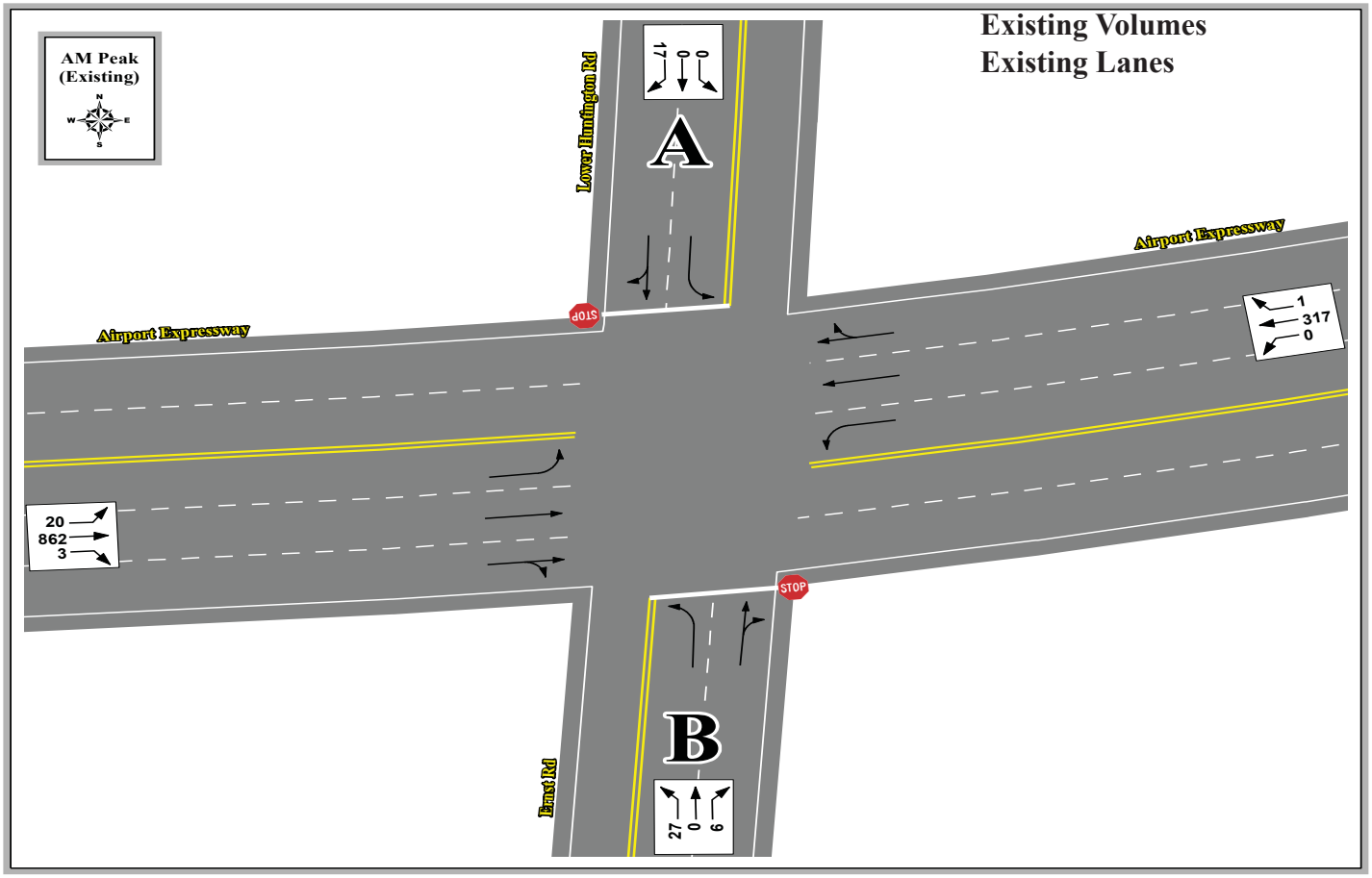
The intersection analysis indicates that the northbound will operate at a LOS "F" during the a.m. and p.m. peak hours, the southbound will operate at a LOS "F" during the a.m. and "E" during the p.m. peak hours. The intersection can be improved to a LOS of "A" during the a.m. and "B" during p.m. peak hours, with signalization. See Figures 21 and 22 for the a.m. and p.m. peak volumes, and LOS.

The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway@ Ernst Rd / Lower Huntington Rd					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	A	A	A	NA
Phase I Existing Lanes	F	F	A	A	NA
Phase II Existing Lanes	F	F	A	A	NA
Phase II Modified	D	D	B	A	B
PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	D	C	A	A	NA
Phase II Existing Lanes	F	D	A	A	NA
Phase II Modified	C	B	A	B	B

Figure 19

Airport Expressway/Ernst Rd/Lwr Huntington Rd Existing Volumes and Lane Configurations (AM/PM Peak)



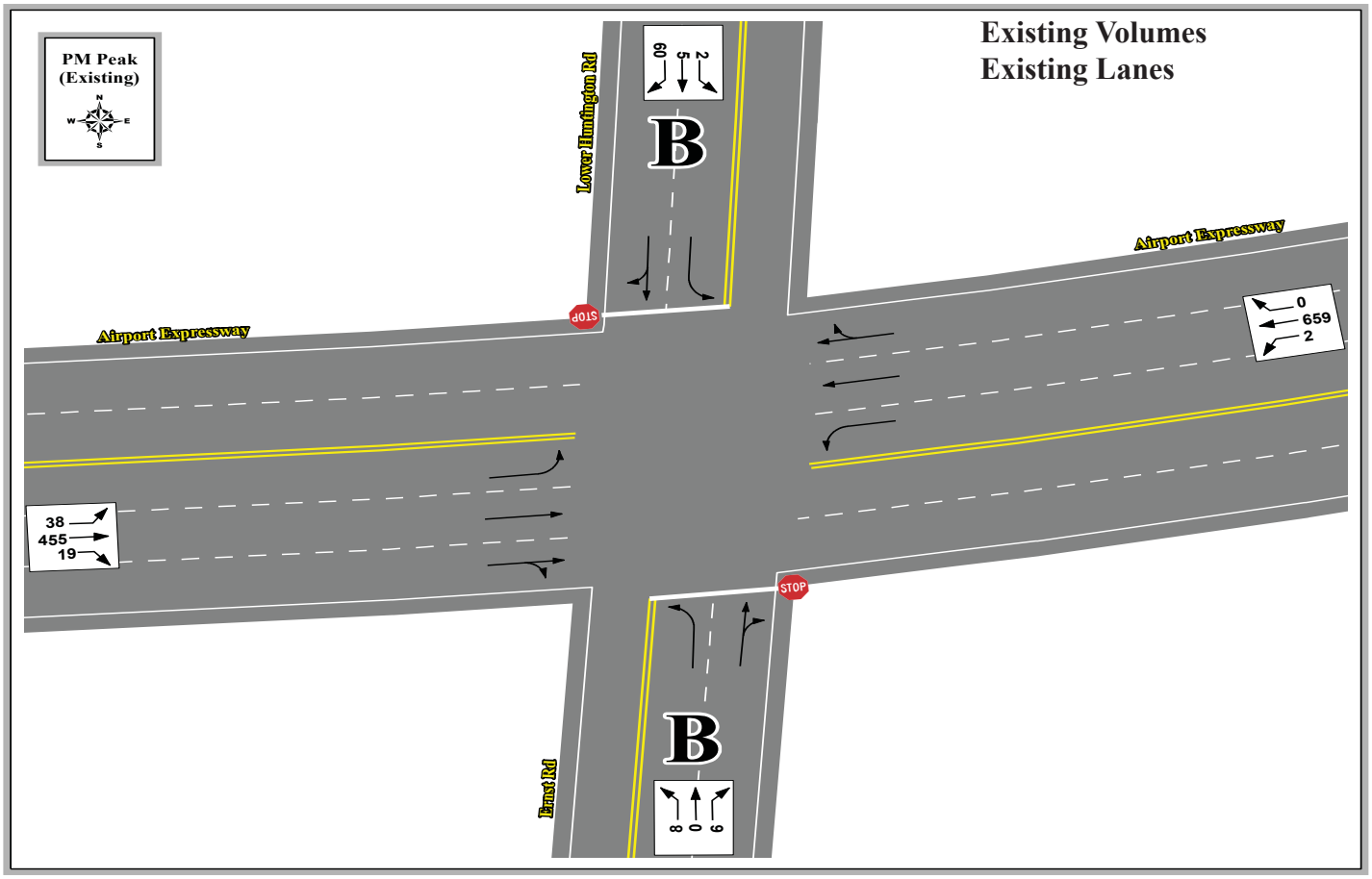
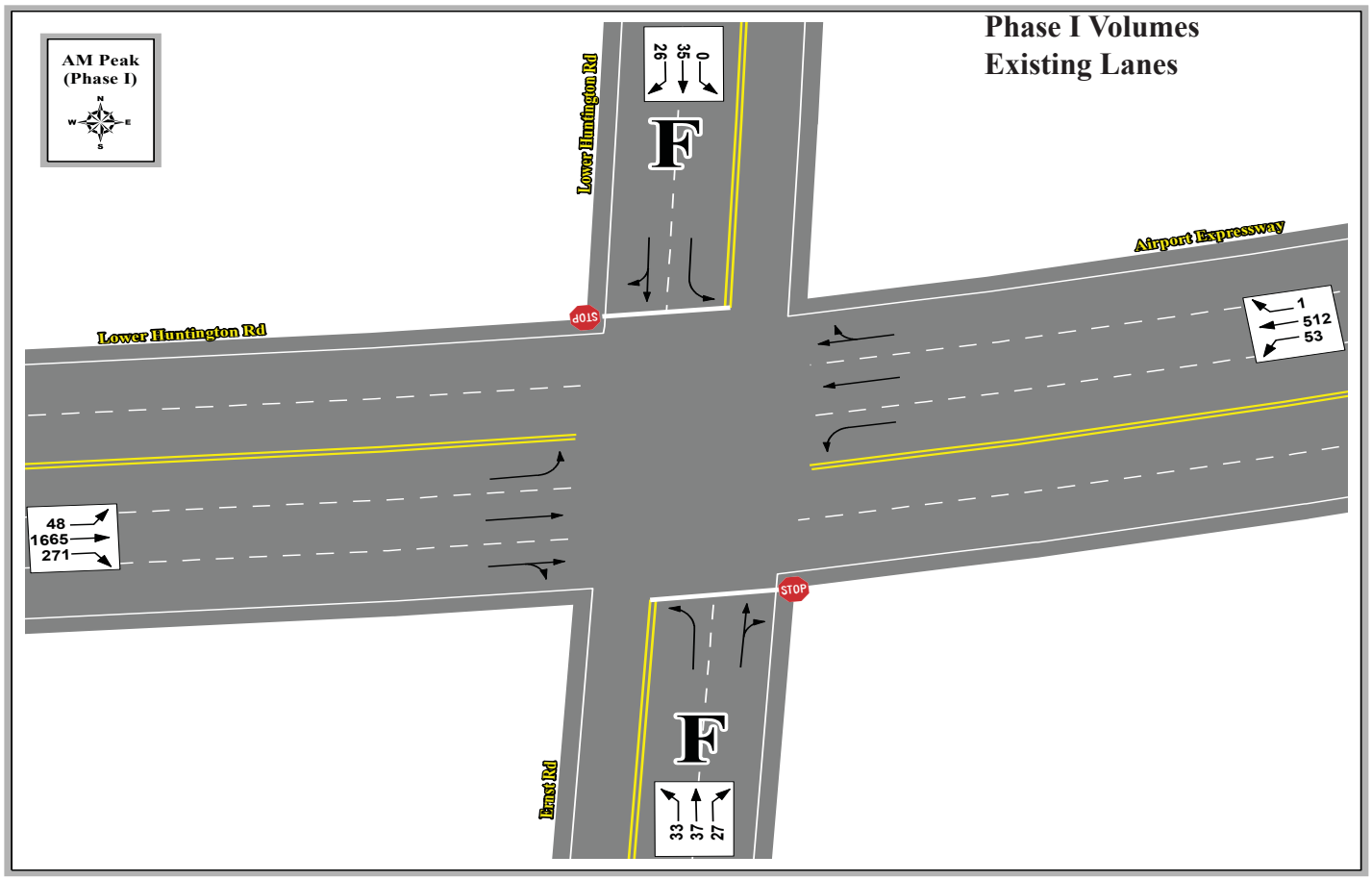


Figure 20

Airport Expressway/Ernst Rd/Lwr Huntington Rd Phase I Volumes and Lane Configurations (AM/PM Peak)



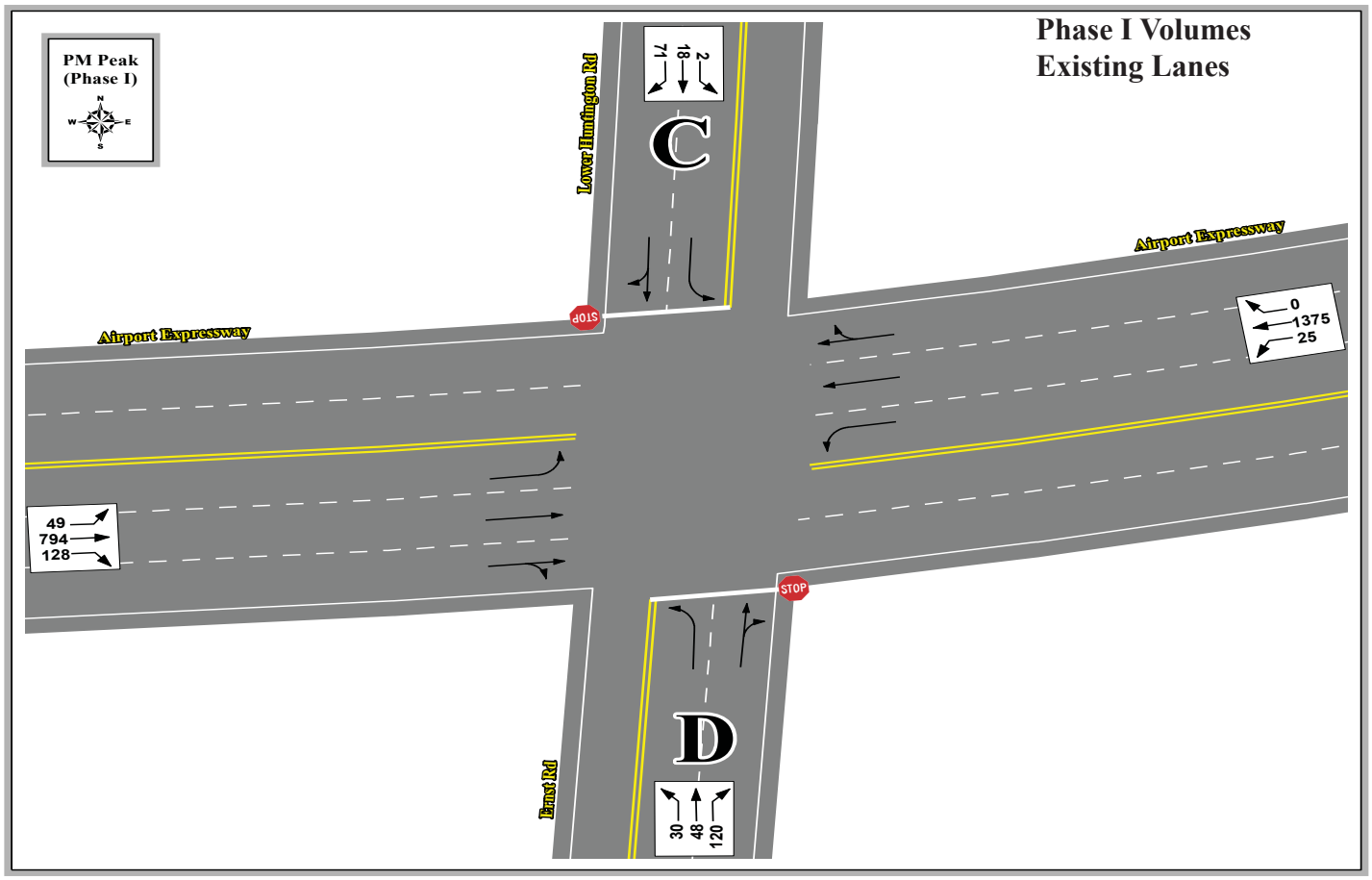
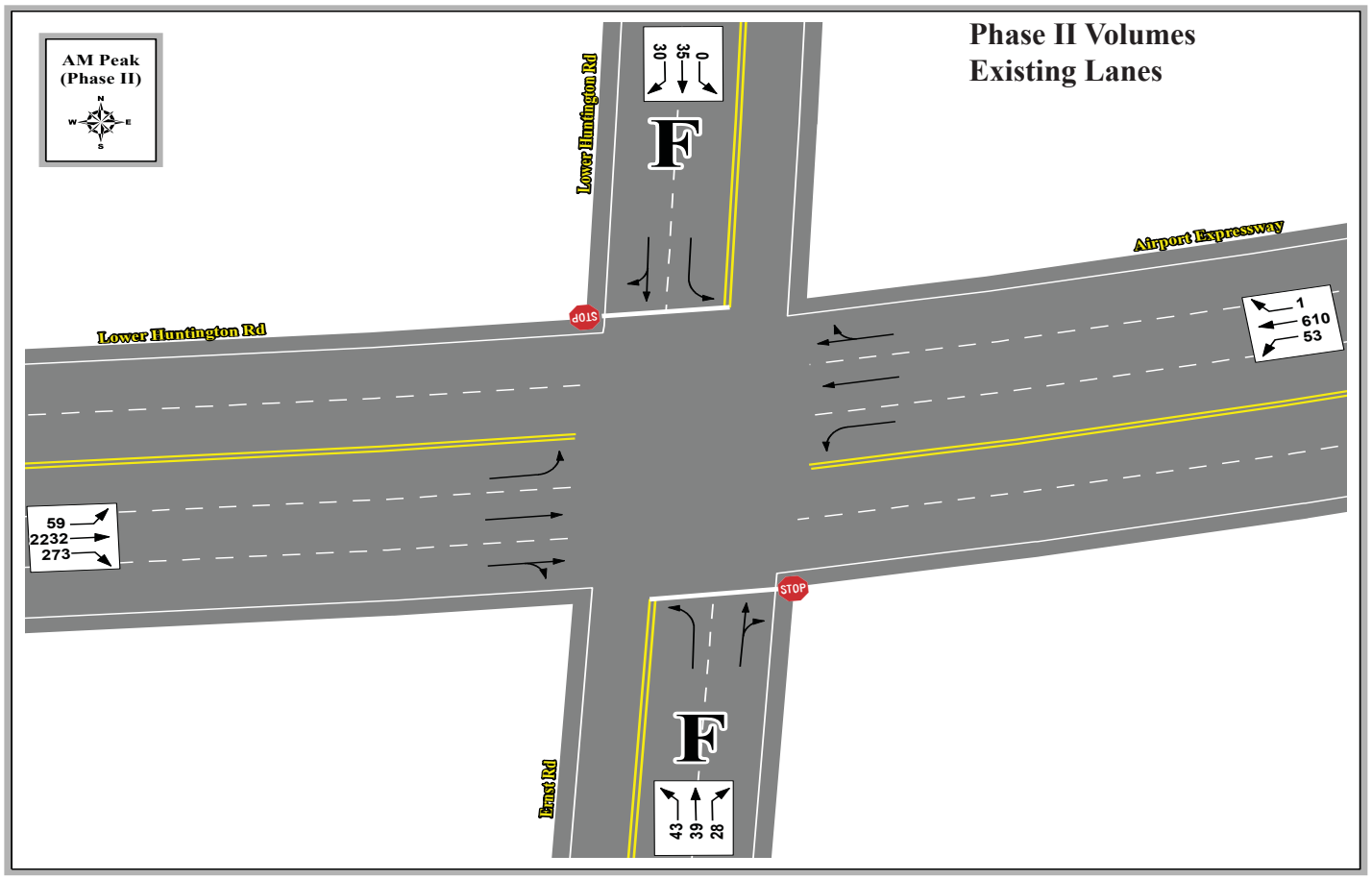


Figure 21

Airport Expressway/Ernst Rd/Lwr Huntington Rd Phase II Volumes and Existing/Proposed Improvements((AM)



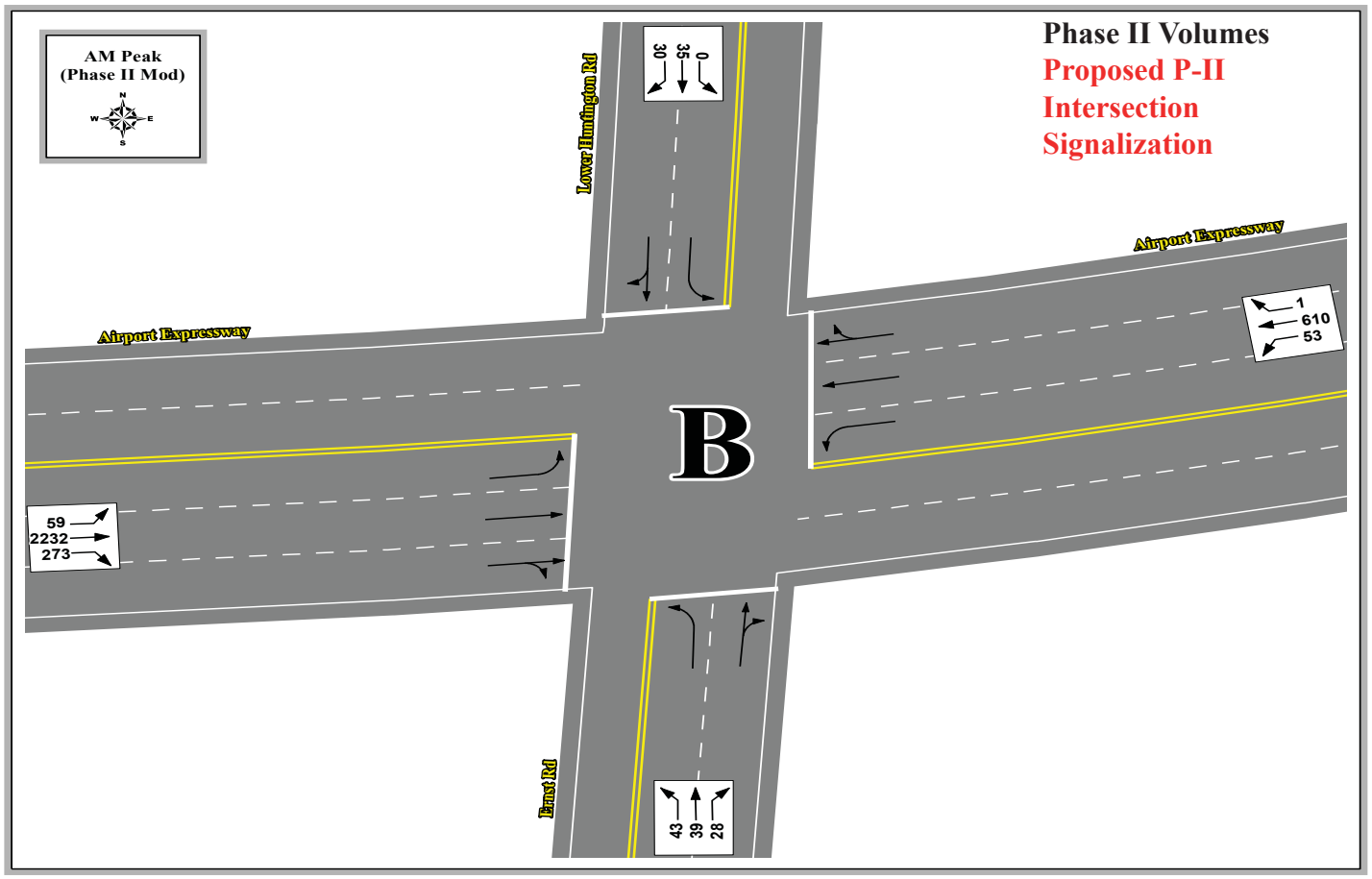
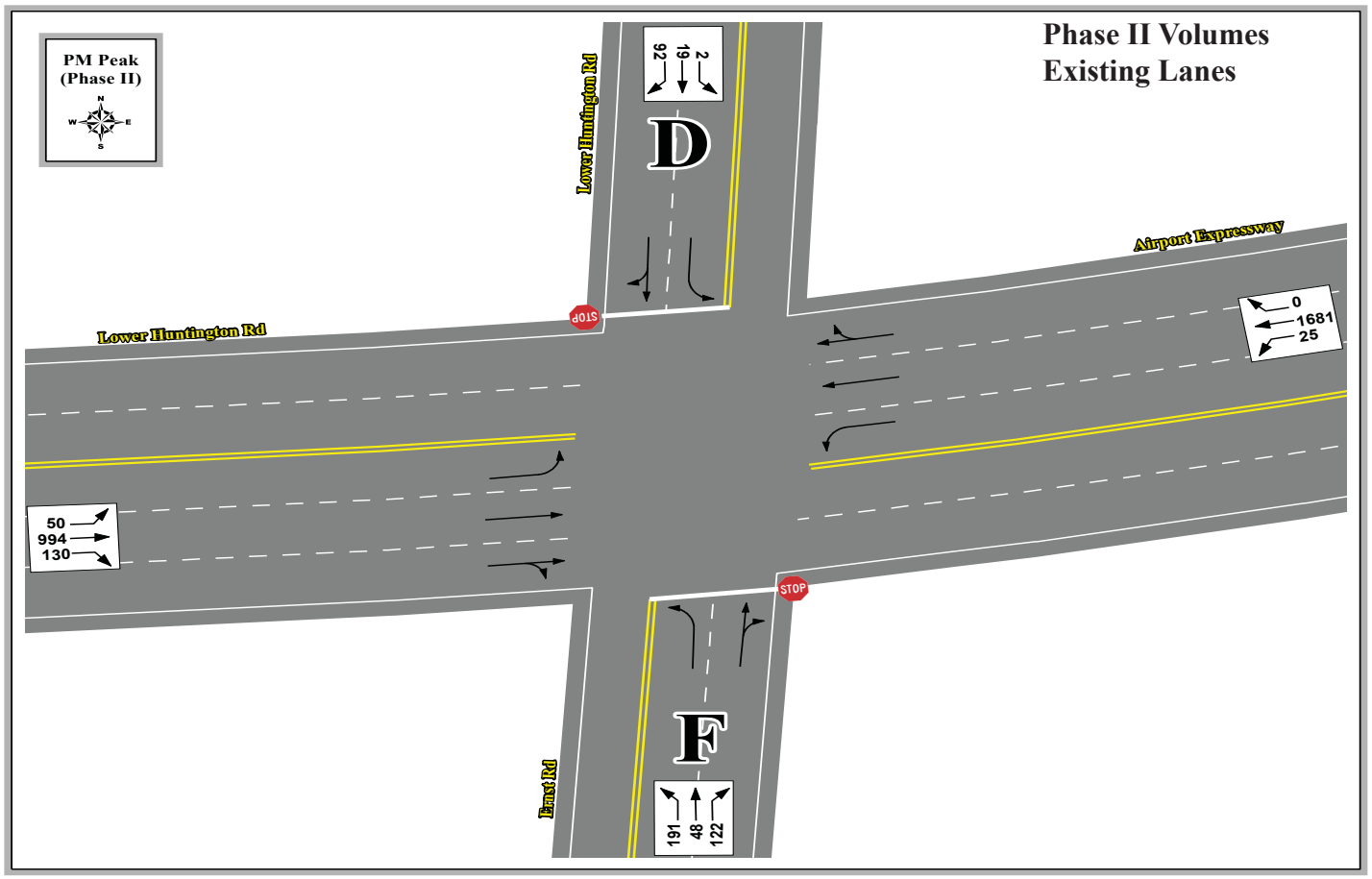
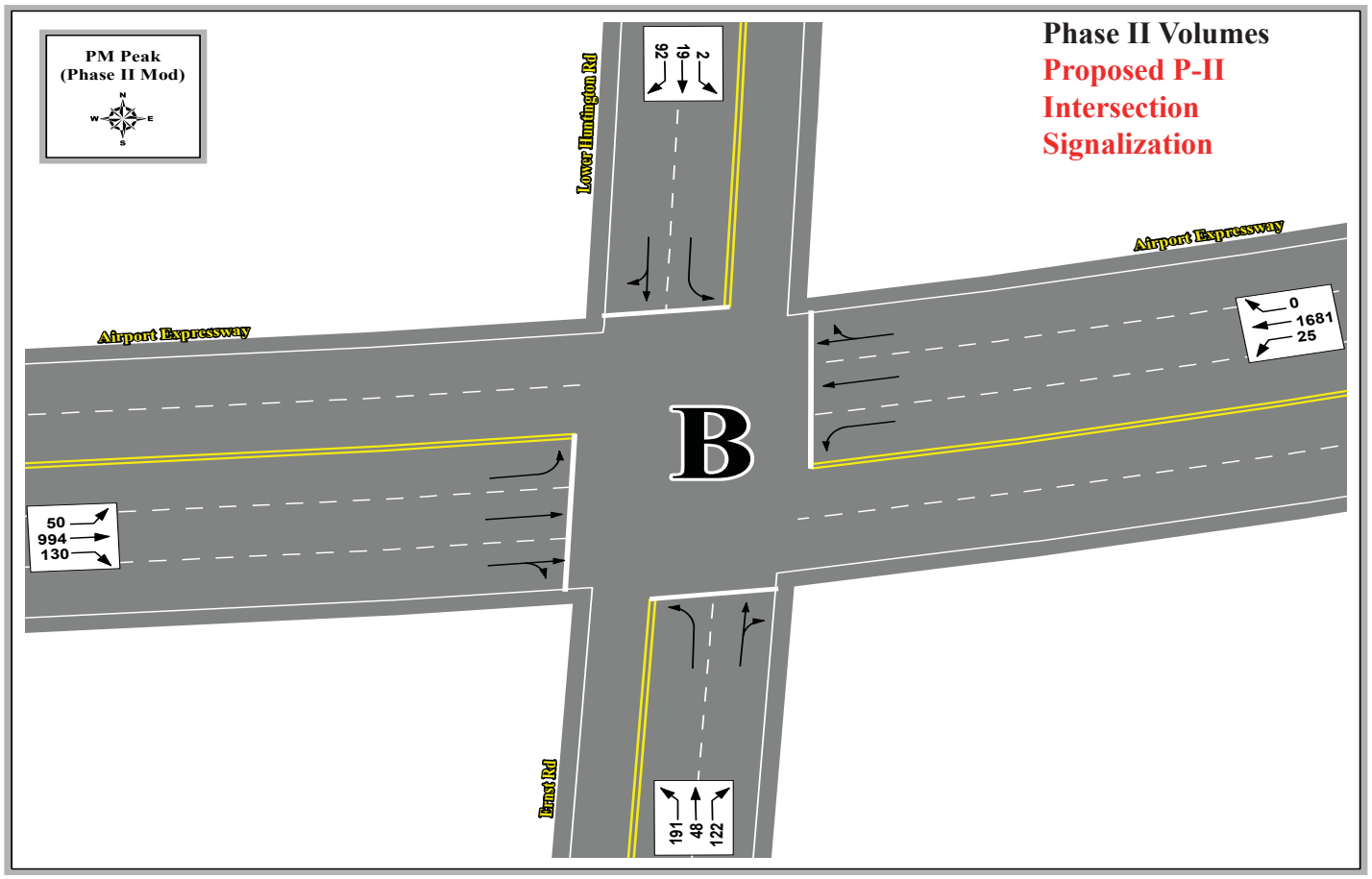


Figure 22

Airport Expressway/Ernst Rd/Lwr Huntington Rd Phase II Volumes and Existing/Proposed Improvements((PM)





Airport Expressway at Coverdale Road

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Coverdale Road is a 2-lane facilities. Figure 23 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" during the a.m. and p.m. peak hours for the northbound and southbound movements.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "C" during the a.m. and a "B" during the p.m. peak hours with the added trips of phase I for the northbound and southbound movements. See Figure 24 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "C" during the a.m. and p.m. peak hours with the added trips of phase II for the northbound and southbound movements. See Figure 25 for the a.m. and p.m. peak volumes, and LOS.

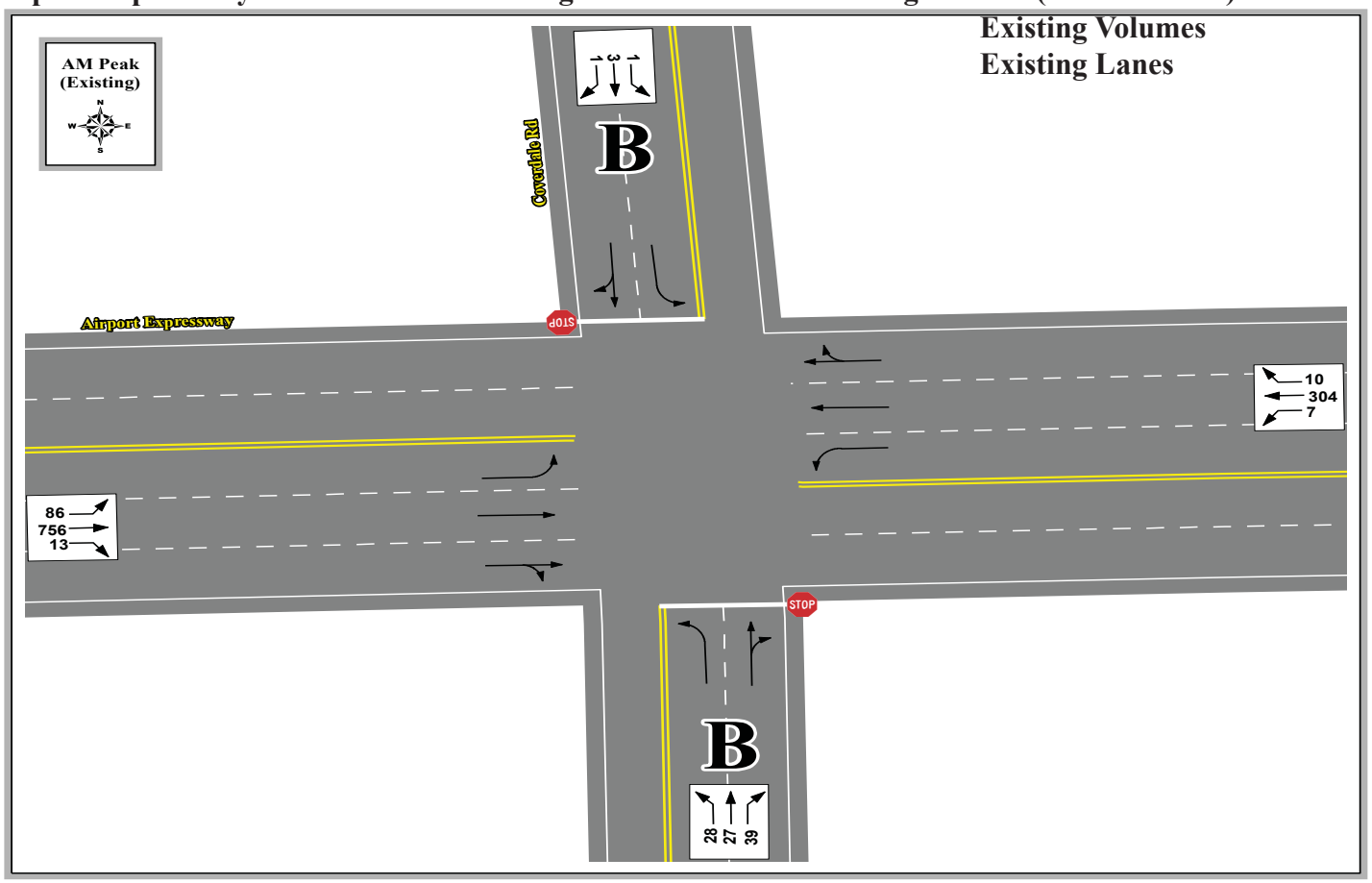
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Coverdale Rd					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
ExistingB	B	B	A	A	NA
Phase I Existing Lanes	C	C	A	A	NA
Phase II Existing Lanes	C	C	A	A	NA

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	B	B	A	A	NA
Phase II Existing Lanes	C	C	A	A	NA

Figure 23

Airport Expressway / Coverdale Rd Existing Volumes and Lane Configurations (AM/PM Peak)



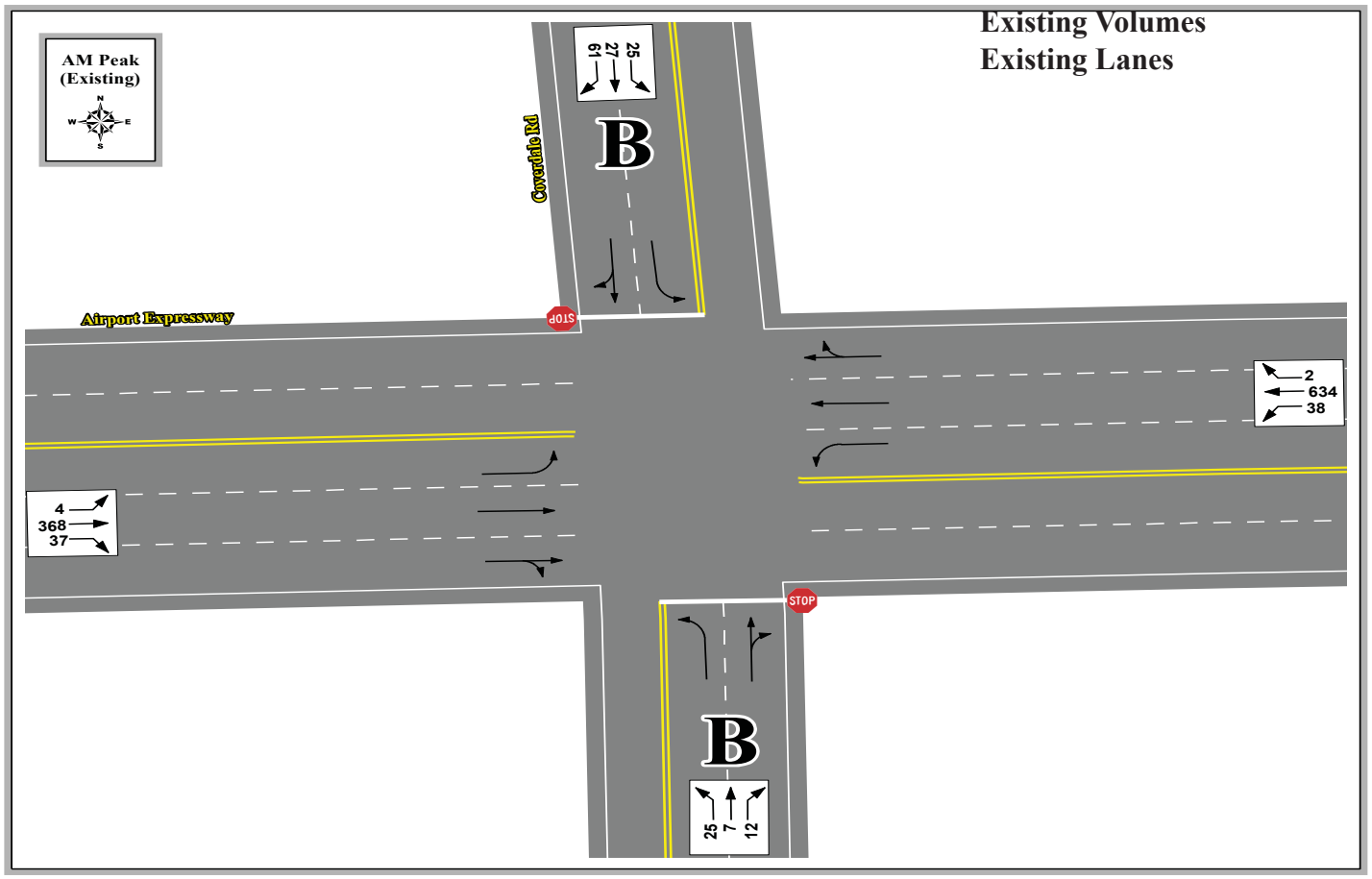
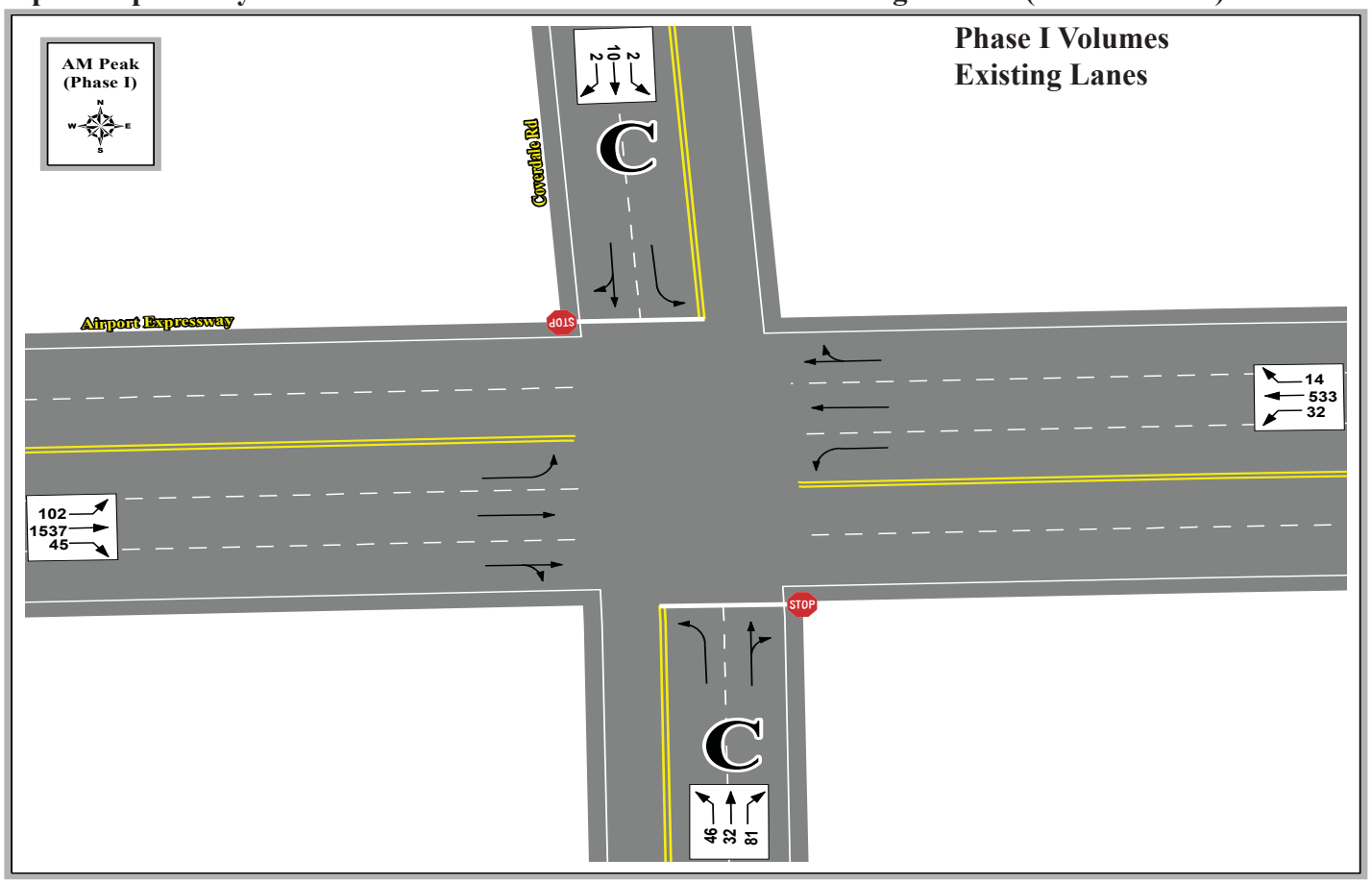


Figure 24

Airport Expressway / Coverdale Rd Phase I Volumes and Lane Configurations (AM/PM Peak)



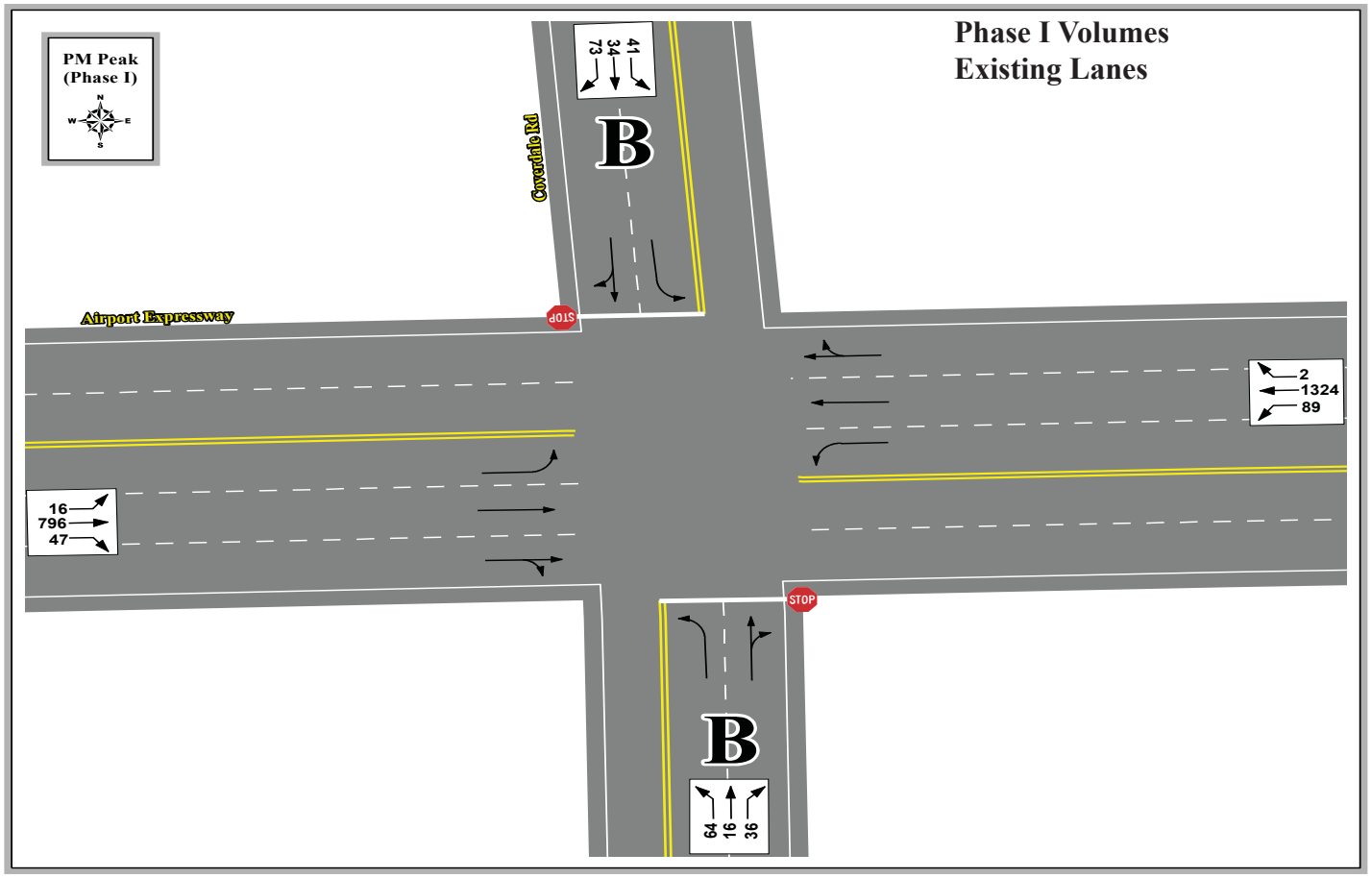
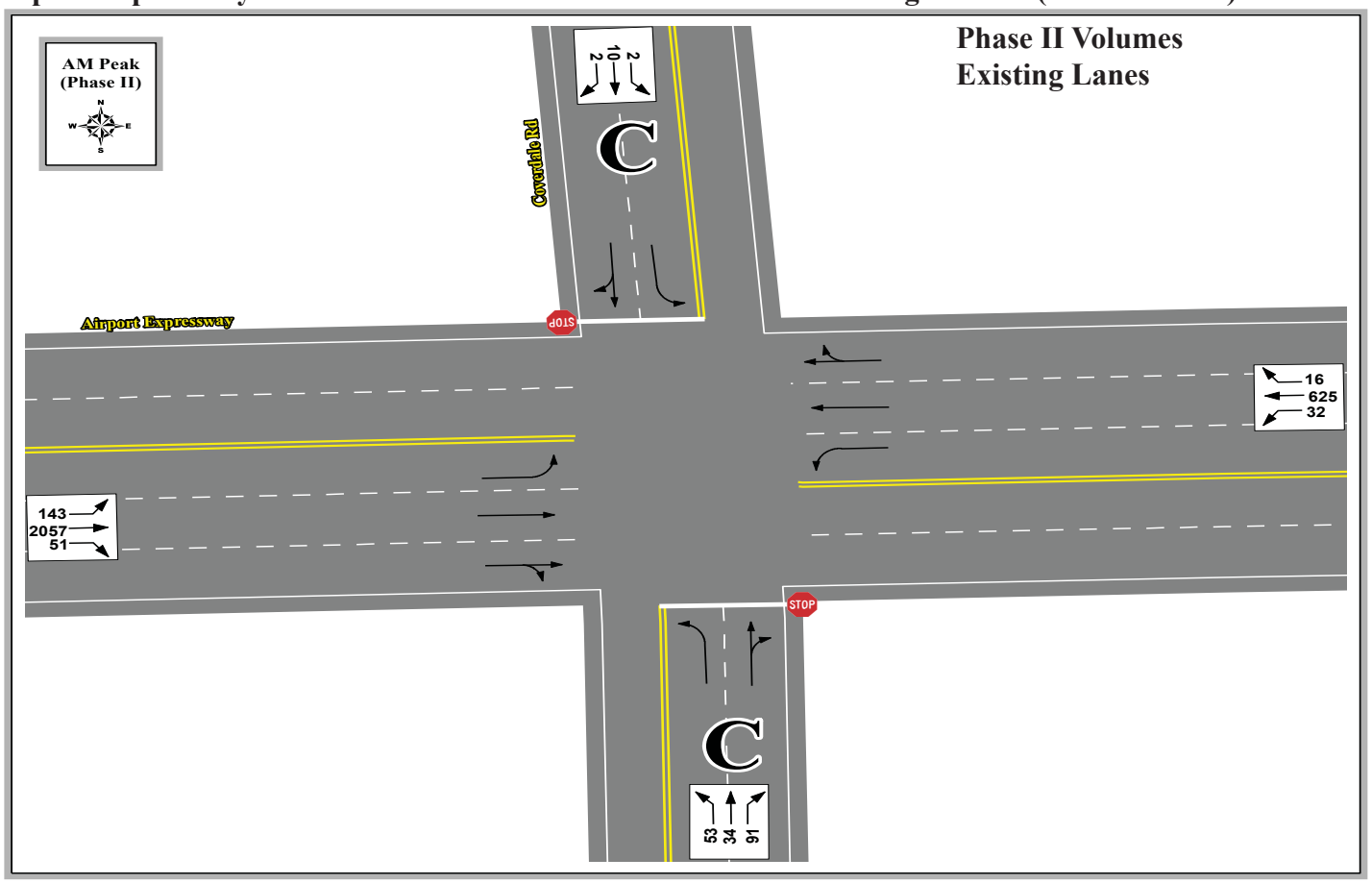
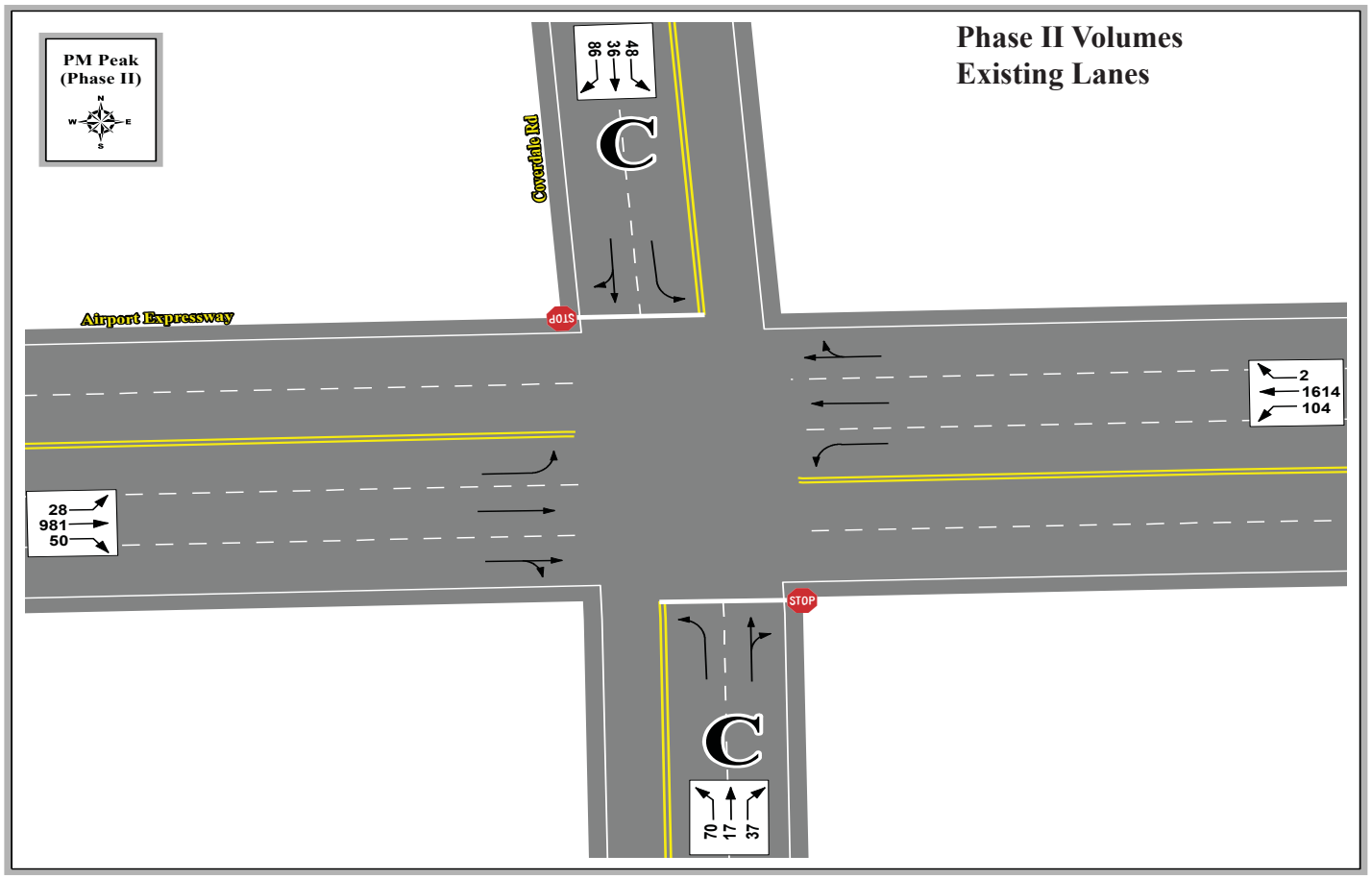


Figure 25

Airport Expressway / Coverdale Rd Phase II Volumes and Lane Configurations (AM/PM Peak)





Section 2: Airport Expressway :Coverdale Road to Railroad Crossing

The average annual growth rate was estimated to be 1.5% along Airport Expressway and 1.0% for all secondary roads. Figure 1 shows the corridor and impact analysis area boundary. The study focused on four signalized and ten stop controlled intersections along the corridor.

Existing Analysis

Figure 26 shows existing average AADT on each link in the corridor and impact analysis area. This data is based upon 48-hour weekday counts averaged for a 24-hour daily volume. Axle correction factors and seasonal adjustment factors are applied to the volume data. The existing analysis is based on 2017/2018 turning movement counts and geometric configurations. The analysis is for the a.m. and p.m. peak periods. The outputs from Synchro 10 for both a.m./p.m. peaks for the intersections are listed in Appendix B.

Trip Generation

The distribution of the population within the area, the characteristics of the roadway system, and degree of congestion on the corresponding roadway affect the directional distribution of site-generated traffic. The trip distributions for this study area were determined by examining the existing traffic counts, and by evaluating the major traffic generators in the vicinity of the study area.

The ITE Trip Generation Manual, 9th edition was used to forecast the number of new trips from phase I and phase II residential and commercial developments. After determining the number of trips from each residential or commercial development, the trips were distributed and assigned to the adjacent roads and intersections along the corridor based upon existing traffic patterns of distribution as described earlier. The new trips were added to the existing traffic volumes to obtain the turning movement distributions for each intersection for the phase I and phase II scenarios. The new traffic volumes were used to perform the intersection analysis. The developments for section 2 are listed in Table 5 and shows their location in Figure 27 The outputs from Synchro 10 for both a.m./p.m. peaks for each intersection are listed in Appendix B.

Table 5: New Trips from Phase I Residential/Commercial Development (combined)

	Peak-Enter		Peak-Exit	
Site	**AM**	**PM**	**AM**	**PM**
7. Industrial Site - 50 Acres	332	112	88	336
8. Industrial Site - 48 Acres	332	129	59	301
9. Industrial ~ 26 Acres	183	71	32	166
10. Industrial ~ 25 Acres	176	68	31	160
11. Industrial ~ 74 Acres (3 parcels)	515	200	91	467
12. Industrial ~ 36 Acres (6 parcels)	293	94	47	215
13. Industrial ~ 160 Acres (5 parcels)	622	242	109	563
14. Industrial ~ 20 Acres	77	30	14	70
New Trips from Phase II Residential/Commercial Development for Section 2 (combined)				
15. Industrial ~ 60 Acres	231	90	41	210
16. Industrial ~ 38 Acres (6 parcels)	216	84	37	196
17 Industrial ~ 18 Acres	50	19	9	46

Figure 26

Existing Average Daily Traffic Distribution for Airport Expressway for Section 2

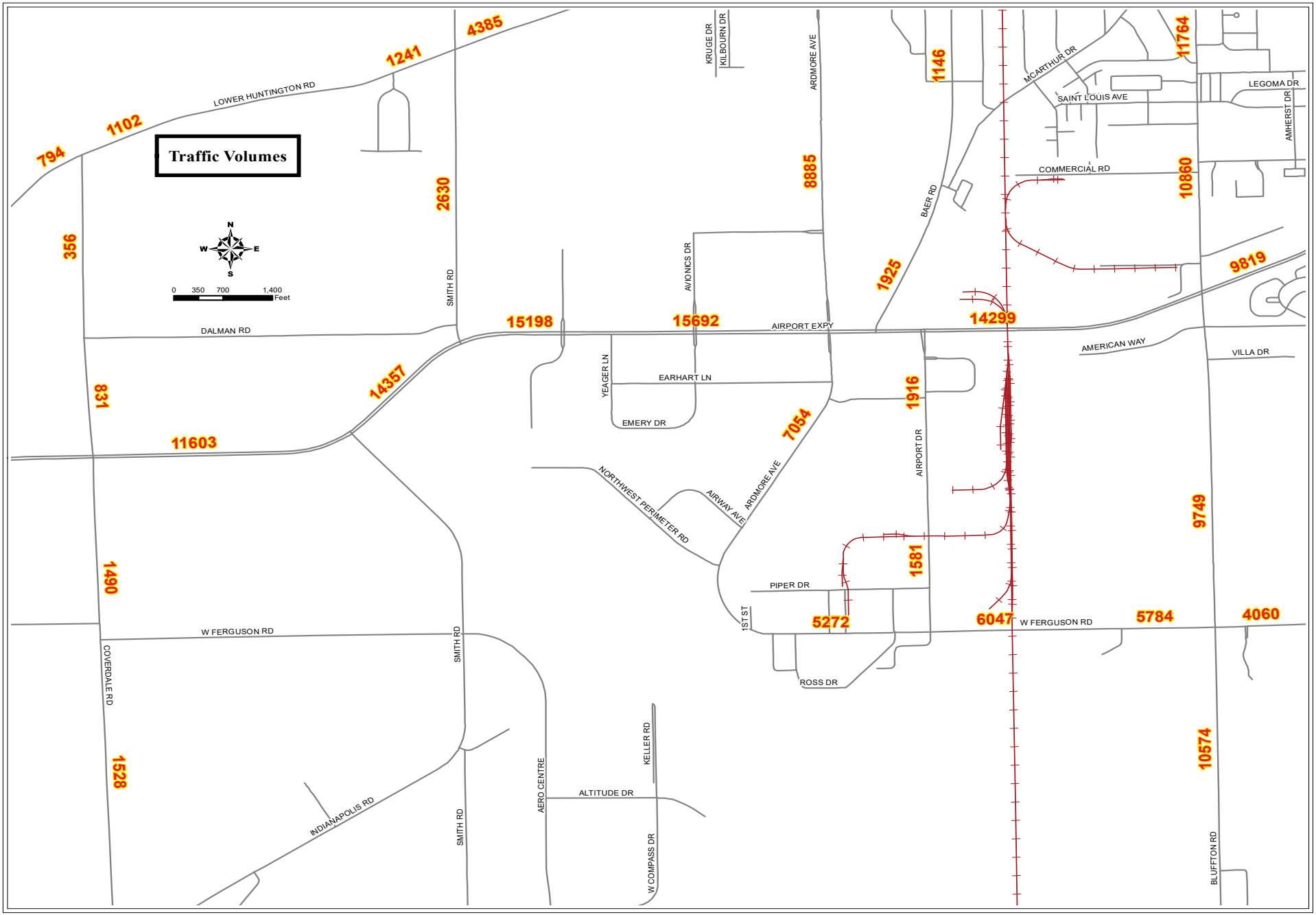
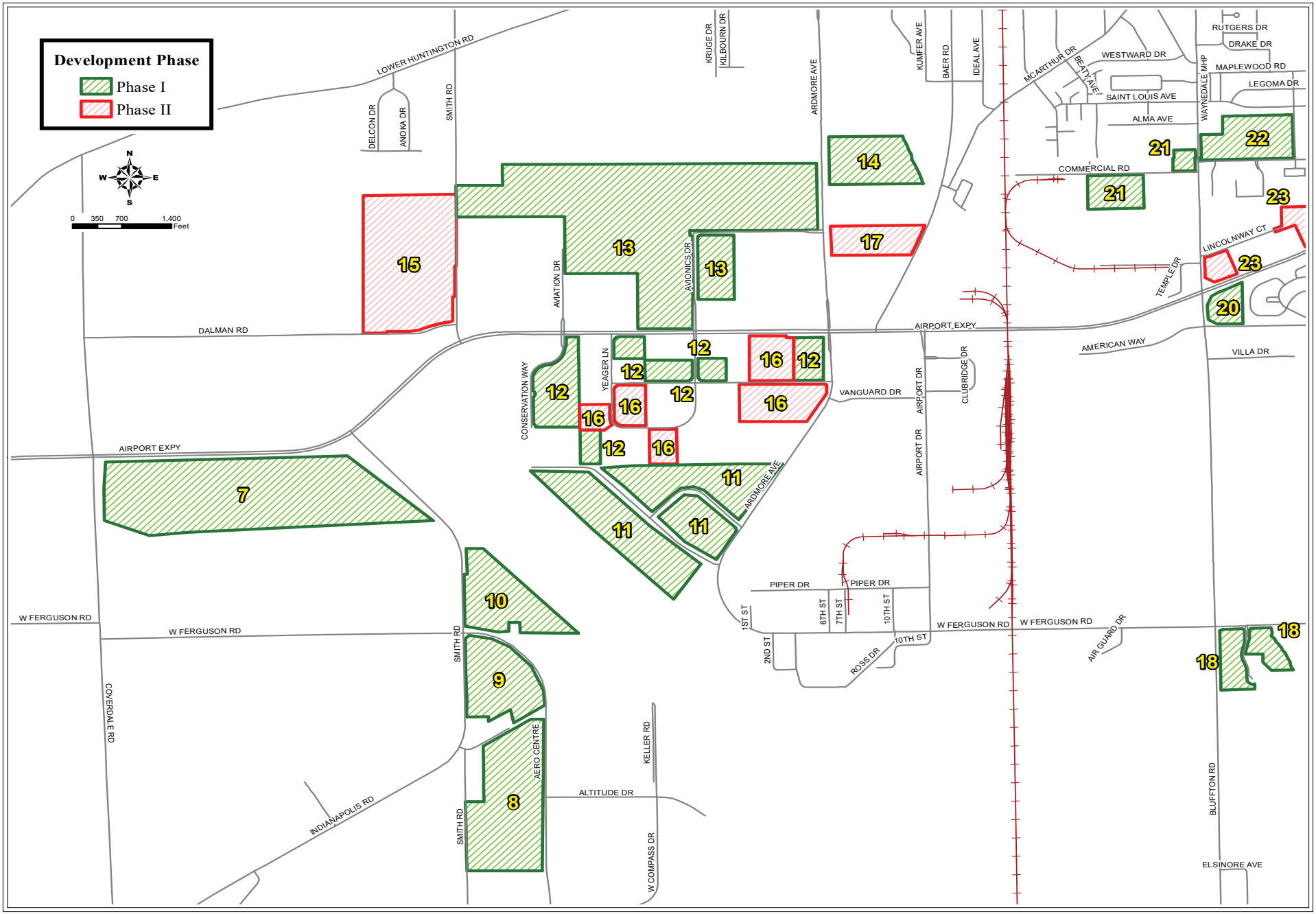


Figure 27

Residential/Commercial Developments for Airport Expressway for Section 2



Airport Expressway at Smith Road (W)

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Smith Road is a 2-lane facilities. Figure 28 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" for a.m. and p.m. peak hours for the northbound movement.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "F" for a.m. and p.m. peak hours with the added trips of phase I during the peak hours for the northbound movement. The intersection can be improved to a LOS "C" during the a.m. and "B" during the p.m. peak hours with signalization and exclusive right turn lanes added to the northbound and eastbound movements. See Figures 29 and 30 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "E" for a.m. and a "C" with the added trips of phase II during the peak hours. The intersection can be improved to a LOS "D" during the a.m. and "C" during the p.m. peak hours with addition of a second westbound left turn lane. See Figures 31 and 32 for the a.m. and p.m. peak volumes, and LOS.

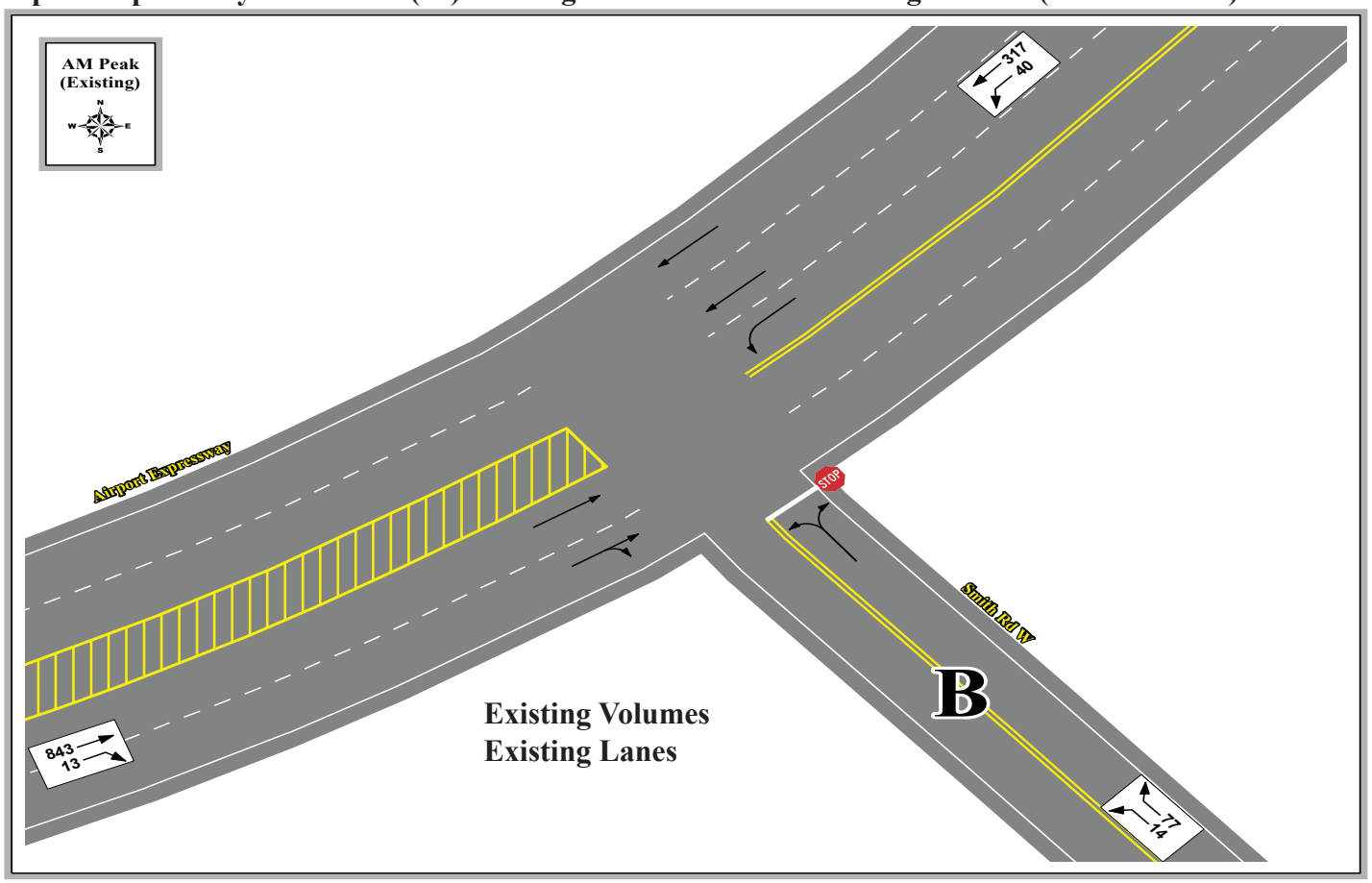
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Smith Rd (W)				
AM Peak	**NB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	NA
Phase I Existing Lanes	F	A	F	NA
Phase I Modified	C	C	C	C
Phase II - Phase I Lanes	D	E	E	E
Phase II Modified	D	D	D	D

PM Peak	**NW**	**SE**	**W**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	NA
Phase I Existing Lanes	F	A	A	NA
Phase I Modified	B	B	C	B
Phase II - Phase I Lanes	C	D	C	C
Phase II Modified	C	C	C	C

Figure 28

Airport Expressway / Smith Rd (W) Existing Volumes and Lane Configurations (AM/PM Peak)



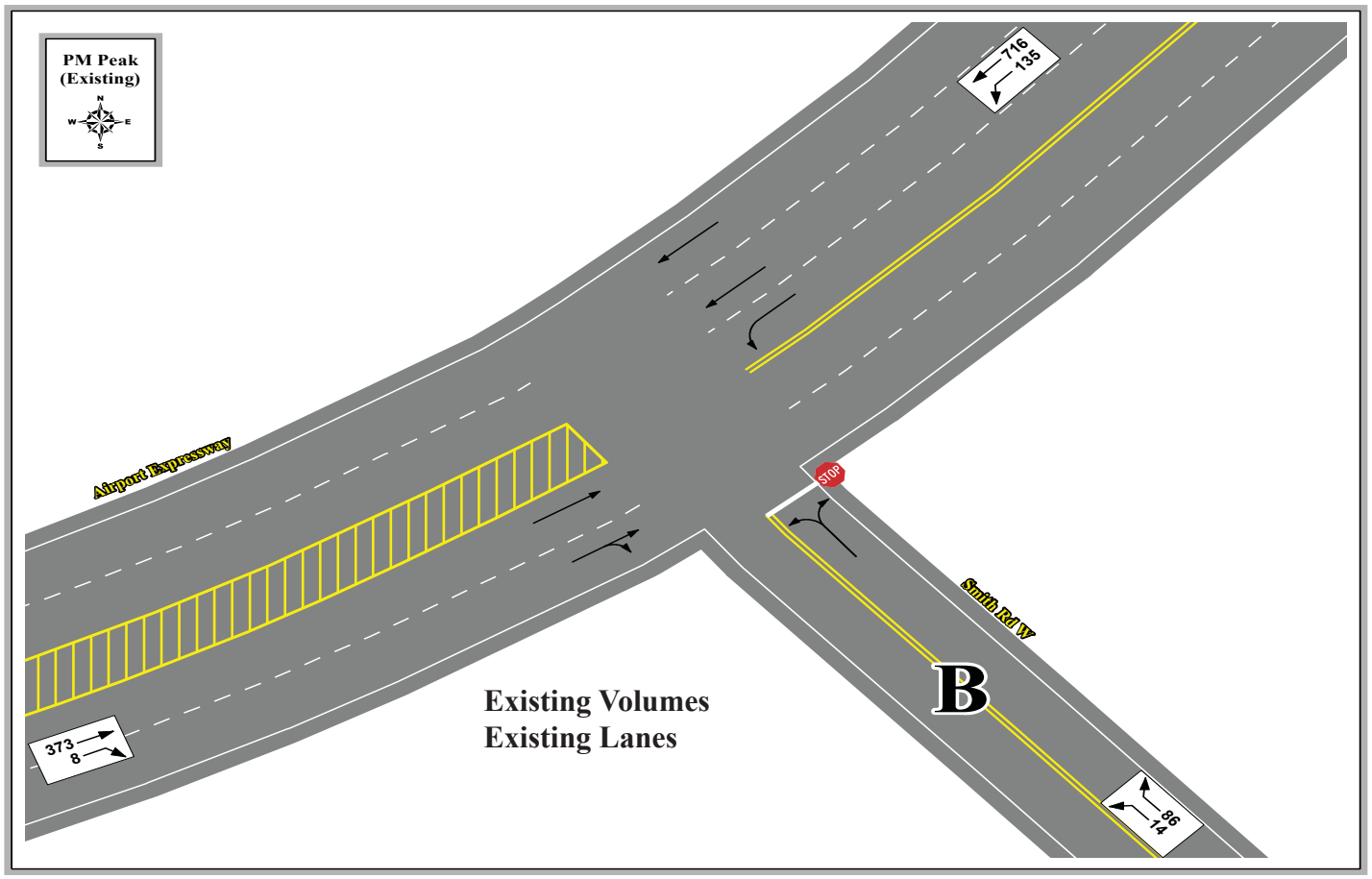
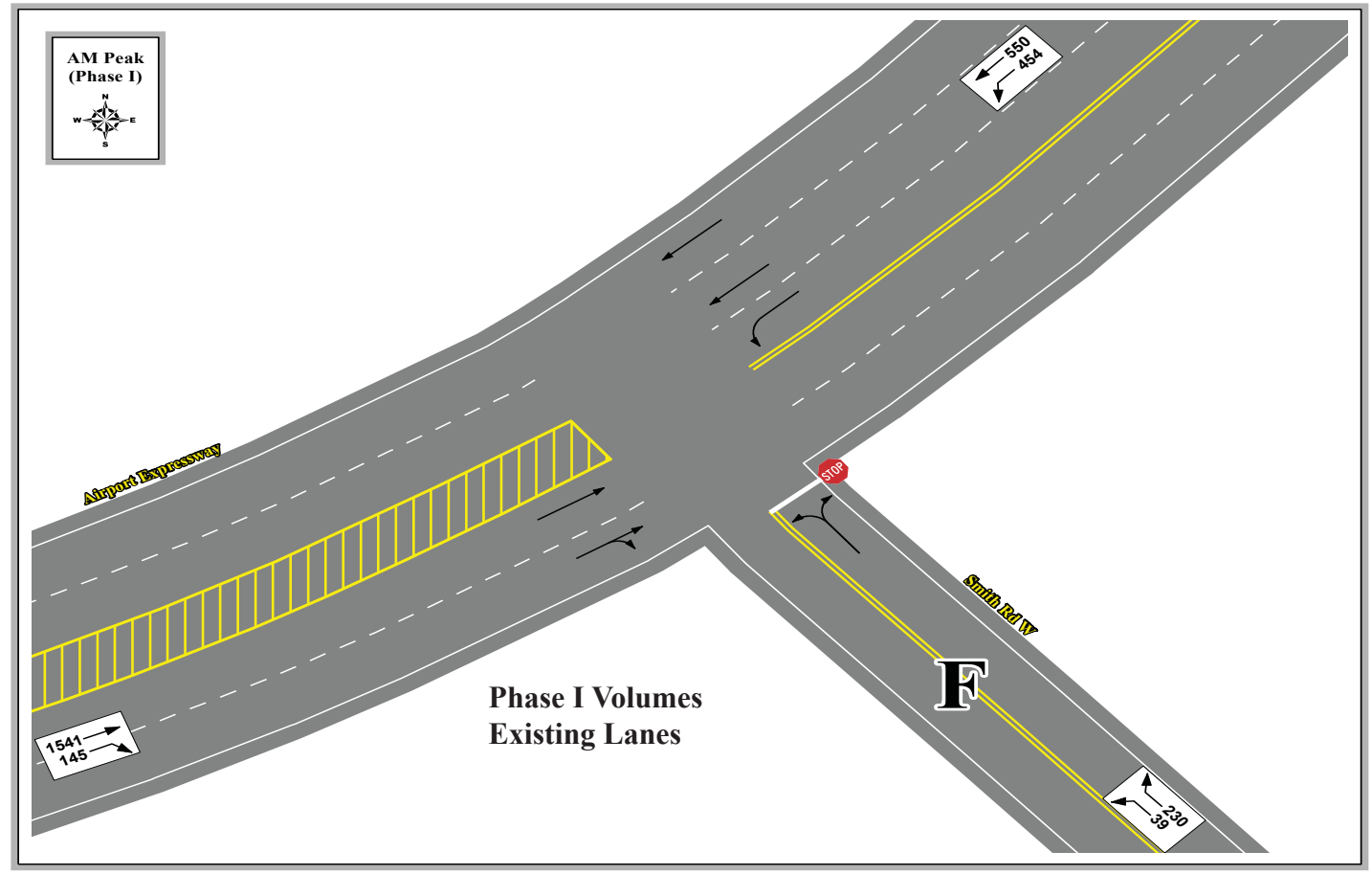


Figure 29

Airport Expressway / Smith Rd (W) Phase I Volumes and Existing / Proposed Improvements (AM Peak)



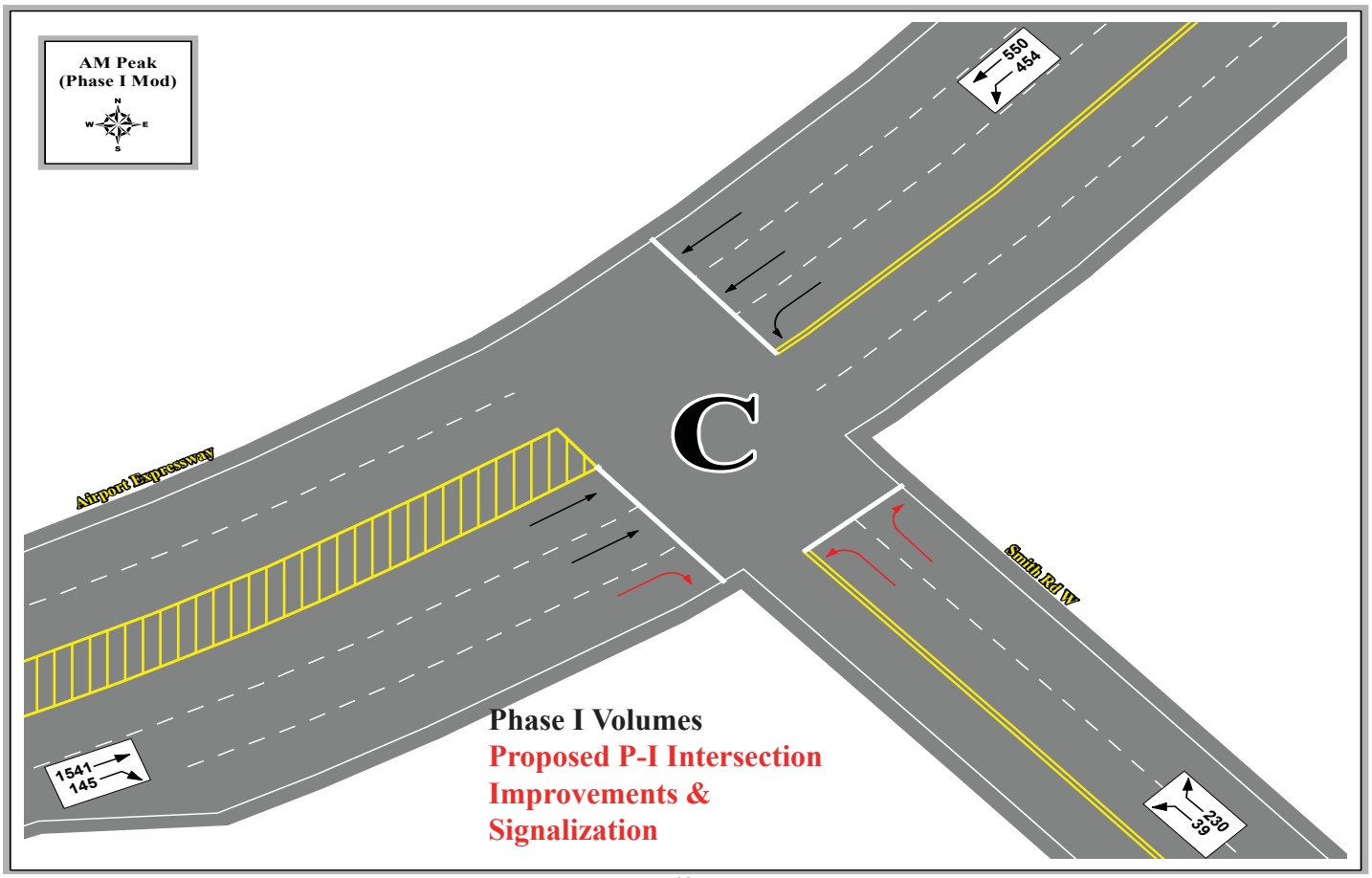
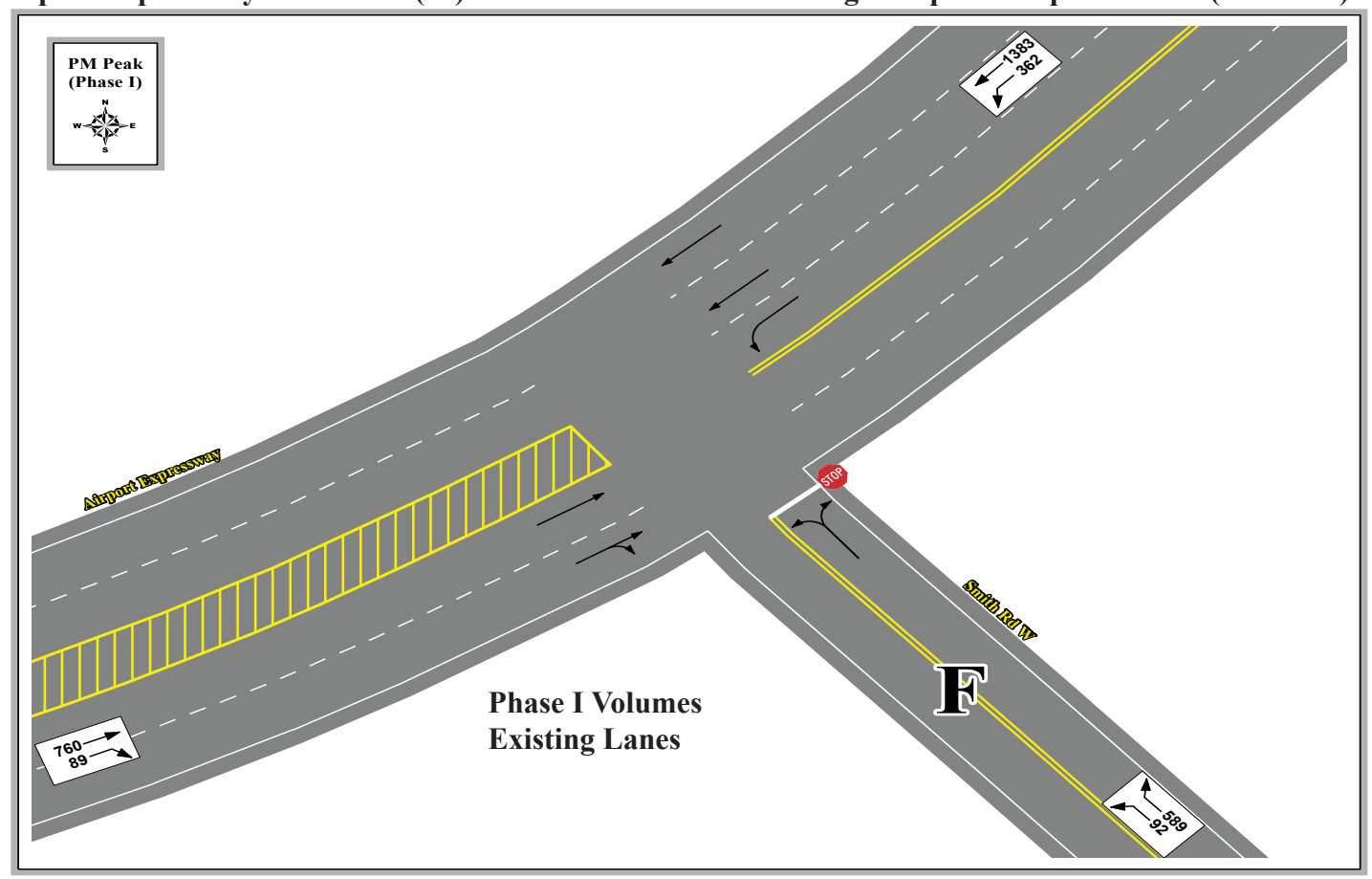


Figure 30

Airport Expressway / Smith Rd (W) Phase I Volumes and Existing / Proposed Improvements (PM Peak)



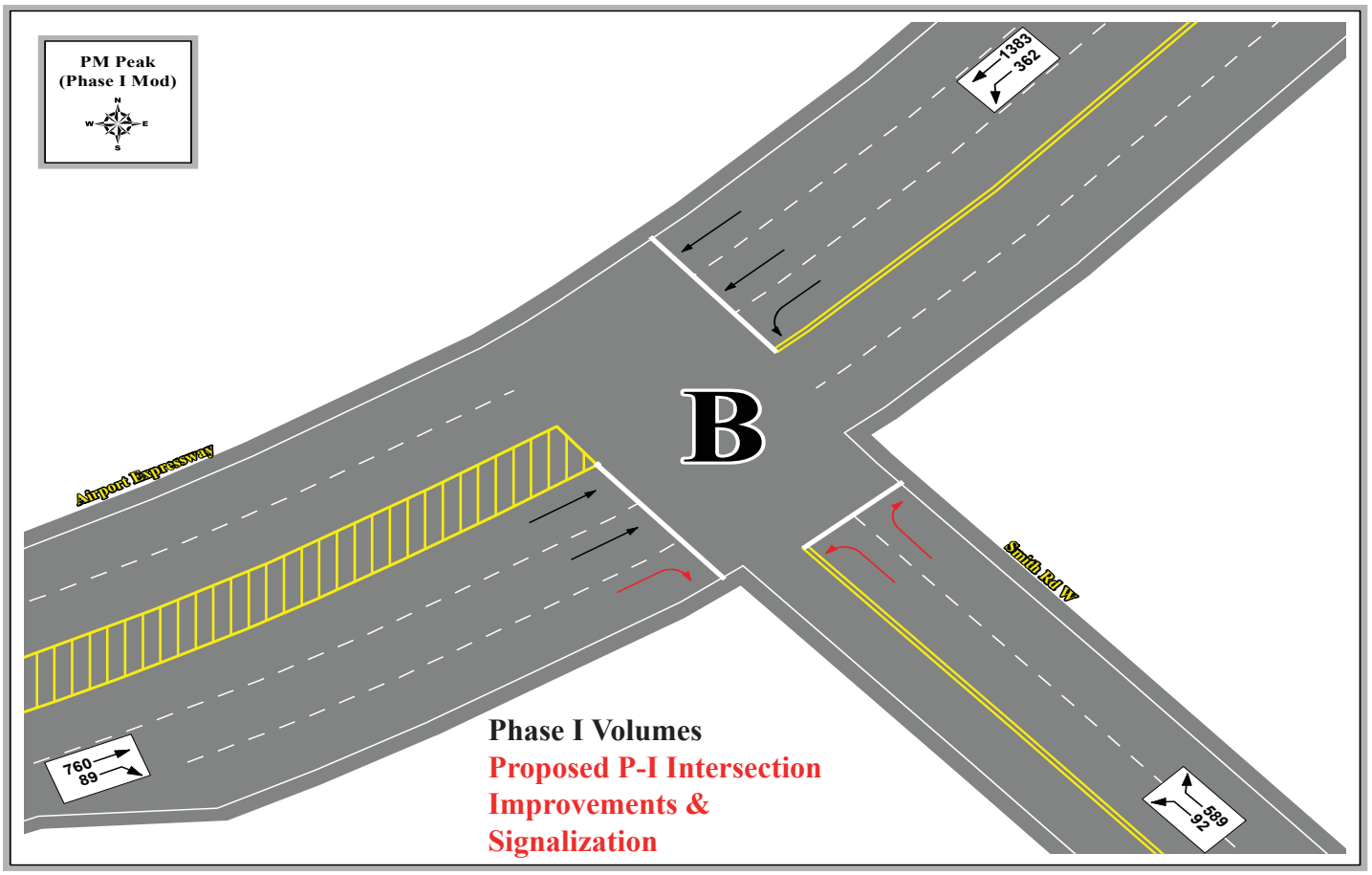
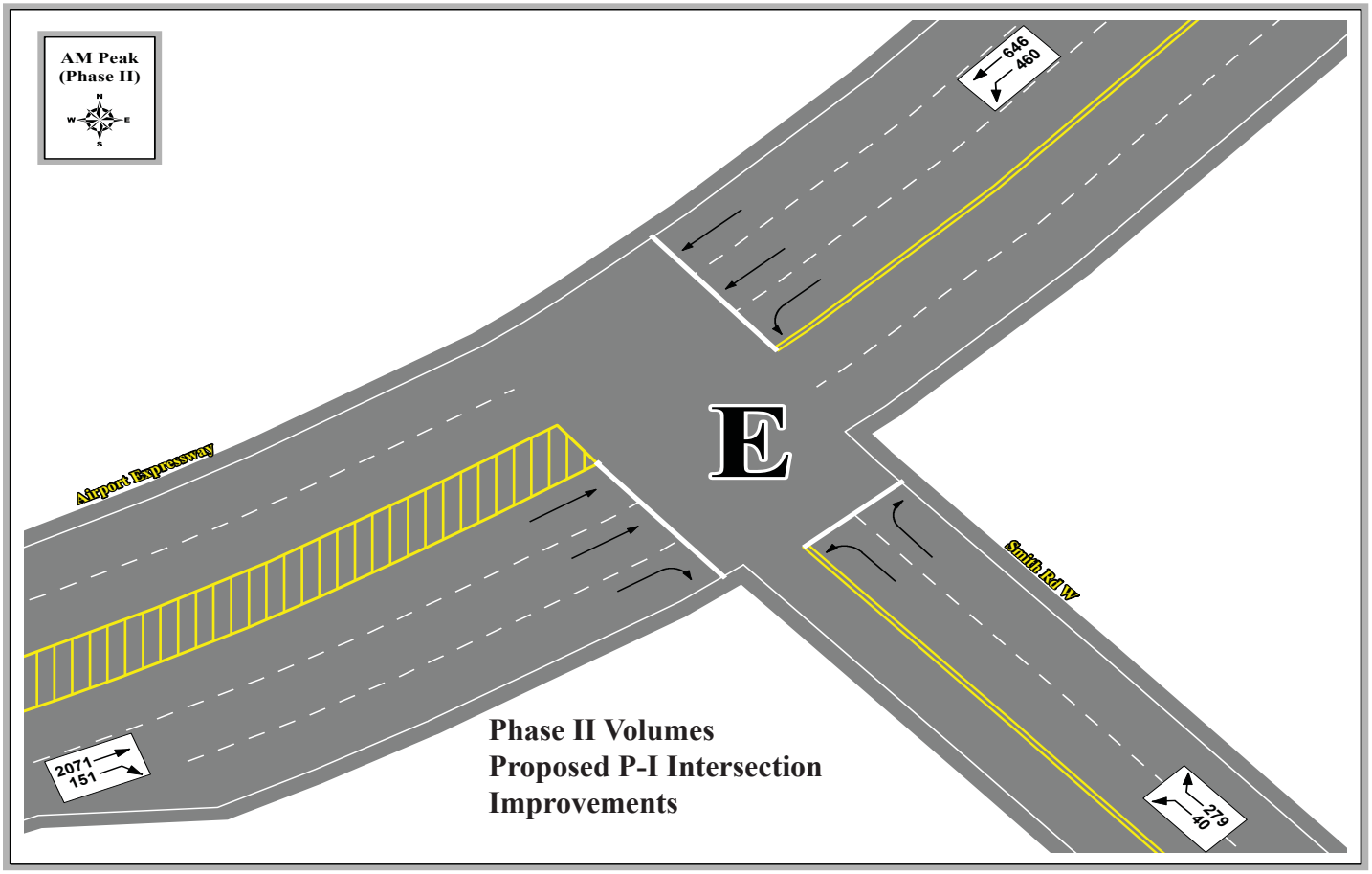


Figure 31

Airport Expressway / Smith Rd (W) Phase II Volumes and Existing / Proposed Improvements (AM Peak)



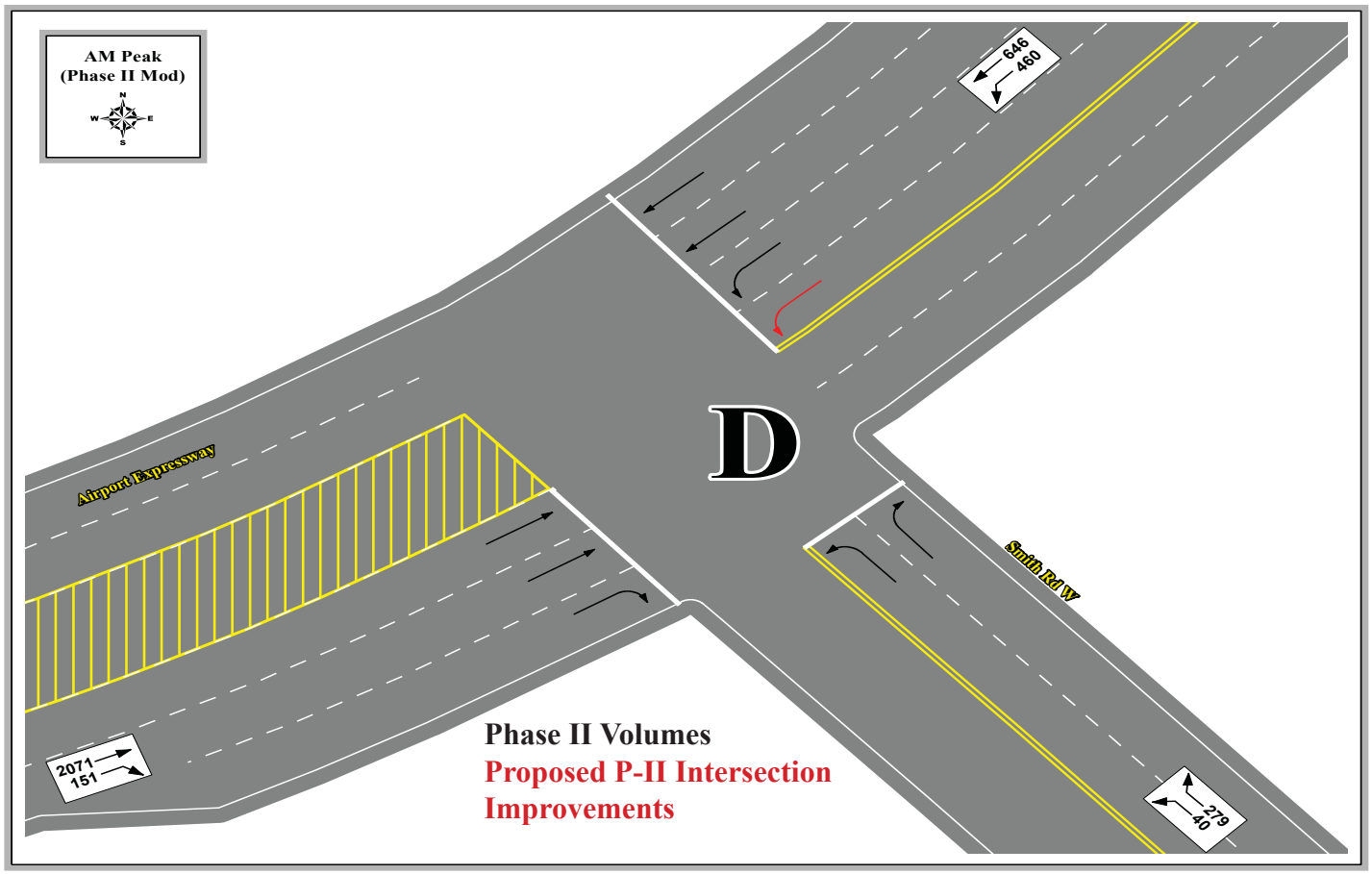
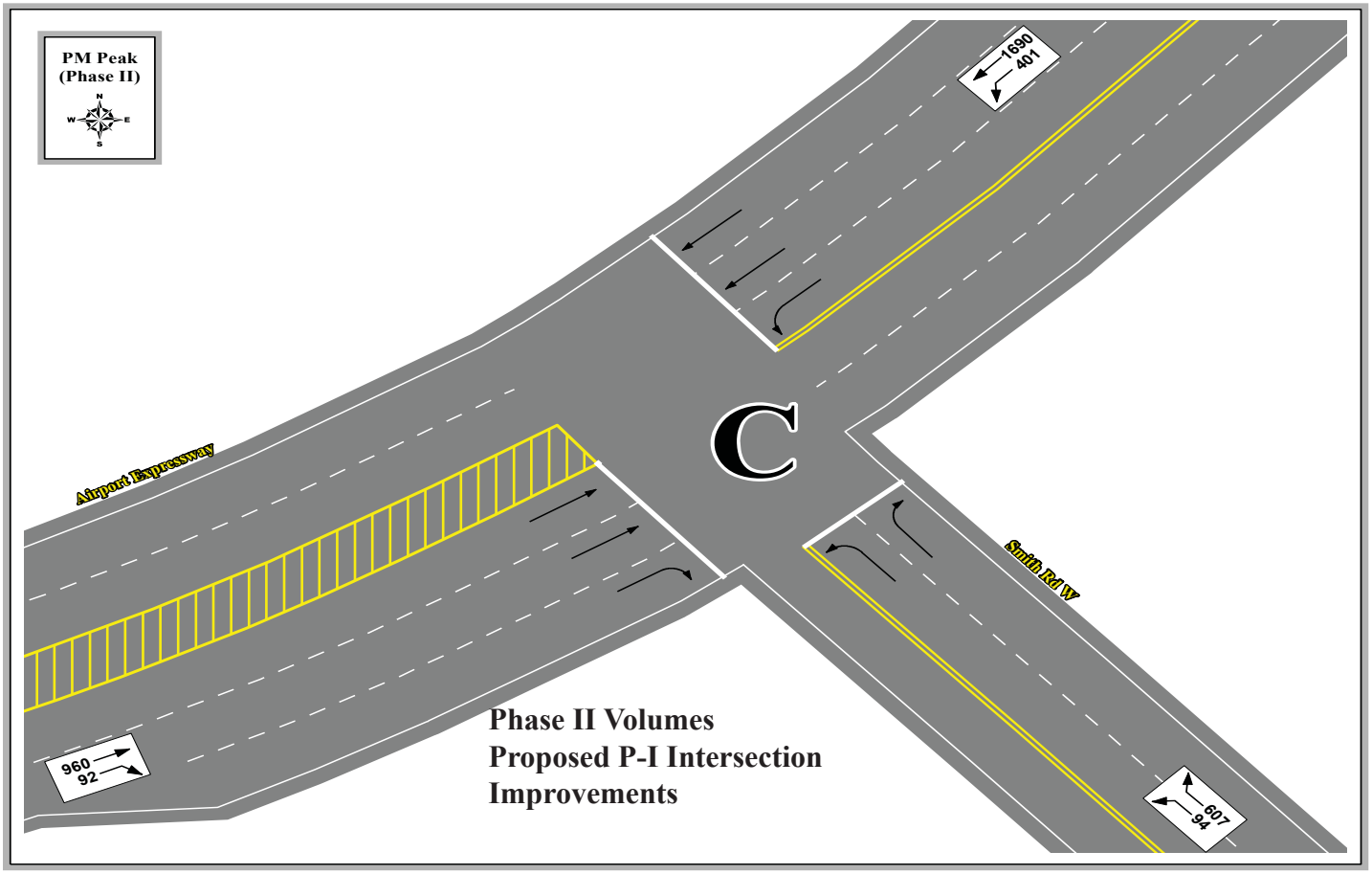
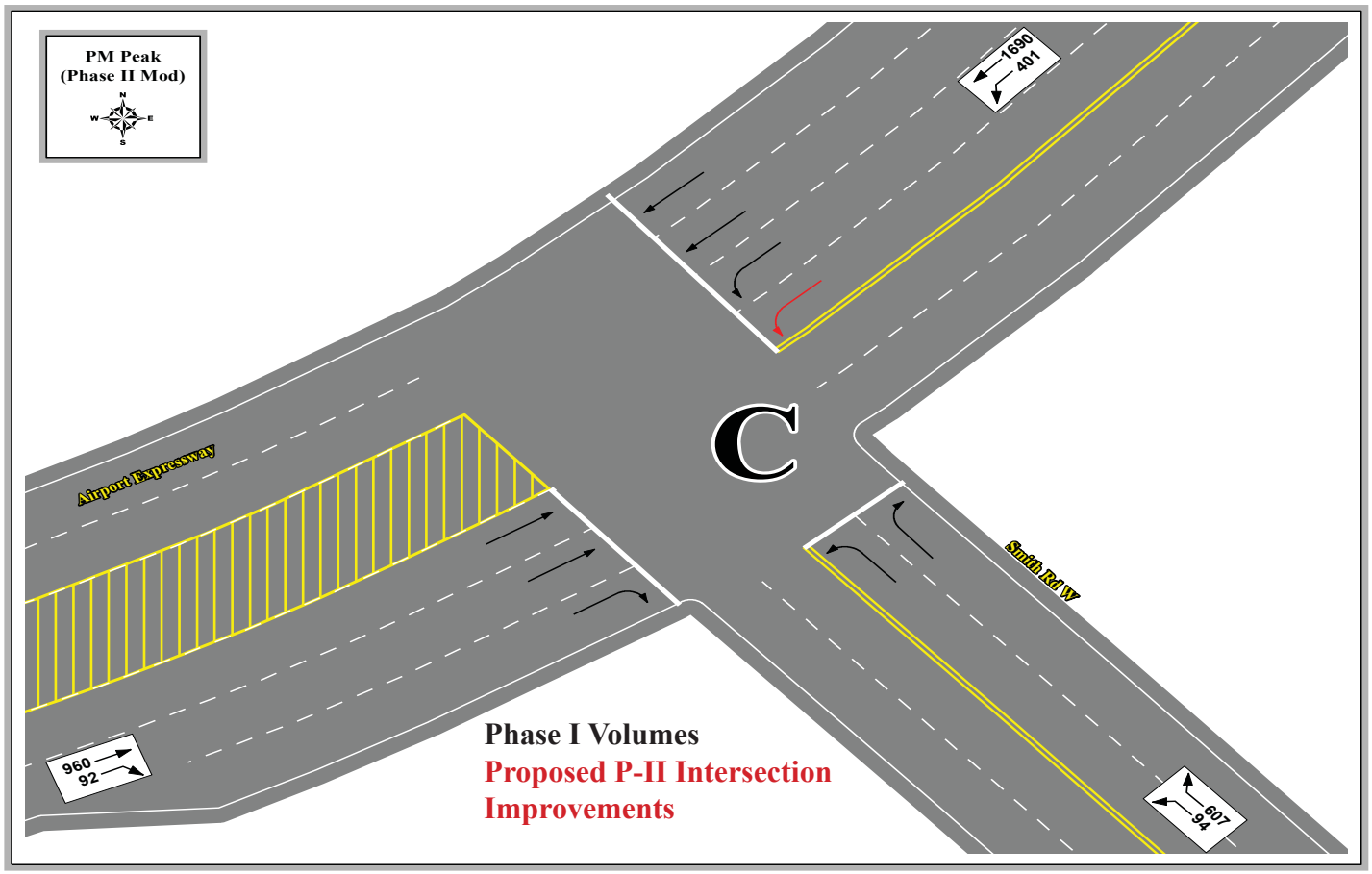


Figure 32

Airport Expressway / Smith Rd (W) Phase II Volumes and Existing / Proposed Improvements (PM Peak)





Airport Expressway at Smith Road (E)

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Smith Road is a 2-lane facilities. Figure 33 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" for a.m. and p.m. peak hours for the southbound movement.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "B" for a.m. and "C" for p.m. peak hours with the added trips of phase I during the peak hours for the southbound movement. See Figure 34 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "C" for a.m. and "E" for p.m. peak hours with the added trips of phase II during the peak hours for the southbound movement. See Figure 35 for the a.m. and p.m. peak volumes, and LOS.

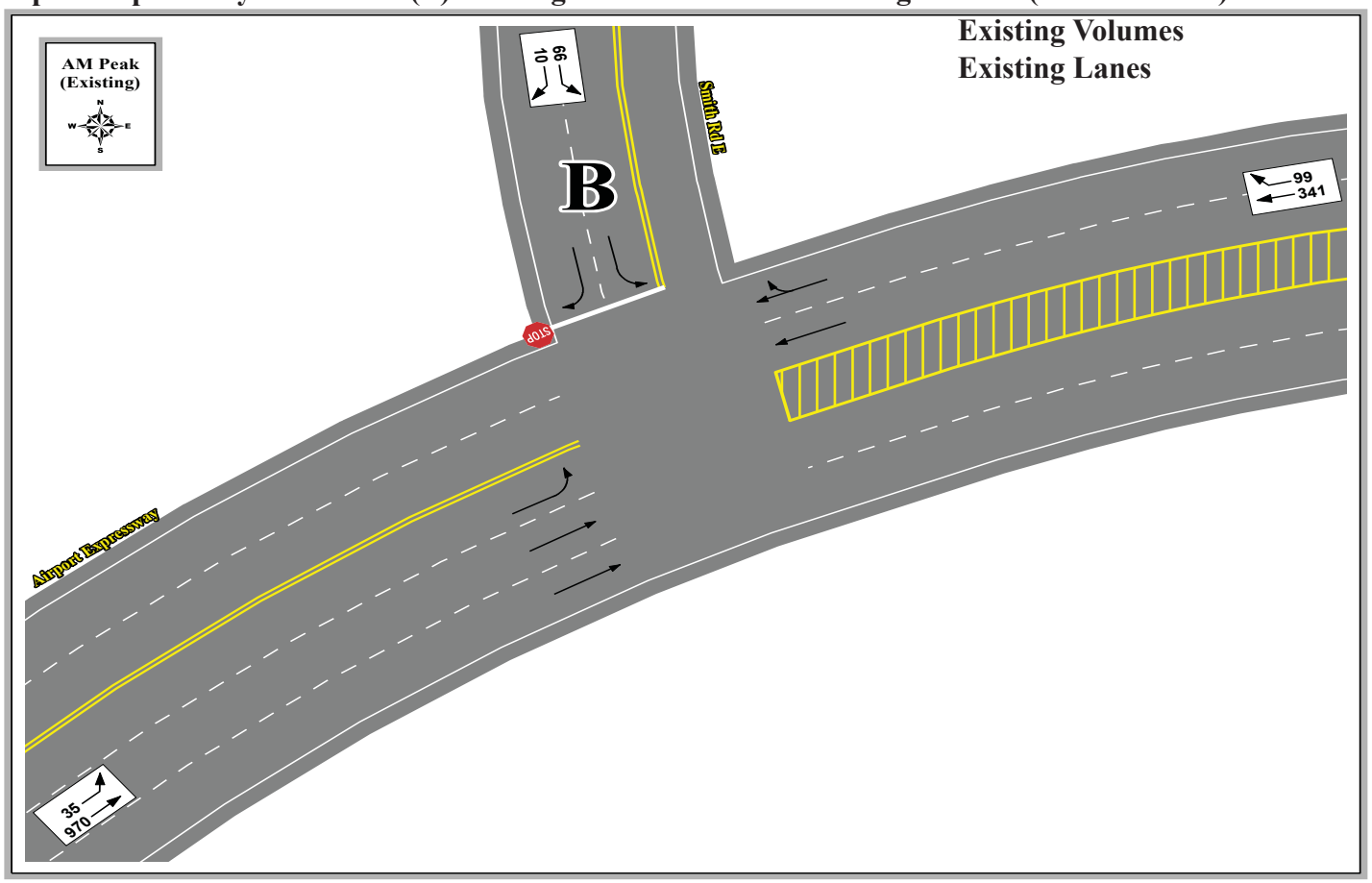
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Smith Rd (E)				
AM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	NA
Phase I Existing Lanes	B	A	A	NA
Phase II Existing Lanes	C	A	A	NA

PM Peak	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**
Existing	B	A	A	NA
Phase I Existing Lanes	C	A	A	NA
Phase II Existing Lanes	E	A	A	NA

Figure 33

Airport Expressway / Smith Rd (E) Existing Volumes and Lane Configurations (AM/PM Peak)



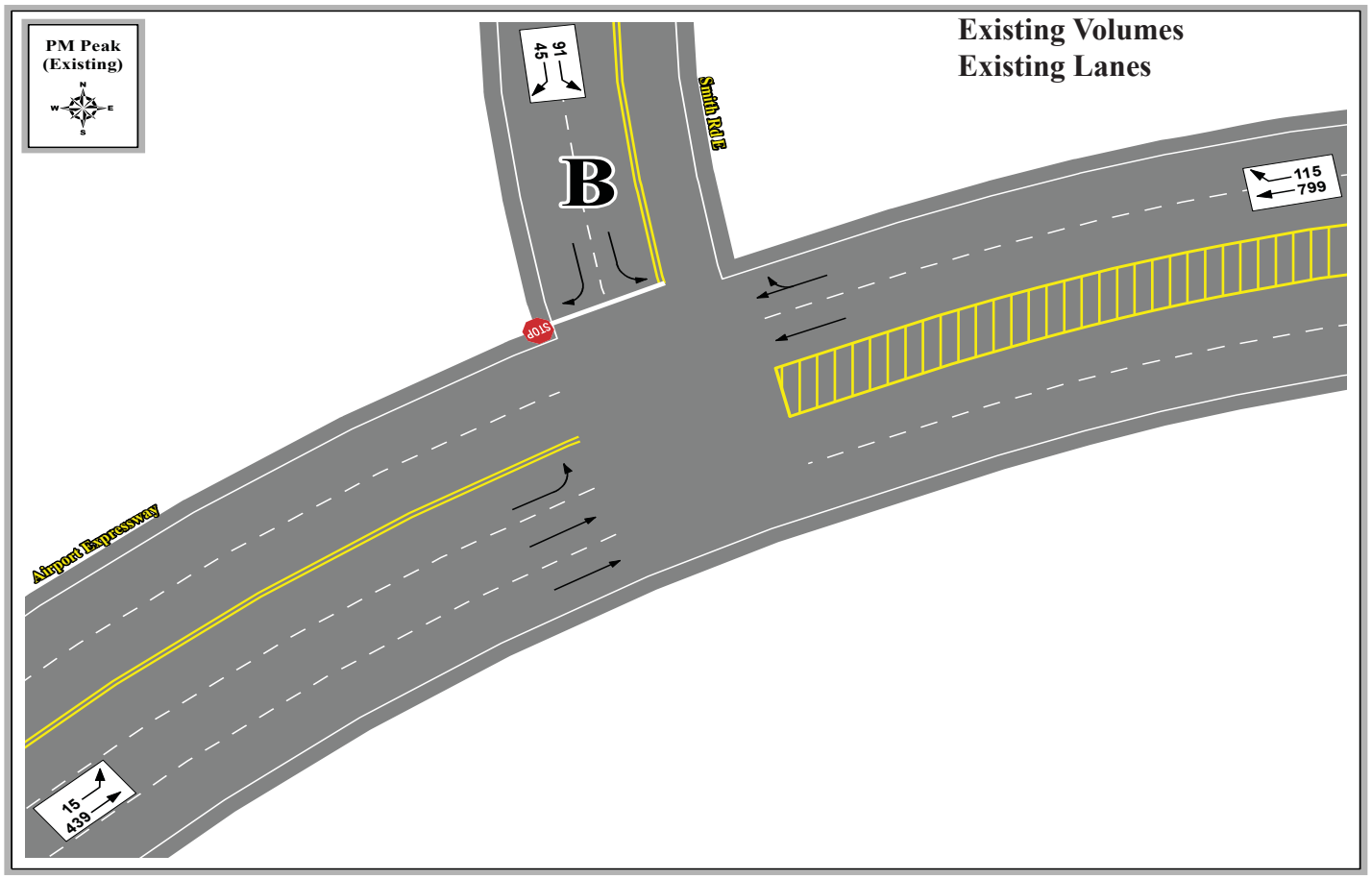
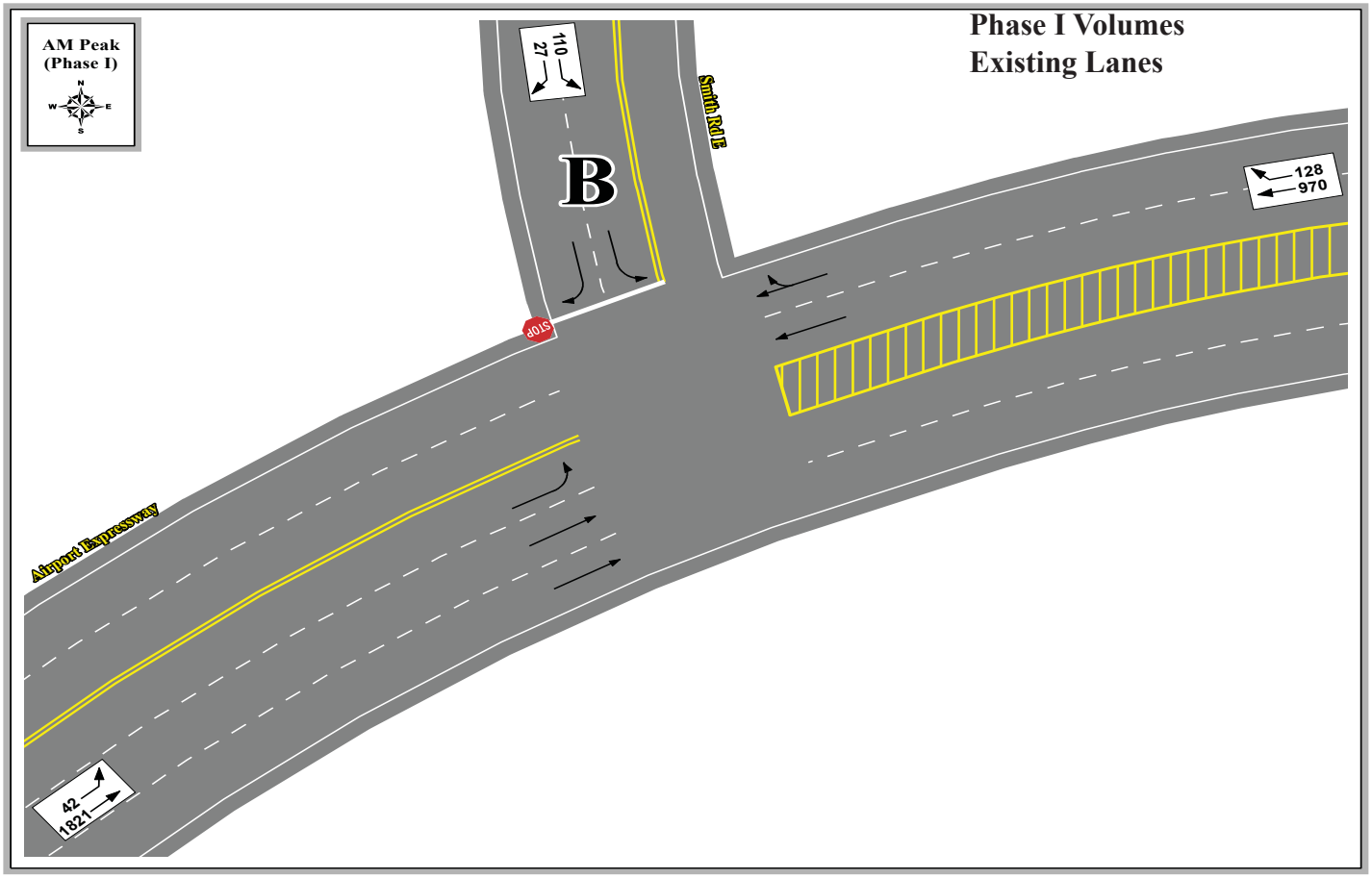


Figure 34

Airport Expressway / Smith Rd (E) Phase I Volumes and Lane Configurations (AM/PM Peak)



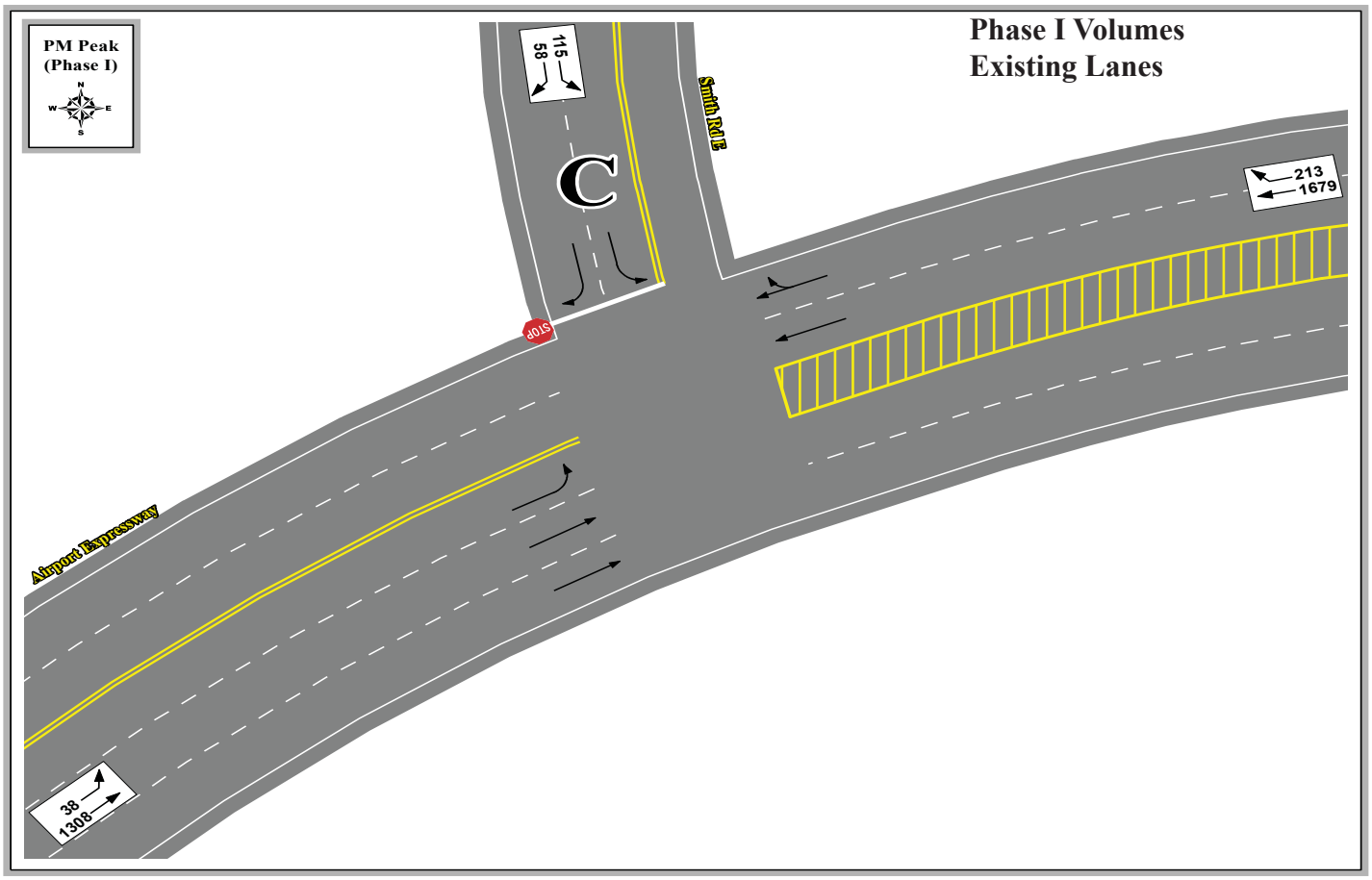
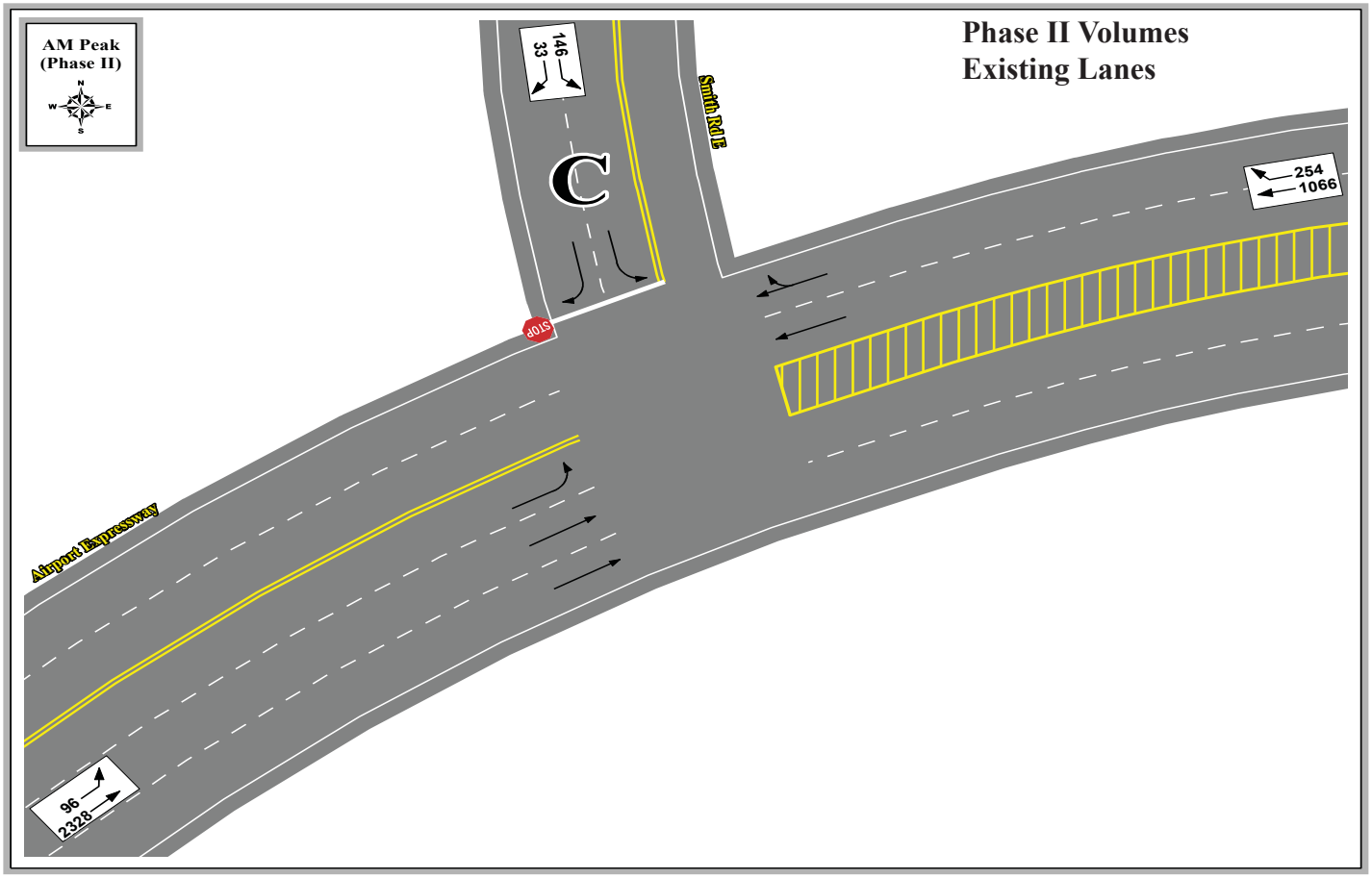
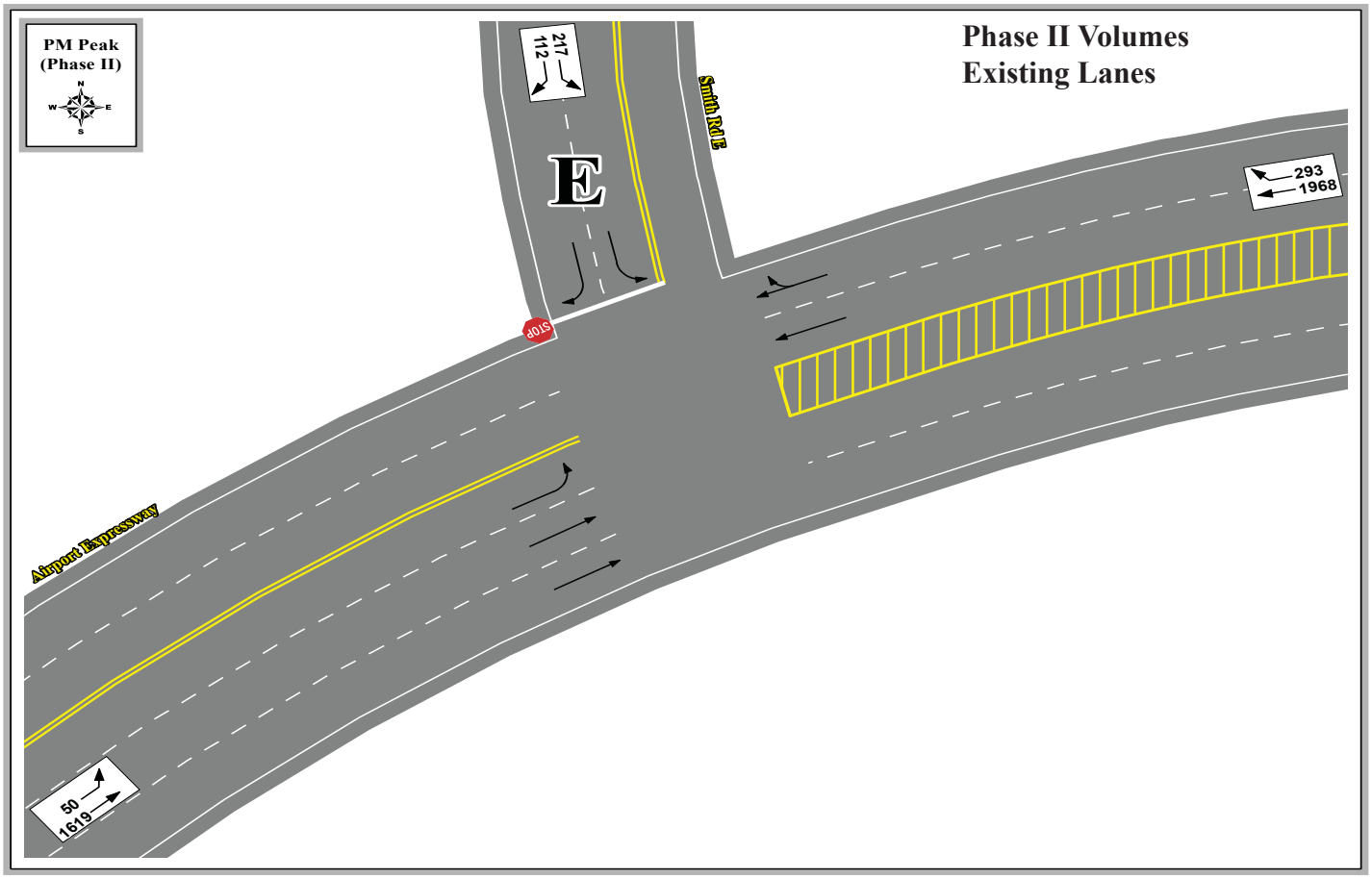


Figure 35

Airport Expressway / Smith Rd (E) Phase II Volumes and Lane Configurations (AM/PM Peak)





Airport Expressway at Aviation Drive / Conservation Way

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Aviation Drive / Conservation Way are 2-lane facilities. Figure 36 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" for a.m. and p.m. peak hours for the northbound and southbound movements.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "B" for a.m. and "F" for p.m. peak hours with the added trips of phase I during the peak hours for the northbound and "D" for a.m. and "F" for p.m. peak hours for the southbound movement. The intersection can be improved to a LOS "A" during the a.m. and p.m. peak hours with signalization. See Figures 37 and 38 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "B" for a.m. and p.m. peak hours with the added trips of phase II during the peak hours. See Figure 39 for the a.m. and p.m. peak volumes, and LOS.

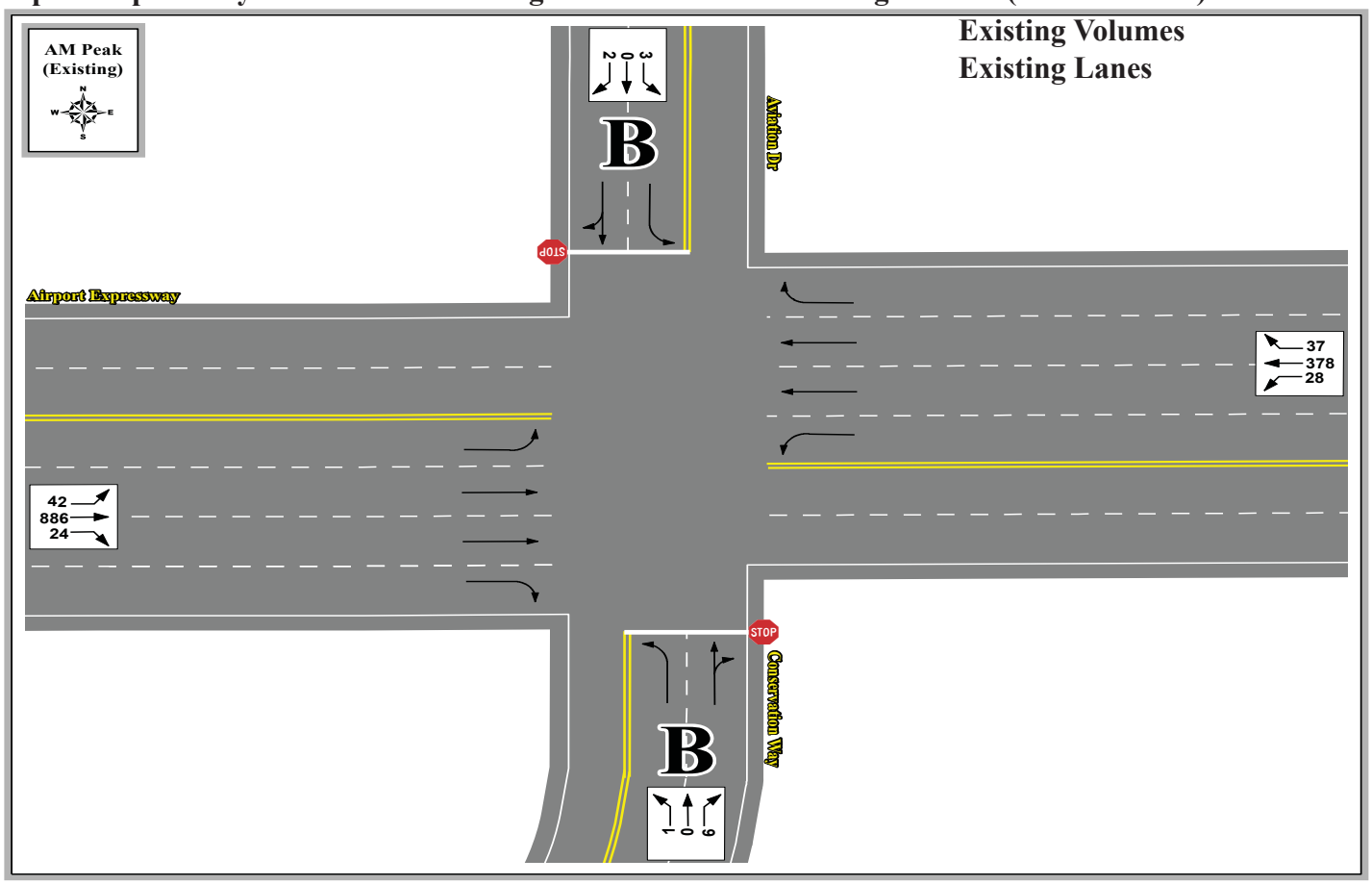
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Aviation Dr / Conservation Way					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	B	D	A	A	NA
Phase I Modified	D	D	A	A	A
Phase II	D	F	A	A	B

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	F	F	A	A	NA
Phase I Modified	C	C	A	A	A
Phase II	D	D	B	B	B

Figure 36

Airport Expressway / Aviation Dr Existing Volumes and Lane Configurations (AM/PM Peak)



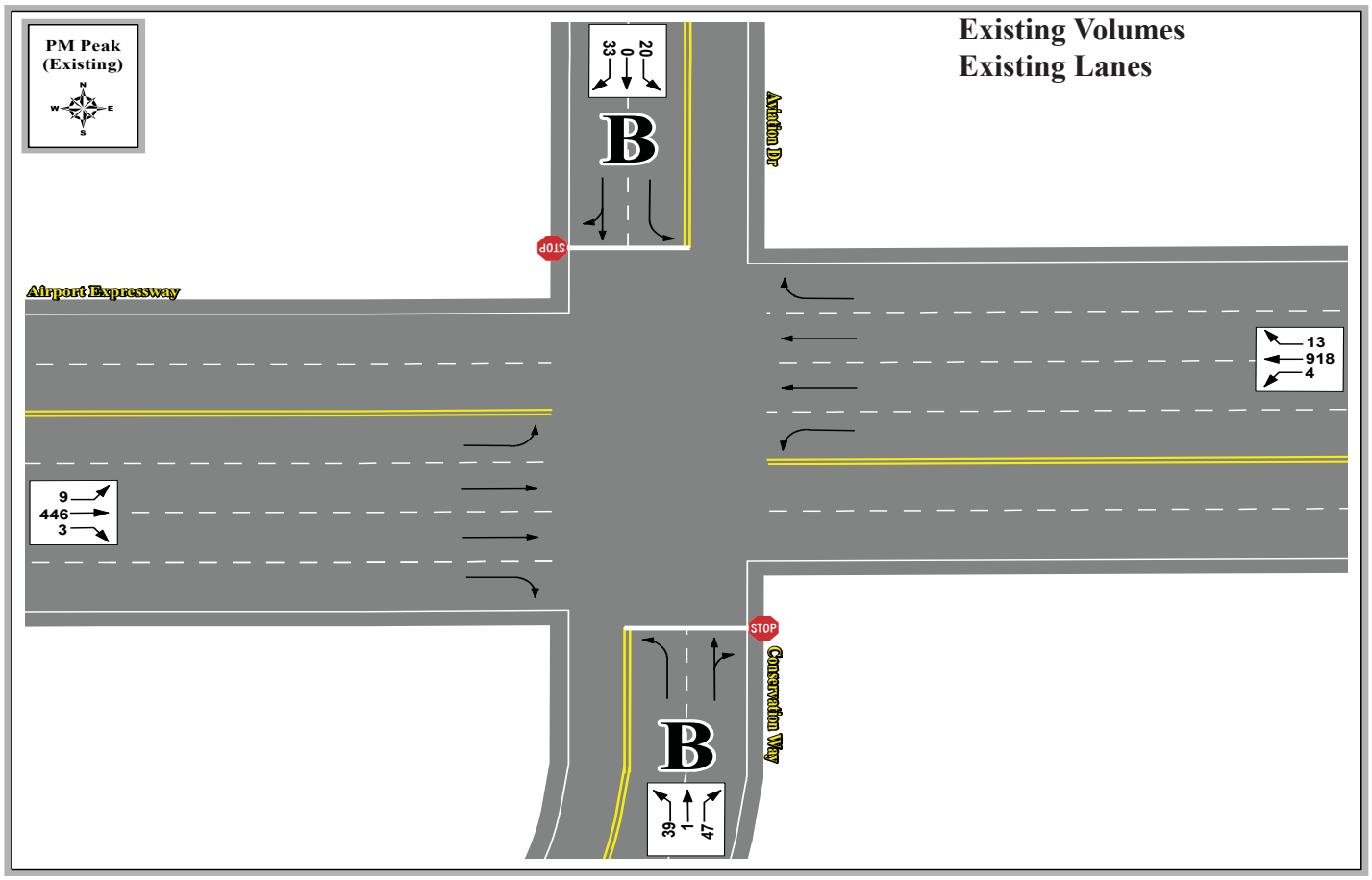
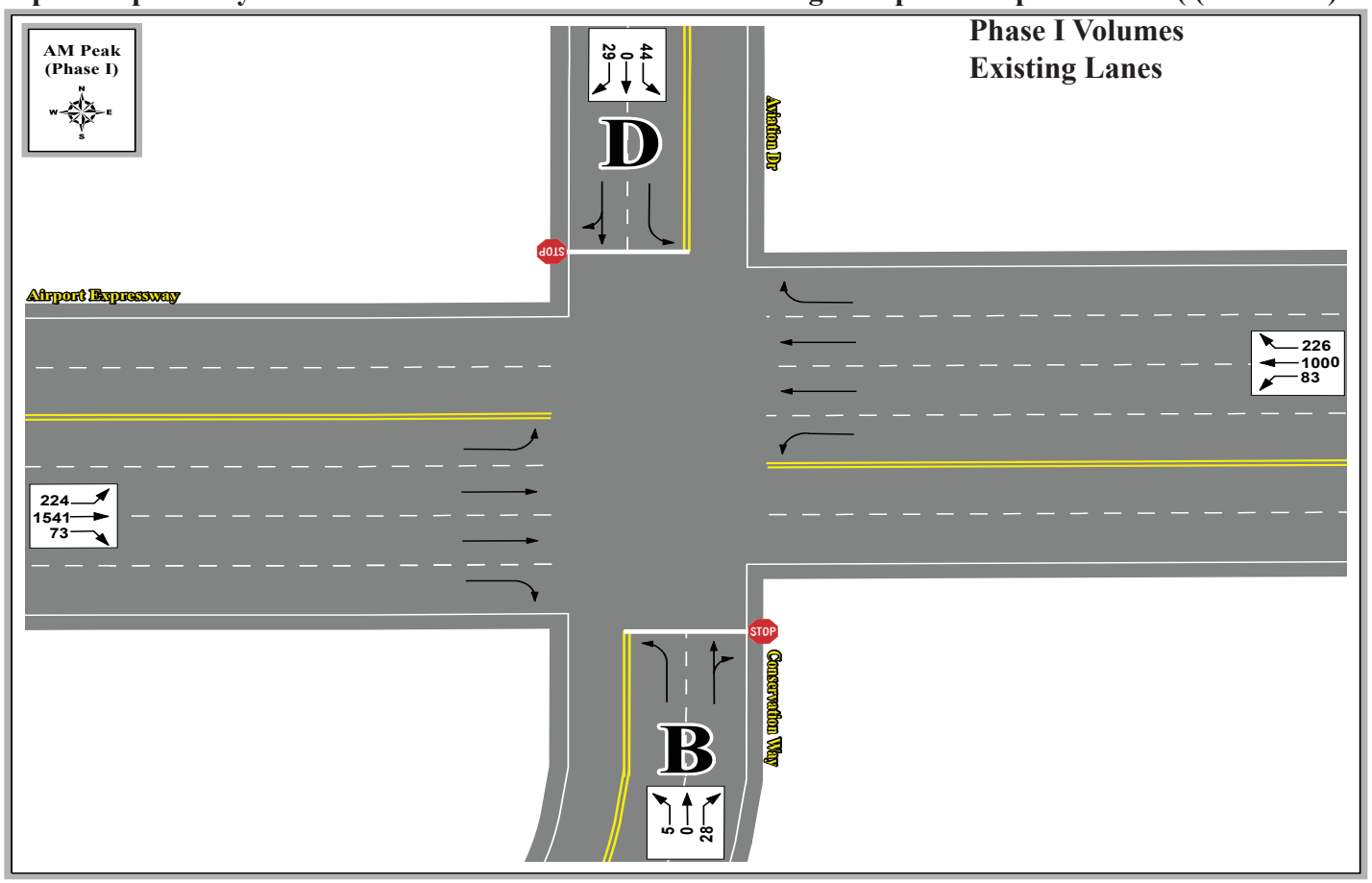


Figure 37

Airport Expressway / Aviation Dr Phase I Volumes and Existing / Proposed Improvements ((AM Peak)



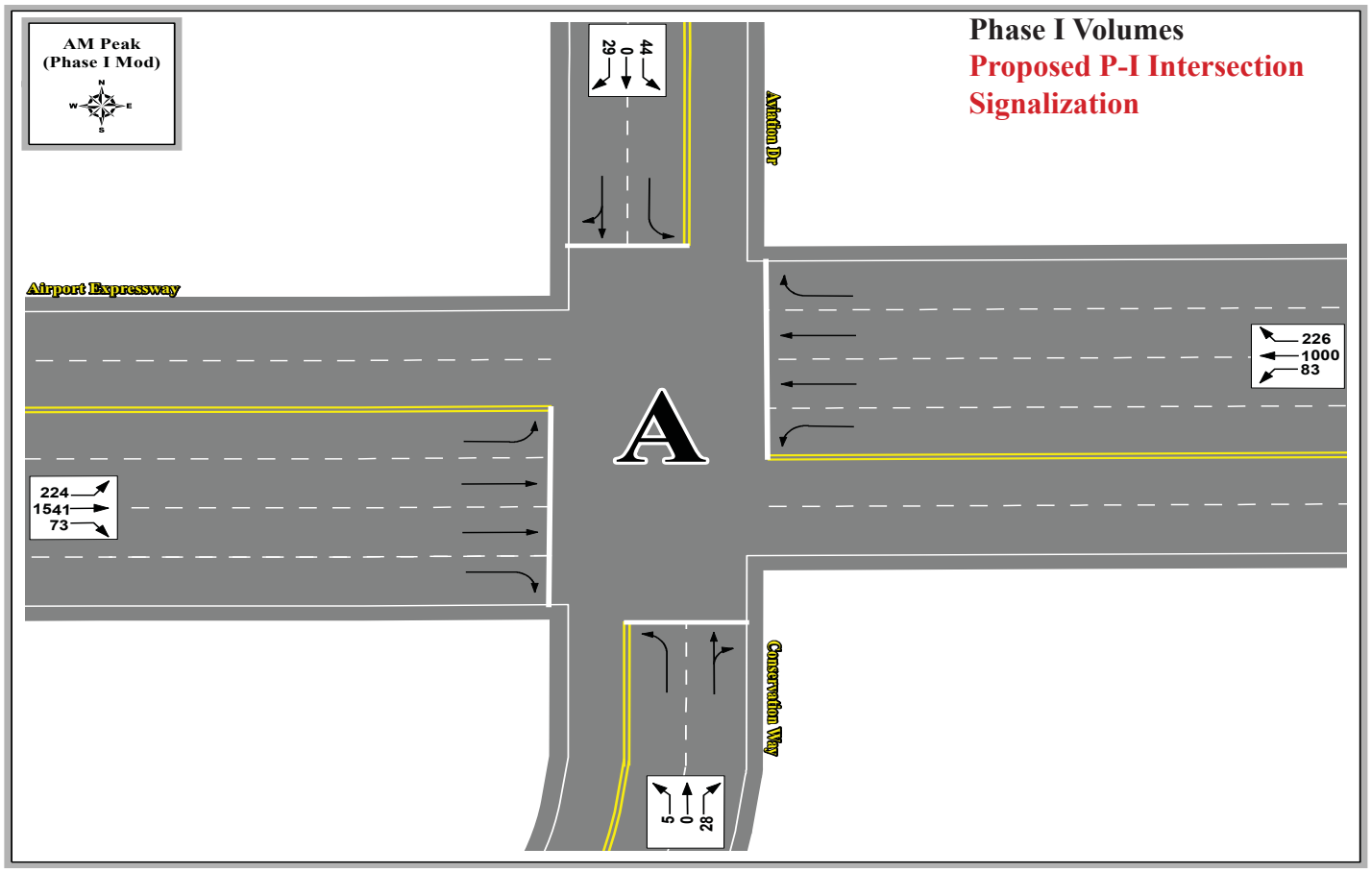
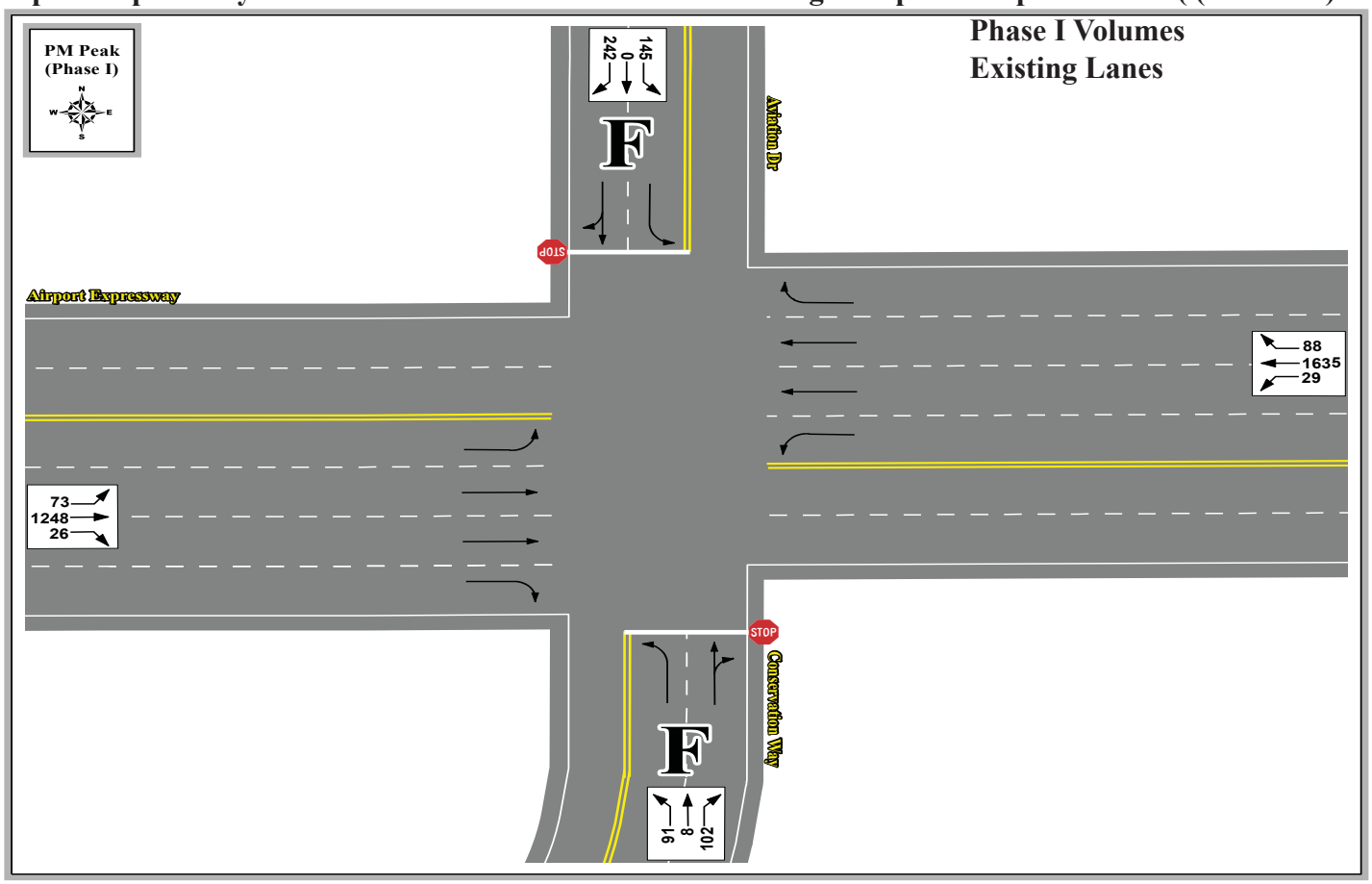


Figure 38

Airport Expressway / Aviation Dr Phase I Volumes and Existing / Proposed Improvements ((PM Peak)



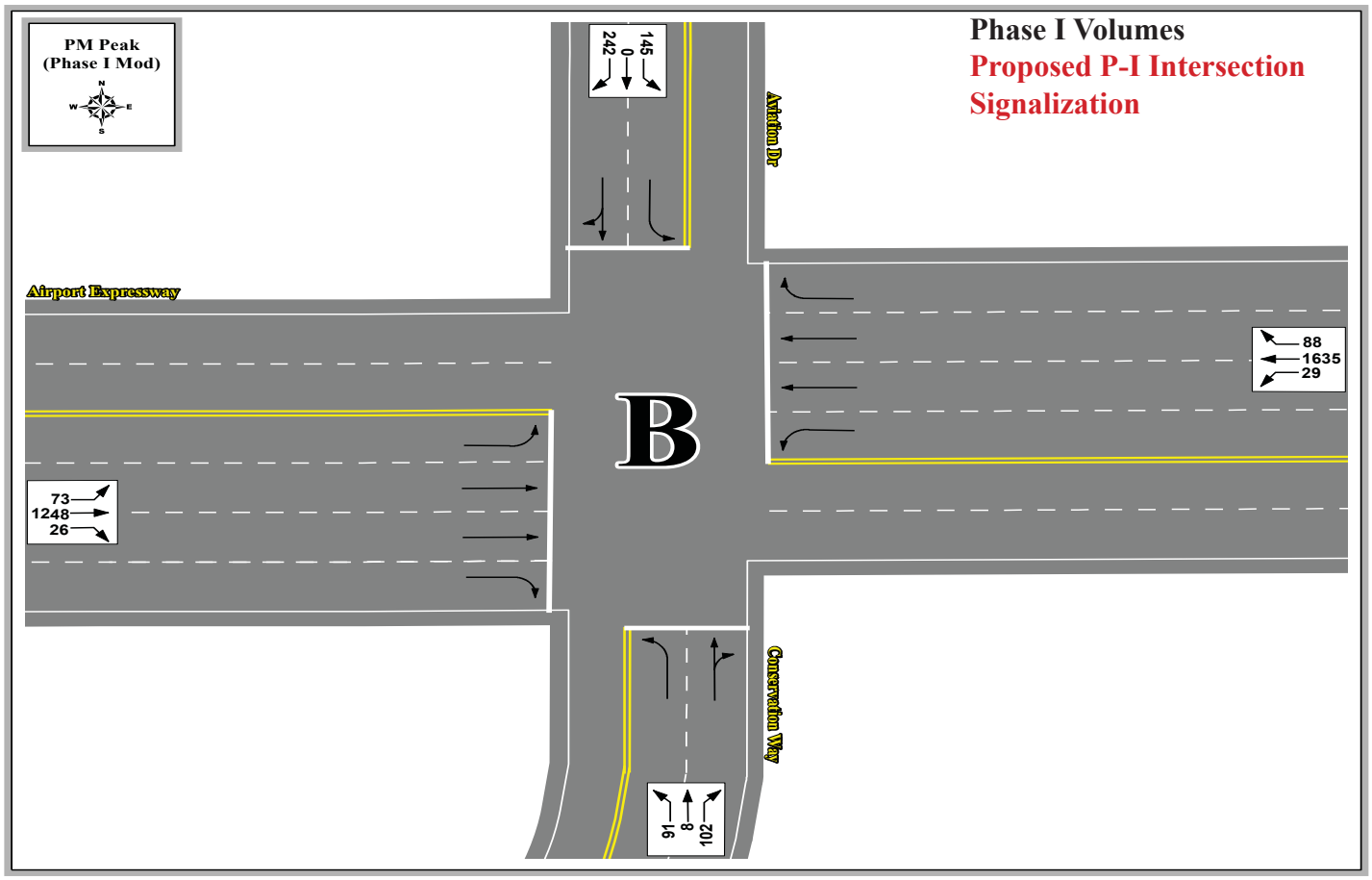
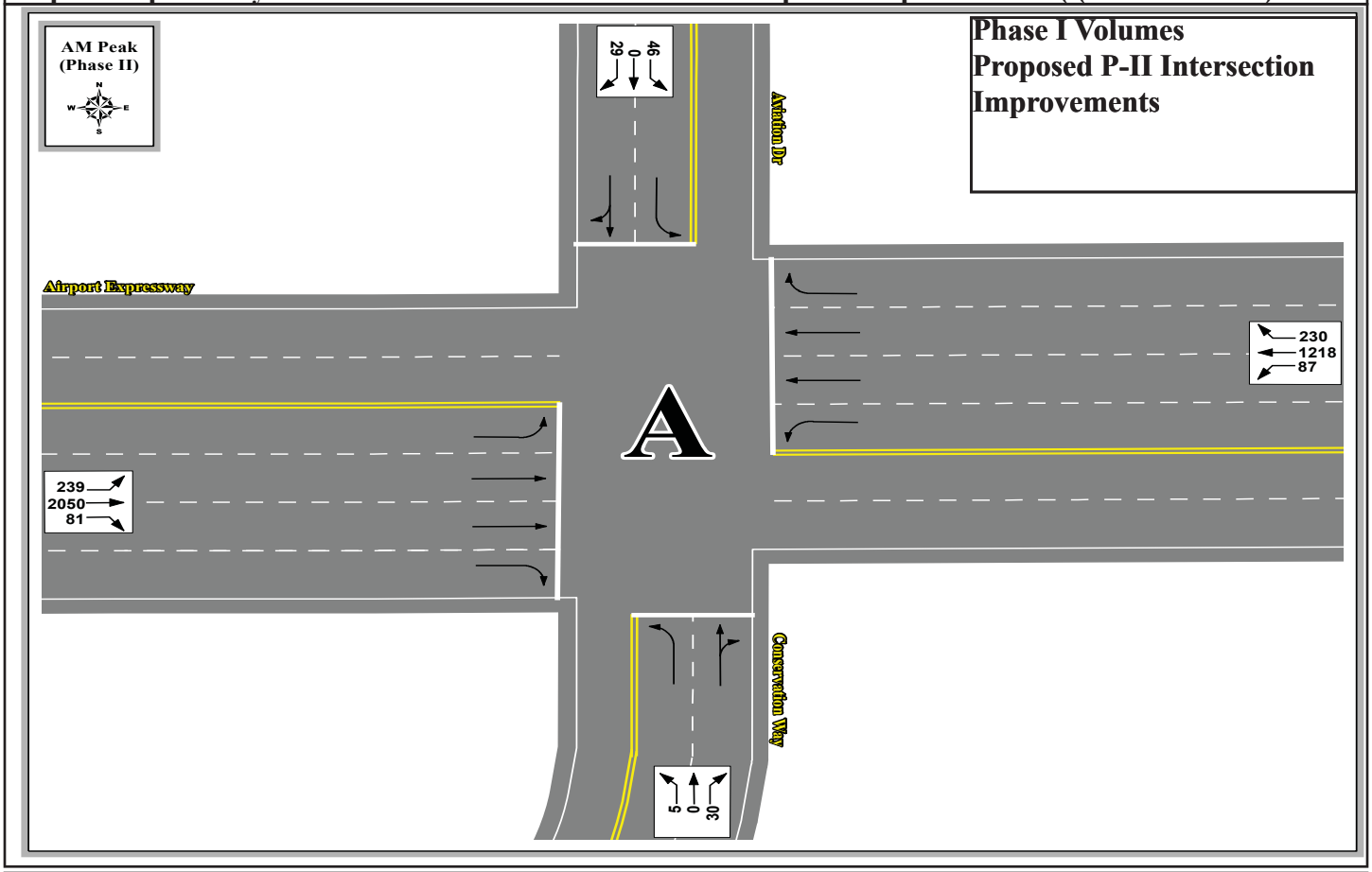
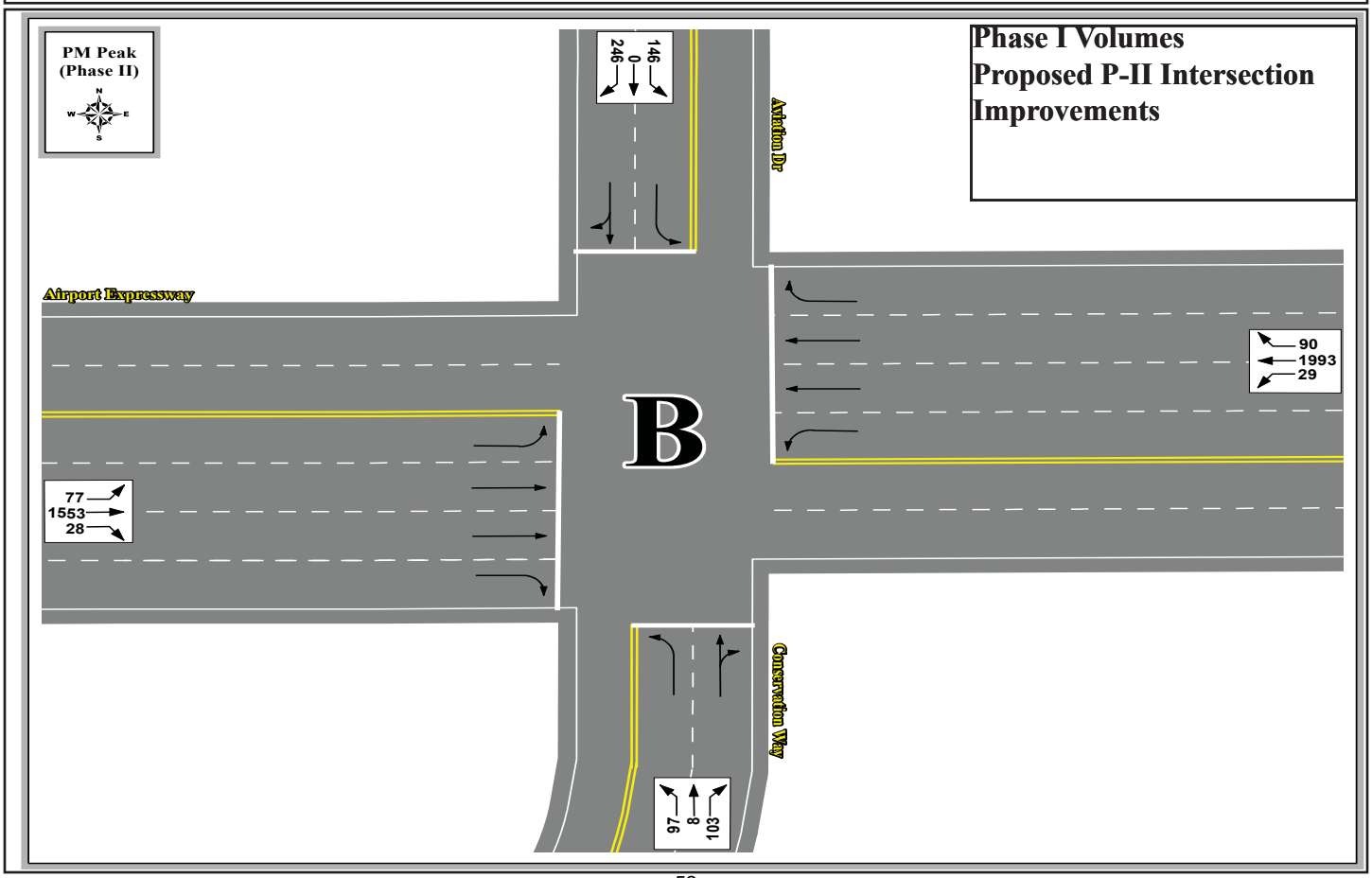


Figure 39

Airport Expressway / Aviation Dr Phase II Volumes and Proposed Improvements ((AM/PM Peak)



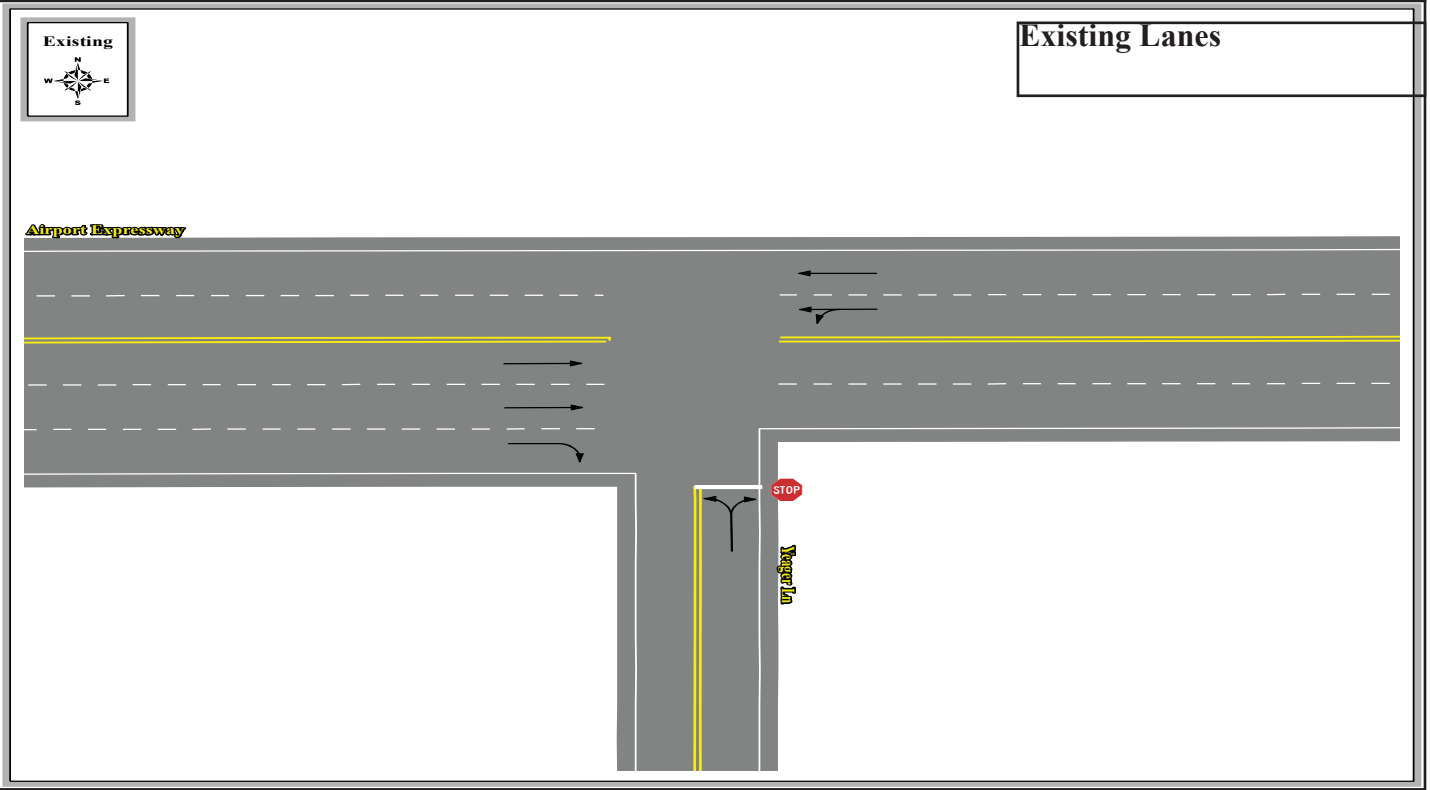


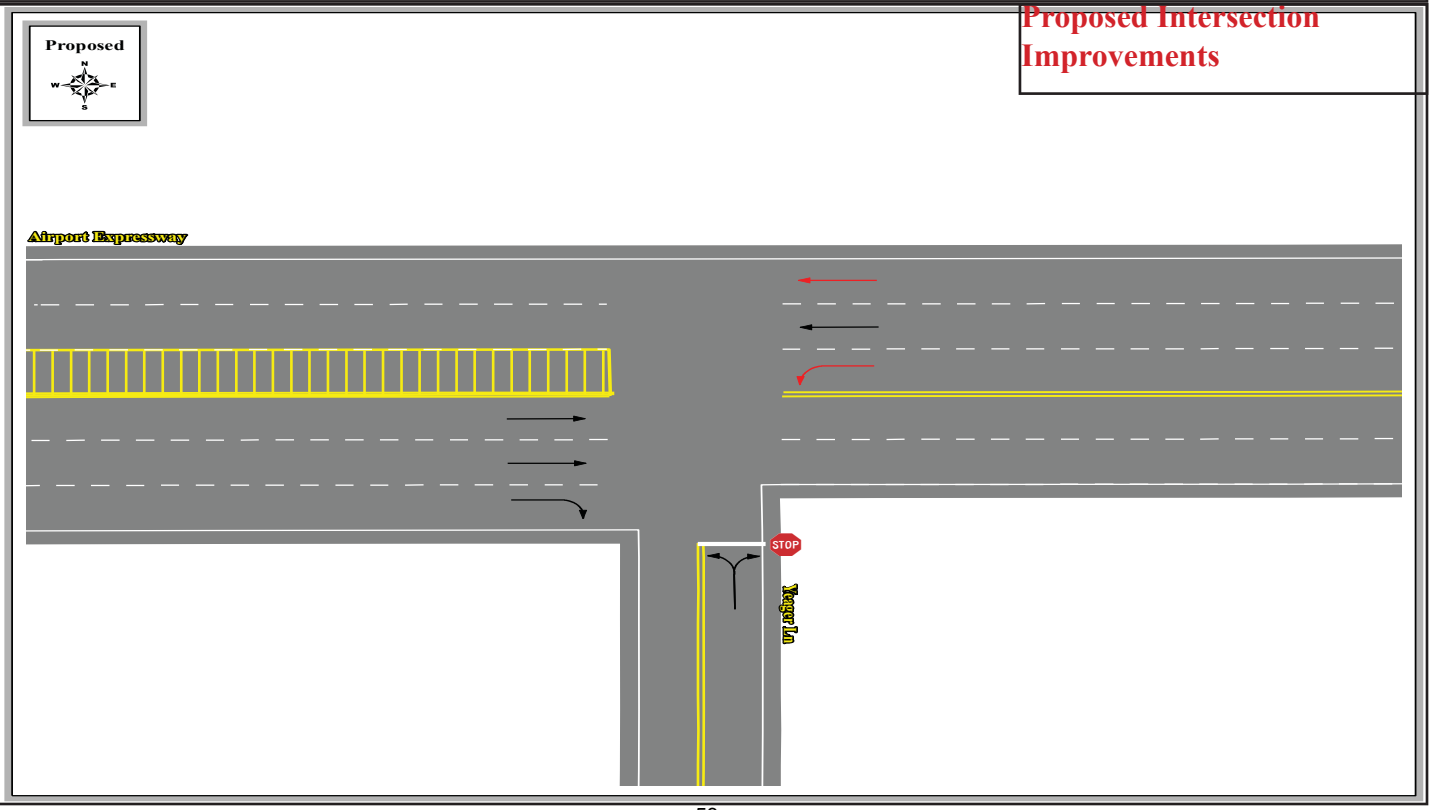
Airport Expressway at Yeager Drive

Airport Expressway is a 4-lane and Yeager Drive is a 2-lane facilities. The intersection currently has a westbound through and through-left lane, we recommend adding an exclusive left turn lane within the existing median. Figure 40 shows the current and proposed geometry

Figure 40

Airport Expressway / Yeager Dr Existing and Proposed Configurations





Airport Expressway at Avionics Drive

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Avionics Drive is a 2-lane facilities. Figure 41 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" for a.m. and p.m. peak hours for the northbound and southbound movements.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "E" for a.m. and "F" for p.m. peak hours with the added trips of phase I during the peak hours for the northbound and "C" for a.m. and p.m. peak hours for the southbound movements. The intersection can be improved to a LOS "A" during the a.m. and p.m. peak hours with signalization. See Figures 42 and 43 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "B" for a.m. and p.m. peak hours with the added trips of phase II during the peak hours. See Figure 44 for the a.m. and p.m. peak volumes, and LOS.

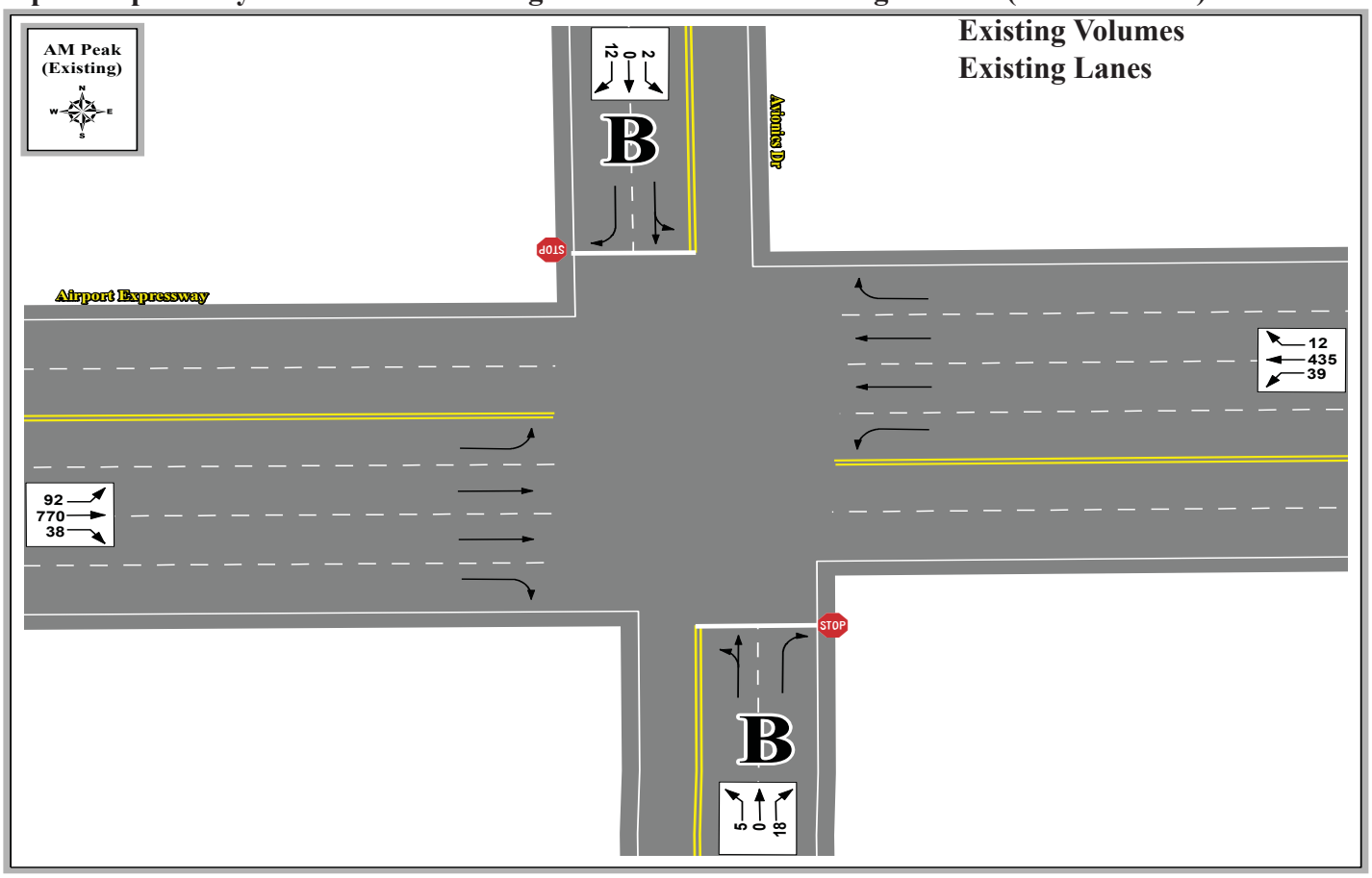
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Avionics Dr					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	E	C	A	A	NA
Phase I Modified	D	D	A	A	A
Phase II	C	C	B	B	B

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	B	B	A	A	NA
Phase I Existing Lanes	F	C	A	A	NA
Phase I Modified	C	C	A	A	A
Phase II	D	C	B	B	B

Figure 41

Airport Expressway / Avionics Dr Existing Volumes and Lane Configurations (AM/PM Peak)



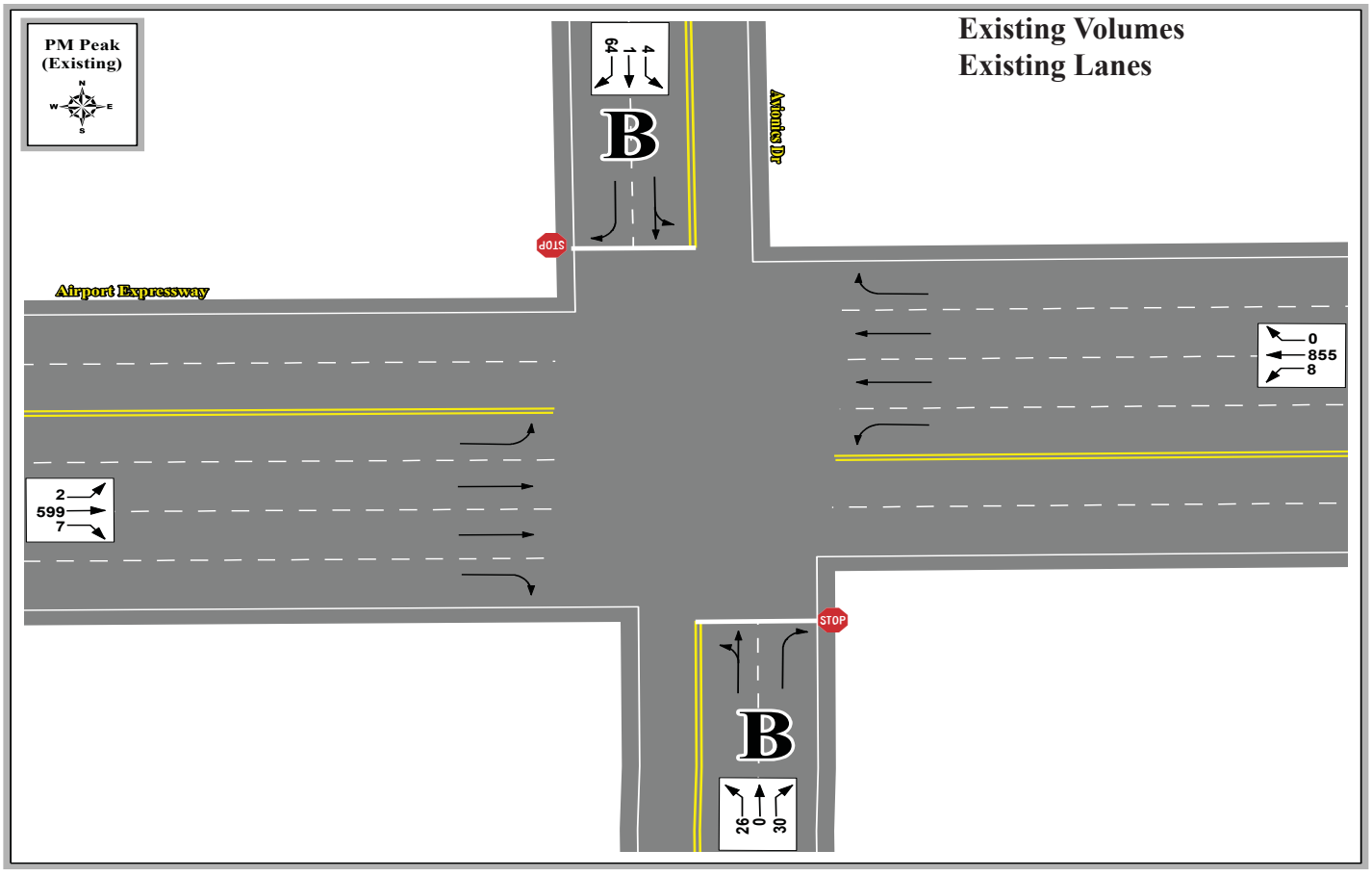
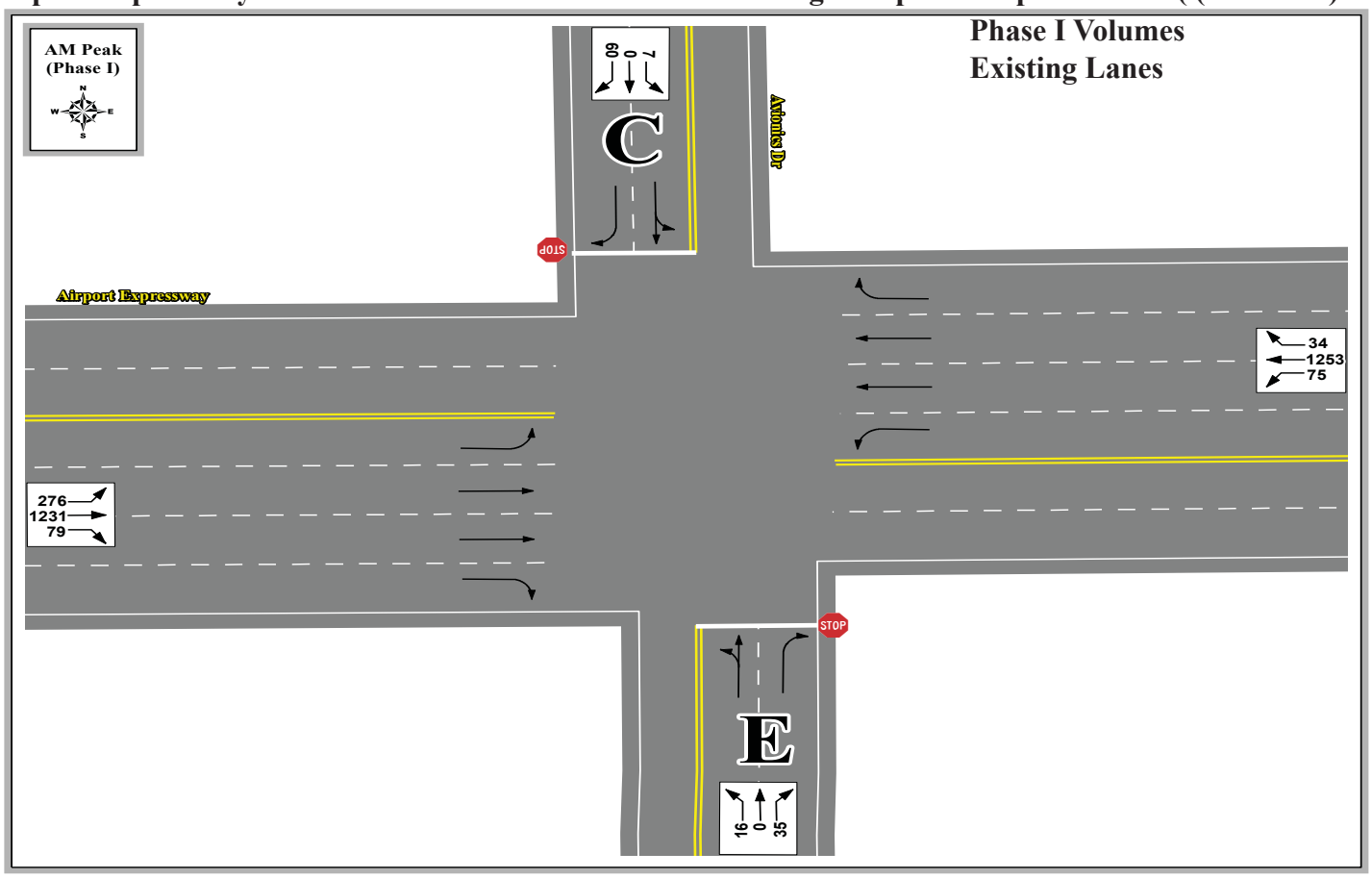


Figure 42

Airport Expressway / Avionics Dr Phase I Volumes and Existing / Proposed Improvements ((AM Peak)



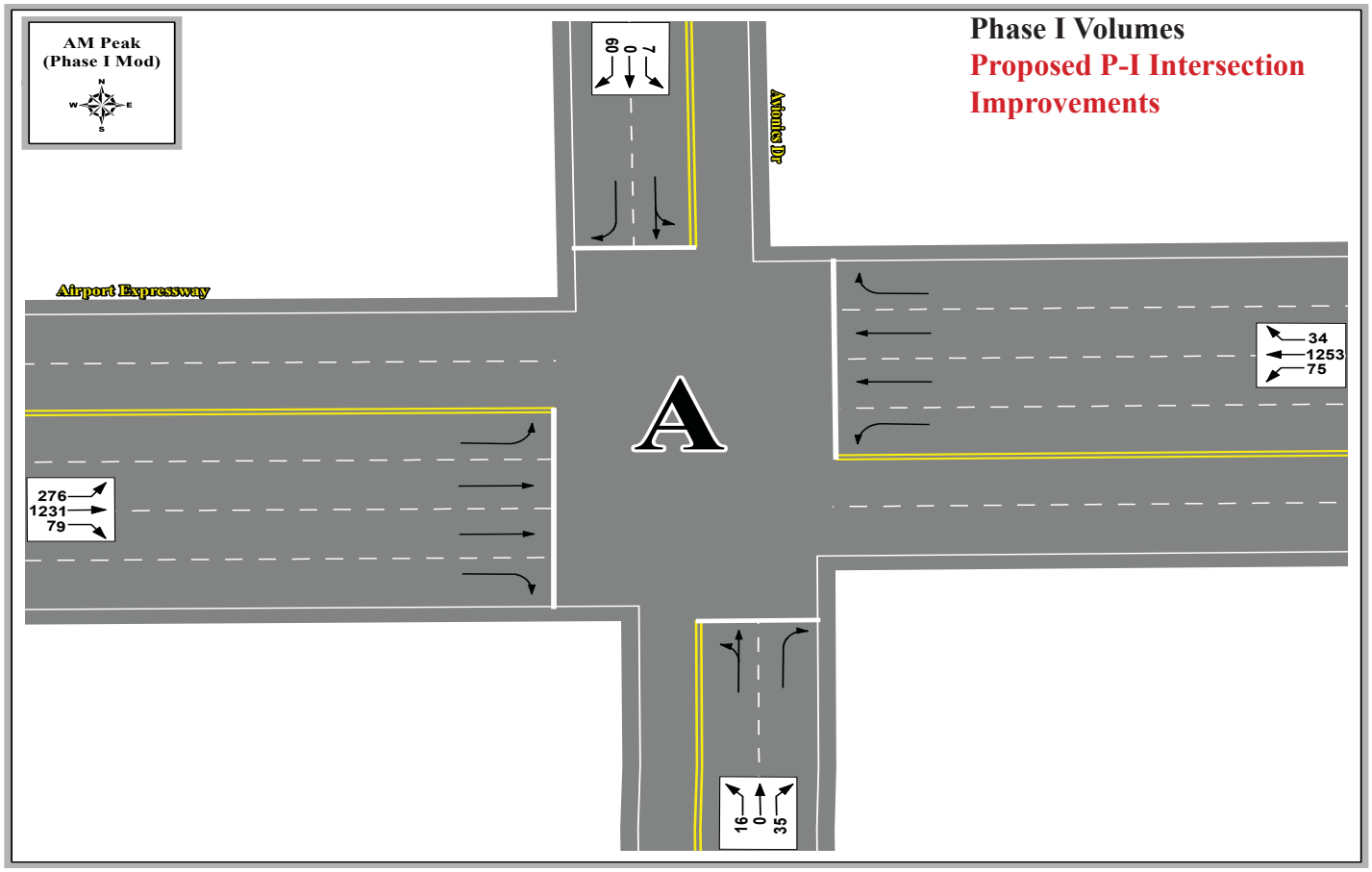
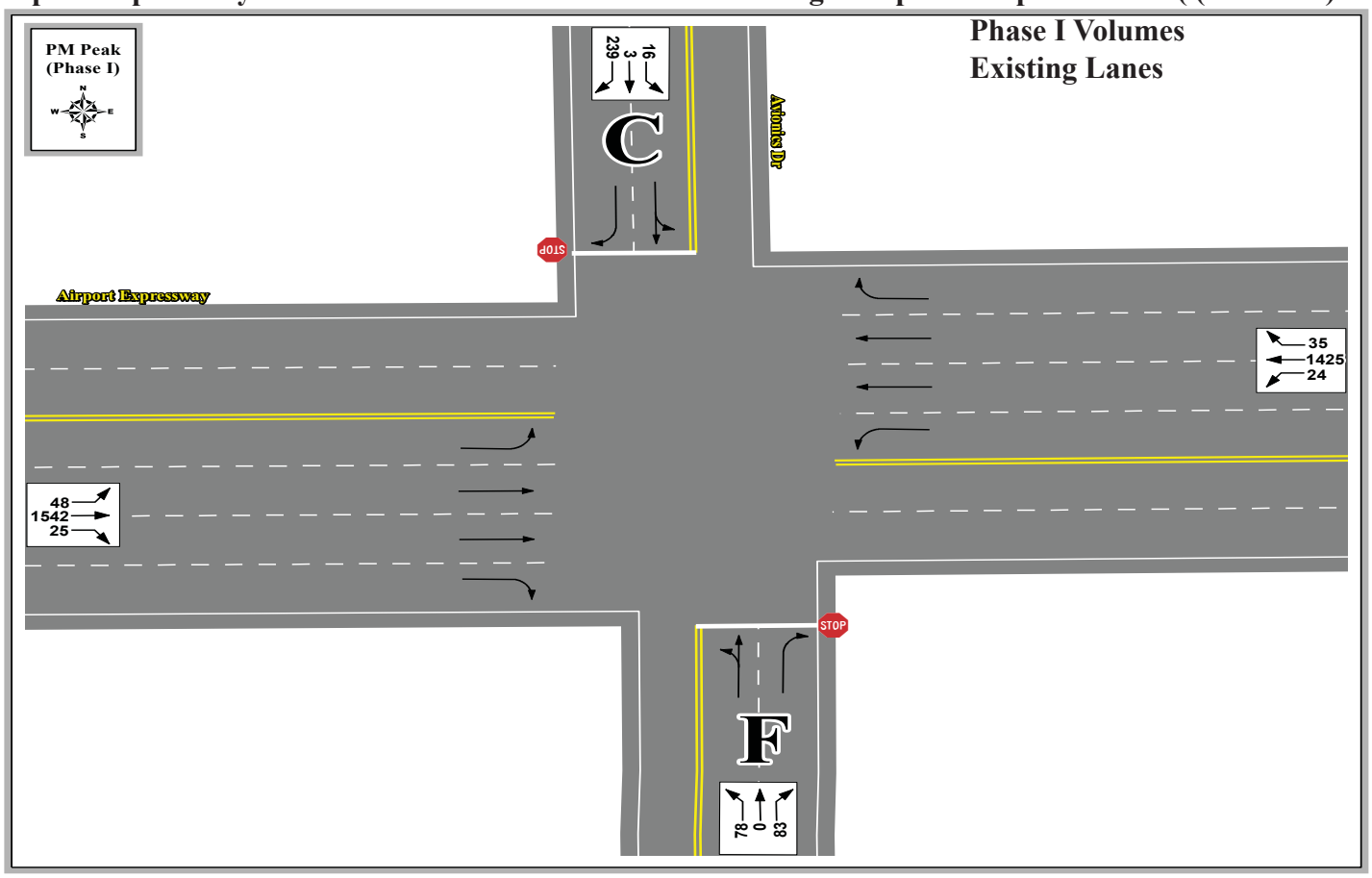


Figure 43

Airport Expressway / Avionics Dr Phase I Volumes and Existing / Proposed Improvements ((PM Peak)



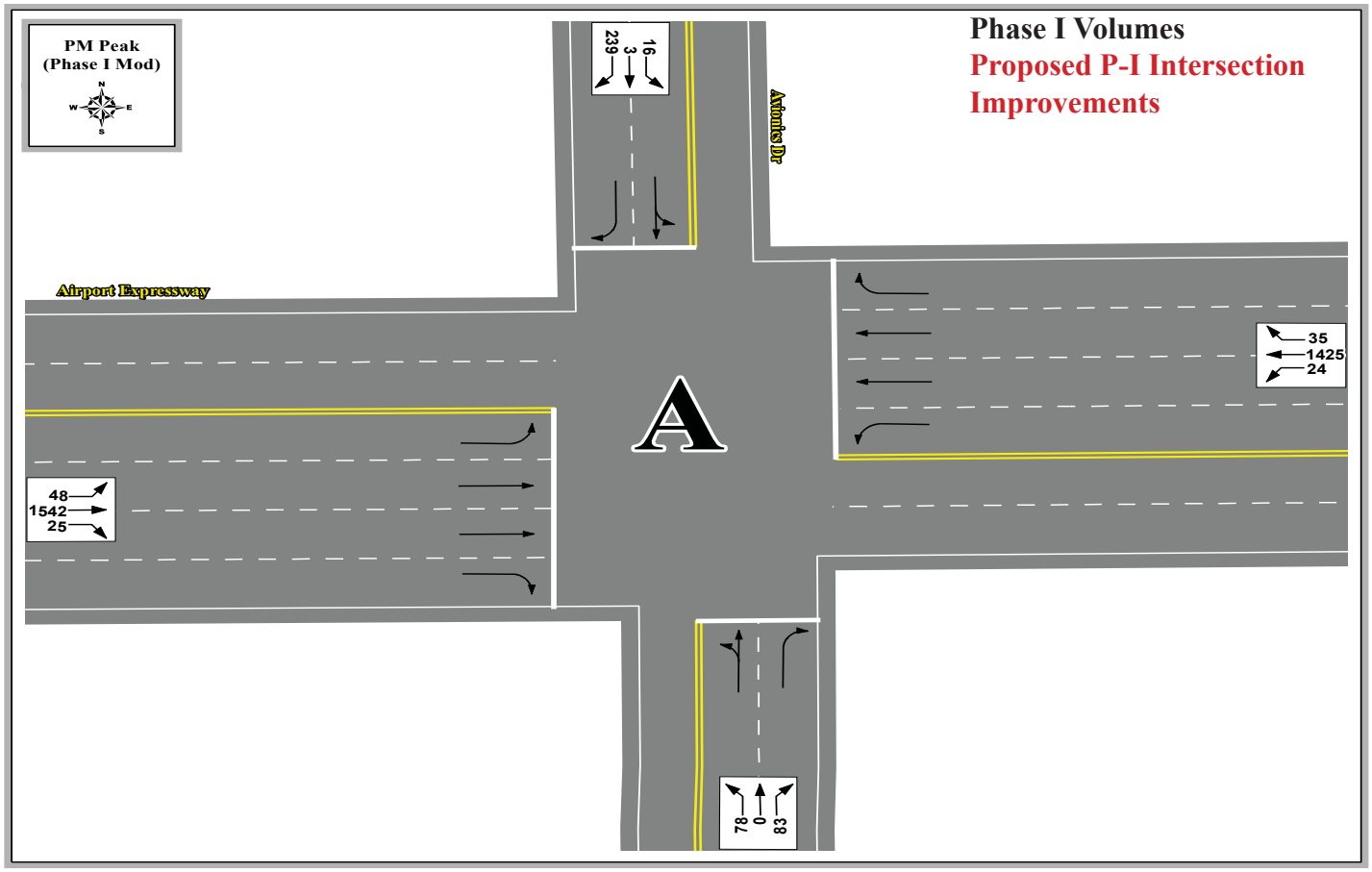
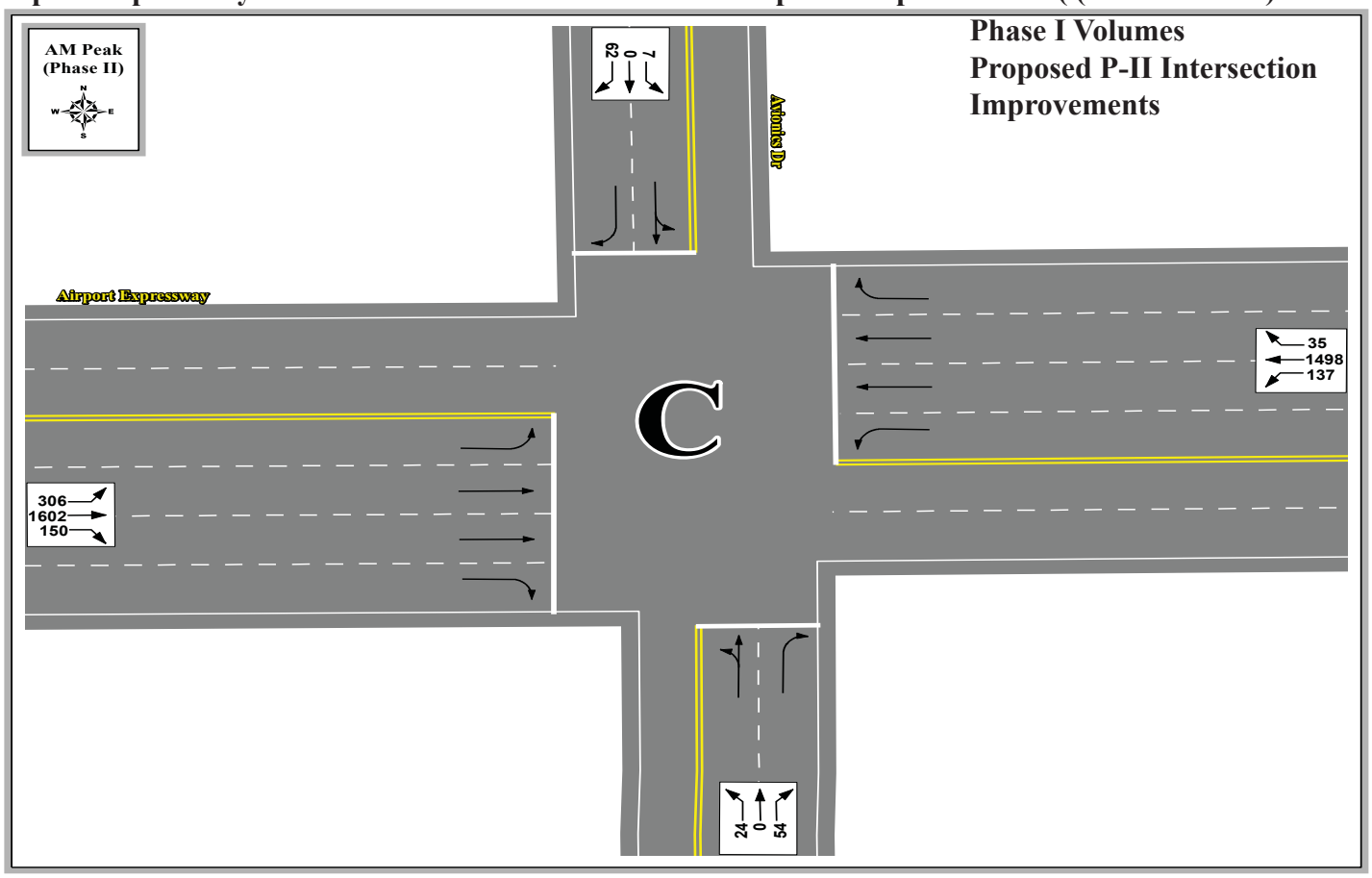
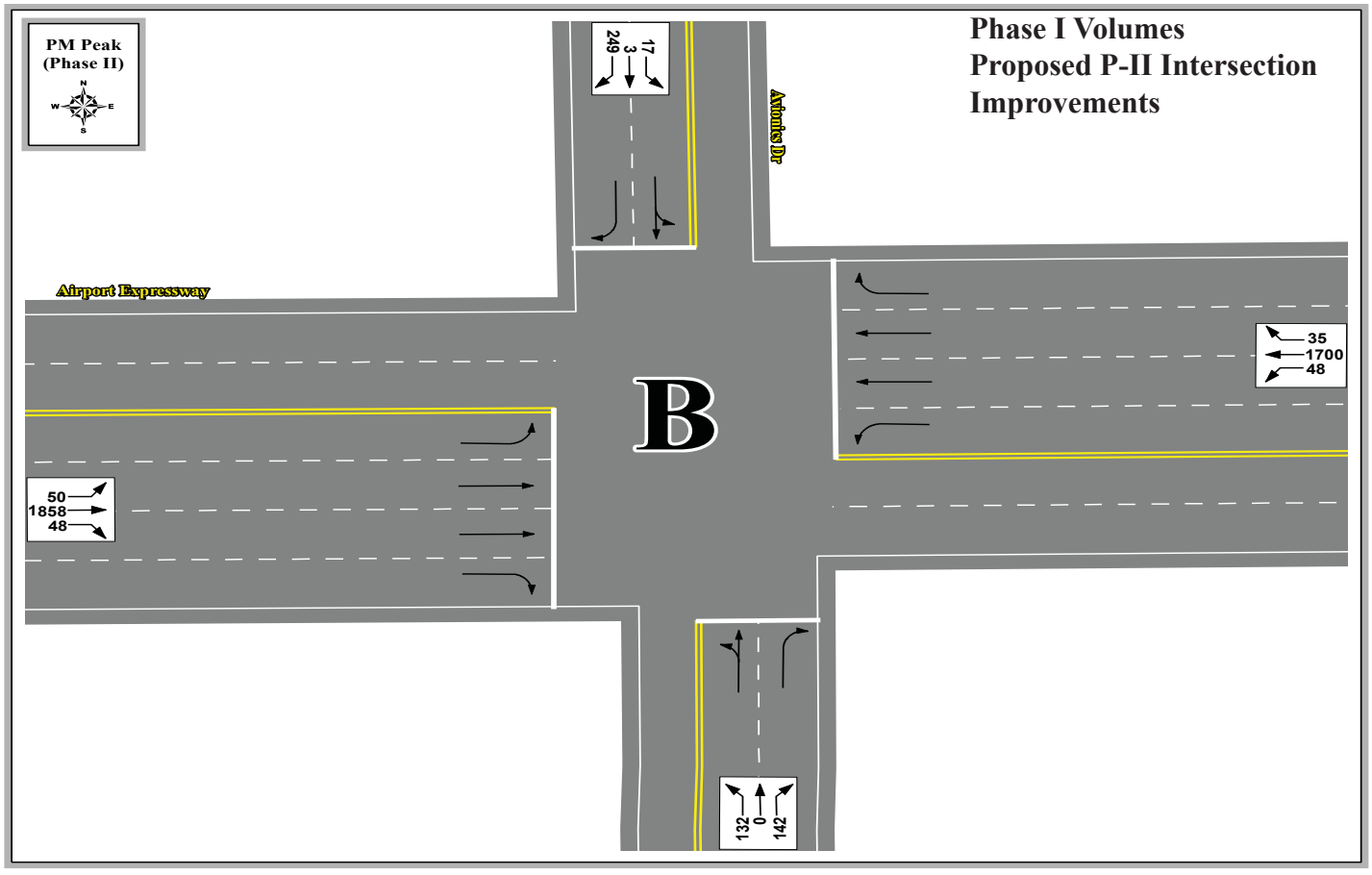


Figure 44

Airport Expressway / Avionics Dr Phase II Volumes and Proposed Improvements ((AM/PM Peak)





Airport Expressway at Ardmore Avenue

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Ardmore Avenue is a 2-lane facilities. Figure 45 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "B" for a.m. and "C" during the p.m. peak hours.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "E" for a.m. and "F" during the p.m. peak hours with the added trips of phase I during the peak hours. The intersection can be improved to a LOS "C" during the a.m. "D" during the p.m. peak hours with adding exclusive northbound and southbound right turn lanes and a second northbound left turn lane. See Figures 46 and 47 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "D" for a.m. and p.m. peak hours with the added trips of phase II during the peak hours. See Figure 48 for the a.m. and p.m. peak volumes, and LOS.

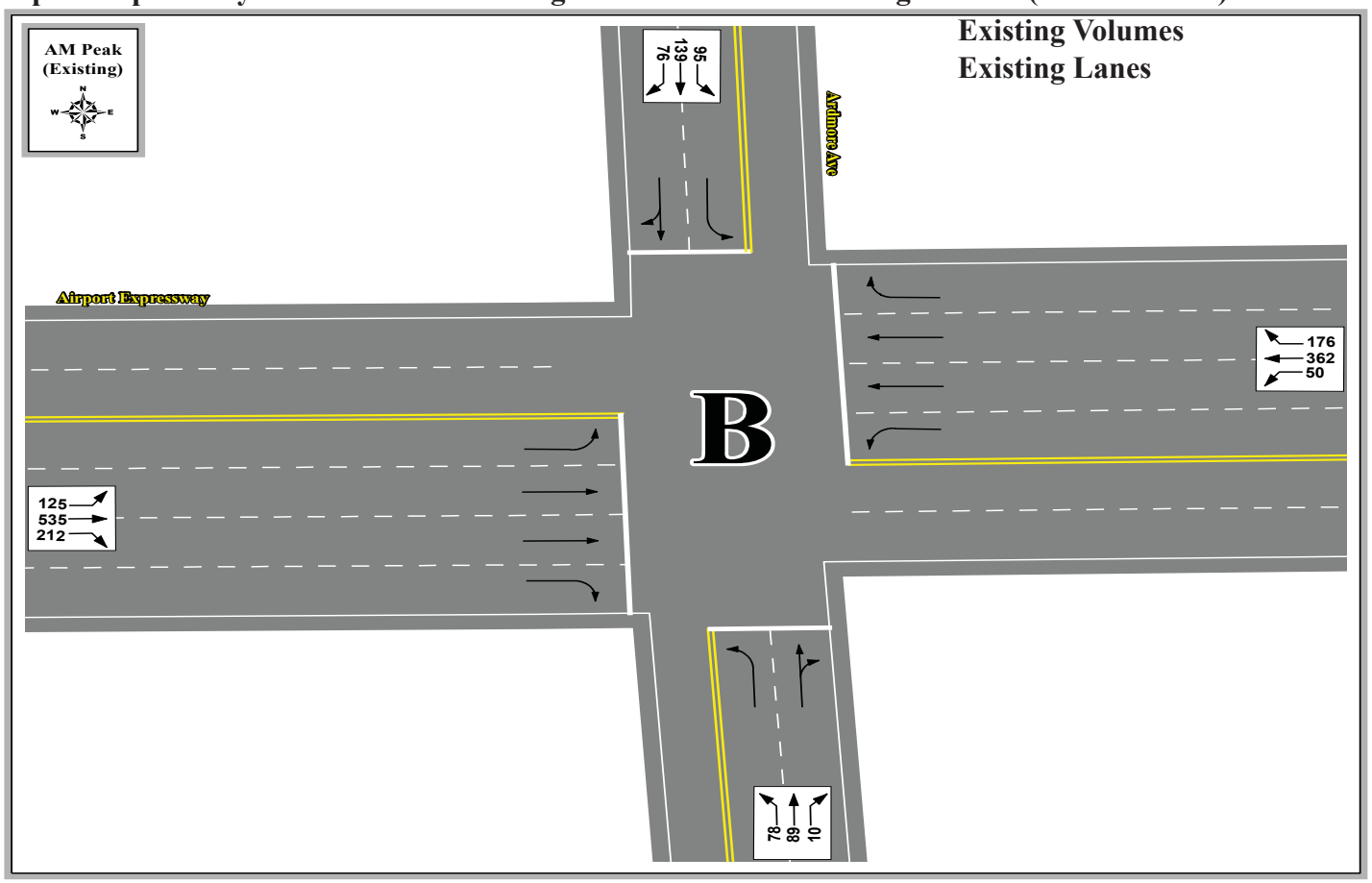
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Ardmore Ave					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	C	B	B	B
Phase I Existing Lanes	E	C	D	E	D
Phase I Modified Lanes	D	D	C	C	C
Phase II Phase I Lanes	E	E	D	D	D

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	B	C	C	C
Phase I Existing Lanes	F	C	F	E	F
Phase I Modified Lanes	E	E	C	C	D
Phase II Phase I Lanes	F	F	D	D	D

Figure 45

Airport Expressway / Ardmore Ave Existing Volumes and Lane Configurations (AM/PM Peak)



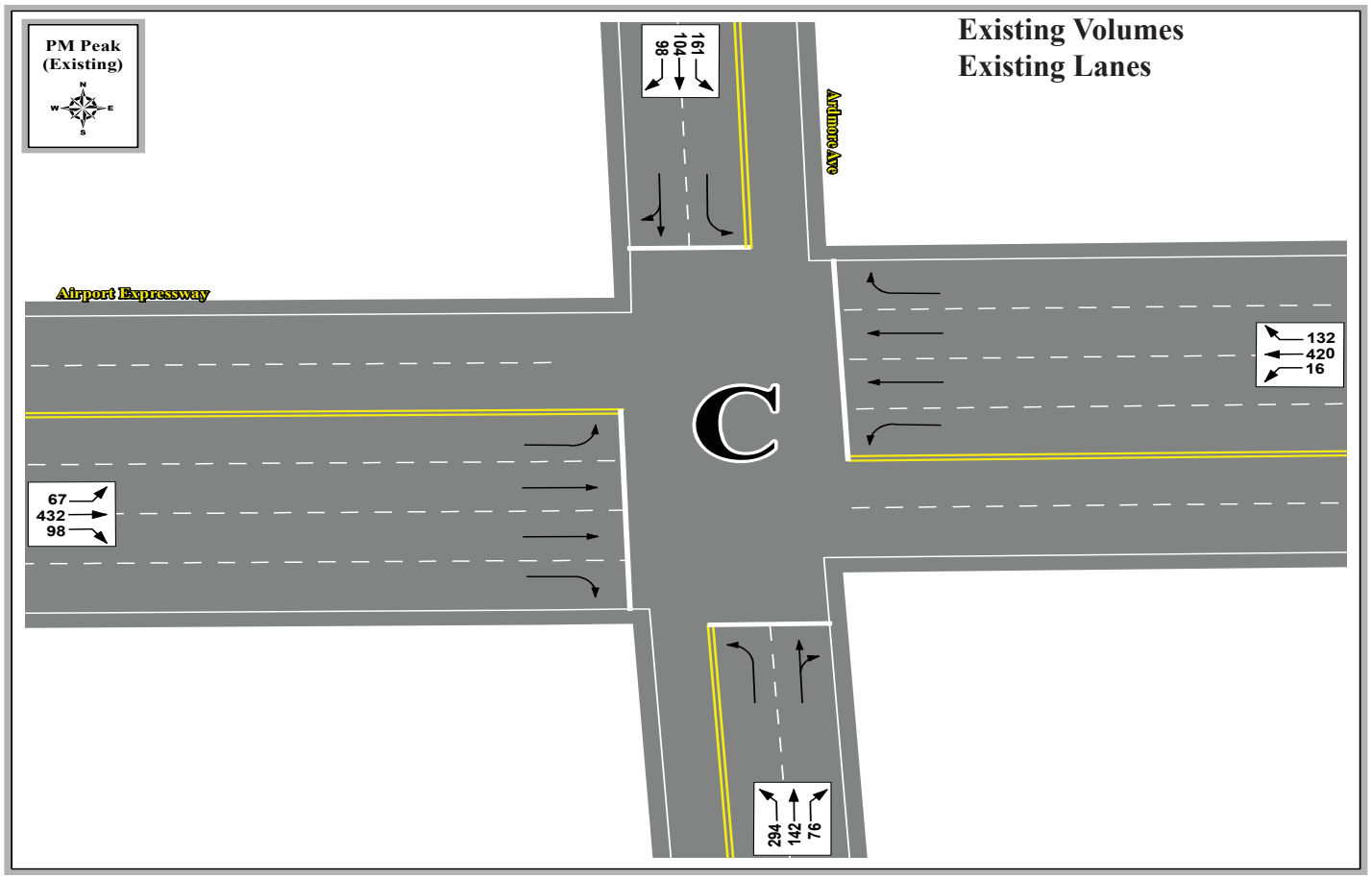
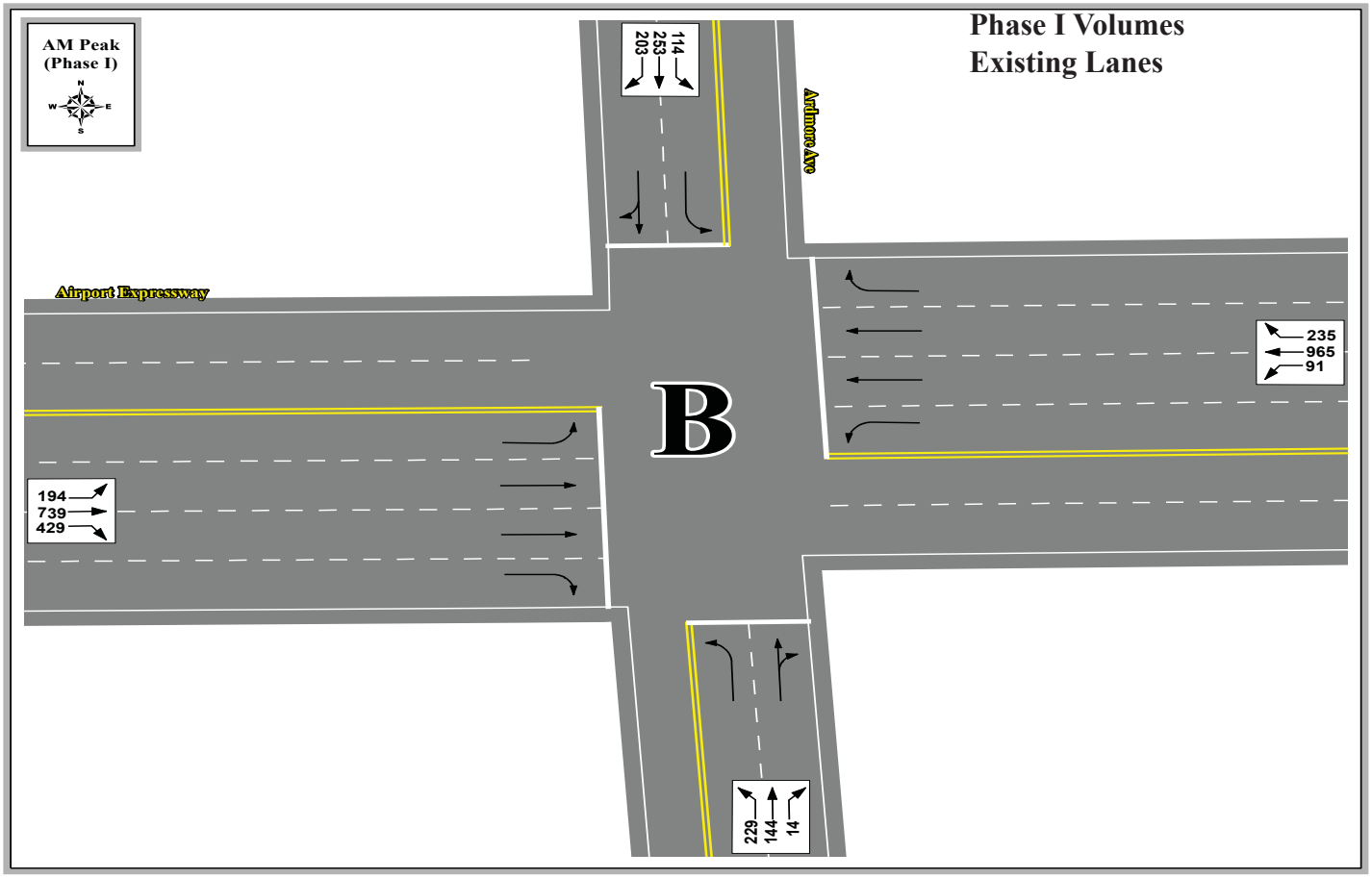


Figure 46

Airport Expressway / Ardmore Ave Phase I Volumes and Existing / Proposed Improvements ((AM Peak)



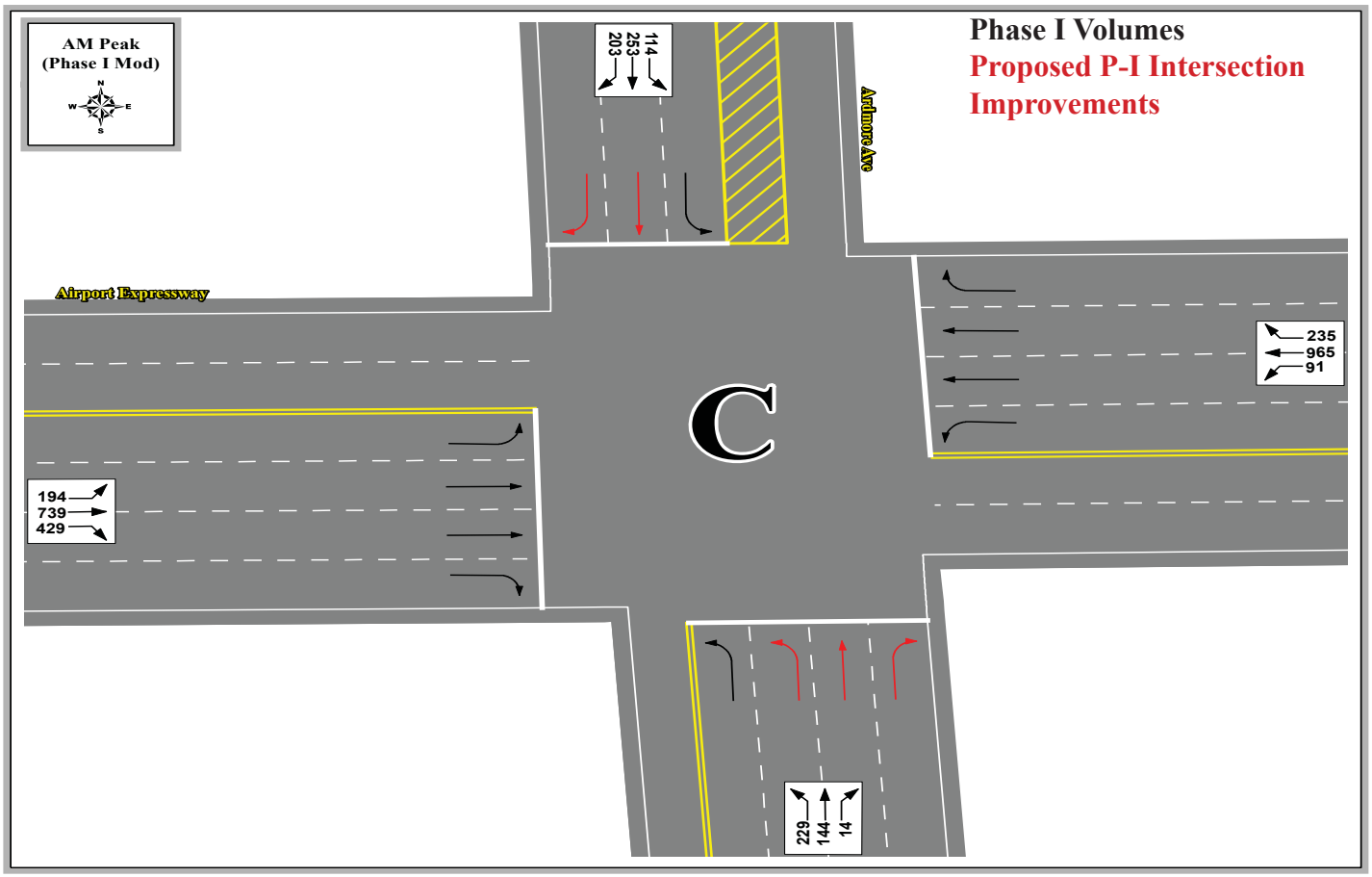
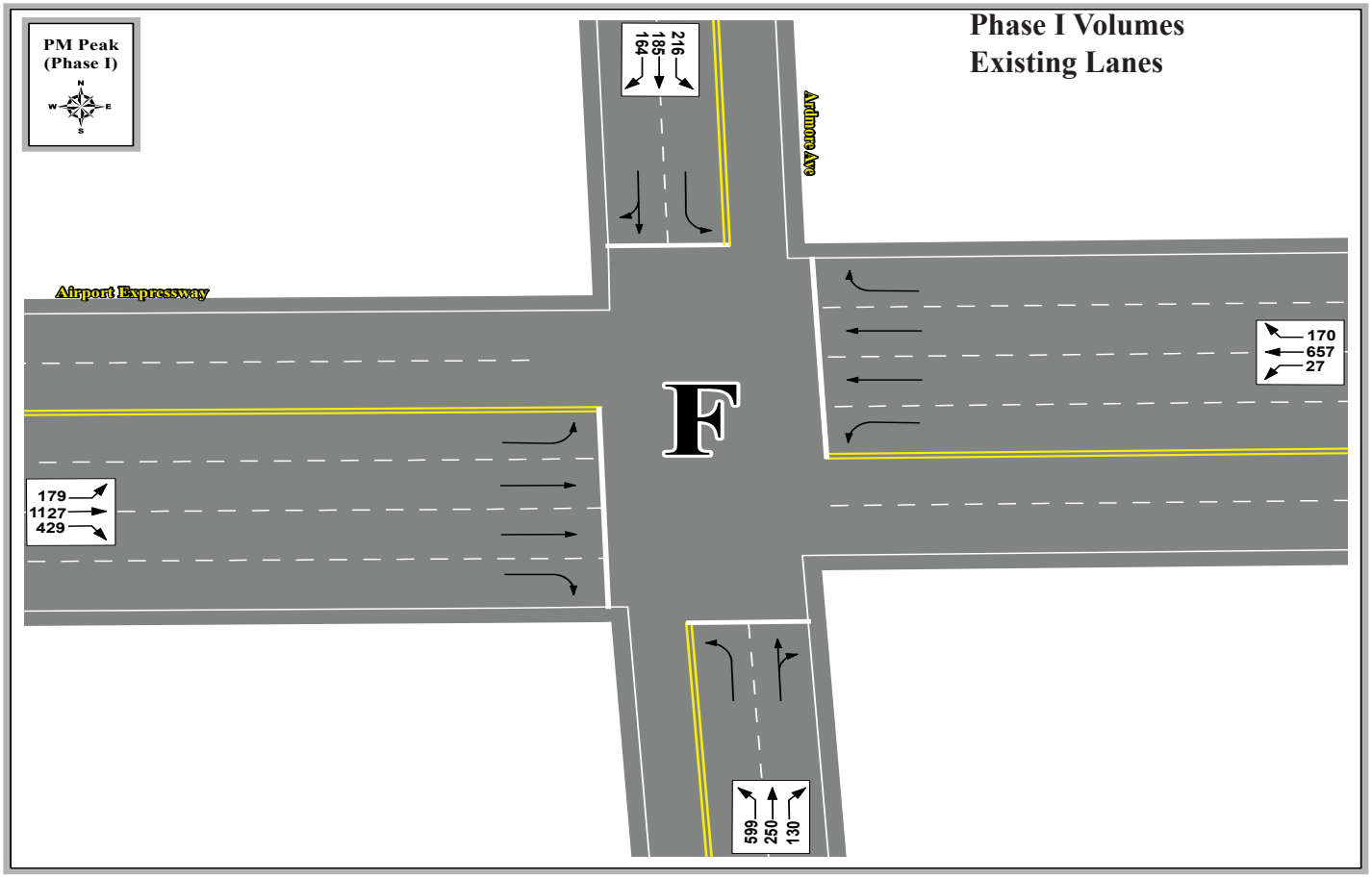


Figure 47

Airport Expressway / Ardmore Ave Phase I Volumes and Existing / Proposed Improvements ((PM Peak)



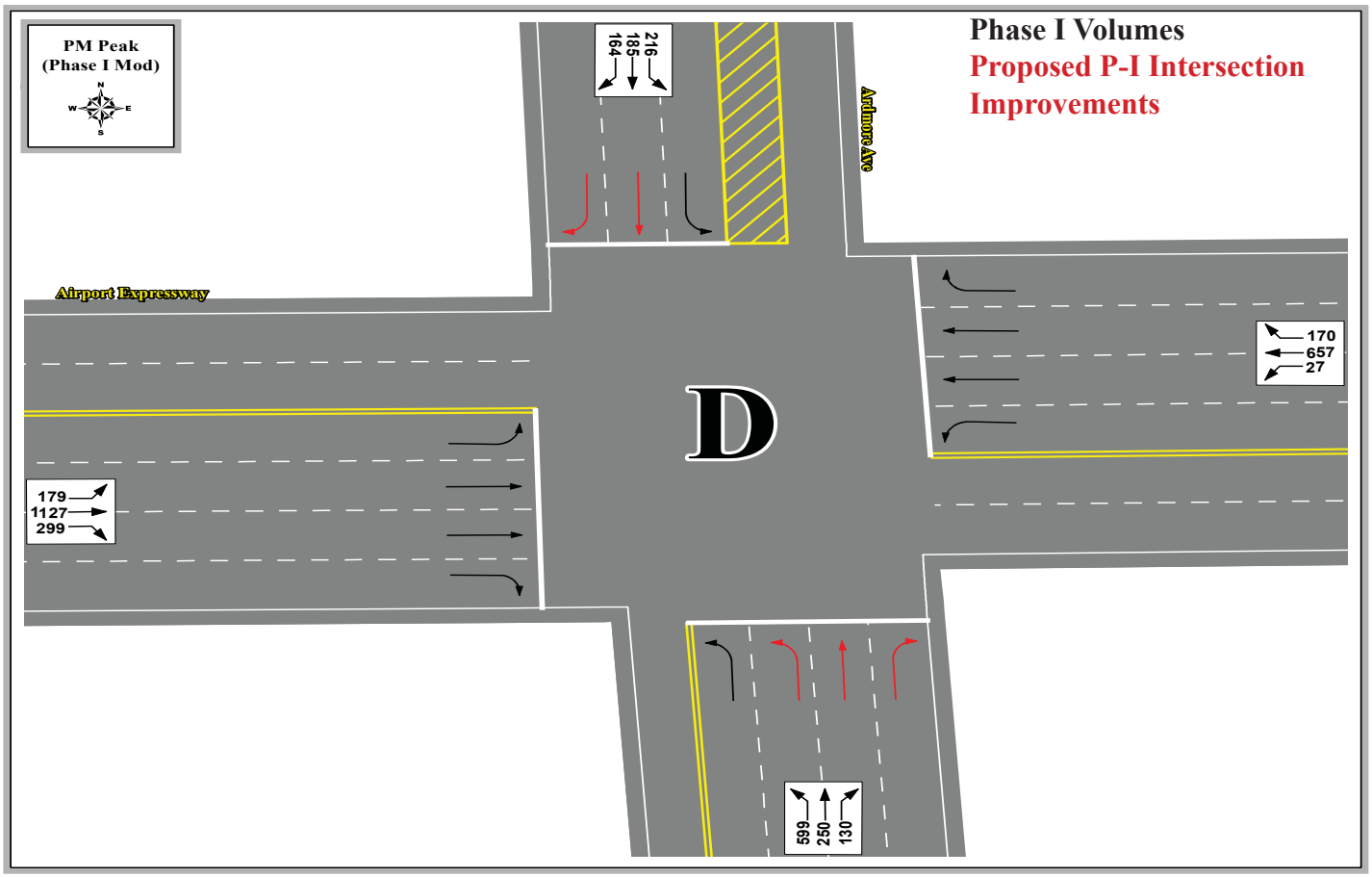
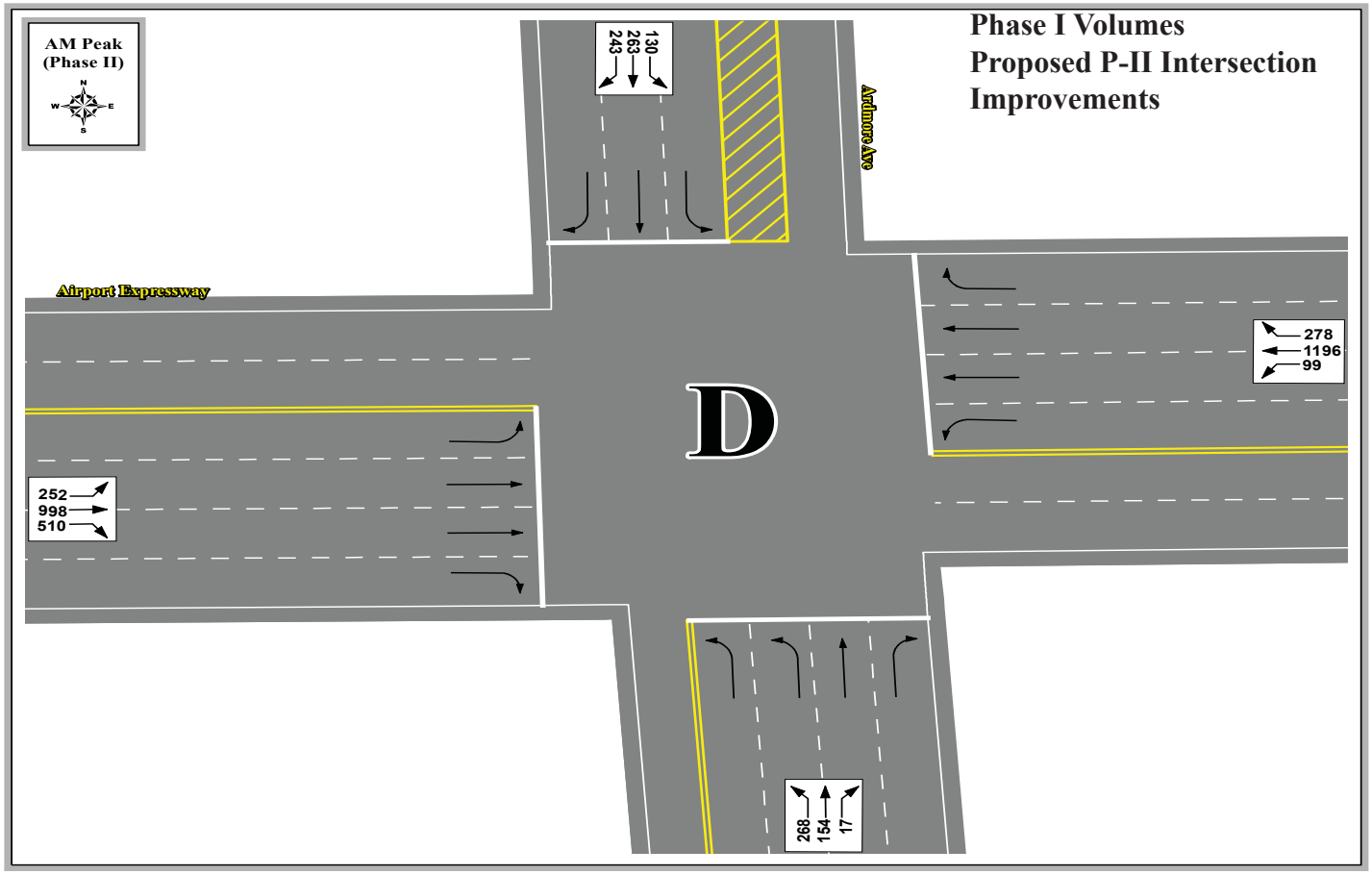
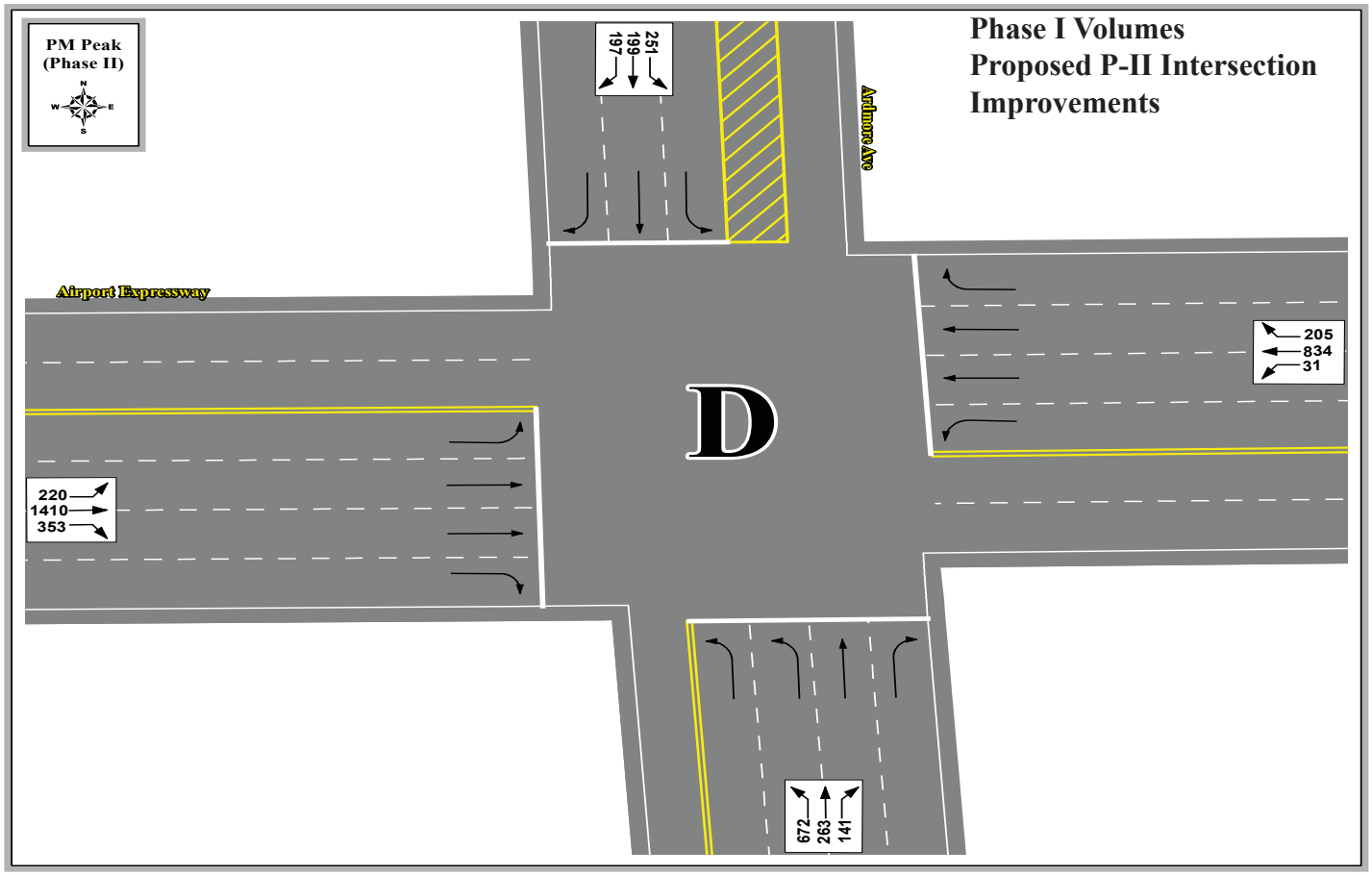


Figure 48

Airport Expressway / Ardmore Ave Phase II Volumes and Existing / Proposed Improvements ((AM/PM)





Airport Expressway at Baer Road

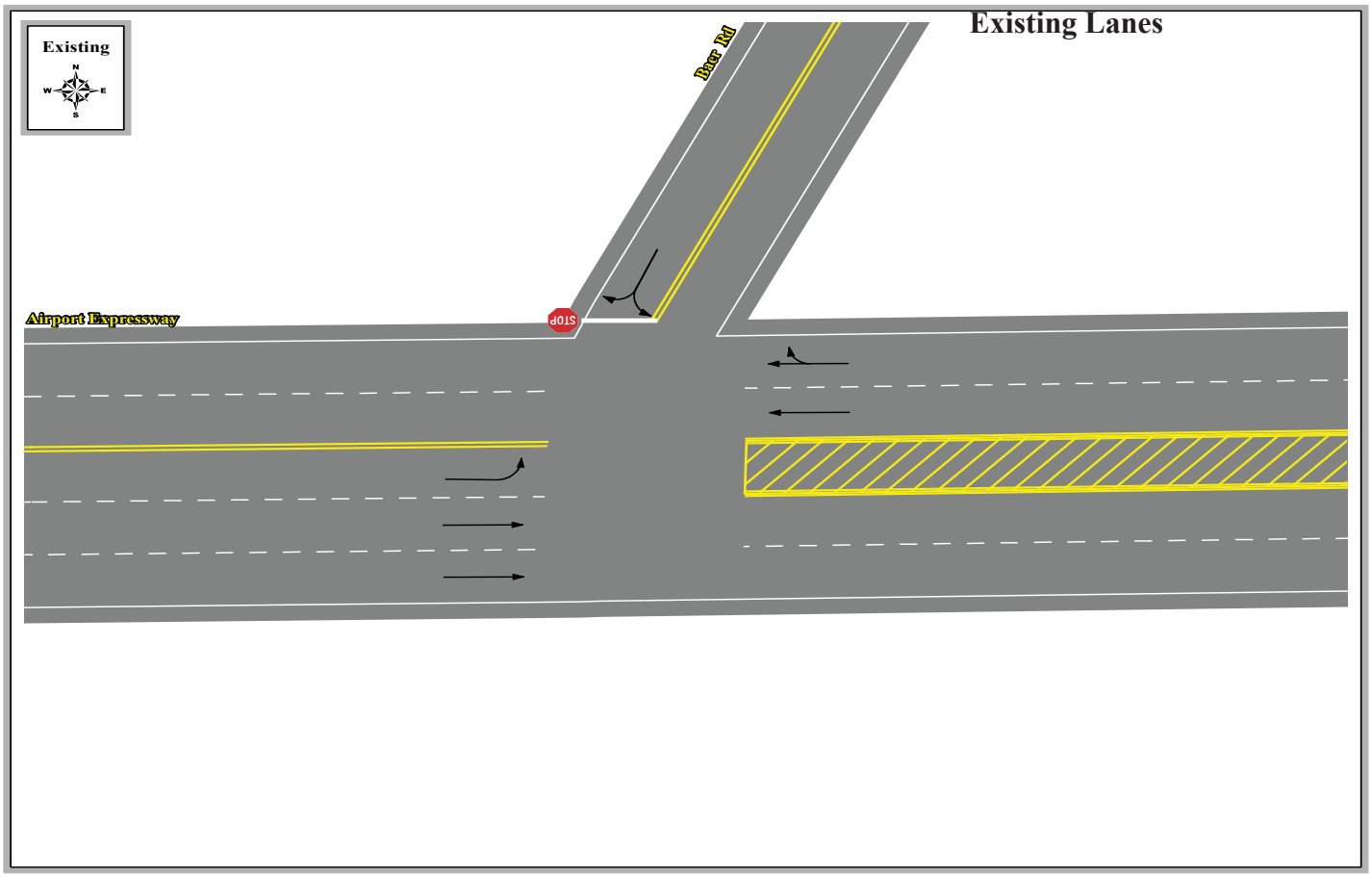
Airport Expressway is a 4-lane and Baer Road is a 2-lane facilities. The intersection currenttly has a one southbound lane, we recommend realigning and repainting the approah to accommodate an exclusive left turn lane. Figure 49 shows the current and proposed geometry

Airport Expressway at Airport Drive

Airport Expressway is a 4-lane and Airport Drive is a 2-lane facilities. The intersection currently has a eastbound through and through-right lane, we recommend adding an exclusive eastbound right turn lane. Figure 50 shows the current and proposed geometry

Figure 49

Airport Expressway / Baer Rd Existing and Proposed Configuration



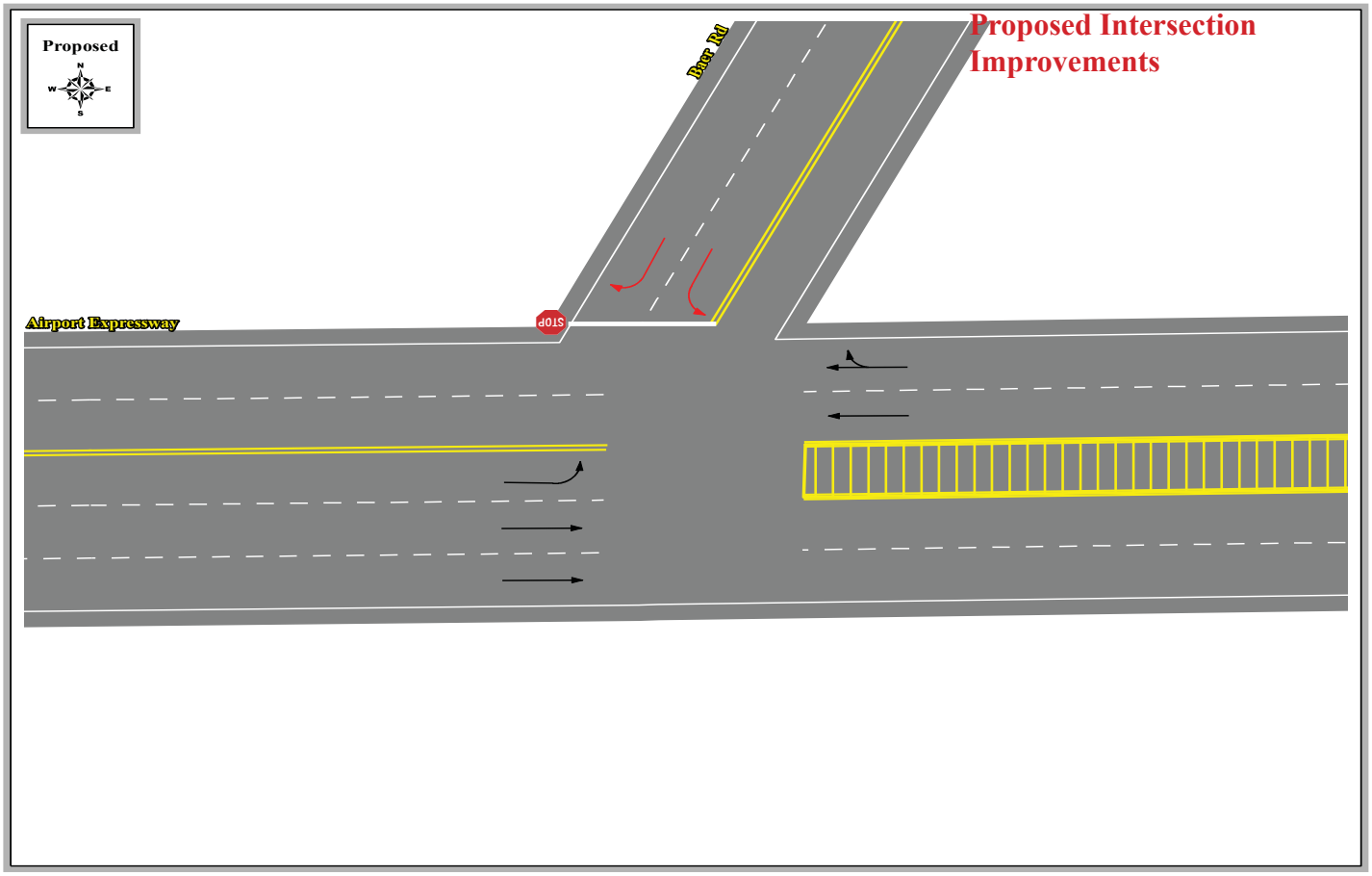
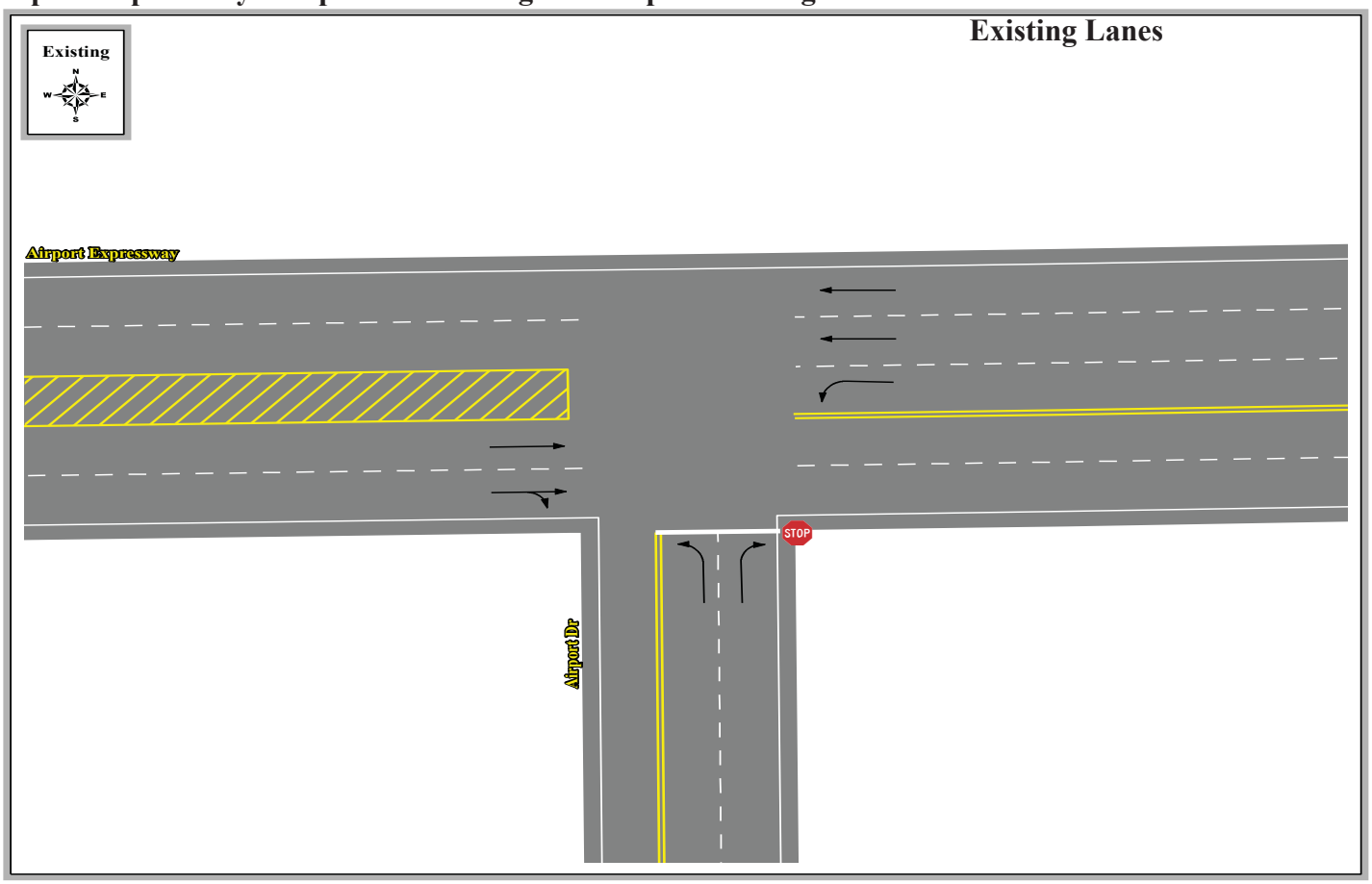
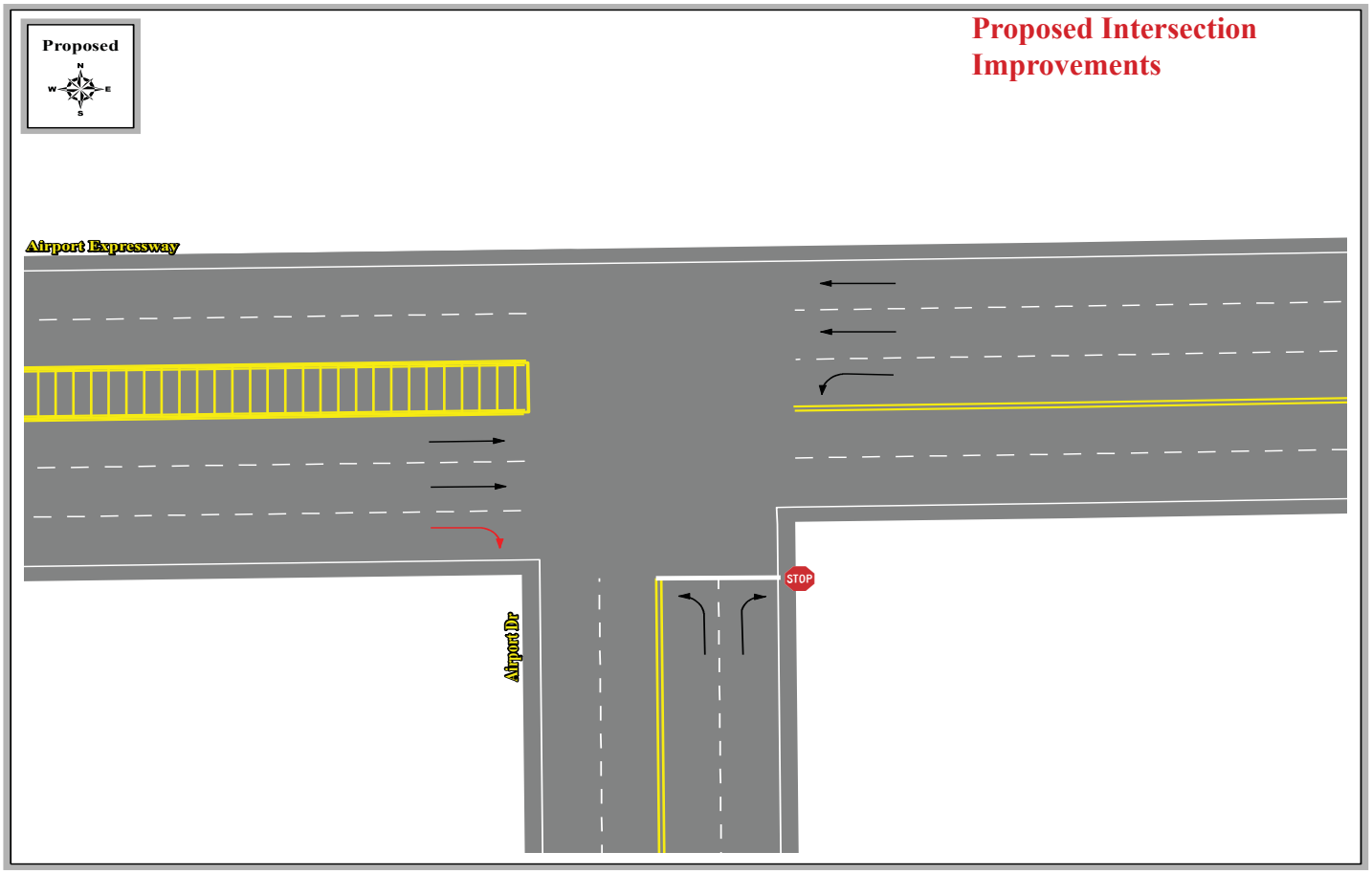


Figure 50

Airport Expressway / Airport Dr Existing and Proposed Configuration





Section 3: Airport Expressway :Railroad Crossing to Lower Huntington Road

The average annual growth rate was estimated to be 1.5% along Airport Expressway and 1.0% for all secondary roads. Figure 1 shows the corridor and impact analysis area boundary. The study focused on four signalized and ten stop controlled intersections along the corridor.

Existing Analysis

Figure 51 shows existing average AADT on each link in the corridor and impact analysis area. This data is based upon 48-hour weekday counts averaged for a 24-hour daily volume. Axle correction factors and seasonal adjustment factors are applied to the volume data. The existing analysis is based on 2017/2018 turning movement counts and geometric configurations. The analysis is for the a.m. and p.m. peak periods. The outputs from Synchro 10 for both a.m./p.m. peaks for the intersections are listed in Appendix C.

Trip Generation

The distribution of the population within the area, the characteristics of the roadway system, and degree of congestion on the corresponding roadway affect the directional distribution of site-generated traffic. The trip distributions for this study area were determined by examining the existing traffic counts, and by evaluating the major traffic generators in the vicinity of the study area.

The ITE Trip Generation Manual, 9th edition was used to forecast the number of new trips from phase I and phase II residential and commercial developments. After determining the number of trips from each residential or commercial development, the trips were distributed and assigned to the adjacent roads and intersections along the corridor based upon existing traffic patterns of distribution as described earlier. The new trips were added to the existing traffic volumes to obtain the turning movement distributions for each intersection for the phase I and phase II scenarios. The new traffic volumes were used to perform the intersection analysis. The developments for section 3 are listed in Table 6 and shows their location in Figure 52. The outputs from Synchro 10 for both a.m./p.m. peaks for each intersection are listed in Appendix C.

Table 6: New Trips from Phase I Residential/Commercial Development (combined)

	Peak-Enter		Peak-Exit	
Site	**AM**	**PM**	**AM**	**PM**
18. Commercial ~ 13 Acres (2 parcels)	54	160	32	174
19. Residential ~ 14 Acres	9	25	20	13
20. Commercial ~ 5 Acres	118	21	10	120
21. Industrial ~ 13 Acres (2 parcels)	119	34	18	113
22. Residential ~ 18 Acres	11	32	26	17
New Trips from Phase II Residential/Commercial Development for Section 2 (combined)				
23. Mixed Use ~ 13 Acres (2 parcels)	239	49	23	241
24. Residential ~ 300 Acres (3 parcels)	187	540	437	278

Figure 51

Existing Average Daily Traffic Distribution for Airport Expressway for Section 3

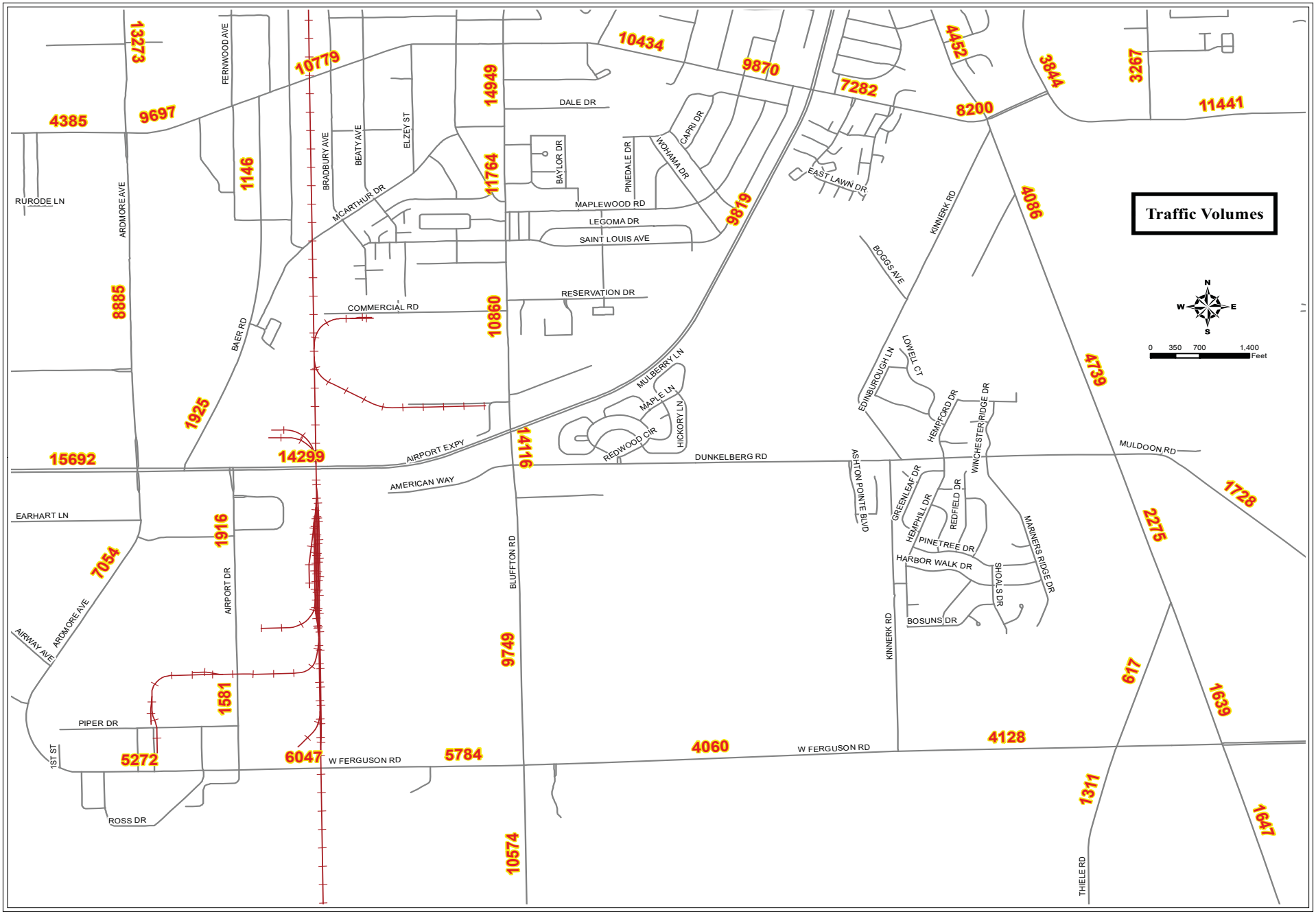
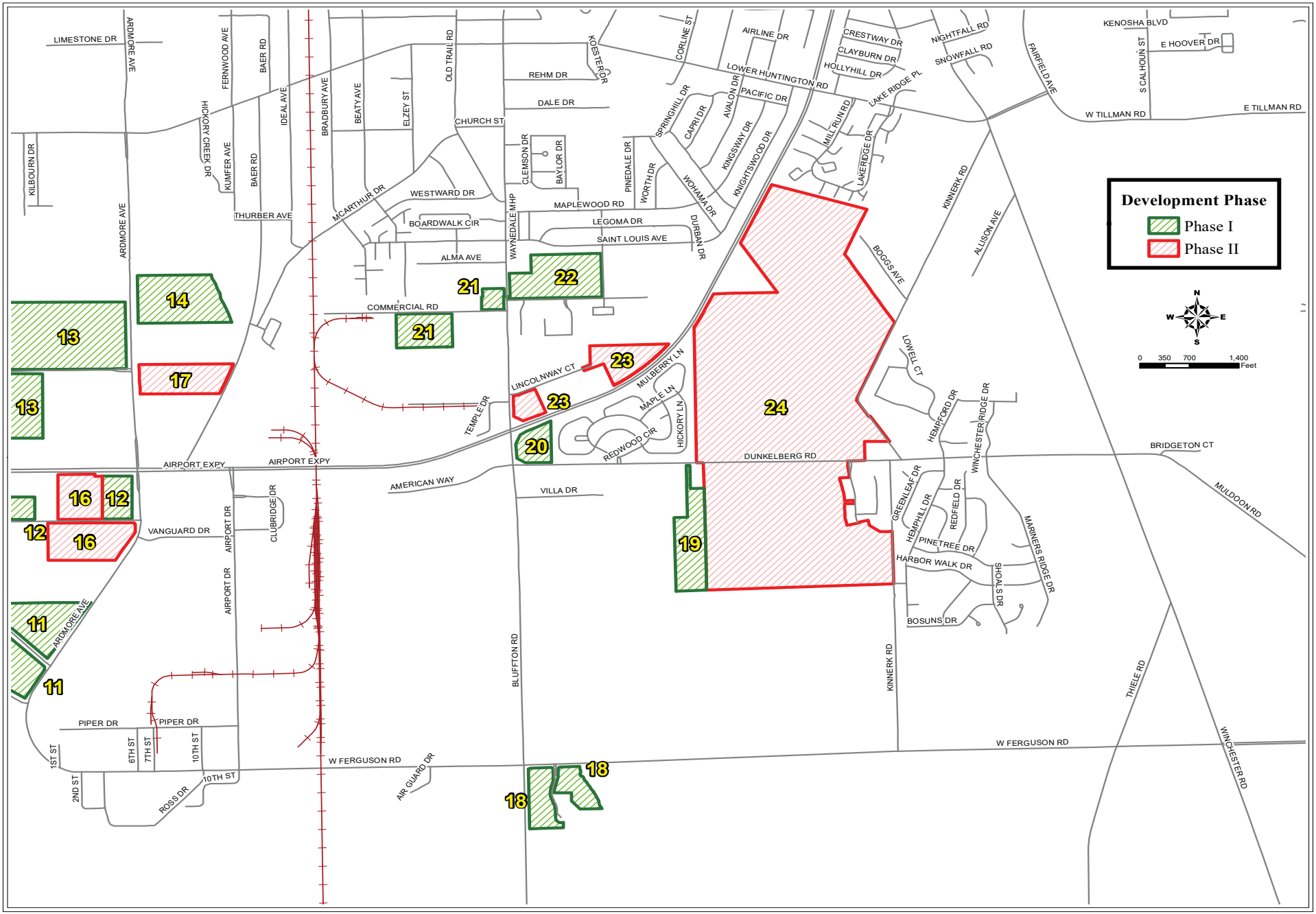


Figure 52

Residential/Commercial Developments for Airport Expressway for Section 3



Airport Expressway at Bluffton Road

Scenario 1: - Existing Conditions

Airport Expressway is a 4-lane and Bluffton Road is a 2-lane facilities. Figure 53 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "C" for a.m. and p.m. peak hours..

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "C" for a.m. and "E" for p.m. peak hours with the added trips of phase I during the peak hours. The intersection can be improved to a LOS "C" during the a.m. and "D" for p.m. peak hours with adding an eastbound and westbound exclusive right turn lanes. See Figure 54 and 55 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "D" for a.m. and "E" for p.m. peak hours with the added trips of phase II during the peak hours.. See Figure 56 for the a.m. and p.m. peak volumes, and LOS.

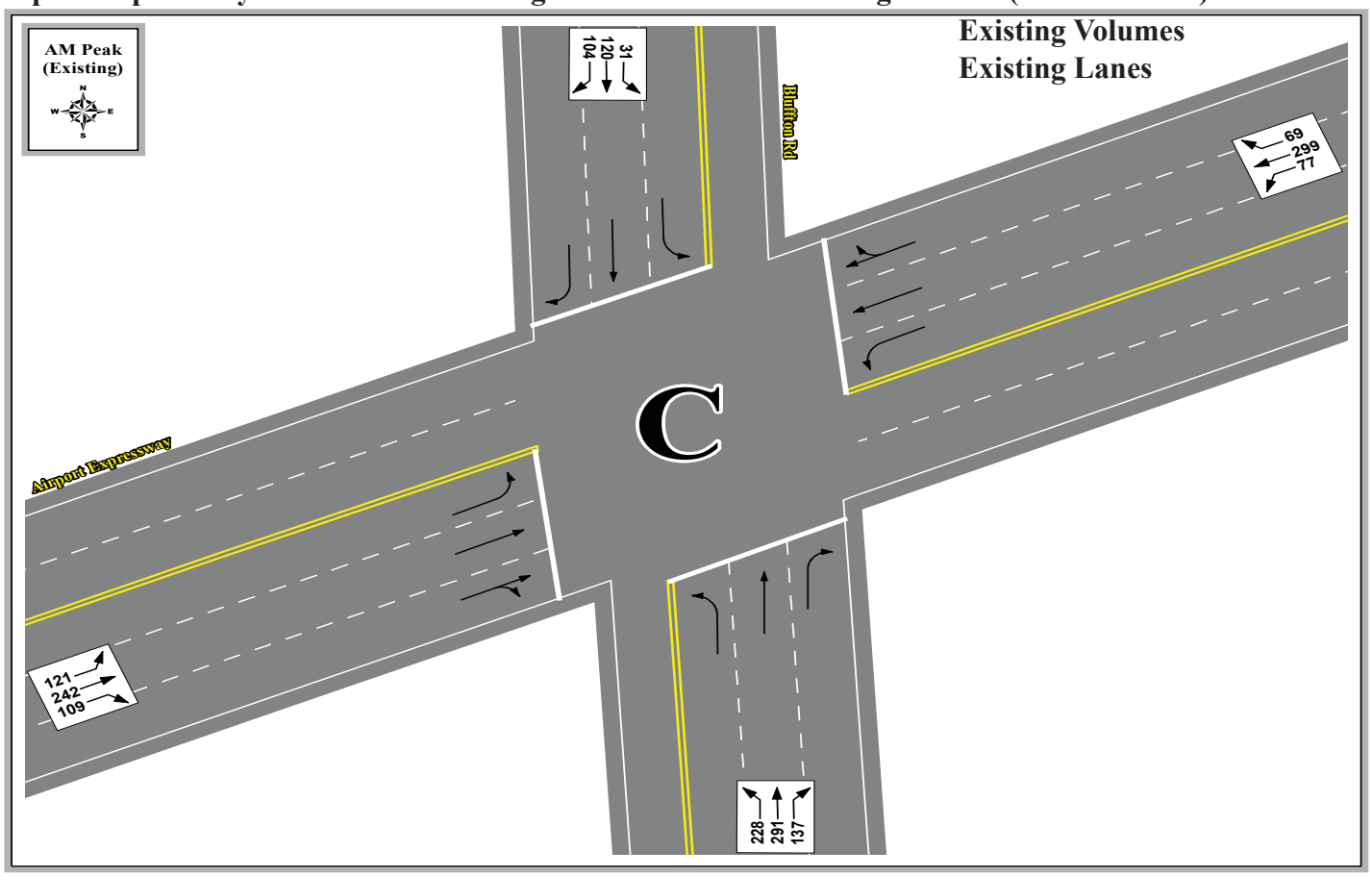
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Bluffton Rd					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	C	C	C	C
Phase I Existing Lanes	C	C	C	C	C
Phase I Modified	C	C	C	C	C
Phase II Phase I Lanes	D	D	C	D	D

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	D	D	D	C
Phase I Existing Lanes	E	E	E	D	E
Phase I Modified	D	D	D	C	D
Phase II Phase I Lanes	E	E	D	E	E

Figure 53

Airport Expressway / Bluffton Rd Existing Volumes and Lane Configurations (AM/PM Peak)



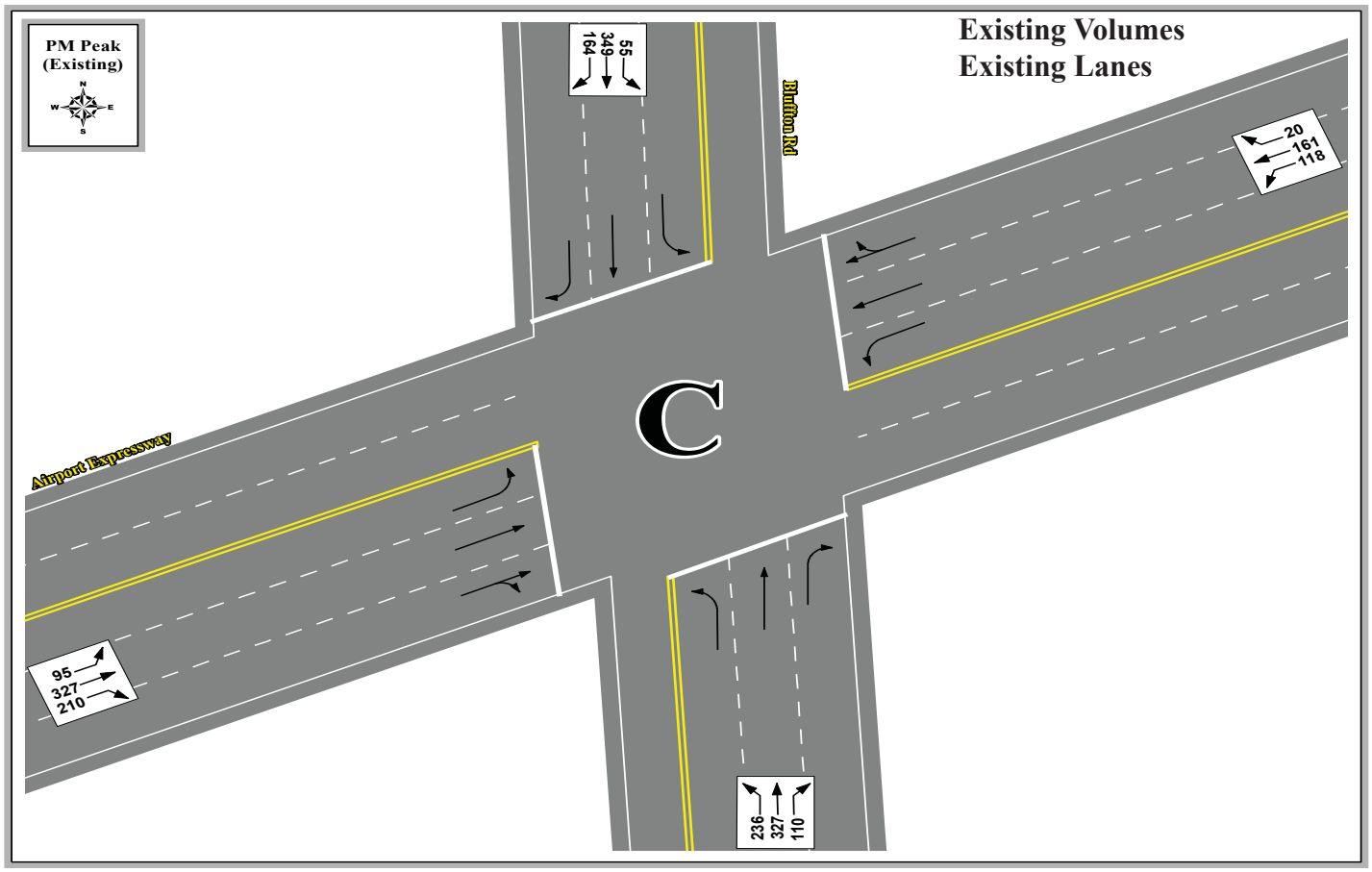
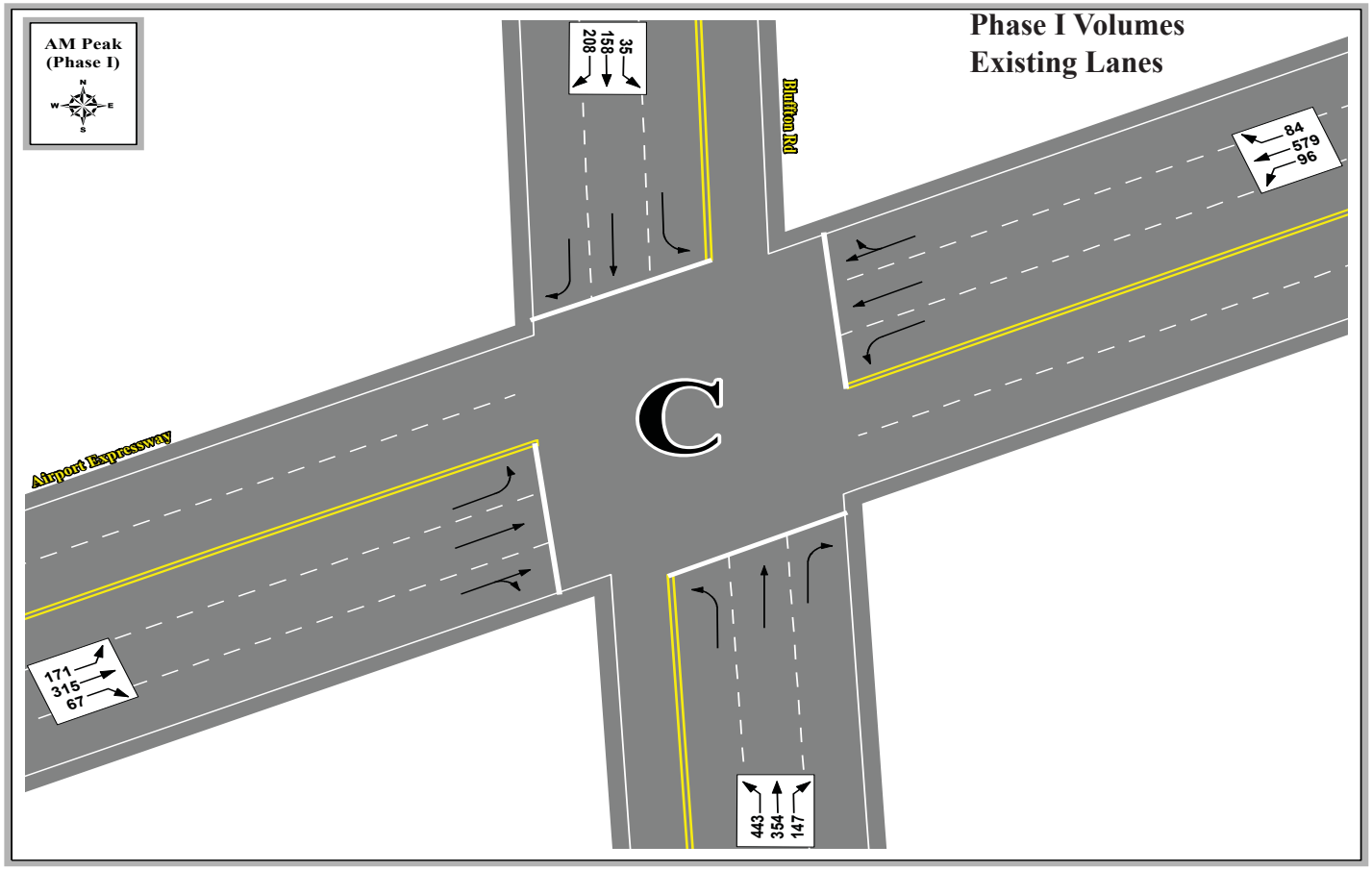


Figure 54

4Airport Expressway / Bluffton Rd Phase I Volumes and Existing / Proposed Improvements ((AM Peak)



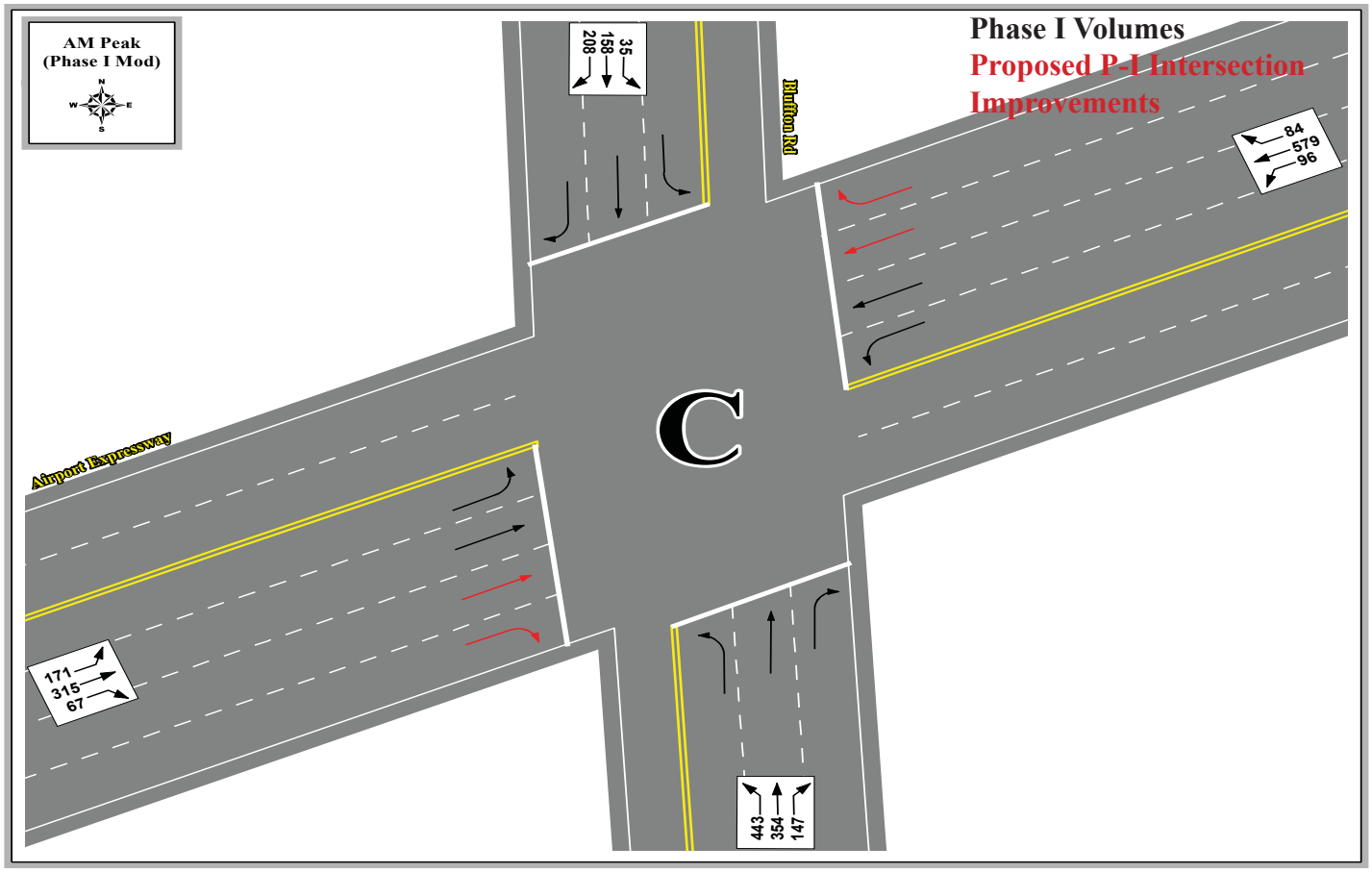
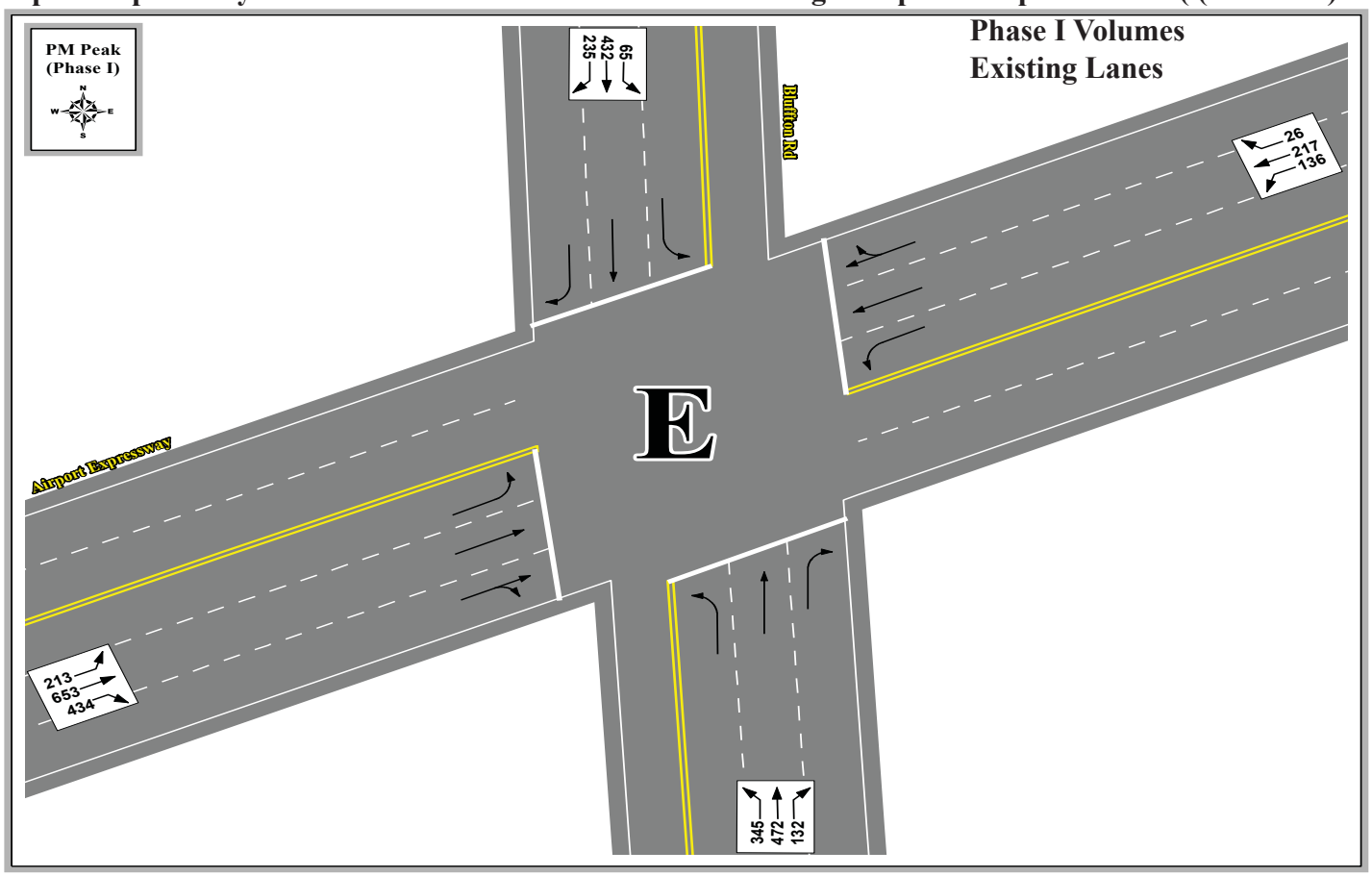


Figure 55

Airport Expressway / Bluffton Rd Phase I Volumes and Existing / Proposed Improvements ((PM Peak)



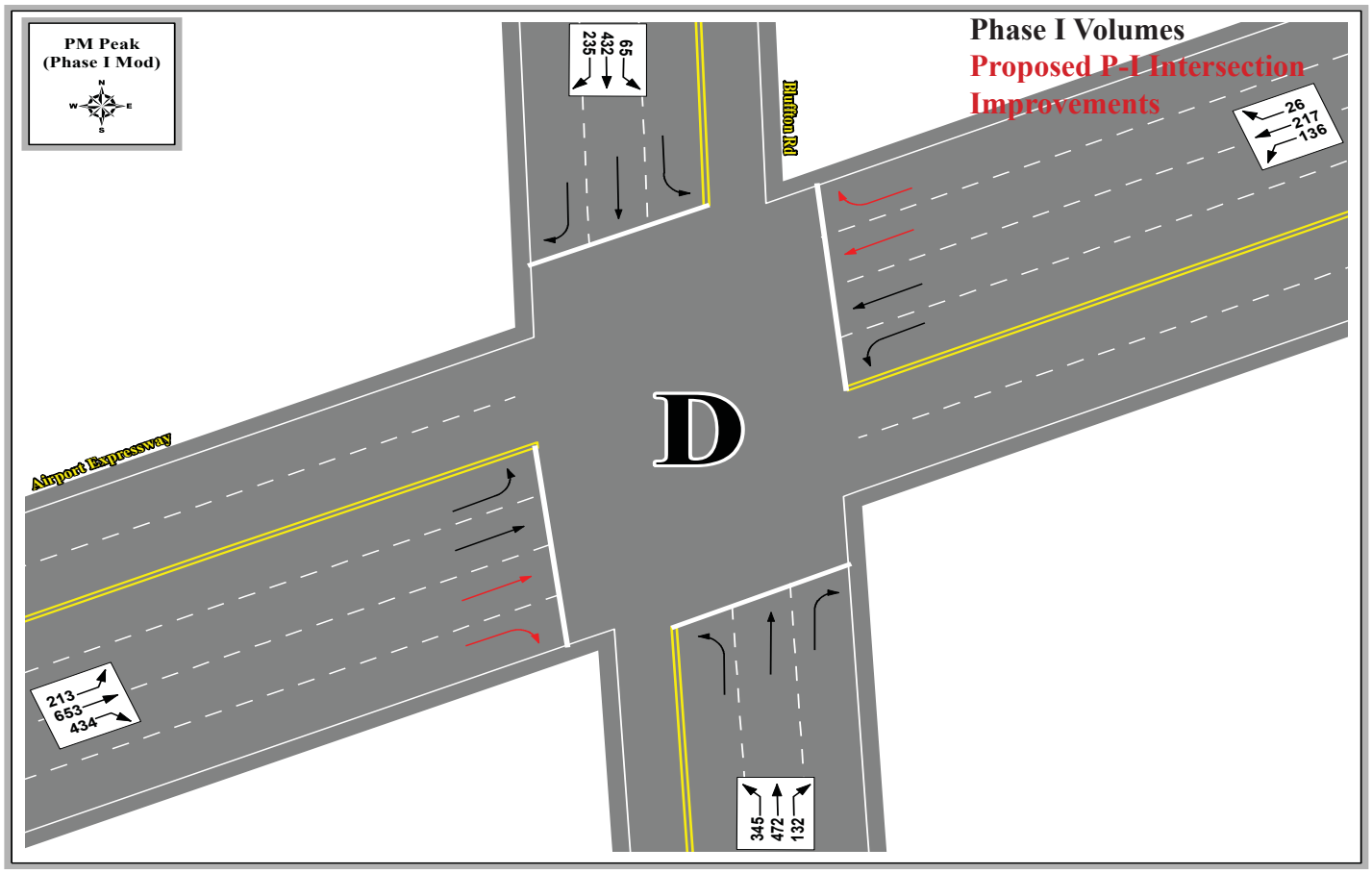
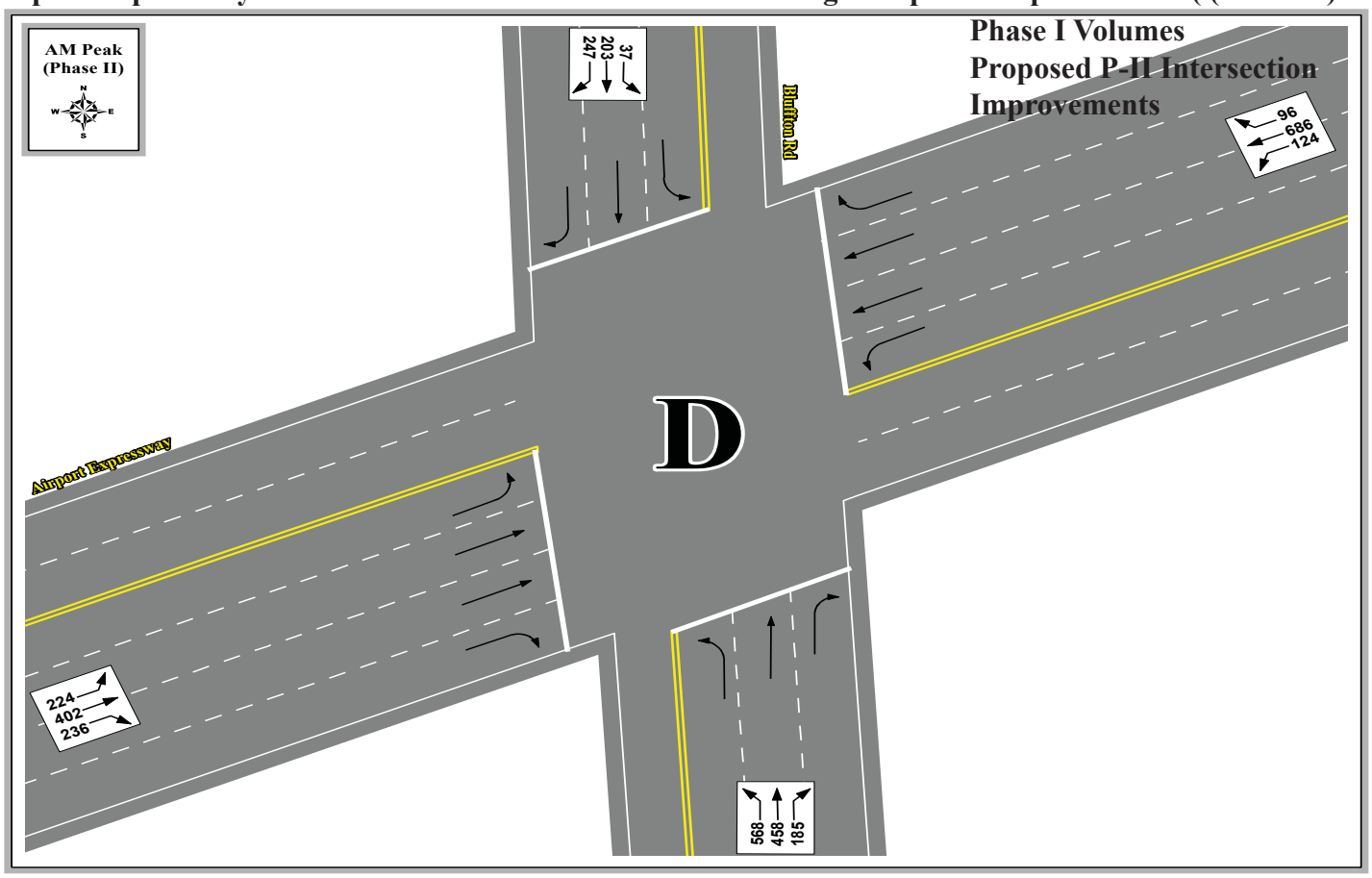
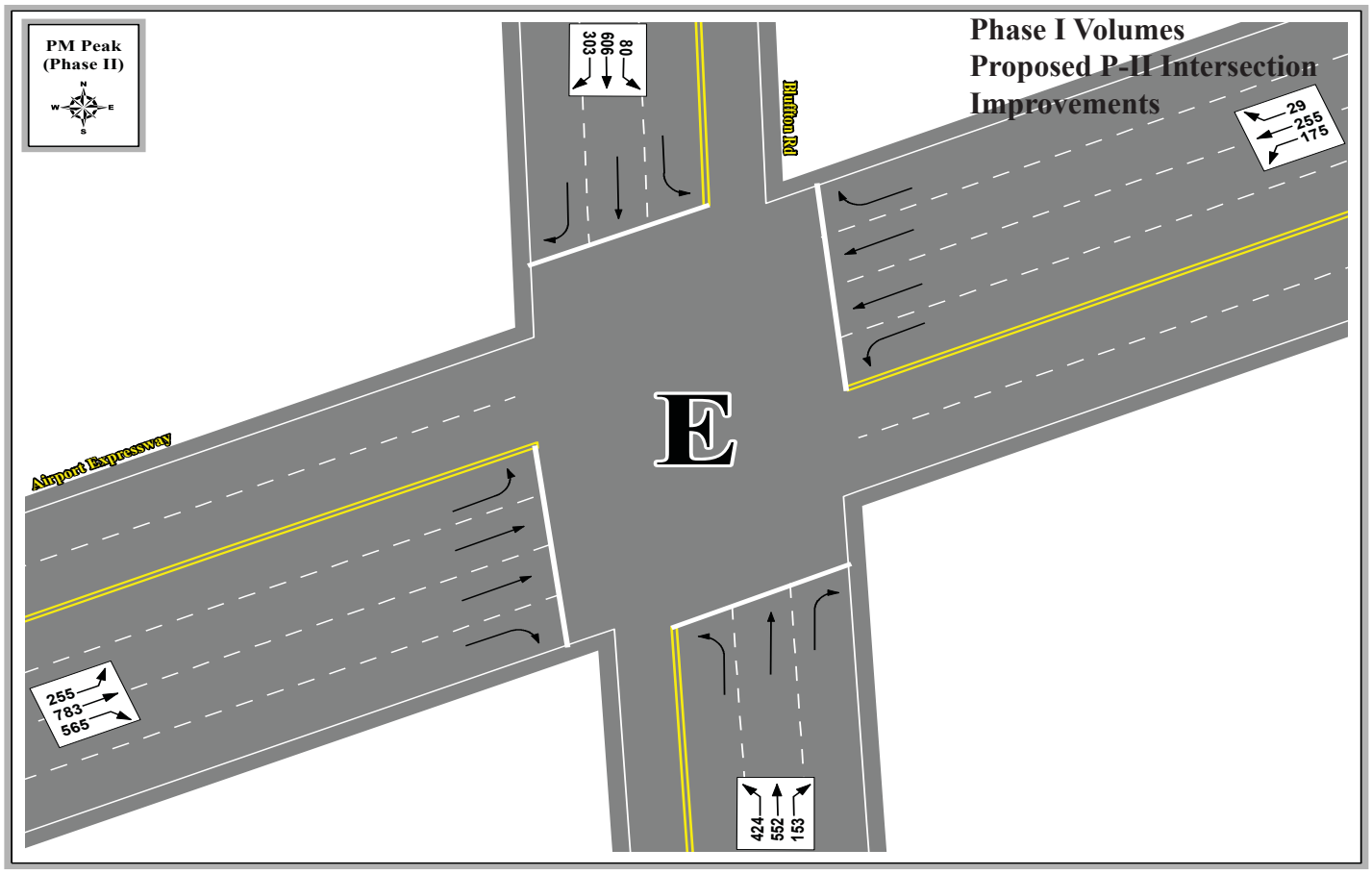


Figure 56

Airport Expressway / Bluffton Rd Phase II Volumes and Existing / Proposed Improvements ((AM/PM)





Airport Expressway at Lower Huntington Road

Scenario 1: - Existing Conditions

Airport Expressway and Lower Huntington Road are 4-lane facilities. Figure 57 shows the geometry at this intersection, along with the current a.m. and p.m. peak volumes, and LOS. The intersection analysis indicates that this intersection is currently operating at a LOS "C" for a.m. and p.m. peak hours.

Scenario 2: - Proposed Development Recommendations

The analysis indicates the intersection will operate at a LOS "C" for a.m. and p.m. peak hours with the added trips of phase I during the peak hours. See Figure 58 for the a.m. and p.m. peak volumes, and LOS.

Scenario 3: - Potential Development Recommendations

The analysis indicates the intersection will operate at a LOS "D" for a.m. and p.m. peak hours with the added trips of phase II during the peak hours. See Figure 59 for the a.m. and p.m. peak volumes, and LOS.

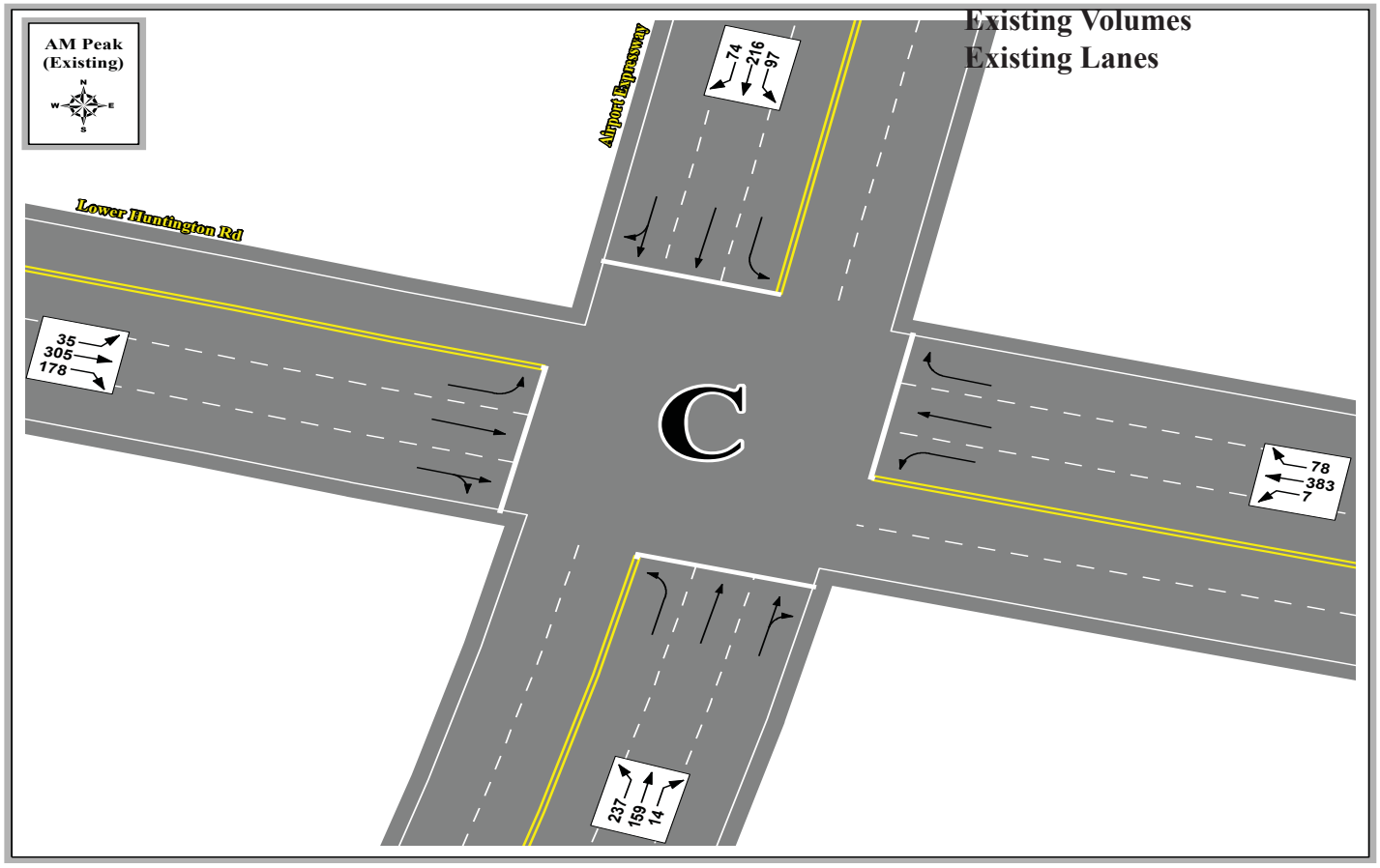
The table below shows the delay, and LOS by approach for the existing, the proposed phased I & II.

Airport Expressway @ Lower Huntington Rd					
AM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	D	C	D	C
Phase I Existing Lanes	C	C	C	C	C
Phase II Existing Lanes	E	C	C	D	D

PM Peak	**NB**	**SB**	**EB**	**WB**	**Total**
	LOS	**LOS**	**LOS**	**LOS**	**LOS**
Existing	C	C	C	C	C
Phase I Existing Lanes	C	C	C	C	C
Phase II Existing Lanes	D	C	C	D	D

Figure 57

Airport Expressway / Lwr Huntington Rd Existing Volumes and Lane Configurations (AM/PM Peak)



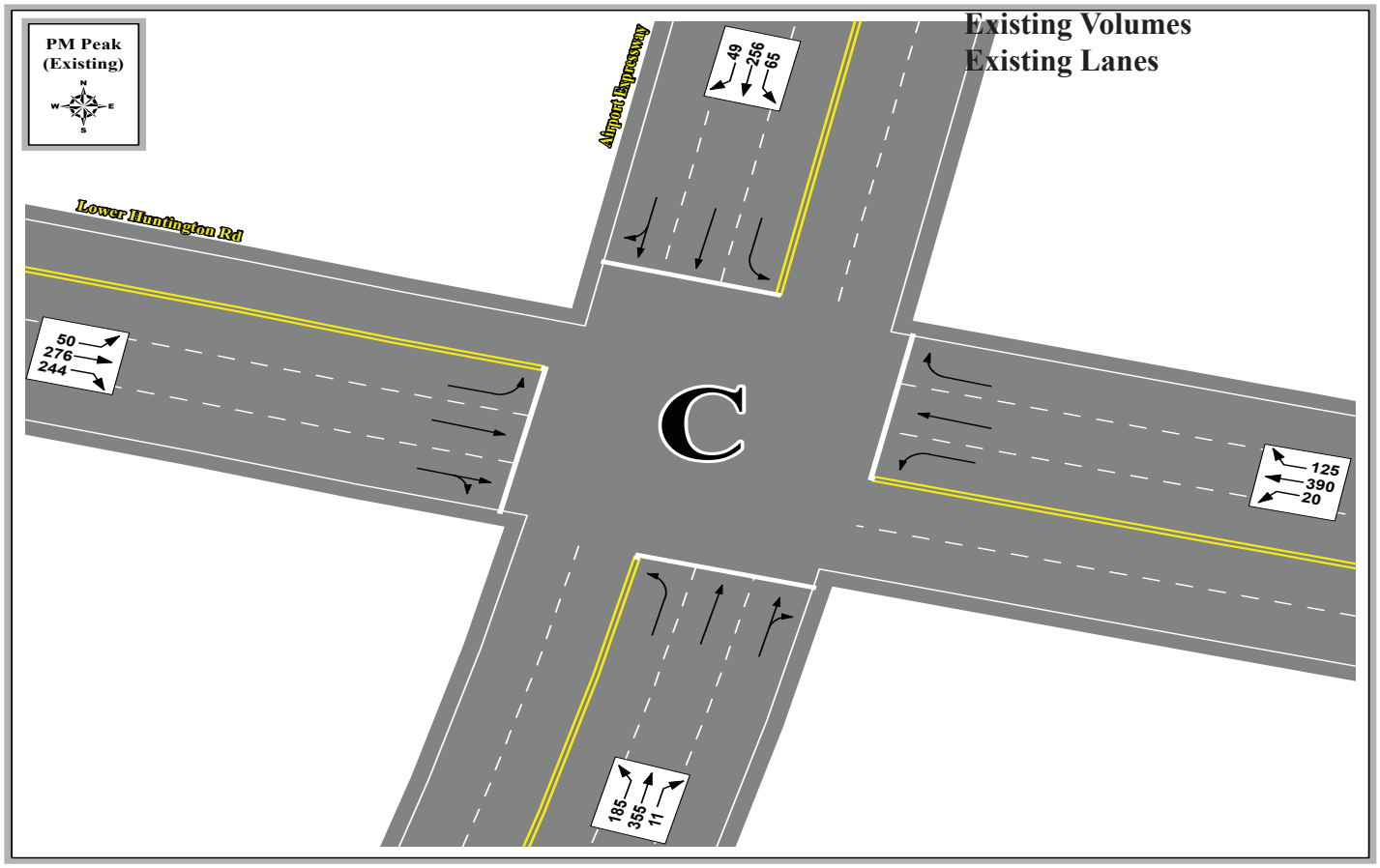
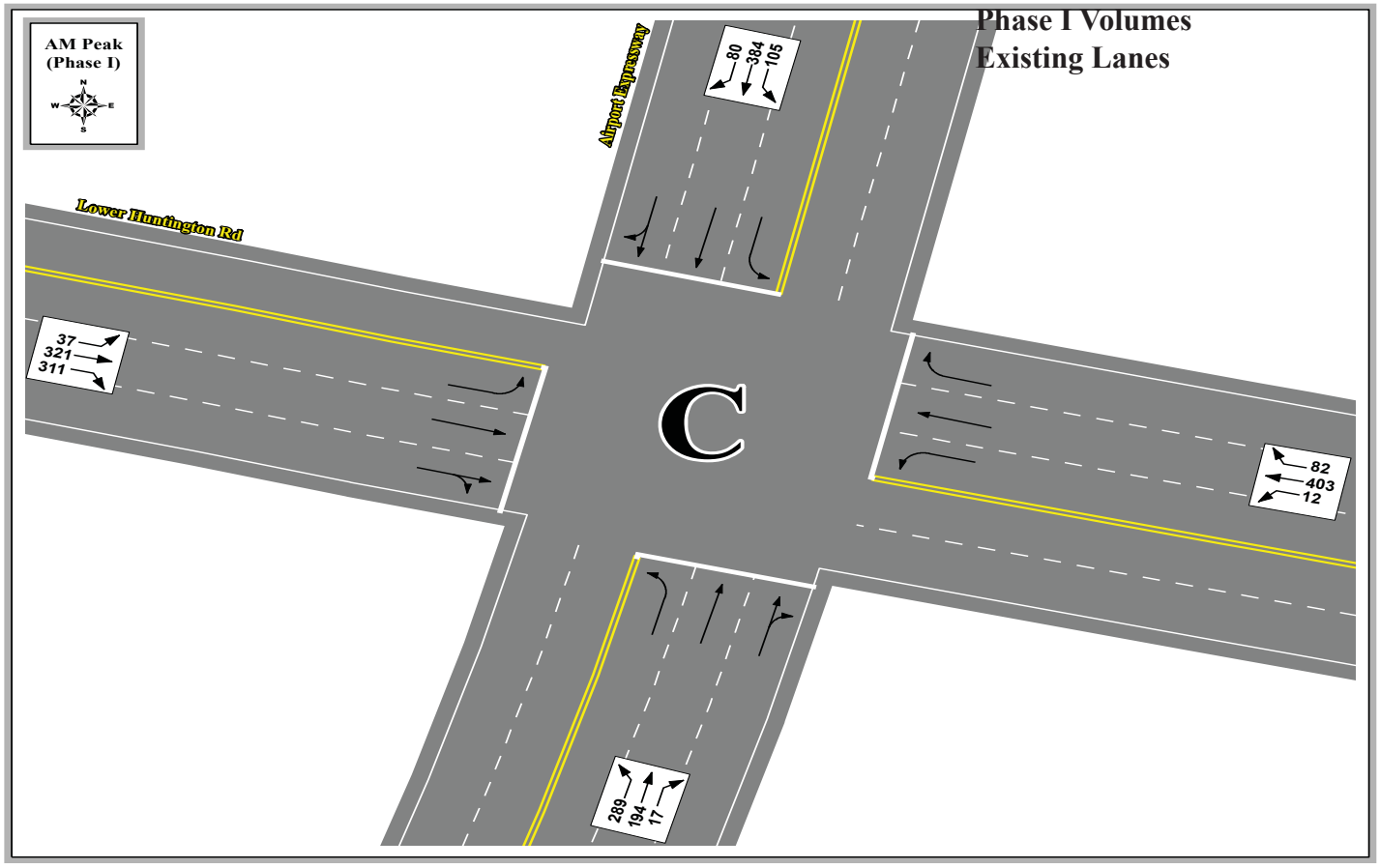


Figure 58

Airport Expressway / Lwr Huntington Rd Phase 1 Volumes and Lane Configurations (AM/PM Peak)



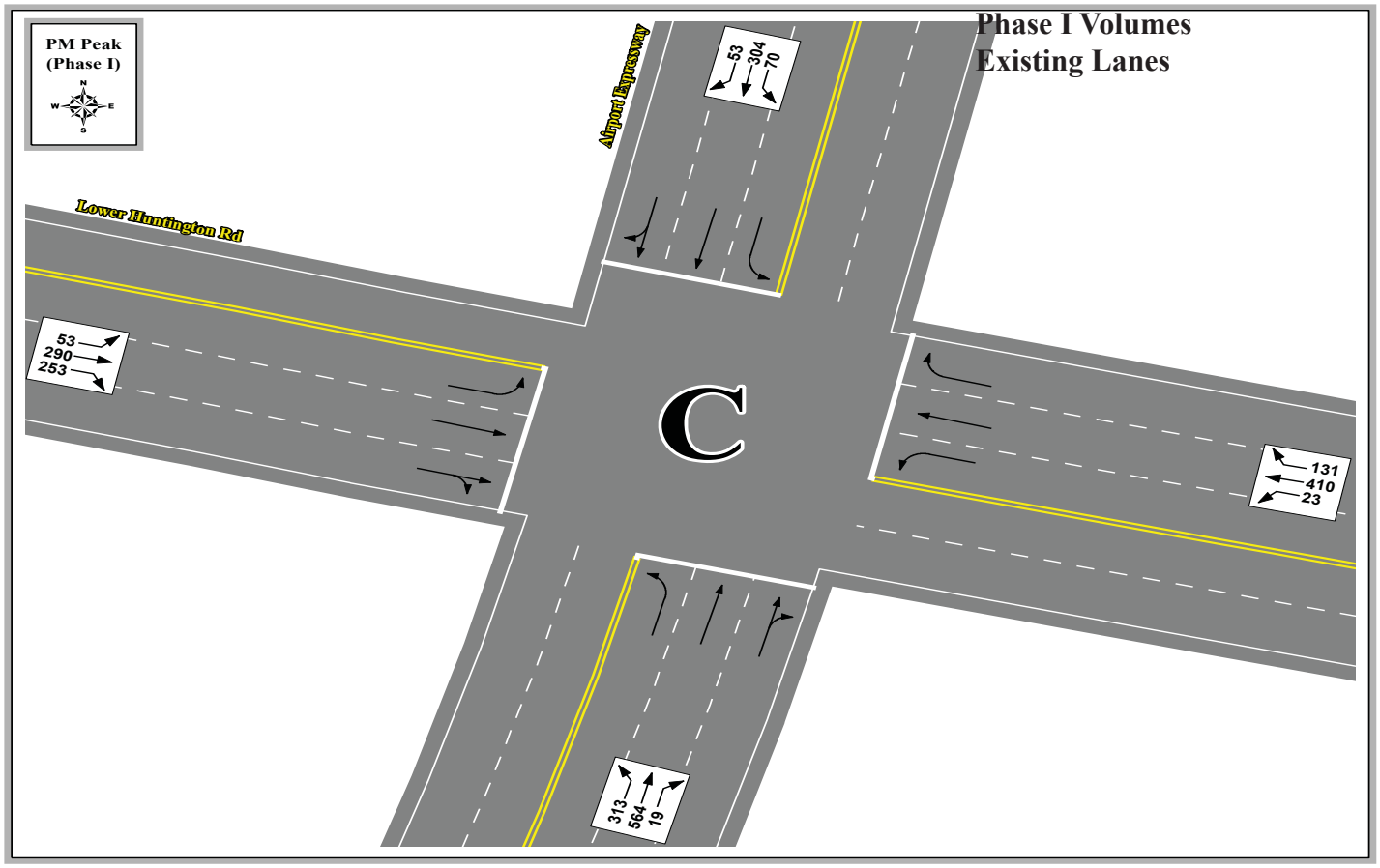
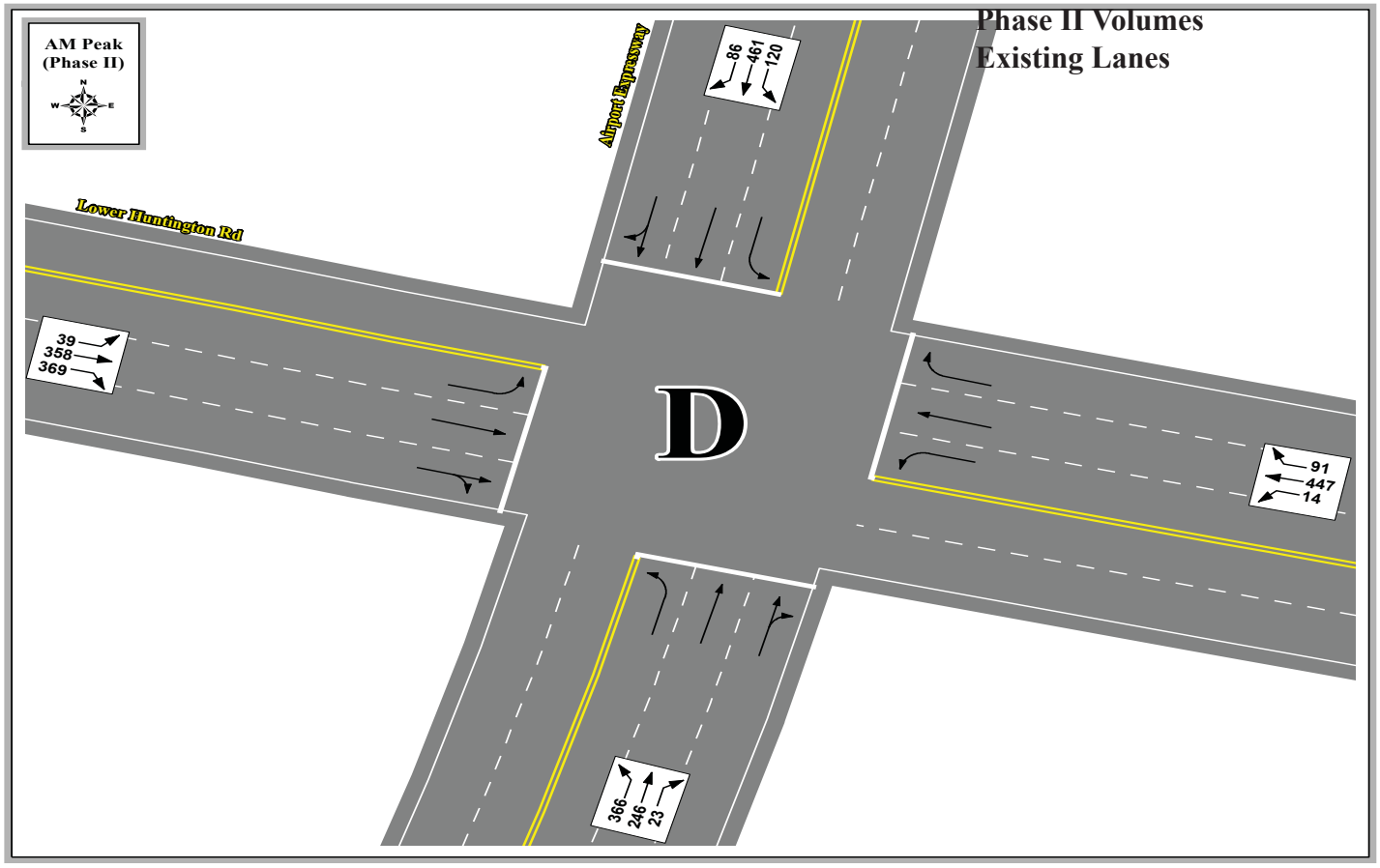
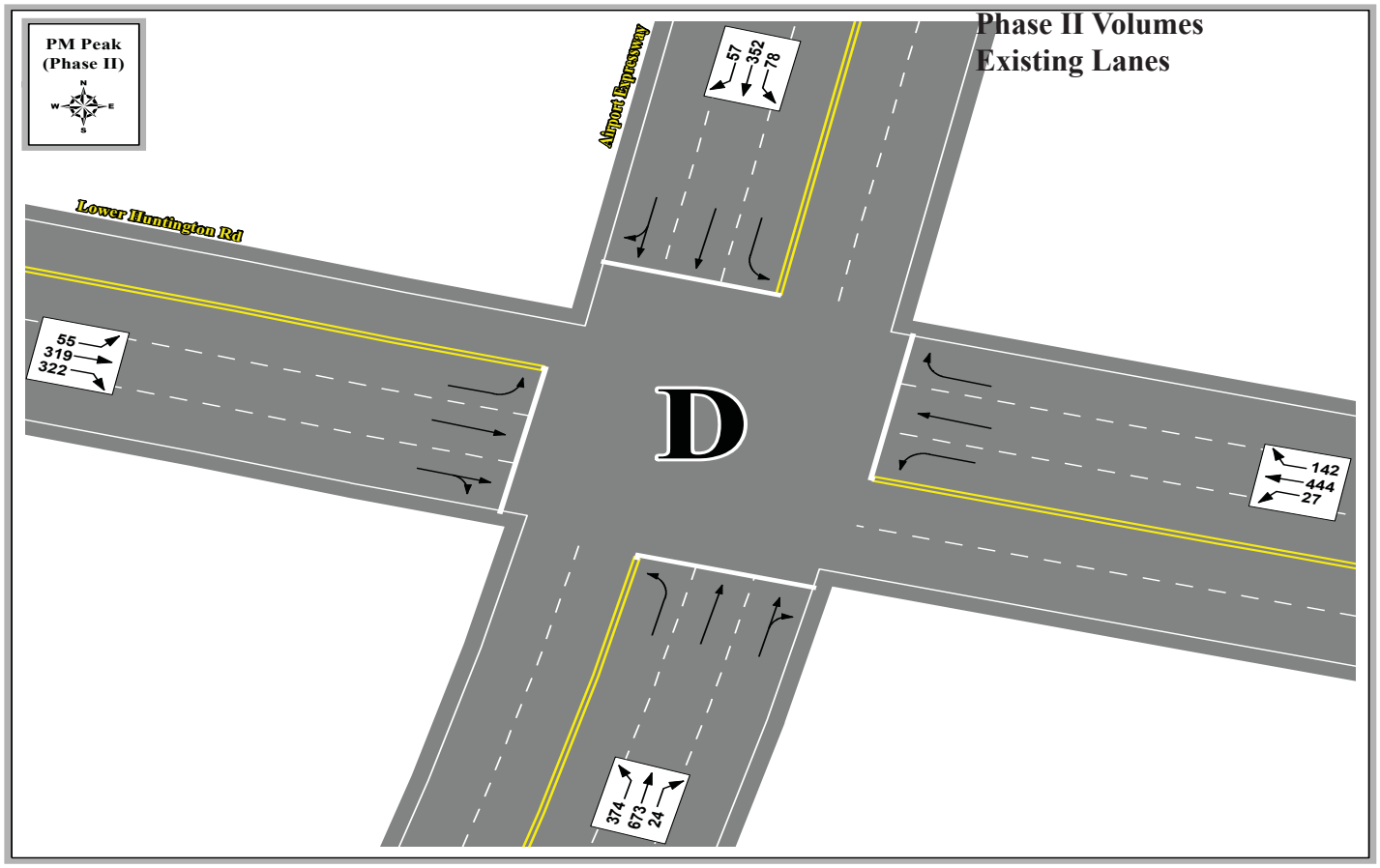


Figure 59

Airport Expressway / Lwr Huntington Rd Phase 1I Volumes and Lane Configurations (AM/PM Peak)





Conclusions:

The study of Airport Expressway, from Homestead Road on the west to Lower Huntington Road, was initiated by NIRCC in FY18 due to the potential developments along the corridor. The corridor and impact analysis estimates the number of new trips from anticipated developments that will be added to an existing facility to examine the changes in the level of service (LOS). LOS is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. LOS is based upon the average stopped delay per vehicle for various movements within the intersection. LOS "A" describes operations with very low delays, most vehicles do not stop at all. LOS "C" describes operations with longer delays, stopping vehicles are significant but many still pass without stopping. LOS "F" describes operations with delays unacceptable to most drivers, the intersection is exceeding capacity.

Airport Expressway is classified as an arterial. The intersections were analyzed using Synchro 10. The analyses were performed for three different levels of land use development including existing conditions, phase I developments, and phase II developments. Phase I focuses on proposed/approved land use developments and phase II focuses on potential developments on currently vacant land within the defined study area. Phase I has a one to five year horizon, while phase II has a five to ten year horizon. In phase II, vacant land is reviewed for development potential, and likely future developments are assessed. The analysis is based on the a.m. peak from 6:30-8:30am, and p.m. peak from 3:30-5:30pm.

The corridor and impact analysis indicates that the following improvements to efficiently accommodate the increase travel demand from planned and potential development along the Airport Expressway corridor.

The recommended improvements are listed below based on Phase II traffic flow projections:

1. The Homestead Road / Lower Huntington Road intersection improvements; add an exclusive turn lanes on all approaches and signalization.
2. The Airport Expressway / Interstate 69 Ramp C/D intersection improvements; adding a second eastbound through lane and a second southbound left turn lane.
3. The Airport Expressway / Interstate 69 Ramp A/B intersections improvements; adding a second eastbound through lane, a exclusive northbound right turn lane, and signalization.
4. The Airport Expressway / Ernst Road/Lower Huntington Road intersection improvement; signalization.
5. The Airport Expressway / Coverdale Road intersection improvement; no recommendations at this time.
6. The Airport Expressway / Smith Road (W) intersection improvement; add exclusive right turn lanes on the northbound and eastbound approaches along with signalization.
7. The Airport Expressway / Smith Road (E) intersection improvement; no recommendations at this time.
8. The Airport Expressway / Aviation Drive/Conservation Way intersection improvement; signalization.
9. The Airport Expressway / Yeager Drive intersection improvement; add an exclusive westbound left turn lane within the existing median.
10. The Airport Expressway / Avionics Drive intersection improvement; signalization.
11. The Airport Expressway / Ardmore Avenue intersection improvement; add exclusive northbound and southbound right turn lanes and a second northbound left turn lane.

12. The Airport Expressway / Baer Road intersection improvement; realign the southbound approach to accommodate an exclusive left turn lane.
13. The Airport Expressway / Airport Drive intersection improvement; add an exclusive right turn lane on the westbound approach.
14. The Airport Expressway / Bluffton Road intersection improvement; add exclusive right turn lanes on the eastbound and westbound approaches.
15. The Airport Expressway / Lower Huntington Road intersection improvement; no recommendations at this time.

Appendix A

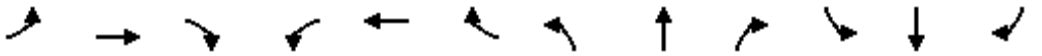
Section 1: Existing, Phase I, and Phase II Synchro 10 outputs

AM Existing

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	108	33	88	226	294	53
Future Volume (Veh/h)	108	33	88	226	294	53
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.56	0.80	0.73	0.68	0.81	0.64
Hourly flow rate (vph)	193	41	121	332	363	83
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	978	404	446			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	978	404	446			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	21	94	89			
cM capacity (veh/h)	243	640	1068			

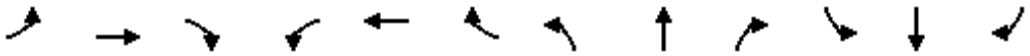
Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	234	453	446
Volume Left	193	121	0
Volume Right	41	0	83
cSH	273	1068	1700
Volume to Capacity	0.86	0.11	0.26
Queue Length 95th (ft)	181	10	0
Control Delay (s)	64.5	3.3	0.0
Lane LOS	F	A	
Approach Delay (s)	64.5	3.3	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	14.6		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	424	29	53	132	0	0	0	0	346	2	54
Future Volume (vph)	0	424	29	53	132	0	0	0	0	346	2	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Lane Util. Factor		1.00	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		1827	1509	1626	1696						1725	1455
Flt Permitted		1.00	1.00	0.35	1.00						0.95	1.00
Satd. Flow (perm)		1827	1509	606	1696						1725	1455
Peak-hour factor, PHF	0.92	0.81	0.78	0.75	0.79	0.92	0.92	0.92	0.92	0.79	0.50	0.77
Adj. Flow (vph)	0	523	37	71	167	0	0	0	0	438	4	70
RTOR Reduction (vph)	0	0	20	0	0	0	0	0	0	0	0	46
Lane Group Flow (vph)	0	523	17	71	167	0	0	0	0	0	442	24
Heavy Vehicles (%)	0%	4%	7%	11%	12%	0%	2%	2%	2%	5%	2%	11%
Turn Type		NA	Perm	Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		26.3	26.3	26.3	26.3						19.1	19.1
Effective Green, g (s)		26.3	26.3	26.3	26.3						19.1	19.1
Actuated g/C Ratio		0.47	0.47	0.47	0.47						0.34	0.34
Clearance Time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1	6.1	6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		853	704	283	792						585	493
v/s Ratio Prot		c0.29			0.10							
v/s Ratio Perm			0.01	0.12							0.26	0.02
v/c Ratio		0.61	0.02	0.25	0.21						0.76	0.05
Uniform Delay, d1		11.2	8.1	9.1	8.9						16.5	12.5
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		2.3	0.0	1.3	0.4						4.9	0.0
Delay (s)		13.5	8.1	10.4	9.3						21.4	12.5
Level of Service		B	A	B	A						C	B
Approach Delay (s)		13.2			9.6			0.0			20.2	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	56.3	Sum of lost time (s)	10.9
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

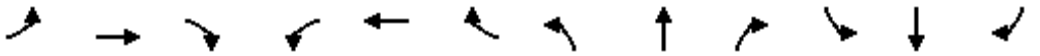


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	642	0	0	177	197	19	2	117	0	0	0
Future Volume (Veh/h)	112	642	0	0	177	197	19	2	117	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.88	0.88	0.83	0.75	0.25	0.72	0.92	0.92	0.92
Hourly flow rate (vph)	130	747	0	0	201	237	25	8	163	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	201			747			1208	1208	747	1212	1208	201
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	201			624			1160	1160	624	1165	1160	201
tC, single (s)	4.1			4.1			*4.2	*4.2	*4.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	90			100			93	98	72	100	100	100
cM capacity (veh/h)	1353			823			353	321	581	96	152	840

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	130	747	201	237	196
Volume Left	130	0	0	0	25
Volume Right	0	0	0	237	163
cSH	1353	1700	1700	1700	521
Volume to Capacity	0.10	0.44	0.12	0.14	0.38
Queue Length 95th (ft)	8	0	0	0	43
Control Delay (s)	7.9	0.0	0.0	0.0	16.0
Lane LOS	A				C
Approach Delay (s)	1.2		0.0		16.0
Approach LOS					C

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	68.0%	ICU Level of Service		C
Analysis Period (min)	15			

* User Entered Value

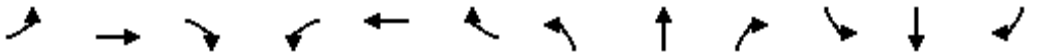


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	862	3	0	317	1	27	0	6	0	0	17
Future Volume (Veh/h)	20	862	3	0	317	1	27	0	6	0	0	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.56	0.80	0.38	0.92	0.88	0.25	0.68	0.92	0.50	0.92	0.92	0.53
Hourly flow rate (vph)	36	1078	8	0	360	4	40	0	12	0	0	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	364			1086			1366	1518	543	985	1520	182
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	364			1086			1366	1518	543	985	1520	182
tC, single (s)	4.2			4.1			*4.1	6.5	*4.1	7.5	6.5	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			89	100	98	100	100	97
cM capacity (veh/h)	1170			650			370	116	746	197	116	963

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	36	719	367	0	240	124	40	12	0	32
Volume Left	36	0	0	0	0	0	40	0	0	0
Volume Right	0	0	8	0	0	4	0	12	0	32
cSH	1170	1700	1700	1700	1700	1700	370	746	1700	963
Volume to Capacity	0.03	0.42	0.22	0.00	0.14	0.07	0.11	0.02	0.00	0.03
Queue Length 95th (ft)	2	0	0	0	0	0	9	1	0	3
Control Delay (s)	8.2	0.0	0.0	0.0	0.0	0.0	15.9	9.9	0.0	8.9
Lane LOS	A						C	A	A	A
Approach Delay (s)	0.3			0.0			14.5		8.9	
Approach LOS							B		A	

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	38.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	756	13	7	304	10	28	27	39	1	3	1
Future Volume (Veh/h)	86	756	13	7	304	10	28	27	39	1	3	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.63	0.75	0.65	0.58	0.79	0.63	0.88	0.56	0.81	0.25	0.38	0.25
Hourly flow rate (vph)	137	1008	20	12	385	16	32	48	48	4	8	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	401			1028			1516	1717	514	1267	1719	200
vC1, stage 1 conf vol							1292	1292		417	417	
vC2, stage 2 conf vol							224	425		850	1302	
vCu, unblocked vol	401			1028			1516	1717	514	1267	1719	200
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			98			93	89	94	99	98	100
cM capacity (veh/h)	1169			683			469	433	756	499	440	950

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	137	672	356	12	257	144	32	96	4	12
Volume Left	137	0	0	12	0	0	32	0	4	0
Volume Right	0	0	20	0	0	16	0	48	0	4
cSH	1169	1700	1700	683	1700	1700	469	551	499	536
Volume to Capacity	0.12	0.40	0.21	0.02	0.15	0.08	0.07	0.17	0.01	0.02
Queue Length 95th (ft)	10	0	0	1	0	0	5	16	1	2
Control Delay (s)	8.5	0.0	0.0	10.4	0.0	0.0	13.2	12.9	12.3	11.9
Lane LOS	A			B			B	B	B	B
Approach Delay (s)	1.0			0.3			13.0		12.0	
Approach LOS							B		B	

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	42.9%	ICU Level of Service		A
Analysis Period (min)	15			

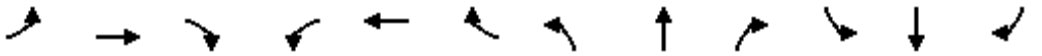
* User Entered Value

PM Existing

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	63	55	73	230	226	167
Future Volume (Veh/h)	63	55	73	230	226	167
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.79	0.71	0.82	0.75	0.89	0.93
Hourly flow rate (vph)	80	77	89	307	254	180
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	829	344	434			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	829	344	434			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	75	89	92			
cM capacity (veh/h)	314	703	1136			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	157	396	434
Volume Left	80	89	0
Volume Right	77	0	180
cSH	431	1136	1700
Volume to Capacity	0.36	0.08	0.26
Queue Length 95th (ft)	41	6	0
Control Delay (s)	18.1	2.5	0.0
Lane LOS	C	A	
Approach Delay (s)	18.1	2.5	0.0
Approach LOS	C		

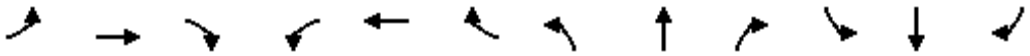
Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	183	20	84	329	0	0	0	0	207	0	100
Future Volume (vph)	0	183	20	84	329	0	0	0	0	207	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Lane Util. Factor		1.00	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		1776	1509	1626	1827						1583	1482
Flt Permitted		1.00	1.00	0.61	1.00						0.95	1.00
Satd. Flow (perm)		1776	1509	1051	1827						1583	1482
Peak-hour factor, PHF	0.79	0.79	0.53	0.83	0.77	0.92	0.92	0.92	0.92	0.84	0.50	0.85
Adj. Flow (vph)	0	232	38	101	427	0	0	0	0	246	0	118
RTOR Reduction (vph)	0	0	20	0	0	0	0	0	0	0	0	85
Lane Group Flow (vph)	0	232	18	101	427	0	0	0	0	0	246	33
Heavy Vehicles (%)	0%	7%	7%	11%	4%	2%	2%	2%	2%	14%	100%	9%
Turn Type		NA	Perm	Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		20.2	20.2	20.2	20.2						11.9	11.9
Effective Green, g (s)		20.2	20.2	20.2	20.2						11.9	11.9
Actuated g/C Ratio		0.47	0.47	0.47	0.47						0.28	0.28
Clearance Time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1	6.1	6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		834	708	493	858						438	410
v/s Ratio Prot		0.13			c0.23							
v/s Ratio Perm			0.01	0.10							0.16	0.02
v/c Ratio		0.28	0.03	0.20	0.50						0.56	0.08
Uniform Delay, d1		7.0	6.1	6.7	7.9						13.3	11.5
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		0.5	0.0	0.6	1.3						1.0	0.0
Delay (s)		7.5	6.2	7.3	9.2						14.3	11.5
Level of Service		A	A	A	A						B	B
Approach Delay (s)		7.3			8.8			0.0			13.4	
Approach LOS		A			A			A			B	

Intersection Summary					
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A		
HCM 2000 Volume to Capacity ratio	0.52				
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	10.9		
Intersection Capacity Utilization	50.4%	ICU Level of Service	A		
Analysis Period (min)	15				
Description: 2014 Data					

c Critical Lane Group

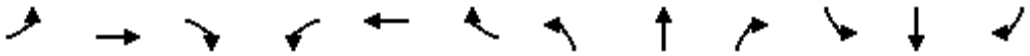


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	294	0	0	392	424	35	1	100	0	0	0
Future Volume (Veh/h)	108	294	0	0	392	424	35	1	100	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.92	0.92	0.92	0.96	0.72	0.55	0.25	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	146	320	0	0	408	589	64	4	112	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked												
vC, conflicting volume	408			320			1020	1020	320	1022	1020	408
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	408			320			1020	1020	320	1022	1020	408
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	87			100			86	99	87	100	100	100
cM capacity (veh/h)	1140			1240			454	411	852	167	206	643

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	146	320	408	589	180
Volume Left	146	0	0	0	64
Volume Right	0	0	0	589	112
cSH	1140	1700	1700	1700	638
Volume to Capacity	0.13	0.19	0.24	0.35	0.28
Queue Length 95th (ft)	11	0	0	0	29
Control Delay (s)	8.6	0.0	0.0	0.0	12.8
Lane LOS	A				B
Approach Delay (s)	2.7		0.0		12.8
Approach LOS					B

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	50.4%	ICU Level of Service		A
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

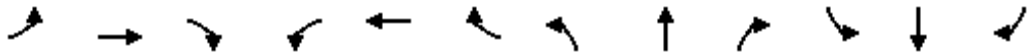


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	455	19	2	659	0	8	0	6	2	5	60
Future Volume (Veh/h)	38	455	19	2	659	0	8	0	6	2	5	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	495	21	2	716	0	9	0	7	2	5	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	716			516			1017	1308	258	1056	1318	358
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	716			516			1017	1308	258	1056	1318	358
tC, single (s)	4.1			4.1			*4.1	6.5	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			98	100	99	100	99	92
cM capacity (veh/h)	880			1046			446	151	908	471	363	847

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	41	330	186	2	477	239	9	7	2	70
Volume Left	41	0	0	2	0	0	9	0	2	0
Volume Right	0	0	21	0	0	0	0	7	0	65
cSH	880	1700	1700	1046	1700	1700	446	908	471	773
Volume to Capacity	0.05	0.19	0.11	0.00	0.28	0.14	0.02	0.01	0.00	0.09
Queue Length 95th (ft)	4	0	0	0	0	0	2	1	0	7
Control Delay (s)	9.3	0.0	0.0	8.4	0.0	0.0	13.2	9.0	12.7	10.1
Lane LOS	A			A			B	A	B	B
Approach Delay (s)	0.7			0.0			11.4		10.2	
Approach LOS							B		B	

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	38.2%	ICU Level of Service		A
Analysis Period (min)	15			
Description: 3:45-4:45pm				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	368	37	38	634	2	25	7	12	25	27	61
Future Volume (Veh/h)	4	368	37	38	634	2	25	7	12	25	27	61
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.89	0.77	0.68	0.81	0.50	0.89	0.58	0.60	0.52	0.48	0.61
Hourly flow rate (vph)	8	413	48	56	783	4	28	12	20	48	56	100
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	787			461			1084	1352	230	1146	1374	394
vC1, stage 1 conf vol							453	453		897	897	
vC2, stage 2 conf vol							632	899		248	477	
vCu, unblocked vol	787			461			1084	1352	230	1146	1374	394
tC, single (s)	4.6			4.2			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.5			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	99			95			95	98	98	92	90	88
cM capacity (veh/h)	694			1089			546	549	911	613	538	826

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	8	275	186	56	522	265	28	32	48	156
Volume Left	8	0	0	56	0	0	28	0	48	0
Volume Right	0	0	48	0	0	4	0	20	0	100
cSH	694	1700	1700	1089	1700	1700	546	730	613	693
Volume to Capacity	0.01	0.16	0.11	0.05	0.31	0.16	0.05	0.04	0.08	0.23
Queue Length 95th (ft)	1	0	0	4	0	0	4	3	6	22
Control Delay (s)	10.2	0.0	0.0	8.5	0.0	0.0	11.9	10.2	11.4	11.7
Lane LOS	B			A			B	B	B	B
Approach Delay (s)	0.2			0.6			11.0		11.6	
Approach LOS							B		B	

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	39.0%	ICU Level of Service	A	
Analysis Period (min)	15			
Description: 4:00-5:00PM				

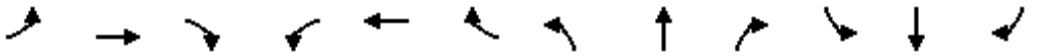
* User Entered Value

AM Phase I

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	252	36	99	560	336	60
Future Volume (Veh/h)	252	36	99	560	336	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	274	39	108	609	365	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1222	398	430			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1222	398	430			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	0	94	90			
cM capacity (veh/h)	176	646	1083			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	313	717	430
Volume Left	274	108	0
Volume Right	39	0	65
cSH	193	1083	1700
Volume to Capacity	1.62	0.10	0.25
Queue Length 95th (ft)	516	8	0
Control Delay (s)	344.0	2.5	0.0
Lane LOS	F	A	
Approach Delay (s)	344.0	2.5	0.0
Approach LOS	F		

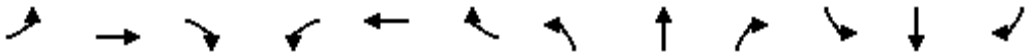
Intersection Summary			
Average Delay	74.9		
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	42	72	287	0	0	0	0	720	2	90
Future Volume (vph)	0	990	42	72	287	0	0	0	0	720	2	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Lane Util. Factor		1.00	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		1827	1509	1626	1696						1720	1455
Flt Permitted		1.00	1.00	0.07	1.00						0.95	1.00
Satd. Flow (perm)		1827	1509	116	1696						1720	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1076	46	78	312	0	0	0	0	783	2	98
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	45
Lane Group Flow (vph)	0	1076	31	78	312	0	0	0	0	0	785	53
Heavy Vehicles (%)	2%	4%	7%	11%	12%	2%	2%	2%	2%	5%	100%	11%
Turn Type		NA	Perm	Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		59.2	59.2	59.2	59.2						39.9	39.9
Effective Green, g (s)		59.2	59.2	59.2	59.2						39.9	39.9
Actuated g/C Ratio		0.54	0.54	0.54	0.54						0.36	0.36
Clearance Time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1	6.1	6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		983	812	62	912						623	527
v/s Ratio Prot		0.59			0.18							
v/s Ratio Perm			0.02	c0.67							0.46	0.04
v/c Ratio		1.09	0.04	1.26	0.34						1.26	0.10
Uniform Delay, d1		25.4	12.0	25.4	14.4						35.0	23.2
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		58.1	0.1	198.8	0.7						129.7	0.0
Delay (s)		83.5	12.0	224.2	15.0						164.7	23.2
Level of Service		F	B	F	B						F	C
Approach Delay (s)		80.6			56.9			0.0			149.0	
Approach LOS		F			E			A			F	

Intersection Summary			
HCM 2000 Control Delay	101.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	126.8%	ICU Level of Service	H
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

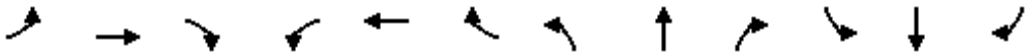


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1555	0	0	343	270	28	2	269	0	0	0
Future Volume (Veh/h)	147	1555	0	0	343	270	28	2	269	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	160	1690	0	0	373	293	30	2	292	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		688										
pX, platoon unblocked				0.47			0.47	0.47	0.47	0.47	0.47	
vC, conflicting volume	373			1690			2383	2383	1690	2384	2383	373
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	373			1906			3386	3386	1906	3388	3386	373
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	86			100			4	93	0	0	100	100
cM capacity (veh/h)	1169			146			31	30	122	0	3	673

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	160	1690	373	293	324
Volume Left	160	0	0	0	30
Volume Right	0	0	0	293	292
cSH	1169	1700	1700	1700	95
Volume to Capacity	0.14	0.99	0.22	0.17	3.43
Queue Length 95th (ft)	12	0	0	0	Err
Control Delay (s)	8.6	0.0	0.0	0.0	Err
Lane LOS	A				F
Approach Delay (s)	0.7		0.0		Err
Approach LOS					F

Intersection Summary				
Average Delay	1141.2			
Intersection Capacity Utilization	126.8%	ICU Level of Service		H
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

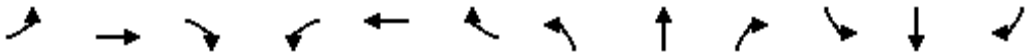


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1665	271	53	512	1	33	37	27	0	35	26
Future Volume (Veh/h)	48	1665	271	53	512	1	33	37	27	0	35	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	1810	295	58	557	1	36	40	29	0	38	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	558			2105			2503	2736	1052	1732	2882	279
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	558			2105			2503	2736	1052	1732	2882	279
tC, single (s)	4.2			4.1			*4.1	*4.1	*4.1	7.5	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			78			55	58	94	100	54	97
cM capacity (veh/h)	988			265			81	94	513	30	83	900

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	52	1207	898	58	371	187	36	69	0	66
Volume Left	52	0	0	58	0	0	36	0	0	0
Volume Right	0	0	295	0	0	1	0	29	0	28
cSH	988	1700	1700	265	1700	1700	81	143	1700	136
Volume to Capacity	0.05	0.71	0.53	0.22	0.22	0.11	0.45	0.48	0.00	0.49
Queue Length 95th (ft)	4	0	0	20	0	0	46	56	0	56
Control Delay (s)	8.8	0.0	0.0	22.4	0.0	0.0	81.7	51.4	0.0	54.5
Lane LOS	A			C			F	F	A	F
Approach Delay (s)	0.2			2.1			61.8		54.5	
Approach LOS							F		F	

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	69.8%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 6:45-7:45am				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1537	45	32	533	14	46	32	81	2	10	2
Future Volume (Veh/h)	102	1537	45	32	533	14	46	32	81	2	10	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	1671	49	35	579	15	50	35	88	2	11	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	594			1720			2284	2582	860	1820	2598	297
vC1, stage 1 conf vol							1918	1918		656	656	
vC2, stage 2 conf vol							367	664		1163	1942	
vCu, unblocked vol	594			1720			2284	2582	860	1820	2598	297
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			91			85	89	85	99	96	100
cM capacity (veh/h)	992			373			343	316	589	366	302	889

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	111	1114	606	35	386	208	50	123	2	13
Volume Left	111	0	0	35	0	0	50	0	2	0
Volume Right	0	0	49	0	0	15	0	88	0	2
cSH	992	1700	1700	373	1700	1700	343	473	366	336
Volume to Capacity	0.11	0.66	0.36	0.09	0.23	0.12	0.15	0.26	0.01	0.04
Queue Length 95th (ft)	9	0	0	8	0	0	13	26	0	3
Control Delay (s)	9.1	0.0	0.0	15.7	0.0	0.0	17.3	15.3	14.9	16.2
Lane LOS	A			C			C	C	B	C
Approach Delay (s)	0.6			0.9			15.9		16.0	
Approach LOS							C		C	

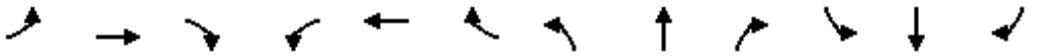
Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	66.5%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 6:45-7:45AM				

* User Entered Value

AM Phase I Modified

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	252	36	99	560	336	60
Future Volume (vph)	252	36	99	560	336	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.52	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	888	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	39	108	609	365	65
RTOR Reduction (vph)	0	27	0	0	0	34
Lane Group Flow (vph)	274	12	108	609	365	31
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	12.1	12.1	18.9	18.9	18.9	18.9
Effective Green, g (s)	12.1	12.1	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.30	0.30	0.47	0.47	0.47	0.47
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	519	465	419	880	888	740
v/s Ratio Prot	c0.16			c0.33	0.19	
v/s Ratio Perm		0.01	0.12			0.02
v/c Ratio	0.53	0.03	0.26	0.69	0.41	0.04
Uniform Delay, d1	11.6	9.8	6.3	8.3	6.9	5.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.0	0.3	2.4	0.3	0.0
Delay (s)	12.6	9.8	6.7	10.6	7.2	5.7
Level of Service	B	A	A	B	A	A
Approach Delay (s)	12.2			10.0	7.0	
Approach LOS	B			B	A	

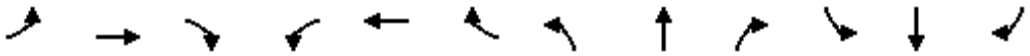
Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	990	42	72	287	0	0	0	0	720	2	90
Future Volume (vph)	0	990	42	72	287	0	0	0	0	720	2	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8						5.1	5.1
Lane Util. Factor		0.95		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3446		1626	1696						1720	1455
Flt Permitted		1.00		0.16	1.00						0.95	1.00
Satd. Flow (perm)		3446		272	1696						1720	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1076	46	78	312	0	0	0	0	783	2	98
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	0	51
Lane Group Flow (vph)	0	1118	0	78	312	0	0	0	0	0	785	47
Heavy Vehicles (%)	2%	4%	7%	11%	12%	2%	2%	2%	2%	5%	100%	11%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		25.2		25.2	25.2						32.7	32.7
Effective Green, g (s)		25.2		25.2	25.2						32.7	32.7
Actuated g/C Ratio		0.37		0.37	0.37						0.48	0.48
Clearance Time (s)		5.8		5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		1262		99	621						817	691
v/s Ratio Prot		c0.32			0.18							
v/s Ratio Perm				0.29							0.46	0.03
v/c Ratio		0.89		0.79	0.50						0.96	0.07
Uniform Delay, d1		20.4		19.4	16.9						17.4	9.8
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		8.7		39.3	1.8						22.2	0.0
Delay (s)		29.1		58.7	18.8						39.6	9.8
Level of Service		C		E	B						D	A
Approach Delay (s)		29.1			26.8			0.0			36.3	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	10.9
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

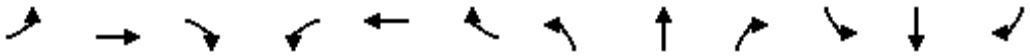


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1555	0	0	343	270	28	2	269	0	0	0
Future Volume (Veh/h)	147	1555	0	0	343	270	28	2	269	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	160	1690	0	0	373	293	30	2	292	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked				0.71			0.71	0.71	0.71	0.71	0.71	
vC, conflicting volume	373			1690			2383	2383	845	1539	2383	373
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	373			1164			2135	2135	0	952	2135	373
tC, single (s)	4.2			4.1			*4.2	*4.2	*4.2	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	86			100			77	98	61	100	100	100
cM capacity (veh/h)	1161			425			129	120	751	82	30	624

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	160	845	845	373	293	324
Volume Left	160	0	0	0	0	30
Volume Right	0	0	0	0	293	292
cSH	1161	1700	1700	1700	1700	508
Volume to Capacity	0.14	0.50	0.50	0.22	0.17	0.64
Queue Length 95th (ft)	12	0	0	0	0	111
Control Delay (s)	8.6	0.0	0.0	0.0	0.0	23.8
Lane LOS	A					C
Approach Delay (s)	0.7			0.0		23.8
Approach LOS						C

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	95.1%	ICU Level of Service	F	
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

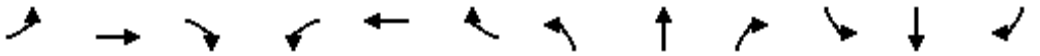


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1665	271	53	512	1	33	37	27	0	35	26
Future Volume (Veh/h)	48	1665	271	53	512	1	33	37	27	0	35	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	1810	295	58	557	1	36	40	29	0	38	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	558			2105			2503	2736	1052	1732	2882	279
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	558			2105			2503	2736	1052	1732	2882	279
tC, single (s)	4.2			4.1			*4.1	*4.1	*4.1	7.5	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			78			55	58	94	100	54	97
cM capacity (veh/h)	988			265			81	94	513	30	83	900

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	52	1207	898	58	371	187	36	69	0	66
Volume Left	52	0	0	58	0	0	36	0	0	0
Volume Right	0	0	295	0	0	1	0	29	0	28
cSH	988	1700	1700	265	1700	1700	81	143	1700	136
Volume to Capacity	0.05	0.71	0.53	0.22	0.22	0.11	0.45	0.48	0.00	0.49
Queue Length 95th (ft)	4	0	0	20	0	0	46	56	0	56
Control Delay (s)	8.8	0.0	0.0	22.4	0.0	0.0	81.7	51.4	0.0	54.5
Lane LOS	A			C			F	F	A	F
Approach Delay (s)	0.2			2.1			61.8		54.5	
Approach LOS							F		F	

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	69.8%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 6:45-7:45am				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1537	45	32	533	14	46	32	81	2	10	2
Future Volume (Veh/h)	102	1537	45	32	533	14	46	32	81	2	10	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	1671	49	35	579	15	50	35	88	2	11	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	594			1720			2284	2582	860	1820	2598	297
vC1, stage 1 conf vol							1918	1918		656	656	
vC2, stage 2 conf vol							367	664		1163	1942	
vCu, unblocked vol	594			1720			2284	2582	860	1820	2598	297
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			91			85	89	85	99	96	100
cM capacity (veh/h)	992			373			343	316	589	366	302	889

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	111	1114	606	35	386	208	50	123	2	13
Volume Left	111	0	0	35	0	0	50	0	2	0
Volume Right	0	0	49	0	0	15	0	88	0	2
cSH	992	1700	1700	373	1700	1700	343	473	366	336
Volume to Capacity	0.11	0.66	0.36	0.09	0.23	0.12	0.15	0.26	0.01	0.04
Queue Length 95th (ft)	9	0	0	8	0	0	13	26	0	3
Control Delay (s)	9.1	0.0	0.0	15.7	0.0	0.0	17.3	15.3	14.9	16.2
Lane LOS	A			C			C	C	B	C
Approach Delay (s)	0.6			0.9			15.9		16.0	
Approach LOS							C		C	

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	66.5%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 6:45-7:45AM				

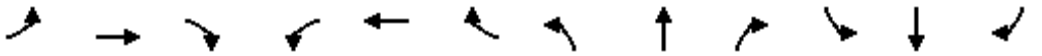
* User Entered Value

PM Phase I

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	137	113	184	388	808	315
Future Volume (Veh/h)	137	113	184	388	808	315
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	149	123	200	422	878	342
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1871	1049	1220			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1871	1049	1220			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	0	55	63			
cM capacity (veh/h)	49	273	541			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	272	622	1220
Volume Left	149	200	0
Volume Right	123	0	342
cSH	78	541	1700
Volume to Capacity	3.49	0.37	0.72
Queue Length 95th (ft)	Err	42	0
Control Delay (s)	Err	10.2	0.0
Lane LOS	F	B	
Approach Delay (s)	Err	10.2	0.0
Approach LOS	F		

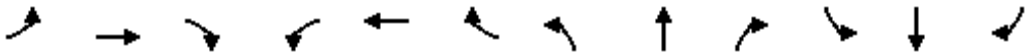
Intersection Summary			
Average Delay	1289.5		
Intersection Capacity Utilization	116.8%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	453	38	159	733	0	0	0	0	342	0	163
Future Volume (vph)	0	453	38	159	733	0	0	0	0	342	0	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Lane Util. Factor		1.00	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		1776	1509	1626	1827						1583	1482
Flt Permitted		1.00	1.00	0.41	1.00						0.95	1.00
Satd. Flow (perm)		1776	1509	710	1827						1583	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	492	41	173	797	0	0	0	0	372	0	177
RTOR Reduction (vph)	0	0	19	0	0	0	0	0	0	0	0	104
Lane Group Flow (vph)	0	492	22	173	797	0	0	0	0	0	372	73
Heavy Vehicles (%)	0%	7%	7%	11%	4%	2%	2%	2%	2%	14%	100%	9%
Turn Type		NA	Perm	Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		29.4	29.4	29.4	29.4						15.7	15.7
Effective Green, g (s)		29.4	29.4	29.4	29.4						15.7	15.7
Actuated g/C Ratio		0.52	0.52	0.52	0.52						0.28	0.28
Clearance Time (s)		5.8	5.8	5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1	6.1	6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		932	792	372	959						443	415
v/s Ratio Prot		0.28			c0.44							
v/s Ratio Perm			0.01	0.24							0.23	0.05
v/c Ratio		0.53	0.03	0.47	0.83						0.84	0.18
Uniform Delay, d1		8.7	6.4	8.4	11.2						19.0	15.2
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		1.4	0.0	2.6	7.2						12.6	0.1
Delay (s)		10.1	6.4	11.0	18.5						31.5	15.3
Level of Service		B	A	B	B						C	B
Approach Delay (s)		9.8			17.1			0.0			26.3	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

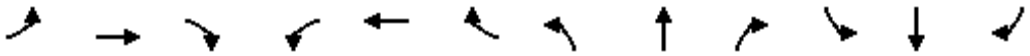


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	658	0	0	867	845	44	1	184	0	0	0
Future Volume (Veh/h)	155	658	0	0	867	845	44	1	184	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	168	715	0	0	942	918	48	1	200	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		688										
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	942			715			1993	1993	715	1994	1993	942
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	942			589			2072	2072	589	2072	2072	942
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	77			100			70	99	67	100	100	100
cM capacity (veh/h)	720			850			159	144	608	19	36	319

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	168	715	942	918	249
Volume Left	168	0	0	0	48
Volume Right	0	0	0	918	200
cSH	720	1700	1700	1700	390
Volume to Capacity	0.23	0.42	0.55	0.54	0.64
Queue Length 95th (ft)	23	0	0	0	106
Control Delay (s)	11.5	0.0	0.0	0.0	29.1
Lane LOS	B				D
Approach Delay (s)	2.2		0.0		29.1
Approach LOS					D

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	84.7%	ICU Level of Service		E
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

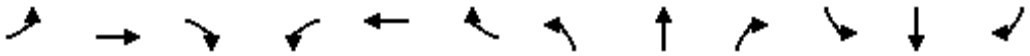


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	794	128	25	1375	0	30	48	120	2	18	71
Future Volume (Veh/h)	49	794	128	25	1375	0	30	48	120	2	18	71
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	863	139	27	1495	0	33	52	130	2	20	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1495			1002			1927	2588	501	2242	2657	748
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1495			1002			1927	2588	501	2242	2657	748
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			96			81	57	83	98	83	88
cM capacity (veh/h)	445			687			171	122	765	97	115	641

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	53	575	427	27	997	498	33	182	2	97
Volume Left	53	0	0	27	0	0	33	0	2	0
Volume Right	0	0	139	0	0	0	0	130	0	77
cSH	445	1700	1700	687	1700	1700	171	305	97	330
Volume to Capacity	0.12	0.34	0.25	0.04	0.59	0.29	0.19	0.60	0.02	0.29
Queue Length 95th (ft)	10	0	0	3	0	0	17	90	2	30
Control Delay (s)	14.2	0.0	0.0	10.5	0.0	0.0	31.1	32.9	43.0	20.4
Lane LOS	B			B			D	D	E	C
Approach Delay (s)	0.7			0.2			32.6		20.9	
Approach LOS							D		C	

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	57.3%	ICU Level of Service		B
Analysis Period (min)	15			
Description: 3:45-4:45pm				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	796	47	89	1324	2	64	16	36	41	34	73
Future Volume (Veh/h)	16	796	47	89	1324	2	64	16	36	41	34	73
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	865	51	97	1439	2	70	17	39	45	37	79
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1441			916			1936	2560	458	2148	2584	720
vC1, stage 1 conf vol							924	924		1634	1634	
vC2, stage 2 conf vol							1011	1635		514	950	
vCu, unblocked vol	1441			916			1936	2560	458	2148	2584	720
tC, single (s)	4.6			4.2			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.5			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	95			87			82	95	95	88	89	88
cM capacity (veh/h)	366			734			392	344	778	382	335	653

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	17	577	339	97	959	482	70	56	45	116
Volume Left	17	0	0	97	0	0	70	0	45	0
Volume Right	0	0	51	0	0	2	0	39	0	79
cSH	366	1700	1700	734	1700	1700	392	562	382	501
Volume to Capacity	0.05	0.34	0.20	0.13	0.56	0.28	0.18	0.10	0.12	0.23
Queue Length 95th (ft)	4	0	0	11	0	0	16	8	10	22
Control Delay (s)	15.3	0.0	0.0	10.6	0.0	0.0	16.2	12.1	15.7	14.3
Lane LOS	C			B			C	B	C	B
Approach Delay (s)	0.3			0.7			14.4		14.7	
Approach LOS							B		B	

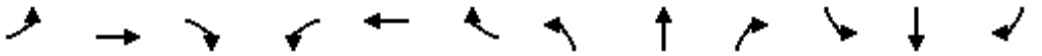
Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	60.2%	ICU Level of Service	B	
Analysis Period (min)	15			
Description: 4:00-5:00PM				

* User Entered Value

PM Phase I Modified

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	137	113	184	388	808	315
Future Volume (vph)	137	113	184	388	808	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.23	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	390	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	149	123	200	422	878	342
RTOR Reduction (vph)	0	102	0	0	0	105
Lane Group Flow (vph)	149	21	200	422	878	237
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	11.4	11.4	45.8	45.8	45.8	45.8
Effective Green, g (s)	11.4	11.4	45.8	45.8	45.8	45.8
Actuated g/C Ratio	0.17	0.17	0.69	0.69	0.69	0.69
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	296	264	269	1288	1301	1084
v/s Ratio Prot	c0.09			0.23	0.47	
v/s Ratio Perm		0.01	c0.51			0.15
v/c Ratio	0.50	0.08	0.74	0.33	0.67	0.22
Uniform Delay, d1	24.8	23.0	6.5	4.1	5.9	3.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	10.6	0.1	1.4	0.1
Delay (s)	26.2	23.1	17.1	4.2	7.3	3.8
Level of Service	C	C	B	A	A	A
Approach Delay (s)	24.8			8.3	6.3	
Approach LOS	C			A	A	

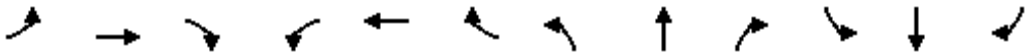
Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	453	38	159	733	0	0	0	0	342	0	163
Future Volume (vph)	0	453	38	159	733	0	0	0	0	342	0	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8						5.1	5.1
Lane Util. Factor		0.95		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3335		1626	1827						1583	1482
Flt Permitted		1.00		0.45	1.00						0.95	1.00
Satd. Flow (perm)		3335		777	1827						1583	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	492	41	173	797	0	0	0	0	372	0	177
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	0	0	0	104
Lane Group Flow (vph)	0	523	0	173	797	0	0	0	0	0	372	73
Heavy Vehicles (%)	0%	7%	7%	11%	4%	2%	2%	2%	2%	14%	100%	9%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		29.4		29.4	29.4						15.7	15.7
Effective Green, g (s)		29.4		29.4	29.4						15.7	15.7
Actuated g/C Ratio		0.52		0.52	0.52						0.28	0.28
Clearance Time (s)		5.8		5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		1750		407	959						443	415
v/s Ratio Prot		0.16			c0.44							
v/s Ratio Perm				0.22							0.23	0.05
v/c Ratio		0.30		0.43	0.83						0.84	0.18
Uniform Delay, d1		7.5		8.1	11.2						19.0	15.2
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		0.3		2.1	7.2						12.6	0.1
Delay (s)		7.8		10.2	18.5						31.5	15.3
Level of Service		A		B	B						C	B
Approach Delay (s)		7.8			17.0			0.0			26.3	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

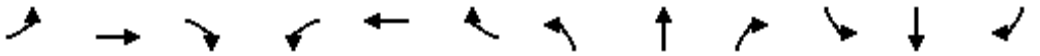


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	658	0	0	867	845	44	1	184	0	0	0
Future Volume (Veh/h)	155	658	0	0	867	845	44	1	184	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	168	715	0	0	942	918	48	1	200	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked												
vC, conflicting volume	942			715			1993	1993	358	1636	1993	942
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	942			715			1993	1993	358	1636	1993	942
tC, single (s)	4.2			4.1			*4.1	*4.1	*4.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	76			100			75	99	76	100	100	100
cM capacity (veh/h)	711			881			196	177	828	41	46	264

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	168	358	358	942	918	249
Volume Left	168	0	0	0	0	48
Volume Right	0	0	0	0	918	200
cSH	711	1700	1700	1700	1700	506
Volume to Capacity	0.24	0.21	0.21	0.55	0.54	0.49
Queue Length 95th (ft)	23	0	0	0	0	67
Control Delay (s)	11.6	0.0	0.0	0.0	0.0	18.8
Lane LOS	B					C
Approach Delay (s)	2.2			0.0		18.8
Approach LOS						C

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	84.7%	ICU Level of Service	E	
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

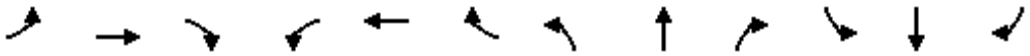


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	794	128	25	1375	0	30	48	120	2	18	71
Future Volume (Veh/h)	49	794	128	25	1375	0	30	48	120	2	18	71
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	863	139	27	1495	0	33	52	130	2	20	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1495			1002			1927	2588	501	2242	2657	748
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1495			1002			1927	2588	501	2242	2657	748
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			96			81	57	83	98	83	88
cM capacity (veh/h)	445			687			171	122	765	97	115	641

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	53	575	427	27	997	498	33	182	2	97
Volume Left	53	0	0	27	0	0	33	0	2	0
Volume Right	0	0	139	0	0	0	0	130	0	77
cSH	445	1700	1700	687	1700	1700	171	305	97	330
Volume to Capacity	0.12	0.34	0.25	0.04	0.59	0.29	0.19	0.60	0.02	0.29
Queue Length 95th (ft)	10	0	0	3	0	0	17	90	2	30
Control Delay (s)	14.2	0.0	0.0	10.5	0.0	0.0	31.1	32.9	43.0	20.4
Lane LOS	B			B			D	D	E	C
Approach Delay (s)	0.7			0.2			32.6		20.9	
Approach LOS							D		C	

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	57.3%	ICU Level of Service		B
Analysis Period (min)	15			
Description: 3:45-4:45pm				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	796	47	89	1324	2	64	16	36	41	34	73
Future Volume (Veh/h)	16	796	47	89	1324	2	64	16	36	41	34	73
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	865	51	97	1439	2	70	17	39	45	37	79
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1441			916			1936	2560	458	2148	2584	720
vC1, stage 1 conf vol							924	924		1634	1634	
vC2, stage 2 conf vol							1011	1635		514	950	
vCu, unblocked vol	1441			916			1936	2560	458	2148	2584	720
tC, single (s)	4.6			4.2			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.5			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	95			87			82	95	95	88	89	88
cM capacity (veh/h)	366			734			392	344	778	382	335	653

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	17	577	339	97	959	482	70	56	45	116
Volume Left	17	0	0	97	0	0	70	0	45	0
Volume Right	0	0	51	0	0	2	0	39	0	79
cSH	366	1700	1700	734	1700	1700	392	562	382	501
Volume to Capacity	0.05	0.34	0.20	0.13	0.56	0.28	0.18	0.10	0.12	0.23
Queue Length 95th (ft)	4	0	0	11	0	0	16	8	10	22
Control Delay (s)	15.3	0.0	0.0	10.6	0.0	0.0	16.2	12.1	15.7	14.3
Lane LOS	C			B			C	B	C	B
Approach Delay (s)	0.3			0.7			14.4		14.7	
Approach LOS							B		B	

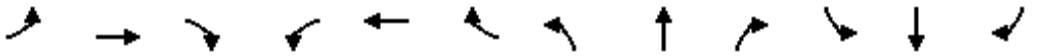
Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	60.2%	ICU Level of Service	B	
Analysis Period (min)	15			
Description: 4:00-5:00PM				

* User Entered Value

AM Phase II

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	304	49	137	657	407	69
Future Volume (vph)	304	49	137	657	407	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.44	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	755	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	53	149	714	442	75
RTOR Reduction (vph)	0	37	0	0	0	37
Lane Group Flow (vph)	330	16	149	714	442	38
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	14.3	14.3	23.8	23.8	23.8	23.8
Effective Green, g (s)	14.3	14.3	23.8	23.8	23.8	23.8
Actuated g/C Ratio	0.30	0.30	0.51	0.51	0.51	0.51
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	521	466	381	941	950	792
v/s Ratio Prot	c0.19			c0.38	0.23	
v/s Ratio Perm		0.01	0.20			0.02
v/c Ratio	0.63	0.03	0.39	0.76	0.47	0.05
Uniform Delay, d1	14.1	11.5	7.2	9.3	7.5	5.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.0	0.7	3.6	0.4	0.0
Delay (s)	16.7	11.6	7.8	12.9	7.9	5.9
Level of Service	B	B	A	B	A	A
Approach Delay (s)	16.0			12.0	7.6	
Approach LOS	B			B	A	

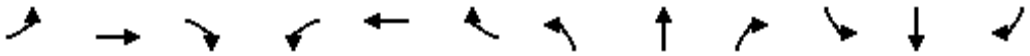
Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1510	73	81	375	0	0	0	0	796	2	144
Future Volume (vph)	0	1510	73	81	375	0	0	0	0	796	2	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8						5.1	5.1
Lane Util. Factor		0.95		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3443		1626	1696						1720	1455
Flt Permitted		1.00		0.08	1.00						0.95	1.00
Satd. Flow (perm)		3443		142	1696						1720	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1641	79	88	408	0	0	0	0	865	2	157
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	0	72
Lane Group Flow (vph)	0	1716	0	88	408	0	0	0	0	0	867	85
Heavy Vehicles (%)	2%	4%	7%	11%	12%	2%	2%	2%	2%	5%	100%	11%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		48.2		48.2	48.2						40.9	40.9
Effective Green, g (s)		48.2		48.2	48.2						40.9	40.9
Actuated g/C Ratio		0.48		0.48	0.48						0.41	0.41
Clearance Time (s)		5.8		5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		1659		68	817						703	595
v/s Ratio Prot		0.50			0.24							
v/s Ratio Perm				c0.62							0.50	0.06
v/c Ratio		1.03		1.29	0.50						1.23	0.14
Uniform Delay, d1		25.9		25.9	17.7						29.6	18.6
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		31.6		206.9	1.4						117.1	0.0
Delay (s)		57.5		232.8	19.1						146.7	18.6
Level of Service		E		F	B						F	B
Approach Delay (s)		57.5			57.0			0.0			127.0	
Approach LOS		E			E			A			F	

Intersection Summary			
HCM 2000 Control Delay	79.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	114.7%	ICU Level of Service	H
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

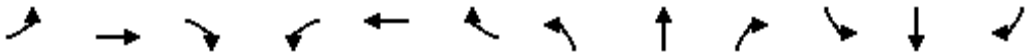


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	2090	0	0	427	302	40	2	299	0	0	0
Future Volume (Veh/h)	217	2090	0	0	427	302	40	2	299	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	236	2272	0	0	464	328	43	2	325	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked				0.54			0.54	0.54	0.54	0.54	0.54	
vC, conflicting volume	464			2272			3208	3208	1136	2073	3208	464
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	464			1646			3387	3387	0	1276	3387	464
tC, single (s)	4.2			4.1			*4.2	*4.2	*4.2	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	78			100			0	93	43	100	100	100
cM capacity (veh/h)	1073			209			30	28	566	22	3	545

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	236	1136	1136	464	328	370
Volume Left	236	0	0	0	0	43
Volume Right	0	0	0	0	328	325
cSH	1073	1700	1700	1700	1700	179
Volume to Capacity	0.22	0.67	0.67	0.27	0.19	2.07
Queue Length 95th (ft)	21	0	0	0	0	718
Control Delay (s)	9.3	0.0	0.0	0.0	0.0	542.4
Lane LOS	A					F
Approach Delay (s)	0.9			0.0		542.4
Approach LOS						F

Intersection Summary				
Average Delay	55.3			
Intersection Capacity Utilization	114.7%	ICU Level of Service	H	
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

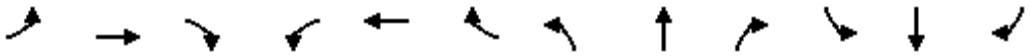


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	2232	273	53	610	1	43	39	28	0	35	30
Future Volume (Veh/h)	59	2232	273	53	610	1	43	39	28	0	35	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	64	2426	297	58	663	1	47	42	30	0	38	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	664			2723			3202	3482	1362	2172	3630	332
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	664			2723			3202	3482	1362	2172	3630	332
tC, single (s)	4.2			4.1			*4.1	*4.2	*4.1	7.5	*4.2	*4.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			62			0	0	93	0	0	96
cM capacity (veh/h)	901			151			0	35	405	0	31	859

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	64	1617	1106	58	442	222	47	72	0	71
Volume Left	64	0	0	58	0	0	47	0	0	0
Volume Right	0	0	297	0	0	1	0	30	0	33
cSH	901	1700	1700	151	1700	1700	0	57	1700	55
Volume to Capacity	0.07	0.95	0.65	0.38	0.26	0.13	Err	1.27	0.00	1.28
Queue Length 95th (ft)	6	0	0	41	0	0	Err	156	0	155
Control Delay (s)	9.3	0.0	0.0	42.9	0.0	0.0	Err	330.8	0.0	336.0
Lane LOS	A			E			F	F	A	F
Approach Delay (s)	0.2			3.4			Err		336.0	
Approach LOS							F		F	

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	86.1%	ICU Level of Service		E
Analysis Period (min)	15			
Description: 6:45-7:45am				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	2057	51	32	625	16	53	34	91	2	10	2
Future Volume (Veh/h)	143	2057	51	32	625	16	53	34	91	2	10	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	155	2236	55	35	679	17	58	37	99	2	11	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	696			2291			2990	3340	1146	2303	3358	348
vC1, stage 1 conf vol							2574	2574		758	758	
vC2, stage 2 conf vol							417	766		1546	2601	
vCu, unblocked vol	696			2291			2990	3340	1146	2303	3358	348
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			84			75	83	79	99	94	100
cM capacity (veh/h)	909			224			228	213	476	242	194	857

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	155	1491	800	35	453	243	58	136	2	13
Volume Left	155	0	0	35	0	0	58	0	2	0
Volume Right	0	0	55	0	0	17	0	99	0	2
cSH	909	1700	1700	224	1700	1700	228	356	242	220
Volume to Capacity	0.17	0.88	0.47	0.16	0.27	0.14	0.25	0.38	0.01	0.06
Queue Length 95th (ft)	15	0	0	14	0	0	24	44	1	5
Control Delay (s)	9.8	0.0	0.0	24.0	0.0	0.0	26.1	21.2	20.0	22.4
Lane LOS	A			C			D	C	C	C
Approach Delay (s)	0.6			1.2			22.7		22.1	
Approach LOS							C		C	

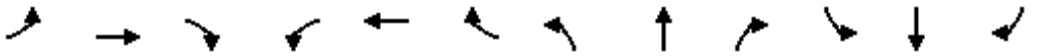
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45AM			

* User Entered Value

AM Phase II Modified

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	304	49	137	657	407	69
Future Volume (vph)	304	49	137	657	407	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.44	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	755	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	53	149	714	442	75
RTOR Reduction (vph)	0	37	0	0	0	37
Lane Group Flow (vph)	330	16	149	714	442	38
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	14.3	14.3	23.8	23.8	23.8	23.8
Effective Green, g (s)	14.3	14.3	23.8	23.8	23.8	23.8
Actuated g/C Ratio	0.30	0.30	0.51	0.51	0.51	0.51
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	521	466	381	941	950	792
v/s Ratio Prot	c0.19			c0.38	0.23	
v/s Ratio Perm		0.01	0.20			0.02
v/c Ratio	0.63	0.03	0.39	0.76	0.47	0.05
Uniform Delay, d1	14.1	11.5	7.2	9.3	7.5	5.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.0	0.7	3.6	0.4	0.0
Delay (s)	16.7	11.6	7.8	12.9	7.9	5.9
Level of Service	B	B	A	B	A	A
Approach Delay (s)	16.0			12.0	7.6	
Approach LOS	B			B	A	

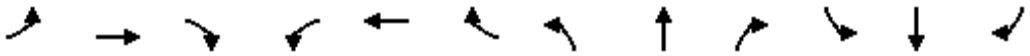
Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1510	73	81	375	0	0	0	0	796	2	144
Future Volume (vph)	0	1510	73	81	375	0	0	0	0	796	2	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8					5.1	5.1	5.1
Lane Util. Factor		0.95		1.00	1.00					0.95	0.95	1.00
Frt		0.99		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3443		1626	1696					1633	1631	1455
Flt Permitted		1.00		0.11	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3443		191	1696					1633	1631	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1641	79	88	408	0	0	0	0	865	2	157
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	0	113
Lane Group Flow (vph)	0	1715	0	88	408	0	0	0	0	432	435	44
Heavy Vehicles (%)	2%	4%	7%	11%	12%	2%	2%	2%	2%	5%	100%	11%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		35.8		35.8	35.8					18.3	18.3	18.3
Effective Green, g (s)		35.8		35.8	35.8					18.3	18.3	18.3
Actuated g/C Ratio		0.55		0.55	0.55					0.28	0.28	0.28
Clearance Time (s)		5.8		5.8	5.8					5.1	5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1					1.9	1.9	1.9
Lane Grp Cap (vph)		1896		105	934					459	459	409
v/s Ratio Prot		c0.50			0.24							
v/s Ratio Perm				0.46						0.26	0.27	0.03
v/c Ratio		0.90		0.84	0.44					0.94	0.95	0.11
Uniform Delay, d1		13.1		12.2	8.6					22.8	22.9	17.3
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		7.6		46.6	0.9					27.5	28.6	0.0
Delay (s)		20.7		58.7	9.6					50.3	51.5	17.3
Level of Service		C		E	A					D	D	B
Approach Delay (s)		20.7			18.3			0.0			45.8	
Approach LOS		C			B			A			D	

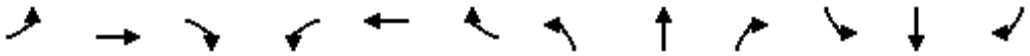
Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group



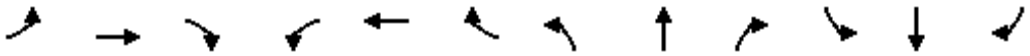
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	2090	0	0	427	302	40	2	299	0	0	0
Future Volume (vph)	217	2090	0	0	427	302	40	2	299	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lane Util. Factor	1.00	0.95			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1719	3539			1610	1468		1813	1442			
Flt Permitted	0.45	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	806	3539			1610	1468		1813	1442			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	236	2272	0	0	464	328	43	2	325	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	14	0	0	0
Lane Group Flow (vph)	236	2272	0	0	464	217	0	45	311	0	0	0
Heavy Vehicles (%)	5%	2%	2%	2%	18%	10%	0%	0%	12%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	59.5	59.5			59.5	59.5		21.5	21.5			
Effective Green, g (s)	59.5	59.5			59.5	59.5		21.5	21.5			
Actuated g/C Ratio	0.66	0.66			0.66	0.66		0.24	0.24			
Clearance Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	532	2339			1064	970		433	344			
v/s Ratio Prot		c0.64			0.29							
v/s Ratio Perm	0.29					0.15		0.02	c0.22			
v/c Ratio	0.44	0.97			0.44	0.22		0.10	0.90			
Uniform Delay, d1	7.3	14.4			7.3	6.1		26.7	33.3			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.6	12.6			0.3	0.1		0.5	29.5			
Delay (s)	7.9	27.0			7.5	6.2		27.2	62.7			
Level of Service	A	C			A	A		C	E			
Approach Delay (s)		25.2			7.0			58.4			0.0	
Approach LOS		C			A			E			A	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	2232	273	53	610	1	43	39	28	0	35	30
Future Volume (vph)	59	2232	273	53	610	1	43	39	28	0	35	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.94			0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1719	3458		1805	3223		1805	1781			1768	
Flt Permitted	0.40	1.00		0.06	1.00		0.71	1.00			1.00	
Satd. Flow (perm)	723	3458		119	3223		1350	1781			1768	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	2426	297	58	663	1	47	42	30	0	38	33
RTOR Reduction (vph)	0	11	0	0	0	0	0	16	0	0	30	0
Lane Group Flow (vph)	64	2712	0	58	664	0	47	56	0	0	41	0
Heavy Vehicles (%)	5%	3%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	64.1	64.1		64.1	64.1		6.9	6.9			6.9	
Effective Green, g (s)	64.1	64.1		64.1	64.1		6.9	6.9			6.9	
Actuated g/C Ratio	0.80	0.80		0.80	0.80		0.09	0.09			0.09	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	579	2770		95	2582		116	153			152	
v/s Ratio Prot		c0.78			0.21			0.03			0.02	
v/s Ratio Perm	0.09			0.49			c0.03					
v/c Ratio	0.11	0.98		0.61	0.26		0.41	0.37			0.27	
Uniform Delay, d1	1.7	7.3		3.1	2.0		34.6	34.5			34.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	12.4		11.1	0.1		10.2	6.7			4.3	
Delay (s)	1.8	19.8		14.2	2.0		44.8	41.2			38.5	
Level of Service	A	B		B	A		D	D			D	
Approach Delay (s)		19.4			3.0			42.6			38.5	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	2057	51	32	625	16	53	34	91	2	10	2
Future Volume (Veh/h)	143	2057	51	32	625	16	53	34	91	2	10	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	155	2236	55	35	679	17	58	37	99	2	11	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	696			2291			2990	3340	1146	2303	3358	348
vC1, stage 1 conf vol							2574	2574		758	758	
vC2, stage 2 conf vol							417	766		1546	2601	
vCu, unblocked vol	696			2291			2990	3340	1146	2303	3358	348
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			84			75	83	79	99	94	100
cM capacity (veh/h)	909			224			228	213	476	242	194	857

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	155	1491	800	35	453	243	58	136	2	13
Volume Left	155	0	0	35	0	0	58	0	2	0
Volume Right	0	0	55	0	0	17	0	99	0	2
cSH	909	1700	1700	224	1700	1700	228	356	242	220
Volume to Capacity	0.17	0.88	0.47	0.16	0.27	0.14	0.25	0.38	0.01	0.06
Queue Length 95th (ft)	15	0	0	14	0	0	24	44	1	5
Control Delay (s)	9.8	0.0	0.0	24.0	0.0	0.0	26.1	21.2	20.0	22.4
Lane LOS	A			C			D	C	C	C
Approach Delay (s)	0.6			1.2			22.7		22.1	
Approach LOS							C		C	

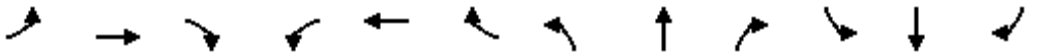
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45AM			

* User Entered Value

PM Phase II

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	202	174	214	589	988	415
Future Volume (vph)	202	174	214	589	988	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.17	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	299	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	220	189	233	640	1074	451
RTOR Reduction (vph)	0	149	0	0	0	101
Lane Group Flow (vph)	220	40	233	640	1074	350
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	17.7	17.7	92.5	92.5	92.5	92.5
Effective Green, g (s)	17.7	17.7	92.5	92.5	92.5	92.5
Actuated g/C Ratio	0.15	0.15	0.78	0.78	0.78	0.78
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	255	228	232	1445	1459	1216
v/s Ratio Prot	c0.13			0.34	0.57	
v/s Ratio Perm		0.03	c0.78			0.22
v/c Ratio	0.86	0.18	1.00	0.44	0.74	0.29
Uniform Delay, d1	49.6	44.4	13.4	4.6	7.0	3.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.6	0.4	60.2	0.2	2.0	0.1
Delay (s)	74.2	44.7	73.5	4.8	8.9	4.0
Level of Service	E	D	E	A	A	A
Approach Delay (s)	60.6			23.1	7.5	
Approach LOS	E			C	A	

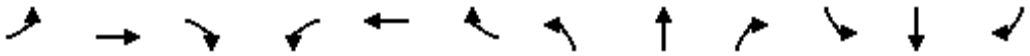
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	119.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	588	44	179	963	0	0	0	0	373	0	233
Future Volume (vph)	0	588	44	179	963	0	0	0	0	373	0	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8						5.1	5.1
Lane Util. Factor		0.95		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3338		1626	1827						1583	1482
Flt Permitted		1.00		0.37	1.00						0.95	1.00
Satd. Flow (perm)		3338		631	1827						1583	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	639	48	195	1047	0	0	0	0	405	0	253
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	79
Lane Group Flow (vph)	0	681	0	195	1047	0	0	0	0	0	405	174
Heavy Vehicles (%)	0%	7%	7%	11%	4%	2%	2%	2%	2%	14%	100%	9%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		52.9		52.9	52.9						24.0	24.0
Effective Green, g (s)		52.9		52.9	52.9						24.0	24.0
Actuated g/C Ratio		0.60		0.60	0.60						0.27	0.27
Clearance Time (s)		5.8		5.8	5.8						5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1						1.9	1.9
Lane Grp Cap (vph)		2011		380	1100						432	405
v/s Ratio Prot		0.20			c0.57							
v/s Ratio Perm				0.31							0.26	0.12
v/c Ratio		0.34		0.51	0.95						0.94	0.43
Uniform Delay, d1		8.7		10.0	16.3						31.2	26.3
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		0.3		3.2	17.4						27.6	0.3
Delay (s)		9.0		13.2	33.7						58.7	26.5
Level of Service		A		B	C						E	C
Approach Delay (s)		9.0			30.5			0.0			46.4	
Approach LOS		A			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	87.8	Sum of lost time (s)	10.9
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group

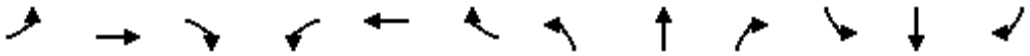


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	814	0	0	1100	949	61	0	202	0	0	0
Future Volume (Veh/h)	172	814	0	0	1100	949	61	0	202	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	187	885	0	0	1196	1032	66	0	220	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		701										
pX, platoon unblocked				0.94			0.94	0.94	0.94	0.94	0.94	
vC, conflicting volume	1196			885			2455	2455	442	2012	2455	1196
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1196			759			2422	2422	290	1953	2422	1196
tC, single (s)	4.2			4.1			*4.1	*4.1	*4.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	67			100			44	100	73	100	100	100
cM capacity (veh/h)	568			801			119	104	819	20	20	178

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	187	442	442	1196	1032	286
Volume Left	187	0	0	0	0	66
Volume Right	0	0	0	0	1032	220
cSH	568	1700	1700	1700	1700	347
Volume to Capacity	0.33	0.26	0.26	0.70	0.61	0.82
Queue Length 95th (ft)	36	0	0	0	0	181
Control Delay (s)	14.4	0.0	0.0	0.0	0.0	49.5
Lane LOS	B					E
Approach Delay (s)	2.5			0.0		49.5
Approach LOS						E

Intersection Summary				
Average Delay	4.7			
Intersection Capacity Utilization	94.1%	ICU Level of Service		F
Analysis Period (min)	15			
Description: 2014 DAta				

* User Entered Value

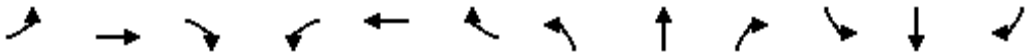


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	994	130	25	1681	0	191	48	122	2	19	92
Future Volume (Veh/h)	50	994	130	25	1681	0	191	48	122	2	19	92
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	1080	141	27	1827	0	208	52	133	2	21	100
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1827			1221			2336	3140	610	2688	3210	914
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1827			1221			2336	3140	610	2688	3210	914
tC, single (s)	4.1			4.1			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	84			95			0	28	81	95	69	82
cM capacity (veh/h)	331			567			97	72	708	40	68	567

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	54	720	501	27	1218	609	208	185	2	121
Volume Left	54	0	0	27	0	0	208	0	2	0
Volume Right	0	0	141	0	0	0	0	133	0	100
cSH	331	1700	1700	567	1700	1700	97	204	40	249
Volume to Capacity	0.16	0.42	0.29	0.05	0.72	0.36	2.14	0.91	0.05	0.49
Queue Length 95th (ft)	14	0	0	4	0	0	454	181	4	61
Control Delay (s)	18.0	0.0	0.0	11.7	0.0	0.0	618.8	89.4	100.8	32.3
Lane LOS	C			B			F	F	F	D
Approach Delay (s)	0.8			0.2			369.6		33.4	
Approach LOS							F		D	

Intersection Summary				
Average Delay	41.3			
Intersection Capacity Utilization	70.4%	ICU Level of Service		C
Analysis Period (min)	15			
Description: 3:45-4:45pm				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	981	50	104	1614	2	70	17	37	48	36	86
Future Volume (Veh/h)	28	981	50	104	1614	2	70	17	37	48	36	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	1066	54	113	1754	2	76	18	40	52	39	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1756			1120			2368	3135	560	2623	3161	878
vC1, stage 1 conf vol							1153	1153		1981	1981	
vC2, stage 2 conf vol							1216	1982		642	1180	
vCu, unblocked vol	1756			1120			2368	3135	560	2623	3161	878
tC, single (s)	4.6			4.2			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.5			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	89			82			74	93	94	82	85	84
cM capacity (veh/h)	267			614			295	259	724	295	256	582

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	30	711	409	113	1169	587	76	58	52	132
Volume Left	30	0	0	113	0	0	76	0	52	0
Volume Right	0	0	54	0	0	2	0	40	0	93
cSH	267	1700	1700	614	1700	1700	295	465	295	423
Volume to Capacity	0.11	0.42	0.24	0.18	0.69	0.35	0.26	0.12	0.18	0.31
Queue Length 95th (ft)	9	0	0	17	0	0	25	11	16	33
Control Delay (s)	20.2	0.0	0.0	12.2	0.0	0.0	21.4	13.8	19.8	17.3
Lane LOS	C			B			C	B	C	C
Approach Delay (s)	0.5			0.7			18.1		18.0	
Approach LOS							C		C	

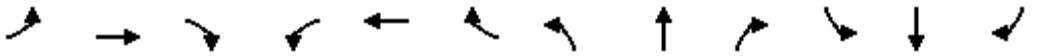
Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	72.4%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 4:00-5:00PM				

* User Entered Value

PM Phase II Modified

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	202	174	214	589	988	415
Future Volume (vph)	202	174	214	589	988	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1719	1538	1626	1863	1881	1568
Flt Permitted	0.95	1.00	0.17	1.00	1.00	1.00
Satd. Flow (perm)	1719	1538	299	1863	1881	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	220	189	233	640	1074	451
RTOR Reduction (vph)	0	149	0	0	0	101
Lane Group Flow (vph)	220	40	233	640	1074	350
Heavy Vehicles (%)	5%	5%	11%	2%	1%	3%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	17.7	17.7	92.5	92.5	92.5	92.5
Effective Green, g (s)	17.7	17.7	92.5	92.5	92.5	92.5
Actuated g/C Ratio	0.15	0.15	0.78	0.78	0.78	0.78
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	255	228	232	1445	1459	1216
v/s Ratio Prot	c0.13			0.34	0.57	
v/s Ratio Perm		0.03	c0.78			0.22
v/c Ratio	0.86	0.18	1.00	0.44	0.74	0.29
Uniform Delay, d1	49.6	44.4	13.4	4.6	7.0	3.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.6	0.4	60.2	0.2	2.0	0.1
Delay (s)	74.2	44.7	73.5	4.8	8.9	4.0
Level of Service	E	D	E	A	A	A
Approach Delay (s)	60.6			23.1	7.5	
Approach LOS	E			C	A	

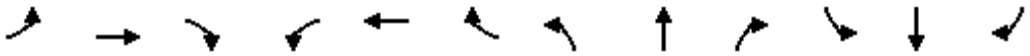
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	119.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	588	44	179	963	0	0	0	0	373	0	235
Future Volume (vph)	0	588	44	179	963	0	0	0	0	373	0	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.8		5.8	5.8					5.1	5.1	5.1
Lane Util. Factor		0.95		1.00	1.00					0.95	0.95	1.00
Frt		0.99		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3338		1626	1827					1504	1504	1482
Flt Permitted		1.00		0.39	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3338		668	1827					1504	1504	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	639	48	195	1047	0	0	0	0	405	0	255
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	112
Lane Group Flow (vph)	0	680	0	195	1047	0	0	0	0	202	203	143
Heavy Vehicles (%)	0%	7%	7%	11%	4%	2%	2%	2%	2%	14%	100%	9%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		47.3		47.3	47.3					11.8	11.8	11.8
Effective Green, g (s)		47.3		47.3	47.3					11.8	11.8	11.8
Actuated g/C Ratio		0.68		0.68	0.68					0.17	0.17	0.17
Clearance Time (s)		5.8		5.8	5.8					5.1	5.1	5.1
Vehicle Extension (s)		6.1		6.1	6.1					1.9	1.9	1.9
Lane Grp Cap (vph)		2255		451	1234					253	253	249
v/s Ratio Prot		0.20			c0.57							
v/s Ratio Perm				0.29						0.13	0.13	0.10
v/c Ratio		0.30		0.43	0.85					0.80	0.80	0.57
Uniform Delay, d1		4.6		5.2	8.6					28.0	28.0	26.8
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		0.3		1.9	6.5					15.0	15.7	2.0
Delay (s)		5.0		7.1	15.1					43.0	43.7	28.8
Level of Service		A		A	B					D	D	C
Approach Delay (s)		5.0			13.9			0.0			37.7	
Approach LOS		A			B			A			D	

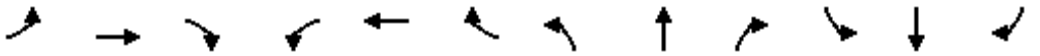
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.9
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 2014 Data			

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	814	0	0	1100	949	61	0	202	0	0	0
Future Volume (vph)	172	814	0	0	1100	949	61	0	202	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lane Util. Factor	1.00	0.95			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1736	3312			1863	1553		1703	1455			
Flt Permitted	0.13	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	231	3312			1863	1553		1703	1455			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	187	885	0	0	1196	1032	66	0	220	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	231	0	0	197	0	0	0
Lane Group Flow (vph)	187	885	0	0	1196	801	0	66	23	0	0	0
Heavy Vehicles (%)	4%	9%	2%	2%	2%	4%	6%	0%	11%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	58.2	58.2			58.2	58.2		7.8	7.8			
Effective Green, g (s)	58.2	58.2			58.2	58.2		7.8	7.8			
Actuated g/C Ratio	0.78	0.78			0.78	0.78		0.10	0.10			
Clearance Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	179	2570			1445	1205		177	151			
v/s Ratio Prot		0.27			0.64							
v/s Ratio Perm	c0.81					0.52		0.04	0.02			
v/c Ratio	1.04	0.34			0.83	0.66		0.37	0.15			
Uniform Delay, d1	8.4	2.6			5.3	3.9		31.3	30.6			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	79.5	0.1			4.0	1.4		5.9	2.1			
Delay (s)	87.9	2.6			9.3	5.3		37.2	32.7			
Level of Service	F	A			A	A		D	C			
Approach Delay (s)		17.5			7.4			33.8			0.0	
Approach LOS		B			A			C			A	

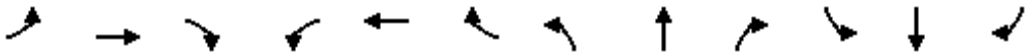
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	994	130	25	1681	0	191	48	122	2	19	92
Future Volume (vph)	50	994	130	25	1681	0	191	48	122	2	19	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3478		1770	3539		1770	1662		1770	1632	
Flt Permitted	0.12	1.00		0.17	1.00		0.68	1.00		0.63	1.00	
Satd. Flow (perm)	230	3478		322	3539		1265	1662		1173	1632	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	1080	141	27	1827	0	208	52	133	2	21	100
RTOR Reduction (vph)	0	18	0	0	0	0	0	74	0	0	12	0
Lane Group Flow (vph)	54	1203	0	27	1827	0	208	111	0	2	109	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.4	32.4		32.4	32.4		13.6	13.6		13.6	13.6	
Effective Green, g (s)	32.4	32.4		32.4	32.4		13.6	13.6		13.6	13.6	
Actuated g/C Ratio	0.59	0.59		0.59	0.59		0.25	0.25		0.25	0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	2048		189	2084		312	410		290	403	
v/s Ratio Prot		0.35			c0.52			0.07			0.07	
v/s Ratio Perm	0.23			0.08			c0.16			0.00		
v/c Ratio	0.40	0.59		0.14	0.88		0.67	0.27		0.01	0.27	
Uniform Delay, d1	6.1	7.1		5.1	9.6		18.7	16.7		15.6	16.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.4		0.3	4.5		10.8	1.6		0.0	1.6	
Delay (s)	8.0	7.5		5.4	14.1		29.4	18.3		15.7	18.3	
Level of Service	A	A		A	B		C	B		B	B	
Approach Delay (s)		7.6			14.0			24.2			18.3	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	981	50	104	1614	2	70	17	37	48	36	86
Future Volume (Veh/h)	28	981	50	104	1614	2	70	17	37	48	36	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	1066	54	113	1754	2	76	18	40	52	39	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1756			1120			2368	3135	560	2623	3161	878
vC1, stage 1 conf vol							1153	1153		1981	1981	
vC2, stage 2 conf vol							1216	1982		642	1180	
vCu, unblocked vol	1756			1120			2368	3135	560	2623	3161	878
tC, single (s)	4.6			4.2			*4.1	*4.1	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)							3.1	3.1		3.1	3.1	
tF (s)	2.5			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	89			82			74	93	94	82	85	84
cM capacity (veh/h)	267			614			295	259	724	295	256	582

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	30	711	409	113	1169	587	76	58	52	132
Volume Left	30	0	0	113	0	0	76	0	52	0
Volume Right	0	0	54	0	0	2	0	40	0	93
cSH	267	1700	1700	614	1700	1700	295	465	295	423
Volume to Capacity	0.11	0.42	0.24	0.18	0.69	0.35	0.26	0.12	0.18	0.31
Queue Length 95th (ft)	9	0	0	17	0	0	25	11	16	33
Control Delay (s)	20.2	0.0	0.0	12.2	0.0	0.0	21.4	13.8	19.8	17.3
Lane LOS	C			B			C	B	C	C
Approach Delay (s)	0.5			0.7			18.1		18.0	
Approach LOS							C		C	

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	72.4%	ICU Level of Service	C	
Analysis Period (min)	15			
Description: 4:00-5:00PM				

* User Entered Value

Appendix A

Section 2: Existing, Phase I, and Phase II Synchro 10 outputs

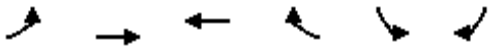
AM Existing

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	14	77	843	13	40	317
Future Volume (Veh/h)	14	77	843	13	40	317
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.70	0.89	0.73	0.54	0.67	0.87
Hourly flow rate (vph)	20	87	1155	24	60	364
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1469	590			1179	
vC1, stage 1 conf vol	1167					
vC2, stage 2 conf vol	302					
vCu, unblocked vol	1469	590			1179	
tC, single (s)	*4.1	*4.1			4.4	
tC, 2 stage (s)	3.1					
tF (s)	3.9	3.4			2.3	
p0 queue free %	96	88			89	
cM capacity (veh/h)	525	703			530	

Direction, Lane #	NW 1	NE 1	NE 2	SW 1	SW 2	SW 3
Volume Total	107	770	409	60	182	182
Volume Left	20	0	0	60	0	0
Volume Right	87	0	24	0	0	0
cSH	661	1700	1700	530	1700	1700
Volume to Capacity	0.16	0.45	0.24	0.11	0.11	0.11
Queue Length 95th (ft)	14	0	0	10	0	0
Control Delay (s)	11.5	0.0	0.0	12.7	0.0	0.0
Lane LOS	B			B		
Approach Delay (s)	11.5	0.0		1.8		
Approach LOS	B					

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

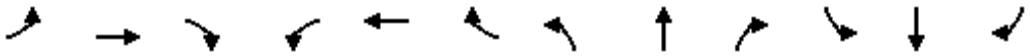


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	970	341	99	66	10
Future Volume (Veh/h)	35	970	341	99	66	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.78	0.88	0.77	0.69	0.83
Hourly flow rate (vph)	40	1244	388	129	96	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	517				1154	258
vC1, stage 1 conf vol					452	
vC2, stage 2 conf vol					702	
vCu, unblocked vol	517				1154	258
tC, single (s)	4.6				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.5				3.6	3.7
p0 queue free %	96				85	99
cM capacity (veh/h)	895				644	825

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	40	622	622	259	258	108
Volume Left	40	0	0	0	0	96
Volume Right	0	0	0	0	129	12
cSH	895	1700	1700	1700	1700	725
Volume to Capacity	0.04	0.37	0.37	0.15	0.15	0.15
Queue Length 95th (ft)	4	0	0	0	0	13
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	11.3
Lane LOS	A					B
Approach Delay (s)	0.3			0.0		11.3
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

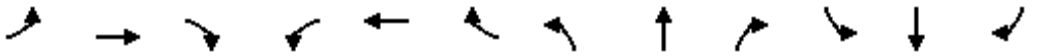


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	886	24	28	378	37	1	0	6	3	0	2
Future Volume (Veh/h)	42	886	24	28	378	37	1	0	6	3	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.53	0.82	0.75	0.54	0.93	0.37	0.25	0.58	0.50	0.50	0.58	0.50
Hourly flow rate (vph)	79	1080	32	52	406	100	4	0	12	6	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	506			1112			1549	1848	540	1220	1780	203
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	506			1112			1549	1848	540	1220	1780	203
tC, single (s)	4.2			4.2			*4.2	6.5	*4.2	*4.2	6.5	*4.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.5	4.0	3.5	4.0	4.0	3.6
p0 queue free %	92			92			98	100	98	98	100	100
cM capacity (veh/h)	1034			612			261	64	709	343	70	865

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	79	540	540	32	52	203	203	100	4	12	6	4
Volume Left	79	0	0	0	52	0	0	0	4	0	6	0
Volume Right	0	0	0	32	0	0	0	100	0	12	0	4
cSH	1034	1700	1700	1700	612	1700	1700	1700	261	709	343	865
Volume to Capacity	0.08	0.32	0.32	0.02	0.08	0.12	0.12	0.06	0.02	0.02	0.02	0.00
Queue Length 95th (ft)	6	0	0	0	7	0	0	0	1	1	1	0
Control Delay (s)	8.8	0.0	0.0	0.0	11.4	0.0	0.0	0.0	19.0	10.2	15.7	9.2
Lane LOS	A				B				C	B	C	A
Approach Delay (s)	0.6				1.1				12.4		13.1	
Approach LOS									B		B	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

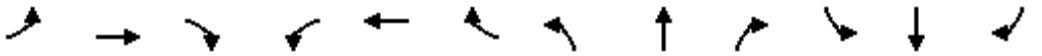


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	770	38	39	435	12	5	0	18	2	0	12
Future Volume (Veh/h)	92	770	38	39	435	12	5	0	18	2	0	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.49	0.85	0.59	0.51	0.81	0.60	0.63	0.92	0.50	0.25	0.92	0.25
Hourly flow rate (vph)	188	906	64	76	537	20	8	0	36	8	0	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	557			970			1750	1991	453	1518	2035	268
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	557			970			1750	1991	453	1518	2035	268
tC, single (s)	4.1			4.1			*4.1	6.5	*4.1	*4.1	6.5	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.9	4.0	3.4	3.5	4.0	3.3
p0 queue free %	82			89			96	100	95	97	100	95
cM capacity (veh/h)	1024			719			210	45	784	264	42	906

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1	SB 2	
Volume Total	188	453	453	64	76	268	268	20	44	8	48	
Volume Left	188	0	0	0	76	0	0	0	8	8	0	
Volume Right	0	0	0	64	0	0	0	20	36	0	48	
cSH	1024	1700	1700	1700	719	1700	1700	1700	959	264	906	
Volume to Capacity	0.18	0.27	0.27	0.04	0.11	0.16	0.16	0.01	0.05	0.03	0.05	
Queue Length 95th (ft)	17	0	0	0	9	0	0	0	4	2	4	
Control Delay (s)	9.3	0.0	0.0	0.0	10.6	0.0	0.0	0.0	12.2	19.1	9.2	
Lane LOS	A				B				B	C	A	
Approach Delay (s)	1.5				1.3				12.2	10.6		
Approach LOS									B	B		

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	38.8%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	535	212	50	362	176	78	89	10	95	139	76
Future Volume (vph)	125	535	212	50	362	176	78	89	10	95	139	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1327	3539	1599	1736	3505	1553	1736	1756		1770	1597	
Flt Permitted	0.40	1.00	1.00	0.41	1.00	1.00	0.45	1.00		0.68	1.00	
Satd. Flow (perm)	562	3539	1599	755	3505	1553	819	1756		1261	1597	
Peak-hour factor, PHF	0.64	0.85	0.80	0.63	0.92	0.61	0.81	0.82	0.63	0.55	0.70	0.76
Adj. Flow (vph)	195	629	265	79	393	289	96	109	16	173	199	100
RTOR Reduction (vph)	0	0	164	0	0	210	0	4	0	0	15	0
Lane Group Flow (vph)	195	629	101	79	393	79	96	121	0	173	284	0
Heavy Vehicles (%)	36%	2%	1%	4%	3%	4%	4%	7%	0%	2%	9%	21%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	36.4	25.1	25.1	24.1	18.1	18.1	17.6	17.6		17.6	17.6	
Effective Green, g (s)	36.4	25.1	25.1	24.1	18.1	18.1	17.6	17.6		17.6	17.6	
Actuated g/C Ratio	0.55	0.38	0.38	0.37	0.27	0.27	0.27	0.27		0.27	0.27	
Clearance Time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	460	1345	608	364	961	425	218	468		336	425	
v/s Ratio Prot	c0.08	c0.18		0.02	0.11			0.07			c0.18	
v/s Ratio Perm	0.15		0.06	0.06		0.05	0.12			0.14		
v/c Ratio	0.42	0.47	0.17	0.22	0.41	0.19	0.44	0.26		0.51	0.67	
Uniform Delay, d1	8.1	15.4	13.5	13.9	19.6	18.3	20.1	19.1		20.6	21.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.3	0.1	0.3	0.3	0.2	1.4	0.3		1.3	4.0	
Delay (s)	8.7	15.7	13.7	14.2	19.9	18.5	21.5	19.3		21.9	25.6	
Level of Service	A	B	B	B	B	B	C	B		C	C	
Approach Delay (s)		13.9			18.8			20.3			24.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	66.0	Sum of lost time (s)	17.3
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

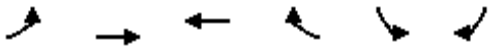
PM Existing

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	14	86	373	8	135	716
Future Volume (Veh/h)	14	86	373	8	135	716
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.58	0.65	0.89	0.50	0.94	0.75
Hourly flow rate (vph)	24	132	419	16	144	955
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1192	218			435	
vC1, stage 1 conf vol	427					
vC2, stage 2 conf vol	766					
vCu, unblocked vol	1192	218			435	
tC, single (s)	*4.1	*4.1			4.2	
tC, 2 stage (s)	3.1					
tF (s)	3.5	3.4			2.2	
p0 queue free %	96	86			87	
cM capacity (veh/h)	597	922			1107	

Direction, Lane #	NW 1	NE 1	NE 2	SW 1	SW 2	SW 3
Volume Total	156	279	156	144	478	478
Volume Left	24	0	0	144	0	0
Volume Right	132	0	16	0	0	0
cSH	851	1700	1700	1107	1700	1700
Volume to Capacity	0.18	0.16	0.09	0.13	0.28	0.28
Queue Length 95th (ft)	17	0	0	11	0	0
Control Delay (s)	10.2	0.0	0.0	8.7	0.0	0.0
Lane LOS	B			A		
Approach Delay (s)	10.2	0.0		1.1		
Approach LOS	B					

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		
Description: 4:00-5:00pm			

* User Entered Value

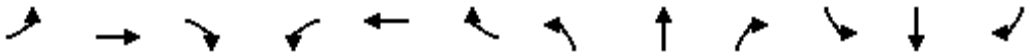


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	439	799	115	91	45
Future Volume (Veh/h)	15	439	799	115	91	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.63	0.86	0.76	0.76	0.95	0.87
Hourly flow rate (vph)	24	510	1051	151	96	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1051				1430	601
vC1, stage 1 conf vol					1126	
vC2, stage 2 conf vol					303	
vCu, unblocked vol	1051				1430	601
tC, single (s)	4.2				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.3				3.5	3.3
p0 queue free %	96				83	93
cM capacity (veh/h)	629				580	712

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	24	255	255	701	501	148
Volume Left	24	0	0	0	0	96
Volume Right	0	0	0	0	151	52
cSH	629	1700	1700	1700	1700	895
Volume to Capacity	0.04	0.15	0.15	0.41	0.29	0.17
Queue Length 95th (ft)	3	0	0	0	0	15
Control Delay (s)	10.9	0.0	0.0	0.0	0.0	11.7
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		11.7
Approach LOS						B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		
Description: 4:00-5:00pm			

* User Entered Value

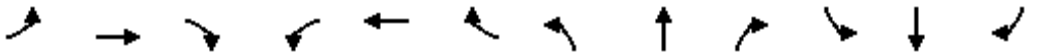


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	446	3	4	918	13	39	1	47	20	0	33
Future Volume (Veh/h)	9	446	3	4	918	13	39	1	47	20	0	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	485	3	4	998	14	42	1	51	22	0	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1012			488			1048	1525	242	1320	1514	499
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1012			488			1048	1525	242	1320	1514	499
tC, single (s)	4.1			4.1			*4.2	*4.2	*4.2	*4.2	6.5	*4.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			91	100	94	94	100	95
cM capacity (veh/h)	681			1071			452	309	912	362	116	756

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	10	242	242	3	4	499	499	14	42	52	22	36
Volume Left	10	0	0	0	4	0	0	0	42	0	22	0
Volume Right	0	0	0	3	0	0	0	14	0	51	0	36
cSH	681	1700	1700	1700	1071	1700	1700	1700	450	895	362	756
Volume to Capacity	0.01	0.14	0.14	0.00	0.00	0.29	0.29	0.01	0.09	0.06	0.06	0.05
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	8	5	5	4
Control Delay (s)	10.4	0.0	0.0	0.0	8.4	0.0	0.0	0.0	13.8	9.3	15.6	10.0
Lane LOS	B				A				B	A	C	B
Approach Delay (s)	0.2				0.0				11.3		12.1	
Approach LOS									B		B	

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	40.9%	ICU Level of Service	A	
Analysis Period (min)	15			

* User Entered Value

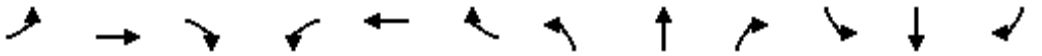


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	599	7	8	855	0	26	0	30	4	1	64
Future Volume (Veh/h)	2	599	7	8	855	0	26	0	30	4	1	64
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.87	0.58	0.67	0.83	0.92	0.59	0.92	0.47	0.50	0.25	0.89
Hourly flow rate (vph)	4	689	12	12	1030	0	44	0	64	8	4	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1030			701			1310	1751	344	1406	1763	515
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1030			701			1310	1751	344	1406	1763	515
tC, single (s)	5.1			4.6			*4.1	6.5	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.7			2.5			3.5	4.0	3.3	3.5	5.0	3.3
p0 queue free %	99			98			88	100	93	98	98	91
cM capacity (veh/h)	445			754			357	84	859	345	253	761

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1	SB 2	
Volume Total	4	344	344	12	12	515	515	0	108	12	72	
Volume Left	4	0	0	0	12	0	0	0	44	8	0	
Volume Right	0	0	0	12	0	0	0	0	64	0	72	
cSH	445	1700	1700	1700	754	1700	1700	1700	876	308	761	
Volume to Capacity	0.01	0.20	0.20	0.01	0.02	0.30	0.30	0.00	0.12	0.04	0.09	
Queue Length 95th (ft)	1	0	0	0	1	0	0	0	10	3	8	
Control Delay (s)	13.2	0.0	0.0	0.0	9.8	0.0	0.0	0.0	12.4	17.2	10.2	
Lane LOS	B				A				B	C	B	
Approach Delay (s)	0.1				0.1				12.4	11.2		
Approach LOS									B	B		

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	40.9%	ICU Level of Service		A
Analysis Period (min)	15			
Description: 4:30-5:30pm				

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	432	98	16	420	132	294	142	76	161	104	98
Future Volume (vph)	67	432	98	16	420	132	294	142	76	161	104	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1444	3471	1553	1597	3471	1455	1770	1668		1736	1655	
Flt Permitted	0.29	1.00	1.00	0.47	1.00	1.00	0.61	1.00		0.54	1.00	
Satd. Flow (perm)	434	3471	1553	786	3471	1455	1138	1668		995	1655	
Peak-hour factor, PHF	0.70	0.86	0.74	0.57	0.81	0.89	0.79	0.87	0.66	0.77	0.96	0.88
Adj. Flow (vph)	96	502	132	28	519	148	372	163	115	209	108	111
RTOR Reduction (vph)	0	0	90	0	0	111	0	16	0	0	23	0
Lane Group Flow (vph)	96	502	42	28	519	37	372	262	0	209	196	0
Heavy Vehicles (%)	25%	4%	4%	13%	4%	11%	2%	11%	1%	4%	1%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	33.4	25.6	25.6	22.8	20.3	20.3	34.8	34.8		34.8	34.8	
Effective Green, g (s)	33.4	25.6	25.6	22.8	20.3	20.3	34.8	34.8		34.8	34.8	
Actuated g/C Ratio	0.42	0.32	0.32	0.28	0.25	0.25	0.43	0.43		0.43	0.43	
Clearance Time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	278	1107	495	248	878	368	493	723		431	718	
v/s Ratio Prot	c0.03	c0.14		0.00	c0.15			0.16			0.12	
v/s Ratio Perm	0.11		0.03	0.03		0.03	c0.33			0.21		
v/c Ratio	0.35	0.45	0.09	0.11	0.59	0.10	0.75	0.36		0.48	0.27	
Uniform Delay, d1	15.3	21.7	19.1	20.9	26.3	23.0	19.1	15.2		16.3	14.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.3	0.1	0.2	1.1	0.1	6.5	0.3		0.9	0.2	
Delay (s)	16.1	22.0	19.2	21.1	27.4	23.1	25.6	15.6		17.1	14.8	
Level of Service	B	C	B	C	C	C	C	B		B	B	
Approach Delay (s)		20.7			26.2			21.3			15.9	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.2	Sum of lost time (s)	17.3
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

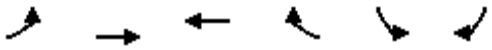
AM Phase I

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	39	230	1541	145	454	550
Future Volume (Veh/h)	39	230	1541	145	454	550
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	250	1675	158	493	598
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3039	916			1833	
vC1, stage 1 conf vol	1754					
vC2, stage 2 conf vol	1285					
vCu, unblocked vol	3039	916			1833	
tC, single (s)	*4.1	*4.1			4.4	
tC, 2 stage (s)	3.1					
tF (s)	3.9	3.4			2.3	
p0 queue free %	0	55			0	
cM capacity (veh/h)	0	555			287	

Direction, Lane #	NW 1	NE 1	NE 2	SW 1	SW 2	SW 3
Volume Total	292	1117	716	493	299	299
Volume Left	42	0	0	493	0	0
Volume Right	250	0	158	0	0	0
cSH	0	1700	1700	287	1700	1700
Volume to Capacity	Err	0.66	0.42	1.72	0.18	0.18
Queue Length 95th (ft)	Err	0	0	791	0	0
Control Delay (s)	Err	0.0	0.0	369.3	0.0	0.0
Lane LOS	F			F		
Approach Delay (s)	Err	0.0		166.9		
Approach LOS	F					

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 6:45-7:45am			

* User Entered Value

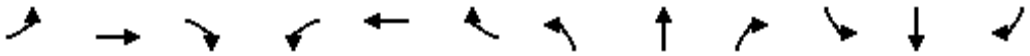


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	1821	970	128	110	27
Future Volume (Veh/h)	42	1821	970	128	110	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1979	1054	139	120	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1054				2205	596
vC1, stage 1 conf vol					1124	
vC2, stage 2 conf vol					1082	
vCu, unblocked vol	1054				2205	596
tC, single (s)	4.6				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.5				3.6	3.7
p0 queue free %	91				74	96
cM capacity (veh/h)	531				457	660

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	46	990	990	703	490	149
Volume Left	46	0	0	0	0	120
Volume Right	0	0	0	0	139	29
cSH	531	1700	1700	1700	1700	567
Volume to Capacity	0.09	0.58	0.58	0.41	0.29	0.26
Queue Length 95th (ft)	7	0	0	0	0	26
Control Delay (s)	12.4	0.0	0.0	0.0	0.0	14.7
Lane LOS	B					B
Approach Delay (s)	0.3			0.0		14.7
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
Description: 6:45-7:45			

* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1541	73	83	1000	226	5	0	28	44	0	29
Future Volume (Veh/h)	224	1541	73	83	1000	226	5	0	28	44	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	243	1675	79	90	1087	246	5	0	30	48	0	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1333			1754			2916	3674	838	2620	3507	544
vC1, stage 1 conf vol							2161	2161		1267	1267	
vC2, stage 2 conf vol							756	1513		1354	2240	
vCu, unblocked vol	1333			1754			2916	3674	838	2620	3507	544
tC, single (s)	4.2			4.2			*4.1	6.5	*4.1	*4.1	6.5	*4.1
tC, 2 stage (s)							3.1	5.5		3.1	5.5	
tF (s)	2.2			2.2			4.5	4.0	3.5	4.0	4.0	3.6
p0 queue free %	51			74			97	100	95	70	100	95
cM capacity (veh/h)	498			345			145	2	583	162	2	694

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	243	838	838	79	90	544	544	246	5	30	48	32
Volume Left	243	0	0	0	90	0	0	0	5	0	48	0
Volume Right	0	0	0	79	0	0	0	246	0	30	0	32
cSH	498	1700	1700	1700	345	1700	1700	1700	145	583	162	694
Volume to Capacity	0.49	0.49	0.49	0.05	0.26	0.32	0.32	0.14	0.03	0.05	0.30	0.05
Queue Length 95th (ft)	66	0	0	0	26	0	0	0	3	4	29	4
Control Delay (s)	18.9	0.0	0.0	0.0	19.1	0.0	0.0	0.0	30.8	11.5	36.2	10.4
Lane LOS	C				C				D	B	E	B
Approach Delay (s)	2.3				1.2				14.3		25.9	
Approach LOS									B		D	

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	66.3%	ICU Level of Service	C	
Analysis Period (min)	15			

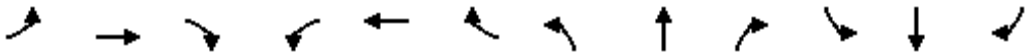
* User Entered Value

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	1231	79	75	1253	34	16	0	35	7	0	60
Future Volume (Veh/h)	276	1231	79	75	1253	34	16	0	35	7	0	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	300	1338	86	82	1362	37	17	0	38	8	0	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1399			1424			2848	3501	669	2795	3550	681
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1399			1424			2848	3501	669	2795	3550	681
tC, single (s)	4.1			4.1			*4.1	6.5	*4.1	*4.1	6.5	*4.1
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.9	4.0	3.4	3.5	4.0	3.3
p0 queue free %	39			83			65	100	94	85	100	90
cM capacity (veh/h)	495			484			48	2	672	54	2	675

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1	SB 2	
Volume Total	300	669	669	86	82	681	681	37	55	8	65	
Volume Left	300	0	0	0	82	0	0	0	17	8	0	
Volume Right	0	0	0	86	0	0	0	37	38	0	65	
cSH	495	1700	1700	1700	484	1700	1700	1700	156	54	675	
Volume to Capacity	0.61	0.39	0.39	0.05	0.17	0.40	0.40	0.02	0.35	0.15	0.10	
Queue Length 95th (ft)	99	0	0	0	15	0	0	0	37	12	8	
Control Delay (s)	22.9	0.0	0.0	0.0	13.9	0.0	0.0	0.0	43.3	83.7	10.9	
Lane LOS	C				B				E	F	B	
Approach Delay (s)	4.0				0.8				43.3	18.9		
Approach LOS									E	C		

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	67.5%	ICU Level of Service		C
Analysis Period (min)	15			
Description: 6:45-7:45am				

* User Entered Value



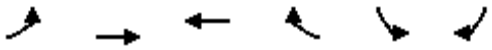
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	739	429	91	965	235	229	144	14	114	253	203
Future Volume (vph)	194	739	429	91	965	235	229	144	14	114	253	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1327	3539	1599	1736	3505	1553	1736	1763		1770	1551	
Flt Permitted	0.10	1.00	1.00	0.24	1.00	1.00	0.30	1.00		0.64	1.00	
Satd. Flow (perm)	146	3539	1599	445	3505	1553	543	1763		1184	1551	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	803	466	99	1049	255	249	157	15	124	275	221
RTOR Reduction (vph)	0	0	302	0	0	179	0	3	0	0	26	0
Lane Group Flow (vph)	211	803	164	99	1049	76	249	169	0	124	470	0
Heavy Vehicles (%)	36%	2%	1%	4%	3%	4%	4%	7%	0%	2%	9%	21%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	50.7	38.6	38.6	39.7	32.9	32.9	47.3	47.3		47.3	47.3	
Effective Green, g (s)	50.7	38.6	38.6	39.7	32.9	32.9	47.3	47.3		47.3	47.3	
Actuated g/C Ratio	0.46	0.35	0.35	0.36	0.30	0.30	0.43	0.43		0.43	0.43	
Clearance Time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	1241	561	240	1048	464	233	758		509	666	
v/s Ratio Prot	c0.12	0.23		0.03	0.30			0.10			0.30	
v/s Ratio Perm	c0.36		0.10	0.12		0.05	c0.46			0.10		
v/c Ratio	1.05	0.65	0.29	0.41	1.00	0.16	1.07	0.22		0.24	0.71	
Uniform Delay, d1	31.5	30.0	25.8	24.4	38.5	28.4	31.4	19.8		20.0	25.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	77.2	1.2	0.3	1.2	28.0	0.2	78.3	0.2		0.3	3.4	
Delay (s)	108.7	31.2	26.1	25.5	66.6	28.6	109.7	19.9		20.2	29.1	
Level of Service	F	C	C	C	E	C	F	B		C	C	
Approach Delay (s)		40.6			56.8			73.0			27.3	
Approach LOS		D			E			E			C	

Intersection Summary			
HCM 2000 Control Delay	47.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.3
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

AM Phase I Modified

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	39	230	1541	145	454	550
Future Volume (vph)	39	230	1541	145	454	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1327	1442	3471	1313	1597	3282
Flt Permitted	0.95	1.00	1.00	1.00	0.08	1.00
Satd. Flow (perm)	1327	1442	3471	1313	135	3282
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	250	1675	158	493	598
RTOR Reduction (vph)	0	7	0	36	0	0
Lane Group Flow (vph)	42	243	1675	122	493	598
Heavy Vehicles (%)	36%	12%	4%	23%	13%	10%
Turn Type	Prot	pt+ov	NA	pt+ov	pm+pt	NA
Protected Phases	2	2 3	4	4 2	3	8
Permitted Phases					8	
Actuated Green, G (s)	6.5	35.5	45.5	56.5	74.5	74.5
Effective Green, g (s)	6.5	35.5	45.5	56.5	74.5	74.5
Actuated g/C Ratio	0.07	0.39	0.51	0.63	0.83	0.83
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	95	568	1754	824	509	2716
v/s Ratio Prot	0.03	c0.17	0.48	0.09	c0.26	0.18
v/s Ratio Perm					c0.54	
v/c Ratio	0.44	0.43	0.95	0.15	0.97	0.22
Uniform Delay, d1	40.0	19.8	21.3	6.9	27.6	1.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.2	0.5	12.4	0.1	31.6	0.0
Delay (s)	54.2	20.4	33.7	7.0	59.2	1.7
Level of Service	D	C	C	A	E	A
Approach Delay (s)	25.2		31.4			27.7
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

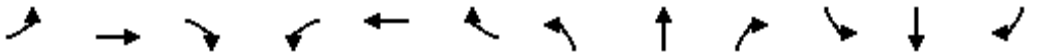


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	1821	970	128	110	27
Future Volume (Veh/h)	42	1821	970	128	110	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1979	1054	139	120	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1054				2205	596
vC1, stage 1 conf vol					1124	
vC2, stage 2 conf vol					1082	
vCu, unblocked vol	1054				2205	596
tC, single (s)	4.6				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.5				3.6	3.7
p0 queue free %	91				74	96
cM capacity (veh/h)	531				457	660

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	46	990	990	703	490	149
Volume Left	46	0	0	0	0	120
Volume Right	0	0	0	0	139	29
cSH	531	1700	1700	1700	1700	567
Volume to Capacity	0.09	0.58	0.58	0.41	0.29	0.26
Queue Length 95th (ft)	7	0	0	0	0	26
Control Delay (s)	12.4	0.0	0.0	0.0	0.0	14.7
Lane LOS	B					B
Approach Delay (s)	0.3			0.0		14.7
Approach LOS						B

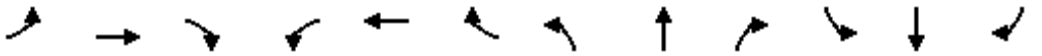
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
Description: 6:45-7:45			

* User Entered Value



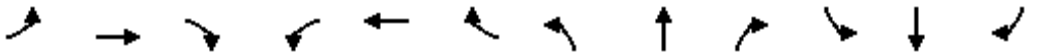
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	1541	73	83	1000	226	5	0	28	44	0	29
Future Volume (vph)	224	1541	73	83	1000	226	5	0	28	44	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3471	1553	1736	3343	1538	902	1380		1203	1214	
Flt Permitted	0.24	1.00	1.00	0.11	1.00	1.00	0.74	1.00		0.74	1.00	
Satd. Flow (perm)	429	3471	1553	194	3343	1538	699	1380		934	1214	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	1675	79	90	1087	246	5	0	30	48	0	32
RTOR Reduction (vph)	0	0	20	0	0	62	0	25	0	0	27	0
Lane Group Flow (vph)	243	1675	59	90	1087	184	5	5	0	48	5	0
Heavy Vehicles (%)	5%	4%	4%	4%	8%	5%	100%	0%	17%	50%	0%	33%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	74.6	74.6	74.6	74.6	74.6	74.6	16.4	16.4		16.4	16.4	
Effective Green, g (s)	74.6	74.6	74.6	74.6	74.6	74.6	16.4	16.4		16.4	16.4	
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75	0.16	0.16		0.16	0.16	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	320	2589	1158	144	2493	1147	114	226		153	199	
v/s Ratio Prot		0.48			0.33			0.00			0.00	
v/s Ratio Perm	c0.57		0.04	0.46		0.12	0.01			c0.05		
v/c Ratio	0.76	0.65	0.05	0.62	0.44	0.16	0.04	0.02		0.31	0.03	
Uniform Delay, d1	7.4	6.2	3.4	6.0	4.8	3.7	35.2	35.1		36.8	35.1	
Progression Factor	1.00	1.00	1.00	1.02	0.98	0.88	1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.9	0.6	0.0	7.4	0.1	0.1	0.7	0.2		5.3	0.2	
Delay (s)	17.4	6.8	3.4	13.6	4.8	3.3	35.9	35.2		42.1	35.3	
Level of Service	B	A	A	B	A	A	D	D		D	D	
Approach Delay (s)		7.9			5.1			35.3			39.4	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	1231	79	75	1253	34	16	0	35	7	0	60
Future Volume (vph)	276	1231	79	75	1253	34	16	0	35	7	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)	1805	3471	1568	1805	3343	1380		1289	1524		1805	1615
Flt Permitted	0.19	1.00	1.00	0.19	1.00	1.00		0.75	1.00		0.75	1.00
Satd. Flow (perm)	356	3471	1568	366	3343	1380		1021	1524		1418	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	1338	86	82	1362	37	17	0	38	8	0	65
RTOR Reduction (vph)	0	0	12	0	0	5	0	0	36	0	0	61
Lane Group Flow (vph)	300	1338	74	82	1362	32	0	17	2	0	8	4
Heavy Vehicles (%)	0%	4%	3%	0%	8%	17%	40%	0%	6%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	85.5	85.5	85.5	85.5	85.5	85.5		5.5	5.5		5.5	5.5
Effective Green, g (s)	85.5	85.5	85.5	85.5	85.5	85.5		5.5	5.5		5.5	5.5
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.86	0.86		0.06	0.06		0.06	0.06
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	304	2967	1340	312	2858	1179		56	83		77	88
v/s Ratio Prot		0.39			0.41							
v/s Ratio Perm	c0.84		0.05	0.22		0.02		c0.02	0.00		0.01	0.00
v/c Ratio	0.99	0.45	0.05	0.26	0.48	0.03		0.30	0.03		0.10	0.04
Uniform Delay, d1	6.7	1.7	1.1	1.4	1.8	1.1		45.4	44.7		44.9	44.8
Progression Factor	1.22	0.47	0.60	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	42.8	0.1	0.0	0.5	0.1	0.0		13.4	0.6		2.7	0.9
Delay (s)	51.0	0.9	0.7	1.8	1.9	1.1		58.8	45.3		47.6	45.6
Level of Service	D	A	A	A	A	A		E	D		D	D
Approach Delay (s)		9.6			1.9			49.5			45.8	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	739	429	91	965	235	229	144	14	114	253	203
Future Volume (vph)	194	739	429	91	965	235	229	144	14	114	253	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	6.3	4.5	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1327	3539	1599	1736	3505	1553	3367	1776	1615	1770	1743	1335
Flt Permitted	0.11	1.00	1.00	0.32	1.00	1.00	0.95	1.00	1.00	0.65	1.00	1.00
Satd. Flow (perm)	148	3539	1599	585	3505	1553	3367	1776	1615	1211	1743	1335
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	803	466	99	1049	255	249	157	15	124	275	221
RTOR Reduction (vph)	0	0	121	0	0	163	0	0	10	0	0	183
Lane Group Flow (vph)	211	803	345	99	1049	92	249	157	5	124	275	38
Heavy Vehicles (%)	36%	2%	1%	4%	3%	4%	4%	7%	0%	2%	9%	21%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	3	1	6		3	8			4	
Permitted Phases	2		2	6		6			8	4		4
Actuated Green, G (s)	49.4	39.1	47.7	37.4	32.4	32.4	8.6	28.6	28.6	15.5	15.5	15.5
Effective Green, g (s)	49.4	39.1	47.7	37.4	32.4	32.4	8.6	28.6	28.6	15.5	15.5	15.5
Actuated g/C Ratio	0.55	0.43	0.53	0.42	0.36	0.36	0.10	0.32	0.32	0.17	0.17	0.17
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	6.3	4.5	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	234	1537	847	307	1261	559	321	564	513	208	300	229
v/s Ratio Prot	c0.12	0.23	0.04	0.02	0.30		c0.07	0.09			c0.16	
v/s Ratio Perm	c0.38		0.18	0.12		0.06			0.00	0.10		0.03
v/c Ratio	0.90	0.52	0.41	0.32	0.83	0.16	0.78	0.28	0.01	0.60	0.92	0.17
Uniform Delay, d1	23.0	18.6	12.7	16.3	26.3	19.6	39.8	23.0	21.0	34.4	36.6	31.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	33.7	1.3	0.3	0.6	6.5	0.6	11.1	0.3	0.0	4.5	31.0	0.3
Delay (s)	56.6	19.9	13.0	17.0	32.8	20.2	50.9	23.2	21.0	38.9	67.6	32.1
Level of Service	E	B	B	B	C	C	D	C	C	D	E	C
Approach Delay (s)		23.0			29.4			39.5			49.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

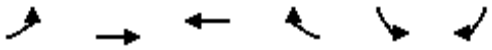
PM Phase I

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	92	589	760	89	362	1383
Future Volume (Veh/h)	92	589	760	89	362	1383
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	100	640	826	97	393	1503
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2412	462			923	
vC1, stage 1 conf vol	874					
vC2, stage 2 conf vol	1538					
vCu, unblocked vol	2412	462			923	
tC, single (s)	*4.1	*4.1			4.2	
tC, 2 stage (s)	3.1					
tF (s)	3.5	3.4			2.2	
p0 queue free %	56	18			46	
cM capacity (veh/h)	227	778			723	

Direction, Lane #	NW 1	NE 1	NE 2	SW 1	SW 2	SW 3
Volume Total	740	551	372	393	752	752
Volume Left	100	0	0	393	0	0
Volume Right	640	0	97	0	0	0
cSH	586	1700	1700	723	1700	1700
Volume to Capacity	1.26	0.32	0.22	0.54	0.44	0.44
Queue Length 95th (ft)	721	0	0	83	0	0
Control Delay (s)	153.8	0.0	0.0	15.7	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	153.8	0.0		3.3		
Approach LOS	F					

Intersection Summary			
Average Delay	33.7		
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 4:00-5:00pm			

* User Entered Value

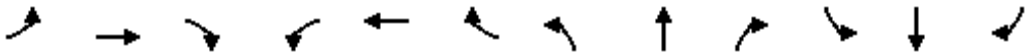


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	1308	1679	213	115	58
Future Volume (Veh/h)	38	1308	1679	213	115	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	1422	1825	232	125	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1825				2734	1028
vC1, stage 1 conf vol					1941	
vC2, stage 2 conf vol					793	
vCu, unblocked vol	1825				2734	1028
tC, single (s)	4.2				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.3				3.5	3.3
p0 queue free %	87				66	88
cM capacity (veh/h)	311				363	520

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	41	711	711	1217	840	188
Volume Left	41	0	0	0	0	125
Volume Right	0	0	0	0	232	63
cSH	311	1700	1700	1700	1700	546
Volume to Capacity	0.13	0.42	0.42	0.72	0.49	0.34
Queue Length 95th (ft)	11	0	0	0	0	38
Control Delay (s)	18.3	0.0	0.0	0.0	0.0	17.6
Lane LOS	C					C
Approach Delay (s)	0.5			0.0		17.6
Approach LOS						C

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
Description: 4:00-5:00pm			

* User Entered Value

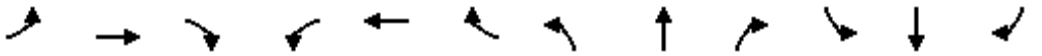


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1248	26	29	1635	88	91	8	102	145	0	242
Future Volume (Veh/h)	73	1248	26	29	1635	88	91	8	102	145	0	242
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	1357	28	32	1777	96	99	9	111	158	0	263
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1873			1385			2730	3452	678	2793	3384	888
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1873			1385			2730	3452	678	2793	3384	888
tC, single (s)	4.1			4.1			*4.2	*4.2	*4.2	*4.2	6.5	*4.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	75			93			0	80	83	0	100	53
cM capacity (veh/h)	317			490			50	44	661	63	5	563

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	79	678	678	28	32	888	888	96	99	120	158	263
Volume Left	79	0	0	0	32	0	0	0	99	0	158	0
Volume Right	0	0	0	28	0	0	0	96	0	111	0	263
cSH	317	1700	1700	1700	490	1700	1700	1700	50	323	63	563
Volume to Capacity	0.25	0.40	0.40	0.02	0.07	0.52	0.52	0.06	1.99	0.37	2.52	0.47
Queue Length 95th (ft)	24	0	0	0	5	0	0	0	248	42	393	62
Control Delay (s)	20.1	0.0	0.0	0.0	12.9	0.0	0.0	0.0	637.9	22.6	833.5	16.9
Lane LOS	C				B				F	C	F	C
Approach Delay (s)	1.1				0.2				300.8		323.4	
Approach LOS									F		F	

Intersection Summary				
Average Delay	50.9			
Intersection Capacity Utilization	82.6%	ICU Level of Service		E
Analysis Period (min)	15			

* User Entered Value

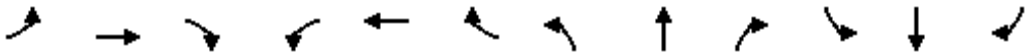


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1542	25	24	1425	35	78	0	83	16	3	239
Future Volume (Veh/h)	48	1542	25	24	1425	35	78	0	83	16	3	239
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	1676	27	26	1549	38	85	0	90	17	3	260
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1587			1703			2868	3419	838	2543	3408	774
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1587			1703			2868	3419	838	2543	3408	774
tC, single (s)	5.1			4.6			*4.1	6.5	*4.1	*4.1	*4.1	*4.1
tC, 2 stage (s)												
tF (s)	2.7			2.5			3.5	4.0	3.3	3.5	5.0	3.3
p0 queue free %	78			91			0	100	85	83	94	59
cM capacity (veh/h)	241			282			51	5	602	101	50	631

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1	SB 2	
Volume Total	52	838	838	27	26	774	774	38	175	20	260	
Volume Left	52	0	0	0	26	0	0	0	85	17	0	
Volume Right	0	0	0	27	0	0	0	38	90	0	260	
cSH	241	1700	1700	1700	282	1700	1700	1700	102	88	631	
Volume to Capacity	0.22	0.49	0.49	0.02	0.09	0.46	0.46	0.02	1.72	0.23	0.41	
Queue Length 95th (ft)	20	0	0	0	8	0	0	0	346	20	50	
Control Delay (s)	24.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	431.7	57.5	14.7	
Lane LOS	C				C				F	F	B	
Approach Delay (s)	0.7				0.3				431.7	17.7		
Approach LOS									F	C		

Intersection Summary				
Average Delay	21.5			
Intersection Capacity Utilization	68.5%	ICU Level of Service		C
Analysis Period (min)	15			
Description: 4:30-5:30pm				

* User Entered Value



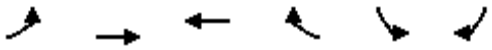
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	1127	299	27	657	170	599	250	130	216	185	164
Future Volume (vph)	179	1127	299	27	657	170	599	250	130	216	185	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1444	3471	1553	1597	3471	1455	1770	1676		1736	1671	
Flt Permitted	0.11	1.00	1.00	0.11	1.00	1.00	0.46	1.00		0.43	1.00	
Satd. Flow (perm)	166	3471	1553	187	3471	1455	851	1676		785	1671	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	1225	325	29	714	185	651	272	141	235	201	178
RTOR Reduction (vph)	0	0	190	0	0	141	0	13	0	0	22	0
Lane Group Flow (vph)	195	1225	135	29	714	44	651	400	0	235	357	0
Heavy Vehicles (%)	25%	4%	4%	13%	4%	11%	2%	11%	1%	4%	1%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	55.7	46.8	46.8	39.5	35.9	35.9	83.3	83.3		83.3	83.3	
Effective Green, g (s)	55.7	46.8	46.8	39.5	35.9	35.9	83.3	83.3		83.3	83.3	
Actuated g/C Ratio	0.37	0.31	0.31	0.26	0.24	0.24	0.55	0.55		0.55	0.55	
Clearance Time (s)	5.3	6.3	6.3	5.3	6.3	6.3	5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	183	1075	481	82	825	345	469	924		433	921	
v/s Ratio Prot	c0.10	c0.35		0.01	0.21			0.24			0.21	
v/s Ratio Perm	0.29		0.09	0.08		0.03	c0.76			0.30		
v/c Ratio	1.07	1.14	0.28	0.35	0.87	0.13	1.39	0.43		0.54	0.39	
Uniform Delay, d1	41.4	52.1	39.4	45.4	55.2	45.2	33.9	19.9		21.7	19.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	85.0	74.3	0.3	2.6	9.4	0.2	187.4	0.3		1.4	0.3	
Delay (s)	126.4	126.4	39.7	48.0	64.7	45.4	221.3	20.3		23.1	19.6	
Level of Service	F	F	D	D	E	D	F	C		C	B	
Approach Delay (s)		110.3			60.3			143.2			20.9	
Approach LOS		F			E			F			C	

Intersection Summary			
HCM 2000 Control Delay	95.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	151.0	Sum of lost time (s)	17.3
Intersection Capacity Utilization	108.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

PM Phase I Modified

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	92	589	760	89	362	1383
Future Volume (vph)	92	589	760	89	362	1383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	1509	3223	1077	1736	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.18	1.00
Satd. Flow (perm)	1805	1509	3223	1077	332	3471
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	640	826	97	393	1503
RTOR Reduction (vph)	0	12	0	32	0	0
Lane Group Flow (vph)	100	628	826	65	393	1503
Heavy Vehicles (%)	0%	7%	12%	50%	4%	4%
Turn Type	Prot	pt+ov	NA	pt+ov	pm+pt	NA
Protected Phases	2	2 3	4	4 2	3	8
Permitted Phases					8	
Actuated Green, G (s)	18.1	32.9	17.5	40.1	32.3	32.3
Effective Green, g (s)	18.1	32.9	17.5	40.1	32.3	32.3
Actuated g/C Ratio	0.30	0.55	0.29	0.68	0.54	0.54
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	550	835	949	727	423	1887
v/s Ratio Prot	0.06	c0.42	0.26	0.06	c0.16	0.43
v/s Ratio Perm					c0.34	
v/c Ratio	0.18	0.75	0.87	0.09	0.93	0.80
Uniform Delay, d1	15.2	10.1	19.9	3.3	12.7	10.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	3.9	8.8	0.1	26.5	2.4
Delay (s)	15.9	14.0	28.6	3.4	39.3	13.3
Level of Service	B	B	C	A	D	B
Approach Delay (s)	14.2		26.0			18.7
Approach LOS	B		C			B

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

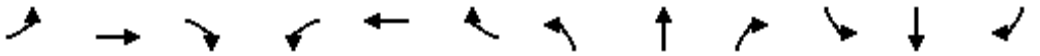


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	1308	1679	213	115	58
Future Volume (Veh/h)	38	1308	1679	213	115	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	1422	1825	232	125	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1825				2734	1028
vC1, stage 1 conf vol					1941	
vC2, stage 2 conf vol					793	
vCu, unblocked vol	1825				2734	1028
tC, single (s)	4.2				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.3				3.5	3.3
p0 queue free %	87				66	88
cM capacity (veh/h)	311				363	520

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	41	711	711	1217	840	188
Volume Left	41	0	0	0	0	125
Volume Right	0	0	0	0	232	63
cSH	311	1700	1700	1700	1700	546
Volume to Capacity	0.13	0.42	0.42	0.72	0.49	0.34
Queue Length 95th (ft)	11	0	0	0	0	38
Control Delay (s)	18.3	0.0	0.0	0.0	0.0	17.6
Lane LOS	C					C
Approach Delay (s)	0.5			0.0		17.6
Approach LOS						C

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
Description: 4:00-5:00pm			

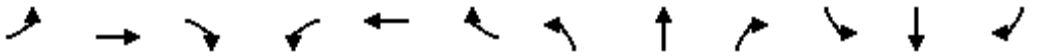
* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	1248	26	29	1635	88	91	8	102	145	0	242
Future Volume (vph)	73	1248	26	29	1635	88	91	8	102	145	0	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1604		1770	1583	
Flt Permitted	0.14	1.00	1.00	0.14	1.00	1.00	0.49	1.00		0.68	1.00	
Satd. Flow (perm)	254	3539	1583	257	3539	1583	917	1604		1266	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	79	1357	28	32	1777	96	99	9	111	158	0	263
RTOR Reduction (vph)	0	0	12	0	0	37	0	38	0	0	25	0
Lane Group Flow (vph)	79	1357	16	32	1777	59	99	82	0	158	238	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	29.3	29.3	29.3	29.3	29.3	29.3	11.7	11.7		11.7	11.7	
Effective Green, g (s)	29.3	29.3	29.3	29.3	29.3	29.3	11.7	11.7		11.7	11.7	
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59	0.59	0.23	0.23		0.23	0.23	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	148	2073	927	150	2073	927	214	375		296	370	
v/s Ratio Prot		0.38			c0.50			0.05			c0.15	
v/s Ratio Perm	0.31		0.01	0.12		0.04	0.11			0.12		
v/c Ratio	0.53	0.65	0.02	0.21	0.86	0.06	0.46	0.22		0.53	0.64	
Uniform Delay, d1	6.2	7.0	4.3	4.9	8.6	4.5	16.4	15.5		16.8	17.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.7	0.8	0.0	0.7	3.7	0.0	7.0	1.3		6.7	8.3	
Delay (s)	9.9	7.7	4.3	5.6	12.4	4.5	23.5	16.8		23.5	25.6	
Level of Service	A	A	A	A	B	A	C	B		C	C	
Approach Delay (s)		7.8			11.8			19.8			24.8	
Approach LOS		A			B			B			C	

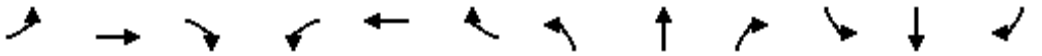
Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	1542	25	24	1425	35	78	0	83	16	3	239
Future Volume (vph)	48	1542	25	24	1425	35	78	0	83	16	3	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00		0.96	1.00
Satd. Flow (prot)	1203	3471	1417	1444	3471	1615		1736	1615		1585	1615
Flt Permitted	0.11	1.00	1.00	0.11	1.00	1.00		0.74	1.00		0.81	1.00
Satd. Flow (perm)	137	3471	1417	164	3471	1615		1360	1615		1332	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	1676	27	26	1549	38	85	0	90	17	3	260
RTOR Reduction (vph)	0	0	10	0	0	15	0	0	25	0	0	32
Lane Group Flow (vph)	52	1676	17	26	1549	23	0	85	65	0	20	228
Heavy Vehicles (%)	50%	4%	14%	25%	4%	0%	4%	0%	0%	0%	100%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	37.0	37.0	37.0	37.0	37.0	37.0		14.0	14.0		14.0	14.0
Effective Green, g (s)	37.0	37.0	37.0	37.0	37.0	37.0		14.0	14.0		14.0	14.0
Actuated g/C Ratio	0.62	0.62	0.62	0.62	0.62	0.62		0.23	0.23		0.23	0.23
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	84	2140	873	101	2140	995		317	376		310	376
v/s Ratio Prot		c0.48			0.45							
v/s Ratio Perm	0.38		0.01	0.16		0.01		0.06	0.04		0.02	c0.14
v/c Ratio	0.62	0.78	0.02	0.26	0.72	0.02		0.27	0.17		0.06	0.61
Uniform Delay, d1	7.1	8.5	4.5	5.2	8.0	4.5		18.8	18.4		17.9	20.5
Progression Factor	1.00	1.00	1.00	0.25	0.54	0.11		1.00	1.00		1.00	1.00
Incremental Delay, d2	12.8	1.9	0.0	1.0	0.9	0.0		2.1	1.0		0.4	7.1
Delay (s)	20.0	10.5	4.5	2.3	5.2	0.5		20.9	19.4		18.3	27.6
Level of Service	B	B	A	A	A	A		C	B		B	C
Approach Delay (s)		10.7			5.1			20.1			26.9	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



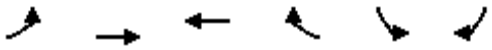
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	1127	299	27	657	170	599	250	130	216	185	164
Future Volume (vph)	179	1127	299	27	657	170	599	250	130	216	185	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1444	3471	1553	1597	3471	1455	3433	1712	1599	1736	1881	1455
Flt Permitted	0.23	1.00	1.00	0.11	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	345	3471	1553	190	3471	1455	3433	1712	1599	1736	1881	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	1225	325	29	714	185	651	272	141	235	201	178
RTOR Reduction (vph)	0	0	111	0	0	88	0	0	115	0	0	154
Lane Group Flow (vph)	195	1225	214	29	714	97	651	272	26	235	201	24
Heavy Vehicles (%)	25%	4%	4%	13%	4%	11%	2%	11%	1%	4%	1%	11%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	61.4	52.5	78.3	46.4	42.8	62.8	25.8	22.1	22.1	20.0	16.3	16.3
Effective Green, g (s)	61.4	52.5	78.3	46.4	42.8	62.8	25.8	22.1	22.1	20.0	16.3	16.3
Actuated g/C Ratio	0.51	0.44	0.65	0.39	0.36	0.52	0.22	0.18	0.18	0.17	0.14	0.14
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	298	1518	1013	115	1237	761	738	315	294	289	255	197
v/s Ratio Prot	c0.07	c0.35	0.05	0.01	0.21	0.02	c0.19	c0.16		0.14	0.11	
v/s Ratio Perm	0.26		0.09	0.09		0.05			0.02			0.02
v/c Ratio	0.65	0.81	0.21	0.25	0.58	0.13	0.88	0.86	0.09	0.81	0.79	0.12
Uniform Delay, d1	18.9	29.3	8.4	25.1	31.3	14.6	45.6	47.5	40.6	48.2	50.2	45.6
Progression Factor	1.01	0.81	0.43	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.5	3.2	0.1	1.2	2.0	0.1	12.0	20.9	0.1	15.9	14.8	0.3
Delay (s)	22.6	27.0	3.7	26.3	33.2	14.7	57.6	68.4	40.7	64.1	65.0	45.8
Level of Service	C	C	A	C	C	B	E	E	D	E	E	D
Approach Delay (s)		22.2			29.3			58.2			59.1	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

AM Phase II

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	40	279	2071	151	460	646
Future Volume (vph)	40	279	2071	151	460	646
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1327	1442	3471	1313	1597	3282
Flt Permitted	0.95	1.00	1.00	1.00	0.04	1.00
Satd. Flow (perm)	1327	1442	3471	1313	72	3282
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	303	2251	164	500	702
RTOR Reduction (vph)	0	4	0	17	0	0
Lane Group Flow (vph)	43	299	2251	147	500	702
Heavy Vehicles (%)	36%	12%	4%	23%	13%	10%
Turn Type	Prot	pt+ov	NA	pt+ov	pm+pt	NA
Protected Phases	2	2 3	4	4 2	3	8
Permitted Phases					8	
Actuated Green, G (s)	9.5	51.5	89.5	103.5	131.5	131.5
Effective Green, g (s)	9.5	51.5	89.5	103.5	131.5	131.5
Actuated g/C Ratio	0.06	0.34	0.60	0.69	0.88	0.88
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	84	495	2071	905	444	2877
v/s Ratio Prot	0.03	c0.21	0.65	0.11	c0.28	0.21
v/s Ratio Perm					c0.71	
v/c Ratio	0.51	0.60	1.09	0.16	1.13	0.24
Uniform Delay, d1	68.0	40.8	30.2	8.1	52.3	1.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.6	2.1	48.0	0.1	81.9	0.0
Delay (s)	88.6	42.9	78.2	8.2	134.1	1.5
Level of Service	F	D	E	A	F	A
Approach Delay (s)	48.6		73.5			56.7
Approach LOS	D		E			E

Intersection Summary			
HCM 2000 Control Delay	66.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

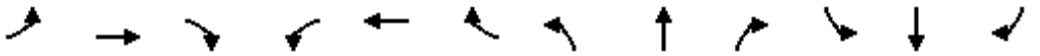


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	2328	1066	254	146	33
Future Volume (Veh/h)	96	2328	1066	254	146	33
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	104	2530	1159	276	159	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1159				2770	718
vC1, stage 1 conf vol					1297	
vC2, stage 2 conf vol					1473	
vCu, unblocked vol	1159				2770	718
tC, single (s)	4.6				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.5				3.6	3.7
p0 queue free %	78				54	94
cM capacity (veh/h)	479				345	608

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	104	1265	1265	773	662	195
Volume Left	104	0	0	0	0	159
Volume Right	0	0	0	0	276	36
cSH	479	1700	1700	1700	1700	424
Volume to Capacity	0.22	0.74	0.74	0.45	0.39	0.46
Queue Length 95th (ft)	20	0	0	0	0	59
Control Delay (s)	14.6	0.0	0.0	0.0	0.0	21.7
Lane LOS	B					C
Approach Delay (s)	0.6			0.0		21.7
Approach LOS						C

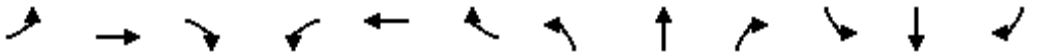
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45			

* User Entered Value



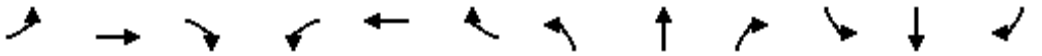
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	2050	81	87	1218	230	5	0	30	46	0	29
Future Volume (vph)	239	2050	81	87	1218	230	5	0	30	46	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3471	1553	1736	3343	1538	902	1380		1203	1214	
Flt Permitted	0.20	1.00	1.00	0.06	1.00	1.00	0.74	1.00		0.74	1.00	
Satd. Flow (perm)	353	3471	1553	112	3343	1538	699	1380		932	1214	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	2228	88	95	1324	250	5	0	33	50	0	32
RTOR Reduction (vph)	0	0	11	0	0	34	0	31	0	0	30	0
Lane Group Flow (vph)	260	2228	77	95	1324	216	5	2	0	50	2	0
Heavy Vehicles (%)	5%	4%	4%	4%	8%	5%	100%	0%	17%	50%	0%	33%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	103.5	103.5	103.5	103.5	103.5	103.5	7.5	7.5		7.5	7.5	
Effective Green, g (s)	103.5	103.5	103.5	103.5	103.5	103.5	7.5	7.5		7.5	7.5	
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.86	0.86	0.06	0.06		0.06	0.06	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	304	2993	1339	96	2883	1326	43	86		58	75	
v/s Ratio Prot		0.64			0.40			0.00			0.00	
v/s Ratio Perm	0.74		0.05	c0.85		0.14	0.01			c0.05		
v/c Ratio	0.86	0.74	0.06	0.99	0.46	0.16	0.12	0.02		0.86	0.03	
Uniform Delay, d1	4.3	3.2	1.2	7.7	1.9	1.3	53.1	52.8		55.7	52.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	20.3	1.0	0.0	87.6	0.1	0.1	5.4	0.5		83.0	0.7	
Delay (s)	24.6	4.2	1.2	95.3	2.0	1.4	58.6	53.3		138.7	53.5	
Level of Service	C	A	A	F	A	A	E	D		F	D	
Approach Delay (s)		6.2			7.2			54.0			105.5	
Approach LOS		A			A			D			F	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	1602	150	137	1498	35	24	0	53	7	0	62
Future Volume (vph)	306	1602	150	137	1498	35	24	0	53	7	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3471	1568	1805	3343	1380	1289	1524		1805	1615	
Flt Permitted	0.09	1.00	1.00	0.10	1.00	1.00	0.71	1.00		0.72	1.00	
Satd. Flow (perm)	175	3471	1568	195	3343	1380	968	1524		1366	1615	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	333	1741	163	149	1628	38	26	0	58	8	0	67
RTOR Reduction (vph)	0	0	57	0	0	17	0	53	0	0	61	0
Lane Group Flow (vph)	333	1741	106	149	1628	21	26	5	0	8	6	0
Heavy Vehicles (%)	0%	4%	3%	0%	8%	17%	40%	0%	6%	0%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	54.9	45.6	45.6	43.7	38.9	38.9	6.1	6.1		6.1	6.1	
Effective Green, g (s)	54.9	45.6	45.6	43.7	38.9	38.9	6.1	6.1		6.1	6.1	
Actuated g/C Ratio	0.78	0.65	0.65	0.62	0.56	0.56	0.09	0.09		0.09	0.09	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	405	2261	1021	232	1857	766	84	132		119	140	
v/s Ratio Prot	c0.14	0.50		0.04	c0.49			0.00			0.00	
v/s Ratio Perm	0.51		0.07	0.36		0.02	c0.03			0.01		
v/c Ratio	0.82	0.77	0.10	0.64	0.88	0.03	0.31	0.04		0.07	0.04	
Uniform Delay, d1	19.1	8.5	4.6	8.1	13.5	7.0	30.0	29.3		29.3	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.6	1.7	0.0	6.0	5.0	0.0	9.3	0.5		1.1	0.6	
Delay (s)	31.7	10.2	4.6	14.1	18.5	7.0	39.3	29.8		30.4	29.8	
Level of Service	C	B	A	B	B	A	D	C		C	C	
Approach Delay (s)		13.0			17.9			32.7			29.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



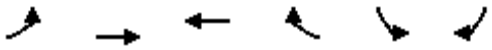
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	998	510	99	1196	278	268	154	16	130	263	243
Future Volume (vph)	252	998	510	99	1196	278	268	154	16	130	263	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	6.3	4.5	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1327	3539	1599	1736	3505	1553	3367	1776	1615	1770	1743	1335
Flt Permitted	0.08	1.00	1.00	0.20	1.00	1.00	0.95	1.00	1.00	0.56	1.00	1.00
Satd. Flow (perm)	108	3539	1599	367	3505	1553	3367	1776	1615	1044	1743	1335
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	1085	554	108	1300	302	291	167	17	141	286	264
RTOR Reduction (vph)	0	0	93	0	0	164	0	0	12	0	0	191
Lane Group Flow (vph)	274	1085	461	108	1300	138	291	167	5	141	286	73
Heavy Vehicles (%)	36%	2%	1%	4%	3%	4%	4%	7%	0%	2%	9%	21%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	3	1	6		3	8			4	
Permitted Phases	2		2	6		6			8	4		4
Actuated Green, G (s)	71.5	58.0	69.7	54.7	46.5	46.5	11.7	36.5	36.5	20.3	20.3	20.3
Effective Green, g (s)	71.5	58.0	69.7	54.7	46.5	46.5	11.7	36.5	36.5	20.3	20.3	20.3
Actuated g/C Ratio	0.60	0.48	0.58	0.46	0.39	0.39	0.10	0.30	0.30	0.17	0.17	0.17
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	6.3	4.5	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	264	1710	928	260	1358	601	328	540	491	176	294	225
v/s Ratio Prot	c0.17	0.31	0.05	0.03	0.37		c0.09	0.09			c0.16	
v/s Ratio Perm	c0.45		0.24	0.16		0.09			0.00	0.14		0.05
v/c Ratio	1.04	0.63	0.50	0.42	0.96	0.23	0.89	0.31	0.01	0.80	0.97	0.32
Uniform Delay, d1	39.2	23.1	14.8	19.6	35.8	24.7	53.5	32.1	29.1	47.9	49.6	43.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	65.6	1.8	0.4	1.1	16.1	0.9	23.8	0.3	0.0	22.4	44.8	0.8
Delay (s)	104.8	24.9	15.2	20.7	51.9	25.6	77.3	32.4	29.2	70.3	94.3	44.7
Level of Service	F	C	B	C	D	C	E	C	C	E	F	D
Approach Delay (s)		33.5			45.3			59.8			70.5	
Approach LOS		C			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	45.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

AM Phase II Modified

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	40	279	2071	151	460	646
Future Volume (vph)	40	279	2071	151	460	646
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1327	1442	3471	1313	3099	3282
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1327	1442	3471	1313	3099	3282
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	303	2251	164	500	702
RTOR Reduction (vph)	0	6	0	4	0	0
Lane Group Flow (vph)	43	297	2251	160	500	702
Heavy Vehicles (%)	36%	12%	4%	23%	13%	10%
Turn Type	Prot	pt+ov	NA	custom	Prot	NA
Protected Phases	2	2 3	4	2 4	3	8
Permitted Phases				4		
Actuated Green, G (s)	9.1	31.5	69.5	83.1	17.9	91.9
Effective Green, g (s)	9.1	31.5	69.5	83.1	17.9	91.9
Actuated g/C Ratio	0.08	0.29	0.63	0.76	0.16	0.84
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	109	412	2193	991	504	2741
v/s Ratio Prot	0.03	c0.21	c0.65	0.12	c0.16	0.21
v/s Ratio Perm						
v/c Ratio	0.39	0.72	1.03	0.16	0.99	0.26
Uniform Delay, d1	47.8	35.3	20.2	3.7	46.0	1.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	6.1	26.3	0.1	37.9	0.0
Delay (s)	50.2	41.4	46.6	3.8	83.8	1.9
Level of Service	D	D	D	A	F	A
Approach Delay (s)	42.5		43.7			36.0
Approach LOS	D		D			D

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

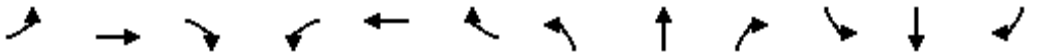


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	2328	1066	254	146	33
Future Volume (Veh/h)	96	2328	1066	254	146	33
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	104	2530	1159	276	159	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1159				2770	718
vC1, stage 1 conf vol					1297	
vC2, stage 2 conf vol					1473	
vCu, unblocked vol	1159				2770	718
tC, single (s)	4.6				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.5				3.6	3.7
p0 queue free %	78				54	94
cM capacity (veh/h)	479				345	608

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	104	1265	1265	773	662	195
Volume Left	104	0	0	0	0	159
Volume Right	0	0	0	0	276	36
cSH	479	1700	1700	1700	1700	424
Volume to Capacity	0.22	0.74	0.74	0.45	0.39	0.46
Queue Length 95th (ft)	20	0	0	0	0	59
Control Delay (s)	14.6	0.0	0.0	0.0	0.0	21.7
Lane LOS	B					C
Approach Delay (s)	0.6			0.0		21.7
Approach LOS						C

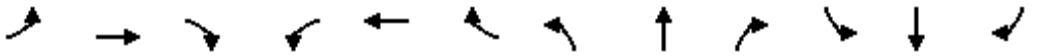
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45			

* User Entered Value



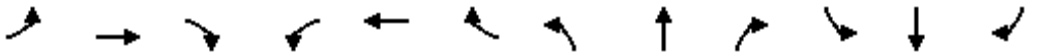
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	2050	81	87	1218	230	5	0	30	46	0	29
Future Volume (vph)	237	2050	81	87	1218	230	5	0	30	46	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3471	1553	1736	3343	1538	902	1380		1203	1214	
Flt Permitted	0.20	1.00	1.00	0.06	1.00	1.00	0.74	1.00		0.74	1.00	
Satd. Flow (perm)	353	3471	1553	112	3343	1538	699	1380		932	1214	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	258	2228	88	95	1324	250	5	0	33	50	0	32
RTOR Reduction (vph)	0	0	11	0	0	34	0	31	0	0	30	0
Lane Group Flow (vph)	258	2228	77	95	1324	216	5	2	0	50	2	0
Heavy Vehicles (%)	5%	4%	4%	4%	8%	5%	100%	0%	17%	50%	0%	33%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	103.5	103.5	103.5	103.5	103.5	103.5	7.5	7.5		7.5	7.5	
Effective Green, g (s)	103.5	103.5	103.5	103.5	103.5	103.5	7.5	7.5		7.5	7.5	
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.86	0.86	0.06	0.06		0.06	0.06	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	304	2993	1339	96	2883	1326	43	86		58	75	
v/s Ratio Prot		0.64			0.40			0.00			0.00	
v/s Ratio Perm	0.73		0.05	c0.85		0.14	0.01			c0.05		
v/c Ratio	0.85	0.74	0.06	0.99	0.46	0.16	0.12	0.02		0.86	0.03	
Uniform Delay, d1	4.2	3.2	1.2	7.7	1.9	1.3	53.1	52.8		55.7	52.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.3	1.0	0.0	87.6	0.1	0.1	1.2	0.1		70.5	0.1	
Delay (s)	23.5	4.2	1.2	95.3	2.0	1.4	54.3	52.9		126.2	53.0	
Level of Service	C	A	A	F	A	A	D	D		F	D	
Approach Delay (s)		6.0			7.2			53.1			97.6	
Approach LOS		A			A			D			F	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	1602	150	137	1498	35	24	0	53	7	0	62
Future Volume (vph)	306	1602	150	137	1498	35	24	0	53	7	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3471	1568	1805	3343	1380	1289	1524		1805	1615	
Flt Permitted	0.09	1.00	1.00	0.10	1.00	1.00	0.71	1.00		0.72	1.00	
Satd. Flow (perm)	175	3471	1568	195	3343	1380	968	1524		1366	1615	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	333	1741	163	149	1628	38	26	0	58	8	0	67
RTOR Reduction (vph)	0	0	57	0	0	17	0	53	0	0	61	0
Lane Group Flow (vph)	333	1741	106	149	1628	21	26	5	0	8	6	0
Heavy Vehicles (%)	0%	4%	3%	0%	8%	17%	40%	0%	6%	0%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	54.9	45.6	45.6	43.7	38.9	38.9	6.1	6.1		6.1	6.1	
Effective Green, g (s)	54.9	45.6	45.6	43.7	38.9	38.9	6.1	6.1		6.1	6.1	
Actuated g/C Ratio	0.78	0.65	0.65	0.62	0.56	0.56	0.09	0.09		0.09	0.09	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	405	2261	1021	232	1857	766	84	132		119	140	
v/s Ratio Prot	c0.14	0.50		0.04	c0.49			0.00			0.00	
v/s Ratio Perm	0.51		0.07	0.36		0.02	c0.03			0.01		
v/c Ratio	0.82	0.77	0.10	0.64	0.88	0.03	0.31	0.04		0.07	0.04	
Uniform Delay, d1	19.1	8.5	4.6	8.1	13.5	7.0	30.0	29.3		29.3	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.6	1.7	0.0	6.0	5.0	0.0	9.3	0.5		1.1	0.6	
Delay (s)	31.7	10.2	4.6	14.1	18.5	7.0	39.3	29.8		30.4	29.8	
Level of Service	C	B	A	B	B	A	D	C		C	C	
Approach Delay (s)		13.0			17.9			32.7			29.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



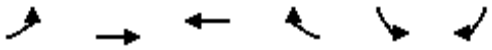
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	998	510	99	1196	278	268	154	16	130	263	243
Future Volume (vph)	252	998	510	99	1196	278	268	154	16	130	263	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1327	3539	1599	1736	3505	1553	3367	1776	1615	1770	1743	1335
Flt Permitted	0.15	1.00	1.00	0.23	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	211	3539	1599	429	3505	1553	3367	1776	1615	1770	1743	1335
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	1085	554	108	1300	302	291	167	17	141	286	264
RTOR Reduction (vph)	0	0	117	0	0	110	0	0	15	0	0	194
Lane Group Flow (vph)	274	1085	437	108	1300	192	291	167	2	141	286	70
Heavy Vehicles (%)	36%	2%	1%	4%	3%	4%	4%	7%	0%	2%	9%	21%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	46.2	46.2	58.0	47.4	46.4	62.6	11.8	15.9	15.9	16.2	20.3	20.3
Effective Green, g (s)	46.2	46.2	58.0	47.4	46.4	62.6	11.8	15.9	15.9	16.2	20.3	20.3
Actuated g/C Ratio	0.39	0.39	0.48	0.39	0.39	0.52	0.10	0.13	0.13	0.13	0.17	0.17
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	264	1362	772	386	1355	810	331	235	213	238	294	225
v/s Ratio Prot	c0.17	0.31	0.06	0.05	c0.37	0.03	c0.09	0.09		0.08	c0.16	
v/s Ratio Perm	c0.23		0.22	0.06		0.09			0.00			0.05
v/c Ratio	1.04	0.80	0.57	0.28	0.96	0.24	0.88	0.71	0.01	0.59	0.97	0.31
Uniform Delay, d1	35.0	32.7	22.0	30.7	35.9	15.7	53.4	49.8	45.2	48.8	49.6	43.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	65.6	4.9	1.0	0.4	16.5	0.2	22.2	9.7	0.0	3.9	44.8	0.8
Delay (s)	100.6	37.6	23.0	31.1	52.4	15.8	75.6	59.5	45.2	52.7	94.3	44.5
Level of Service	F	D	C	C	D	B	E	E	D	D	F	D
Approach Delay (s)		42.4			44.6			68.9			66.8	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	49.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

PM Phase II

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	94	607	960	92	401	1690
Future Volume (vph)	94	607	960	92	401	1690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	1509	3223	1077	1736	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.13	1.00
Satd. Flow (perm)	1805	1509	3223	1077	229	3471
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	660	1043	100	436	1837
RTOR Reduction (vph)	0	8	0	33	0	0
Lane Group Flow (vph)	102	652	1043	67	436	1837
Heavy Vehicles (%)	0%	7%	12%	50%	4%	4%
Turn Type	Prot	pt+ov	NA	pt+ov	pm+pt	NA
Protected Phases	2	2 3	4	4 2	3	8
Permitted Phases					8	
Actuated Green, G (s)	21.5	43.1	27.4	53.4	49.0	49.0
Effective Green, g (s)	21.5	43.1	27.4	53.4	49.0	49.0
Actuated g/C Ratio	0.27	0.54	0.34	0.67	0.62	0.62
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	488	818	1110	723	465	2139
v/s Ratio Prot	0.06	c0.43	0.32	0.06	0.20	c0.53
v/s Ratio Perm					c0.38	
v/c Ratio	0.21	0.80	0.94	0.09	0.94	0.86
Uniform Delay, d1	22.4	14.7	25.2	4.6	21.5	12.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	5.4	14.6	0.1	26.6	3.7
Delay (s)	23.4	20.1	39.8	4.6	48.1	16.1
Level of Service	C	C	D	A	D	B
Approach Delay (s)	20.6		36.8			22.2
Approach LOS	C		D			C

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	79.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

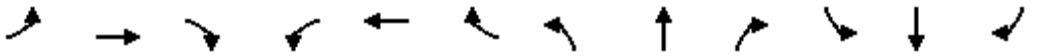


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	1517	1968	293	217	112
Future Volume (Veh/h)	50	1517	1968	293	217	112
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	1649	2139	318	236	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2139				3230	1228
vC1, stage 1 conf vol					2298	
vC2, stage 2 conf vol					932	
vCu, unblocked vol	2139				3230	1228
tC, single (s)	4.2				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.3				3.5	3.3
p0 queue free %	77				19	73
cM capacity (veh/h)	233				293	447

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	54	824	824	1426	1031	358
Volume Left	54	0	0	0	0	236
Volume Right	0	0	0	0	318	122
cSH	233	1700	1700	1700	1700	444
Volume to Capacity	0.23	0.48	0.48	0.84	0.61	0.81
Queue Length 95th (ft)	22	0	0	0	0	184
Control Delay (s)	25.1	0.0	0.0	0.0	0.0	40.6
Lane LOS	D					E
Approach Delay (s)	0.8			0.0		40.6
Approach LOS						E

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 4:00-5:00pm			

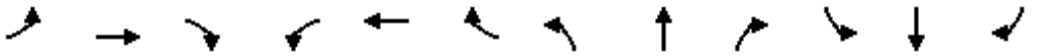
* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	1553	28	29	1993	90	97	8	103	146	0	246
Future Volume (vph)	77	1553	28	29	1993	90	97	8	103	146	0	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1604		1770	1583	
Flt Permitted	0.08	1.00	1.00	0.09	1.00	1.00	0.34	1.00		0.68	1.00	
Satd. Flow (perm)	141	3539	1583	172	3539	1583	639	1604		1265	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	1688	30	32	2166	98	105	9	112	159	0	267
RTOR Reduction (vph)	0	0	8	0	0	20	0	33	0	0	16	0
Lane Group Flow (vph)	84	1688	22	32	2166	78	105	88	0	159	251	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	52.8	52.8	52.8	52.8	52.8	52.8	14.8	14.8		14.8	14.8	
Effective Green, g (s)	52.8	52.8	52.8	52.8	52.8	52.8	14.8	14.8		14.8	14.8	
Actuated g/C Ratio	0.69	0.69	0.69	0.69	0.69	0.69	0.19	0.19		0.19	0.19	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	97	2439	1091	118	2439	1091	123	309		244	305	
v/s Ratio Prot		0.48			c0.61			0.05			0.16	
v/s Ratio Perm	0.60		0.01	0.19		0.05	c0.16			0.13		
v/c Ratio	0.87	0.69	0.02	0.27	0.89	0.07	0.85	0.28		0.65	0.82	
Uniform Delay, d1	9.2	7.1	3.8	4.5	9.5	3.9	29.9	26.4		28.5	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.6	0.9	0.0	1.2	4.4	0.0	40.3	0.5		6.1	16.2	
Delay (s)	59.8	7.9	3.8	5.8	13.9	3.9	70.1	26.9		34.6	45.8	
Level of Service	E	A	A	A	B	A	E	C		C	D	
Approach Delay (s)		10.3			13.3			47.0			41.6	
Approach LOS		B			B			D			D	

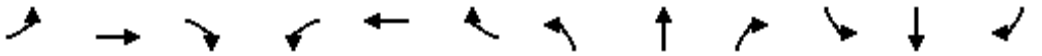
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	1858	48	48	1700	35	132	0	142	17	3	249
Future Volume (vph)	50	1858	48	48	1700	35	132	0	142	17	3	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1203	3471	1417	1444	3471	1615	1736	1615		1805	1601	
Flt Permitted	0.11	1.00	1.00	0.11	1.00	1.00	0.42	1.00		0.66	1.00	
Satd. Flow (perm)	135	3471	1417	162	3471	1615	772	1615		1252	1601	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	2020	52	52	1848	38	143	0	154	18	3	271
RTOR Reduction (vph)	0	0	20	0	0	14	0	21	0	0	15	0
Lane Group Flow (vph)	54	2020	33	52	1848	24	143	133	0	18	259	0
Heavy Vehicles (%)	50%	4%	14%	25%	4%	0%	4%	0%	0%	0%	100%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	37.5	37.5	37.5	37.5	37.5	37.5	13.5	13.5		13.5	13.5	
Effective Green, g (s)	37.5	37.5	37.5	37.5	37.5	37.5	13.5	13.5		13.5	13.5	
Actuated g/C Ratio	0.62	0.62	0.62	0.62	0.62	0.62	0.22	0.22		0.22	0.22	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	84	2169	885	101	2169	1009	173	363		281	360	
v/s Ratio Prot		c0.58			0.53			0.08			0.16	
v/s Ratio Perm	0.40		0.02	0.32		0.01	c0.19			0.01		
v/c Ratio	0.64	0.93	0.04	0.51	0.85	0.02	0.83	0.37		0.06	0.72	
Uniform Delay, d1	7.1	10.1	4.3	6.2	9.0	4.3	22.1	19.6		18.3	21.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.6	7.9	0.0	4.4	3.5	0.0	34.4	2.8		0.4	11.8	
Delay (s)	22.7	18.0	4.3	10.6	12.5	4.3	56.6	22.5		18.7	33.3	
Level of Service	C	B	A	B	B	A	E	C		B	C	
Approach Delay (s)		17.8			12.3			38.9			32.4	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



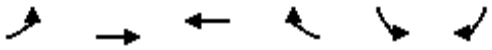
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	1410	353	31	834	205	672	263	141	251	199	197
Future Volume (vph)	220	1410	353	31	834	205	672	263	141	251	199	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1444	3471	1553	1597	3471	1455	3433	1712	1599	1736	1881	1455
Flt Permitted	0.15	1.00	1.00	0.08	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	225	3471	1553	139	3471	1455	3433	1712	1599	1736	1881	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	1533	384	34	907	223	730	286	153	273	216	214
RTOR Reduction (vph)	0	0	76	0	0	82	0	0	127	0	0	178
Lane Group Flow (vph)	239	1533	308	34	907	141	730	286	26	273	216	36
Heavy Vehicles (%)	25%	4%	4%	13%	4%	11%	2%	11%	1%	4%	1%	11%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	70.7	61.8	89.3	52.0	48.4	68.9	27.5	22.3	22.3	20.5	15.3	15.3
Effective Green, g (s)	70.7	61.8	89.3	52.0	48.4	68.9	27.5	22.3	22.3	20.5	15.3	15.3
Actuated g/C Ratio	0.54	0.48	0.69	0.40	0.37	0.53	0.21	0.17	0.17	0.16	0.12	0.12
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	281	1650	1066	95	1292	771	726	293	274	273	221	171
v/s Ratio Prot	c0.11	c0.44	0.06	0.01	0.26	0.03	c0.21	c0.17		0.16	0.11	
v/s Ratio Perm	0.35		0.14	0.13		0.07			0.02			0.02
v/c Ratio	0.85	0.93	0.29	0.36	0.70	0.18	1.01	0.98	0.10	1.00	0.98	0.21
Uniform Delay, d1	24.2	32.0	7.9	29.1	34.7	15.9	51.2	53.6	45.4	54.8	57.2	51.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.1	10.7	0.2	2.3	3.2	0.1	34.8	45.6	0.2	54.5	53.5	0.6
Delay (s)	45.3	42.7	8.1	31.5	37.9	16.0	86.0	99.2	45.5	109.2	110.7	52.5
Level of Service	D	D	A	C	D	B	F	F	D	F	F	D
Approach Delay (s)		36.9			33.5			83.9			92.4	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

PM Phase II Modified

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	94	607	960	92	401	1690
Future Volume (vph)	94	607	960	92	401	1690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	1509	3223	1077	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.15	1.00
Satd. Flow (perm)	1805	1509	3223	1077	516	3471
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	660	1043	100	436	1837
RTOR Reduction (vph)	0	14	0	6	0	0
Lane Group Flow (vph)	102	646	1043	94	436	1837
Heavy Vehicles (%)	0%	7%	12%	50%	4%	4%
Turn Type	Prot	pt+ov	NA	pt+ov	pm+pt	NA
Protected Phases	2	2 3	4	4 2	3	8
Permitted Phases					8	
Actuated Green, G (s)	18.2	28.0	23.0	45.7	32.8	32.8
Effective Green, g (s)	18.2	28.0	23.0	45.7	32.8	32.8
Actuated g/C Ratio	0.30	0.47	0.38	0.76	0.55	0.55
Clearance Time (s)	4.5		4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	547	704	1235	820	533	1897
v/s Ratio Prot	0.06	c0.43	0.32	0.09	0.07	c0.53
v/s Ratio Perm					0.37	
v/c Ratio	0.19	0.92	0.84	0.11	0.82	0.97
Uniform Delay, d1	15.4	14.9	16.9	1.9	10.4	13.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	16.7	5.5	0.1	9.5	13.8
Delay (s)	16.2	31.6	22.3	1.9	19.9	26.9
Level of Service	B	C	C	A	B	C
Approach Delay (s)	29.6		20.5			25.6
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	24.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

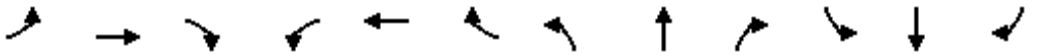


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	1517	1968	293	217	112
Future Volume (Veh/h)	50	1517	1968	293	217	112
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	1649	2139	318	236	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2139				3230	1228
vC1, stage 1 conf vol					2298	
vC2, stage 2 conf vol					932	
vCu, unblocked vol	2139				3230	1228
tC, single (s)	4.2				*4.1	*4.1
tC, 2 stage (s)					3.1	
tF (s)	2.3				3.5	3.3
p0 queue free %	77				19	73
cM capacity (veh/h)	233				293	447

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	54	824	824	1426	1031	358
Volume Left	54	0	0	0	0	236
Volume Right	0	0	0	0	318	122
cSH	233	1700	1700	1700	1700	444
Volume to Capacity	0.23	0.48	0.48	0.84	0.61	0.81
Queue Length 95th (ft)	22	0	0	0	0	184
Control Delay (s)	25.1	0.0	0.0	0.0	0.0	40.6
Lane LOS	D					E
Approach Delay (s)	0.8			0.0		40.6
Approach LOS						E

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 4:00-5:00pm			

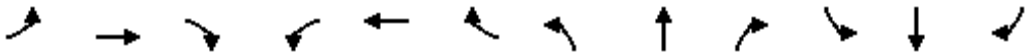
* User Entered Value



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	1553	28	29	1993	90	97	8	103	146	0	246
Future Volume (vph)	77	1553	28	29	1993	90	97	8	103	146	0	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1604		1770	1583	
Flt Permitted	0.08	1.00	1.00	0.09	1.00	1.00	0.34	1.00		0.68	1.00	
Satd. Flow (perm)	141	3539	1583	172	3539	1583	639	1604		1265	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	1688	30	32	2166	98	105	9	112	159	0	267
RTOR Reduction (vph)	0	0	8	0	0	20	0	33	0	0	16	0
Lane Group Flow (vph)	84	1688	22	32	2166	78	105	88	0	159	251	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	52.8	52.8	52.8	52.8	52.8	52.8	14.8	14.8		14.8	14.8	
Effective Green, g (s)	52.8	52.8	52.8	52.8	52.8	52.8	14.8	14.8		14.8	14.8	
Actuated g/C Ratio	0.69	0.69	0.69	0.69	0.69	0.69	0.19	0.19		0.19	0.19	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	97	2439	1091	118	2439	1091	123	309		244	305	
v/s Ratio Prot		0.48			c0.61			0.05			0.16	
v/s Ratio Perm	0.60		0.01	0.19		0.05	c0.16			0.13		
v/c Ratio	0.87	0.69	0.02	0.27	0.89	0.07	0.85	0.28		0.65	0.82	
Uniform Delay, d1	9.2	7.1	3.8	4.5	9.5	3.9	29.9	26.4		28.5	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.6	0.9	0.0	1.2	4.4	0.0	40.3	0.5		6.1	16.2	
Delay (s)	59.8	7.9	3.8	5.8	13.9	3.9	70.1	26.9		34.6	45.8	
Level of Service	E	A	A	A	B	A	E	C		C	D	
Approach Delay (s)		10.3			13.3			47.0			41.6	
Approach LOS		B			B			D			D	

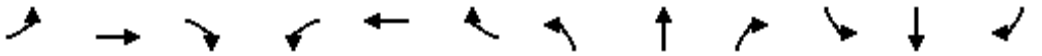
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	1858	48	48	1700	35	132	0	142	17	3	249
Future Volume (vph)	50	1858	48	48	1700	35	132	0	142	17	3	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1203	3471	1417	1444	3471	1615	1736	1615		1805	1601	
Flt Permitted	0.11	1.00	1.00	0.11	1.00	1.00	0.42	1.00		0.66	1.00	
Satd. Flow (perm)	135	3471	1417	162	3471	1615	772	1615		1252	1601	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	2020	52	52	1848	38	143	0	154	18	3	271
RTOR Reduction (vph)	0	0	20	0	0	14	0	21	0	0	15	0
Lane Group Flow (vph)	54	2020	33	52	1848	24	143	133	0	18	259	0
Heavy Vehicles (%)	50%	4%	14%	25%	4%	0%	4%	0%	0%	0%	100%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	37.5	37.5	37.5	37.5	37.5	37.5	13.5	13.5		13.5	13.5	
Effective Green, g (s)	37.5	37.5	37.5	37.5	37.5	37.5	13.5	13.5		13.5	13.5	
Actuated g/C Ratio	0.62	0.62	0.62	0.62	0.62	0.62	0.22	0.22		0.22	0.22	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	84	2169	885	101	2169	1009	173	363		281	360	
v/s Ratio Prot		c0.58			0.53			0.08			0.16	
v/s Ratio Perm	0.40		0.02	0.32		0.01	c0.19			0.01		
v/c Ratio	0.64	0.93	0.04	0.51	0.85	0.02	0.83	0.37		0.06	0.72	
Uniform Delay, d1	7.1	10.1	4.3	6.2	9.0	4.3	22.1	19.6		18.3	21.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.6	7.9	0.0	4.4	3.5	0.0	34.4	2.8		0.4	11.8	
Delay (s)	22.7	18.0	4.3	10.6	12.5	4.3	56.6	22.5		18.7	33.3	
Level of Service	C	B	A	B	B	A	E	C		B	C	
Approach Delay (s)		17.8			12.3			38.9			32.4	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



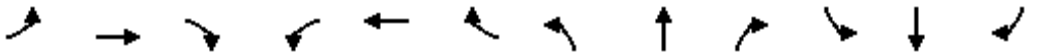
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	1410	353	31	834	205	672	263	141	251	199	197
Future Volume (vph)	220	1410	353	31	834	205	672	263	141	251	199	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1444	3471	1553	1597	3471	1455	3433	1712	1599	1736	1881	1455
Flt Permitted	0.21	1.00	1.00	0.09	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	314	3471	1553	158	3471	1455	3433	1712	1599	1736	1881	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	1533	384	34	907	223	730	286	153	273	216	214
RTOR Reduction (vph)	0	0	77	0	0	85	0	0	127	0	0	177
Lane Group Flow (vph)	239	1533	307	34	907	138	730	286	26	273	216	37
Heavy Vehicles (%)	25%	4%	4%	13%	4%	11%	2%	11%	1%	4%	1%	11%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	62.8	61.8	89.3	46.3	46.3	66.8	27.5	22.3	22.3	20.5	15.3	15.3
Effective Green, g (s)	62.8	61.8	89.3	46.3	46.3	66.8	27.5	22.3	22.3	20.5	15.3	15.3
Actuated g/C Ratio	0.48	0.48	0.69	0.36	0.36	0.51	0.21	0.17	0.17	0.16	0.12	0.12
Clearance Time (s)	5.3	6.3	4.5	5.3	6.3	4.5	4.5	5.7	5.7	4.5	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	317	1650	1066	96	1236	747	726	293	274	273	221	171
v/s Ratio Prot	0.11	c0.44	0.06	0.01	c0.26	0.03	c0.21	c0.17		0.16	0.11	
v/s Ratio Perm	0.25		0.14	0.12		0.07			0.02			0.03
v/c Ratio	0.75	0.93	0.29	0.35	0.73	0.19	1.01	0.98	0.10	1.00	0.98	0.21
Uniform Delay, d1	37.4	32.0	7.9	33.4	36.5	17.0	51.2	53.6	45.4	54.8	57.2	51.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.8	10.7	0.2	2.2	3.9	0.1	34.8	45.6	0.2	54.5	53.5	0.6
Delay (s)	47.1	42.7	8.1	35.7	40.4	17.1	86.0	99.2	45.5	109.2	110.7	52.5
Level of Service	D	D	A	D	D	B	F	F	D	F	F	D
Approach Delay (s)		37.1			35.8			83.9			92.4	
Approach LOS		D			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	54.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Appendix A

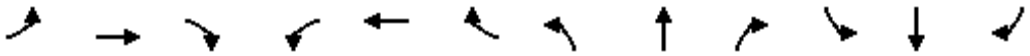
Section 3: Existing, Phase I, and Phase II Synchro 10 outputs

AM Existing



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	242	109	77	299	69	228	291	137	31	120	104
Future Volume (vph)	121	242	109	77	299	69	228	291	137	31	120	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3336		1687	3379		1671	1863	1615	1597	1759	1524
Flt Permitted	0.30	1.00		0.46	1.00		0.48	1.00	1.00	0.57	1.00	1.00
Satd. Flow (perm)	561	3336		825	3379		849	1863	1615	950	1759	1524
Peak-hour factor, PHF	0.86	0.78	0.85	0.77	0.71	0.75	0.77	0.90	0.87	0.52	0.83	0.84
Adj. Flow (vph)	141	310	128	100	421	92	296	323	157	60	145	124
RTOR Reduction (vph)	0	29	0	0	13	0	0	0	110	0	0	100
Lane Group Flow (vph)	141	409	0	100	500	0	296	323	47	60	145	24
Heavy Vehicles (%)	2%	2%	7%	7%	2%	13%	8%	2%	0%	13%	8%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	33.8	22.2		29.6	20.1		36.8	25.2	25.2	22.8	16.0	16.0
Effective Green, g (s)	33.8	22.2		29.6	20.1		36.8	25.2	25.2	22.8	16.0	16.0
Actuated g/C Ratio	0.40	0.26		0.35	0.24		0.44	0.30	0.30	0.27	0.19	0.19
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	390	877		386	804		526	556	482	308	333	288
v/s Ratio Prot	c0.05	0.12		0.03	c0.15		c0.11	c0.17		0.02	0.08	
v/s Ratio Perm	0.09			0.06			0.14		0.03	0.04		0.02
v/c Ratio	0.36	0.47		0.26	0.62		0.56	0.58	0.10	0.19	0.44	0.08
Uniform Delay, d1	16.9	26.1		18.9	28.8		16.6	25.1	21.4	23.4	30.2	28.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.4		0.4	1.5		1.4	1.5	0.1	0.3	0.9	0.1
Delay (s)	17.5	26.5		19.3	30.3		18.0	26.7	21.5	23.7	31.1	28.3
Level of Service	B	C		B	C		B	C	C	C	C	C
Approach Delay (s)		24.3			28.5			22.3			28.7	
Approach LOS		C			C			C			C	

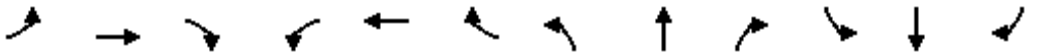
Intersection Summary			
HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	84.4	Sum of lost time (s)	20.7
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	305	178	7	383	78	237	159	14	97	216	74
Future Volume (vph)	35	305	178	7	383	78	237	159	14	97	216	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3269		1805	1792	1615	1805	3485		1805	3374	
Flt Permitted	0.13	1.00		0.31	1.00	1.00	0.38	1.00		0.62	1.00	
Satd. Flow (perm)	241	3269		591	1792	1615	726	3485		1179	3374	
Peak-hour factor, PHF	0.77	0.60	0.88	0.84	0.68	0.74	0.58	0.84	0.69	0.67	0.84	0.81
Adj. Flow (vph)	45	508	202	8	563	105	409	189	20	145	257	91
RTOR Reduction (vph)	0	22	0	0	0	63	0	6	0	0	28	0
Lane Group Flow (vph)	45	688	0	8	563	42	409	203	0	145	320	0
Heavy Vehicles (%)	5%	8%	0%	0%	6%	0%	0%	2%	3%	0%	2%	5%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	50.8	45.0		41.6	40.4	40.4	48.9	33.0		35.8	25.1	
Effective Green, g (s)	50.8	45.0		41.6	40.4	40.4	48.9	33.0		35.8	25.1	
Actuated g/C Ratio	0.45	0.40		0.37	0.36	0.36	0.44	0.29		0.32	0.22	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	185	1308		231	644	580	494	1023		435	753	
v/s Ratio Prot	c0.01	c0.21		0.00	c0.31		c0.14	0.06		0.03	0.09	
v/s Ratio Perm	0.10			0.01		0.03	c0.22			0.07		
v/c Ratio	0.24	0.53		0.03	0.87	0.07	0.83	0.20		0.33	0.43	
Uniform Delay, d1	22.1	25.6		22.6	33.6	23.7	23.8	29.8		28.4	37.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.4		0.1	12.6	0.1	10.9	0.1		0.5	0.4	
Delay (s)	22.8	26.0		22.7	46.2	23.7	34.7	29.9		28.8	37.8	
Level of Service	C	C		C	D	C	C	C		C	D	
Approach Delay (s)		25.8			42.4			33.1			35.2	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	112.4	Sum of lost time (s)	22.5
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

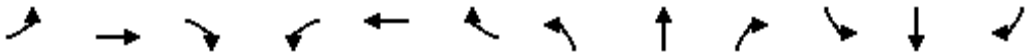
PM Existing



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	327	210	118	161	20	236	327	110	55	349	164
Future Volume (vph)	95	327	210	118	161	20	236	327	110	55	349	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3318		1787	3334		1656	1863	1599	1805	1863	1583
Flt Permitted	0.59	1.00		0.19	1.00		0.22	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)	1105	3318		356	3334		388	1863	1599	983	1863	1583
Peak-hour factor, PHF	0.61	0.79	0.94	0.78	0.88	0.63	0.80	0.78	0.83	0.86	0.95	0.79
Adj. Flow (vph)	156	414	223	151	183	32	295	419	133	64	367	208
RTOR Reduction (vph)	0	50	0	0	10	0	0	0	73	0	0	126
Lane Group Flow (vph)	156	587	0	151	205	0	295	419	60	64	367	82
Heavy Vehicles (%)	2%	1%	7%	1%	6%	5%	9%	2%	1%	0%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	39.8	26.8		38.4	26.1		61.2	49.8	49.8	38.1	31.5	31.5
Effective Green, g (s)	39.8	26.8		38.4	26.1		61.2	49.8	49.8	38.1	31.5	31.5
Actuated g/C Ratio	0.34	0.23		0.33	0.22		0.53	0.43	0.43	0.33	0.27	0.27
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	452	765		269	748		476	798	685	368	505	429
v/s Ratio Prot	0.04	c0.18		c0.06	0.06		c0.13	0.22		0.01	c0.20	
v/s Ratio Perm	0.08			0.13			0.19		0.04	0.05		0.05
v/c Ratio	0.35	0.77		0.56	0.27		0.62	0.53	0.09	0.17	0.73	0.19
Uniform Delay, d1	27.5	41.8		29.5	37.2		18.7	24.5	19.7	27.2	38.4	32.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	4.6		2.7	0.2		2.4	0.6	0.1	0.2	5.2	0.2
Delay (s)	28.0	46.4		32.2	37.4		21.1	25.1	19.8	27.4	43.6	32.8
Level of Service	C	D		C	D		C	C	B	C	D	C
Approach Delay (s)		42.8			35.3			22.9			38.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	34.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	116.2	Sum of lost time (s)	20.7
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
Description: 4:15-5:15pm			

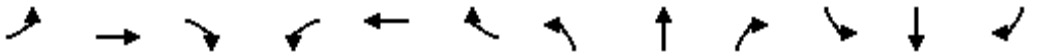
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	276	244	20	390	125	185	335	11	65	256	49
Future Volume (vph)	50	276	244	20	390	125	185	335	11	65	256	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	1.00		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3288		1671	1792	1615	1641	3523		1805	3383	
Flt Permitted	0.25	1.00		0.31	1.00	1.00	0.40	1.00		0.51	1.00	
Satd. Flow (perm)	466	3288		543	1792	1615	694	3523		965	3383	
Peak-hour factor, PHF	0.89	0.91	0.69	0.81	0.88	0.88	0.83	0.83	0.87	0.78	0.90	0.72
Adj. Flow (vph)	56	303	354	25	443	142	223	404	13	83	284	68
RTOR Reduction (vph)	0	118	0	0	0	67	0	1	0	0	16	0
Lane Group Flow (vph)	56	539	0	25	443	75	223	416	0	83	336	0
Heavy Vehicles (%)	2%	2%	0%	8%	6%	0%	10%	2%	2%	0%	4%	2%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	43.8	37.8		39.6	35.7	35.7	46.0	34.0		33.2	26.4	
Effective Green, g (s)	43.8	37.8		39.6	35.7	35.7	46.0	34.0		33.2	26.4	
Actuated g/C Ratio	0.42	0.36		0.38	0.34	0.34	0.44	0.32		0.32	0.25	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	268	1183		246	609	549	433	1140		359	850	
v/s Ratio Prot	c0.01	0.16		0.00	c0.25		c0.07	0.12		0.01	0.10	
v/s Ratio Perm	0.08			0.03		0.05	c0.15			0.06		
v/c Ratio	0.21	0.46		0.10	0.73	0.14	0.52	0.36		0.23	0.39	
Uniform Delay, d1	20.3	25.7		21.0	30.4	24.0	19.6	27.2		25.7	32.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.3		0.2	4.3	0.1	1.0	0.2		0.3	0.3	
Delay (s)	20.7	26.0		21.2	34.7	24.1	20.6	27.4		26.1	33.0	
Level of Service	C	C		C	C	C	C	C		C	C	
Approach Delay (s)		25.6			31.7			25.1			31.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	22.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

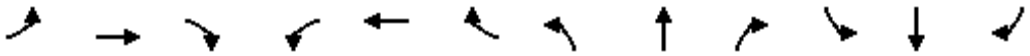
AM Phase I



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	315	67	96	579	84	443	354	147	35	158	208
Future Volume (vph)	171	315	67	96	579	84	443	354	147	35	158	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3416		1687	3425		1671	1863	1615	1597	1759	1524
Flt Permitted	0.18	1.00		0.49	1.00		0.41	1.00	1.00	0.53	1.00	1.00
Satd. Flow (perm)	340	3416		870	3425		729	1863	1615	898	1759	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	186	342	73	104	629	91	482	385	160	38	172	226
RTOR Reduction (vph)	0	22	0	0	14	0	0	0	105	0	0	187
Lane Group Flow (vph)	186	393	0	104	706	0	482	385	55	38	172	39
Heavy Vehicles (%)	2%	2%	7%	7%	2%	13%	8%	2%	0%	13%	8%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	30.0	21.9		26.4	20.1		37.5	28.0	28.0	18.8	14.1	14.1
Effective Green, g (s)	30.0	21.9		26.4	20.1		37.5	28.0	28.0	18.8	14.1	14.1
Actuated g/C Ratio	0.37	0.27		0.32	0.25		0.46	0.34	0.34	0.23	0.17	0.17
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	266	916		344	843		549	639	554	247	303	263
v/s Ratio Prot	c0.07	0.12		0.02	c0.21		c0.20	0.21		0.01	0.10	
v/s Ratio Perm	0.19			0.07			c0.20		0.03	0.03		0.03
v/c Ratio	0.70	0.43		0.30	0.84		0.88	0.60	0.10	0.15	0.57	0.15
Uniform Delay, d1	19.5	24.7		19.9	29.2		17.2	22.2	18.2	24.8	31.0	28.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.8	0.3		0.5	7.3		14.7	1.6	0.1	0.3	2.4	0.3
Delay (s)	27.3	25.0		20.4	36.5		32.0	23.8	18.3	25.0	33.4	28.9
Level of Service	C	C		C	D		C	C	B	C	C	C
Approach Delay (s)		25.7			34.4			26.8			30.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	81.6	Sum of lost time (s)	20.7
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45am			

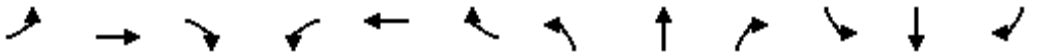
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	321	311	12	403	82	289	194	17	105	384	80
Future Volume (vph)	37	321	311	12	403	82	289	194	17	105	384	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3213		1805	1792	1615	1805	3495		1805	3430	
Flt Permitted	0.22	1.00		0.29	1.00	1.00	0.32	1.00		0.61	1.00	
Satd. Flow (perm)	406	3213		544	1792	1615	608	3495		1157	3430	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	349	338	13	438	89	314	211	18	114	417	87
RTOR Reduction (vph)	0	173	0	0	0	62	0	6	0	0	16	0
Lane Group Flow (vph)	40	514	0	13	438	27	314	223	0	114	488	0
Heavy Vehicles (%)	5%	8%	0%	0%	6%	0%	0%	2%	3%	0%	2%	5%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.2	30.0		28.8	27.8	27.8	42.2	32.2		31.7	26.9	
Effective Green, g (s)	33.2	30.0		28.8	27.8	27.8	42.2	32.2		31.7	26.9	
Actuated g/C Ratio	0.37	0.33		0.32	0.31	0.31	0.47	0.36		0.35	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	195	1065		187	550	496	417	1243		439	1019	
v/s Ratio Prot	c0.01	0.16		0.00	c0.24		c0.08	0.06		0.01	0.14	
v/s Ratio Perm	0.07			0.02		0.02	c0.27			0.08		
v/c Ratio	0.21	0.48		0.07	0.80	0.06	0.75	0.18		0.26	0.48	
Uniform Delay, d1	20.2	24.1		21.5	28.8	22.1	16.5	20.1		20.4	26.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.3		0.2	7.9	0.0	7.5	0.1		0.3	0.4	
Delay (s)	20.7	24.4		21.7	36.6	22.1	24.1	20.1		20.7	26.4	
Level of Service	C	C		C	D	C	C	C		C	C	
Approach Delay (s)		24.2			33.9			22.4			25.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	22.5
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

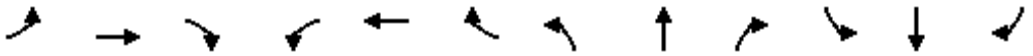
AM Phase I Modified



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	315	67	96	579	84	443	354	147	35	158	208
Future Volume (vph)	171	315	67	96	579	84	443	354	147	35	158	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1509	1687	3539	1429	1671	1863	1615	1597	1759	1524
Flt Permitted	0.23	1.00	1.00	0.52	1.00	1.00	0.41	1.00	1.00	0.53	1.00	1.00
Satd. Flow (perm)	419	3539	1509	916	3539	1429	719	1863	1615	898	1759	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	186	342	73	104	629	91	482	385	160	38	172	226
RTOR Reduction (vph)	0	0	33	0	0	57	0	0	81	0	0	112
Lane Group Flow (vph)	186	342	40	104	629	34	482	385	79	38	172	114
Heavy Vehicles (%)	2%	2%	7%	7%	2%	13%	8%	2%	0%	13%	8%	6%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	26.1	18.0	42.9	25.9	17.9	29.9	37.2	26.1	39.2	19.5	13.2	26.4
Effective Green, g (s)	26.1	18.0	42.9	25.9	17.9	29.9	37.2	26.1	39.2	19.5	13.2	26.4
Actuated g/C Ratio	0.33	0.23	0.54	0.33	0.23	0.38	0.47	0.33	0.50	0.25	0.17	0.33
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	276	805	818	377	800	540	569	614	800	277	293	508
v/s Ratio Prot	c0.07	0.10	0.03	0.03	c0.18	0.02	c0.21	0.21	0.05	0.01	0.10	0.07
v/s Ratio Perm	0.15			0.06			c0.19			0.02		
v/c Ratio	0.67	0.42	0.05	0.28	0.79	0.06	0.85	0.63	0.10	0.14	0.59	0.22
Uniform Delay, d1	20.4	26.1	8.5	19.1	28.8	15.7	16.1	22.4	10.6	23.0	30.4	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.4	0.4	0.0	0.4	5.1	0.0	11.2	2.0	0.1	0.2	3.0	0.2
Delay (s)	26.8	26.5	8.5	19.5	33.9	15.7	27.3	24.4	10.6	23.2	33.4	19.2
Level of Service	C	C	A	B	C	B	C	C	B	C	C	B
Approach Delay (s)		24.4			30.1			23.6			25.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	79.1	Sum of lost time (s)	20.7
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 6:45-7:45am			

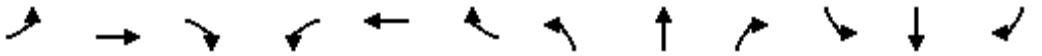
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	321	311	12	403	82	289	194	17	105	384	80
Future Volume (vph)	37	321	311	12	403	82	289	194	17	105	384	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3213		1805	1792	1615	1805	3495		1805	3430	
Flt Permitted	0.22	1.00		0.29	1.00	1.00	0.32	1.00		0.61	1.00	
Satd. Flow (perm)	406	3213		544	1792	1615	608	3495		1157	3430	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	349	338	13	438	89	314	211	18	114	417	87
RTOR Reduction (vph)	0	173	0	0	0	62	0	6	0	0	16	0
Lane Group Flow (vph)	40	514	0	13	438	27	314	223	0	114	488	0
Heavy Vehicles (%)	5%	8%	0%	0%	6%	0%	0%	2%	3%	0%	2%	5%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.2	30.0		28.8	27.8	27.8	42.2	32.2		31.7	26.9	
Effective Green, g (s)	33.2	30.0		28.8	27.8	27.8	42.2	32.2		31.7	26.9	
Actuated g/C Ratio	0.37	0.33		0.32	0.31	0.31	0.47	0.36		0.35	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	195	1065		187	550	496	417	1243		439	1019	
v/s Ratio Prot	c0.01	0.16		0.00	c0.24		c0.08	0.06		0.01	0.14	
v/s Ratio Perm	0.07			0.02		0.02	c0.27			0.08		
v/c Ratio	0.21	0.48		0.07	0.80	0.06	0.75	0.18		0.26	0.48	
Uniform Delay, d1	20.2	24.1		21.5	28.8	22.1	16.5	20.1		20.4	26.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.3		0.2	7.9	0.0	7.5	0.1		0.3	0.4	
Delay (s)	20.7	24.4		21.7	36.6	22.1	24.1	20.1		20.7	26.4	
Level of Service	C	C		C	D	C	C	C		C	C	
Approach Delay (s)		24.2			33.9			22.4			25.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	22.5
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

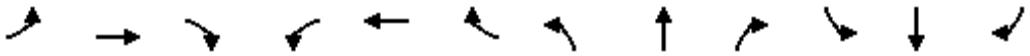
PM Phase I



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	653	434	136	217	26	345	472	132	65	432	235
Future Volume (vph)	213	653	434	136	217	26	345	472	132	65	432	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3282		1787	3355		1656	1863	1599	1805	1863	1583
Flt Permitted	0.49	1.00		0.10	1.00		0.10	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)	916	3282		196	3355		179	1863	1599	673	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	710	472	148	236	28	375	513	143	71	470	255
RTOR Reduction (vph)	0	88	0	0	7	0	0	0	86	0	0	164
Lane Group Flow (vph)	232	1094	0	148	257	0	375	513	57	71	470	91
Heavy Vehicles (%)	2%	1%	7%	1%	6%	5%	9%	2%	1%	0%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	57.1	43.9		46.4	38.3		63.1	51.9	51.9	40.5	34.1	34.1
Effective Green, g (s)	57.1	43.9		46.4	38.3		63.1	51.9	51.9	40.5	34.1	34.1
Actuated g/C Ratio	0.44	0.34		0.35	0.29		0.48	0.40	0.40	0.31	0.26	0.26
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1	5.1	4.8	5.1	5.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	488	1099		167	980		359	738	633	263	484	412
v/s Ratio Prot	0.05	c0.33		c0.05	0.08		c0.19	0.28		0.01	0.25	
v/s Ratio Perm	0.16			0.26			c0.31		0.04	0.07		0.06
v/c Ratio	0.48	1.00		0.89	0.26		1.04	0.70	0.09	0.27	0.97	0.22
Uniform Delay, d1	24.2	43.5		34.7	35.5		41.2	33.0	24.8	32.8	48.0	38.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	25.9		38.7	0.1		59.6	2.9	0.1	0.6	33.4	0.3
Delay (s)	25.0	69.4		73.3	35.7		100.8	35.8	24.8	33.4	81.3	38.3
Level of Service	C	E		E	D		F	D	C	C	F	D
Approach Delay (s)		62.1			49.2			57.9			63.3	
Approach LOS		E			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	59.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	131.0	Sum of lost time (s)	20.7
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		
Description: 4:15-5:15pm			

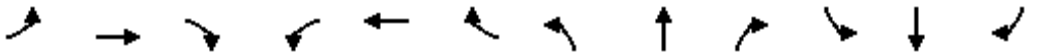
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	290	253	23	410	131	313	564	19	70	304	53
Future Volume (vph)	53	290	253	23	410	131	313	564	19	70	304	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3322		1671	1792	1615	1641	3522		1805	3403	
Flt Permitted	0.20	1.00		0.36	1.00	1.00	0.43	1.00		0.35	1.00	
Satd. Flow (perm)	379	3322		629	1792	1615	751	3522		670	3403	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	315	275	25	446	142	340	613	21	76	330	58
RTOR Reduction (vph)	0	170	0	0	0	100	0	3	0	0	15	0
Lane Group Flow (vph)	58	420	0	25	446	42	340	631	0	76	373	0
Heavy Vehicles (%)	2%	2%	0%	8%	6%	0%	10%	2%	2%	0%	4%	2%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.4	28.8		28.6	26.4	26.4	38.1	30.2		31.5	26.9	
Effective Green, g (s)	33.4	28.8		28.6	26.4	26.4	38.1	30.2		31.5	26.9	
Actuated g/C Ratio	0.38	0.33		0.32	0.30	0.30	0.43	0.34		0.36	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	215	1083		229	535	482	403	1204		298	1036	
v/s Ratio Prot	c0.01	0.13		0.00	c0.25		c0.08	0.18		0.01	0.11	
v/s Ratio Perm	0.09			0.03		0.03	c0.29			0.08		
v/c Ratio	0.27	0.39		0.11	0.83	0.09	0.84	0.52		0.26	0.36	
Uniform Delay, d1	19.4	22.9		20.6	28.9	22.3	20.8	23.3		19.2	24.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.2		0.2	10.7	0.1	14.8	0.4		0.5	0.2	
Delay (s)	20.1	23.2		20.8	39.6	22.4	35.7	23.7		19.6	24.2	
Level of Service	C	C		C	D	C	D	C		B	C	
Approach Delay (s)		22.9			34.9			27.9			23.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	22.5
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

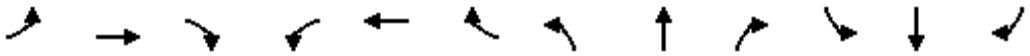
PM Phase I Modified



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	653	434	136	217	26	345	472	132	65	432	235
Future Volume (vph)	213	653	434	136	217	26	345	472	132	65	432	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3574	1509	1787	3406	1538	1656	1863	1599	1805	1863	1583
Flt Permitted	0.52	1.00	1.00	0.23	1.00	1.00	0.14	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	967	3574	1509	428	3406	1538	236	1863	1599	652	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	710	472	148	236	28	375	513	143	71	470	255
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	67	0	0	100
Lane Group Flow (vph)	232	710	472	148	236	9	375	513	76	71	470	155
Heavy Vehicles (%)	2%	1%	7%	1%	6%	5%	9%	2%	1%	0%	2%	2%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	31.4	20.5	42.8	25.6	17.6	29.7	46.2	35.0	48.1	31.2	24.8	40.8
Effective Green, g (s)	31.4	20.5	42.8	25.6	17.6	29.7	46.2	35.0	48.1	31.2	24.8	40.8
Actuated g/C Ratio	0.35	0.23	0.47	0.28	0.19	0.33	0.51	0.39	0.53	0.34	0.27	0.45
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	431	808	712	240	661	504	380	719	848	305	509	712
v/s Ratio Prot	c0.06	c0.20	0.31	0.05	0.07	0.01	c0.18	0.28	0.05	0.02	0.25	0.10
v/s Ratio Perm	0.12			0.12			c0.32			0.06		
v/c Ratio	0.54	0.88	0.66	0.62	0.36	0.02	0.99	0.71	0.09	0.23	0.92	0.22
Uniform Delay, d1	22.3	33.8	18.4	26.0	31.6	20.6	25.4	23.6	10.5	20.6	32.0	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	10.7	2.3	4.7	0.3	0.0	42.3	3.4	0.0	0.4	22.5	0.2
Delay (s)	23.6	44.5	20.7	30.7	31.9	20.6	67.6	26.9	10.5	20.9	54.5	15.3
Level of Service	C	D	C	C	C	C	E	C	B	C	D	B
Approach Delay (s)		33.1			30.7			39.5			38.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.6	Sum of lost time (s)	20.7
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 4:15-5:15pm			

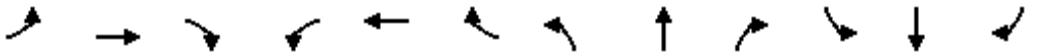
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	290	253	23	410	131	313	564	19	70	304	53
Future Volume (vph)	53	290	253	23	410	131	313	564	19	70	304	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3322		1671	1792	1615	1641	3522		1805	3403	
Flt Permitted	0.20	1.00		0.36	1.00	1.00	0.43	1.00		0.35	1.00	
Satd. Flow (perm)	379	3322		629	1792	1615	751	3522		670	3403	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	315	275	25	446	142	340	613	21	76	330	58
RTOR Reduction (vph)	0	170	0	0	0	100	0	3	0	0	15	0
Lane Group Flow (vph)	58	420	0	25	446	42	340	631	0	76	373	0
Heavy Vehicles (%)	2%	2%	0%	8%	6%	0%	10%	2%	2%	0%	4%	2%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.4	28.8		28.6	26.4	26.4	38.1	30.2		31.5	26.9	
Effective Green, g (s)	33.4	28.8		28.6	26.4	26.4	38.1	30.2		31.5	26.9	
Actuated g/C Ratio	0.38	0.33		0.32	0.30	0.30	0.43	0.34		0.36	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	215	1083		229	535	482	403	1204		298	1036	
v/s Ratio Prot	c0.01	0.13		0.00	c0.25		c0.08	0.18		0.01	0.11	
v/s Ratio Perm	0.09			0.03		0.03	c0.29			0.08		
v/c Ratio	0.27	0.39		0.11	0.83	0.09	0.84	0.52		0.26	0.36	
Uniform Delay, d1	19.4	22.9		20.6	28.9	22.3	20.8	23.3		19.2	24.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.2		0.2	10.7	0.1	14.8	0.4		0.5	0.2	
Delay (s)	20.1	23.2		20.8	39.6	22.4	35.7	23.7		19.6	24.2	
Level of Service	C	C		C	D	C	D	C		B	C	
Approach Delay (s)		22.9			34.9			27.9			23.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	22.5
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

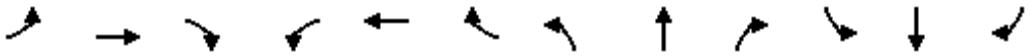
AM Phase II



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	402	236	124	686	96	568	458	185	37	203	247
Future Volume (vph)	224	402	236	124	686	96	568	458	185	37	203	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1509	1687	3539	1429	1671	1863	1615	1597	1759	1524
Flt Permitted	0.19	1.00	1.00	0.39	1.00	1.00	0.26	1.00	1.00	0.48	1.00	1.00
Satd. Flow (perm)	362	3539	1509	688	3539	1429	455	1863	1615	809	1759	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	437	257	135	746	104	617	498	201	40	221	268
RTOR Reduction (vph)	0	0	106	0	0	67	0	0	94	0	0	104
Lane Group Flow (vph)	243	437	151	135	746	37	617	498	107	40	221	164
Heavy Vehicles (%)	2%	2%	7%	7%	2%	13%	8%	2%	0%	13%	8%	6%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	29.6	20.6	53.5	29.6	20.6	32.7	45.3	34.1	48.2	19.7	13.3	27.4
Effective Green, g (s)	29.6	20.6	53.5	29.6	20.6	32.7	45.3	34.1	48.2	19.7	13.3	27.4
Actuated g/C Ratio	0.33	0.23	0.59	0.33	0.23	0.36	0.50	0.38	0.53	0.22	0.15	0.30
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	802	889	323	802	514	591	699	857	231	257	459
v/s Ratio Prot	c0.09	0.12	0.10	0.04	0.21	0.03	c0.31	0.27	0.07	0.01	0.13	0.11
v/s Ratio Perm	c0.21			0.09			c0.21			0.03		
v/c Ratio	0.95	0.54	0.17	0.42	0.93	0.07	1.04	0.71	0.12	0.17	0.86	0.36
Uniform Delay, d1	26.2	31.0	8.5	22.6	34.4	19.1	22.1	24.2	10.7	28.6	37.8	24.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	41.1	0.8	0.1	0.9	17.2	0.1	49.0	3.4	0.1	0.4	23.7	0.5
Delay (s)	67.3	31.7	8.6	23.4	51.6	19.1	71.1	27.6	10.8	28.9	61.6	25.3
Level of Service	E	C	A	C	D	B	E	C	B	C	E	C
Approach Delay (s)		34.6			44.3			45.4			40.7	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.8	Sum of lost time (s)	20.7
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 6:45-7:45am			

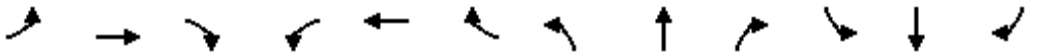
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	358	369	14	447	91	366	246	23	120	461	86
Future Volume (vph)	39	358	369	14	447	91	366	246	23	120	461	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3209		1805	1792	1615	1805	3491		1805	3440	
Flt Permitted	0.19	1.00		0.21	1.00	1.00	0.27	1.00		0.57	1.00	
Satd. Flow (perm)	345	3209		404	1792	1615	512	3491		1089	3440	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	389	401	15	486	99	398	267	25	130	501	93
RTOR Reduction (vph)	0	184	0	0	0	67	0	7	0	0	14	0
Lane Group Flow (vph)	42	606	0	15	486	32	398	285	0	130	580	0
Heavy Vehicles (%)	5%	8%	0%	0%	6%	0%	0%	2%	3%	0%	2%	5%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.7	30.5		31.5	29.4	29.4	40.1	30.0		33.1	26.5	
Effective Green, g (s)	33.7	30.5		31.5	29.4	29.4	40.1	30.0		33.1	26.5	
Actuated g/C Ratio	0.37	0.33		0.34	0.32	0.32	0.44	0.33		0.36	0.29	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	174	1067		170	574	517	366	1142		444	994	
v/s Ratio Prot	c0.01	0.19		0.00	c0.27		c0.12	0.08		0.02	0.17	
v/s Ratio Perm	0.08			0.03		0.02	c0.36			0.08		
v/c Ratio	0.24	0.57		0.09	0.85	0.06	1.09	0.25		0.29	0.58	
Uniform Delay, d1	20.8	25.2		20.7	29.0	21.6	22.5	22.6		20.2	27.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.7		0.2	11.1	0.1	72.5	0.1		0.4	0.9	
Delay (s)	21.5	25.9		20.9	40.1	21.6	95.0	22.7		20.5	28.8	
Level of Service	C	C		C	D	C	F	C		C	C	
Approach Delay (s)		25.7			36.6			64.4			27.3	
Approach LOS		C			D			E			C	

Intersection Summary			
HCM 2000 Control Delay	37.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	91.7	Sum of lost time (s)	22.5
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

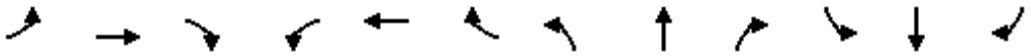
AM Phase II Modified



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	402	236	124	686	96	568	458	185	37	203	247
Future Volume (vph)	224	402	236	124	686	96	568	458	185	37	203	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1509	1687	3539	1429	1671	1863	1615	1597	1759	1524
Flt Permitted	0.19	1.00	1.00	0.39	1.00	1.00	0.26	1.00	1.00	0.48	1.00	1.00
Satd. Flow (perm)	362	3539	1509	688	3539	1429	455	1863	1615	809	1759	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	437	257	135	746	104	617	498	201	40	221	268
RTOR Reduction (vph)	0	0	106	0	0	67	0	0	94	0	0	104
Lane Group Flow (vph)	243	437	151	135	746	37	617	498	107	40	221	164
Heavy Vehicles (%)	2%	2%	7%	7%	2%	13%	8%	2%	0%	13%	8%	6%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	29.6	20.6	53.5	29.6	20.6	32.7	45.3	34.1	48.2	19.7	13.3	27.4
Effective Green, g (s)	29.6	20.6	53.5	29.6	20.6	32.7	45.3	34.1	48.2	19.7	13.3	27.4
Actuated g/C Ratio	0.33	0.23	0.59	0.33	0.23	0.36	0.50	0.38	0.53	0.22	0.15	0.30
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	802	889	323	802	514	591	699	857	231	257	459
v/s Ratio Prot	c0.09	0.12	0.10	0.04	0.21	0.03	c0.31	0.27	0.07	0.01	0.13	0.11
v/s Ratio Perm	c0.21			0.09			c0.21			0.03		
v/c Ratio	0.95	0.54	0.17	0.42	0.93	0.07	1.04	0.71	0.12	0.17	0.86	0.36
Uniform Delay, d1	26.2	31.0	8.5	22.6	34.4	19.1	22.1	24.2	10.7	28.6	37.8	24.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	41.1	0.8	0.1	0.9	17.2	0.1	49.0	3.4	0.1	0.4	23.7	0.5
Delay (s)	67.3	31.7	8.6	23.4	51.6	19.1	71.1	27.6	10.8	28.9	61.6	25.3
Level of Service	E	C	A	C	D	B	E	C	B	C	E	C
Approach Delay (s)		34.6			44.3			45.4			40.7	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.8	Sum of lost time (s)	20.7
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
Description: 6:45-7:45am			

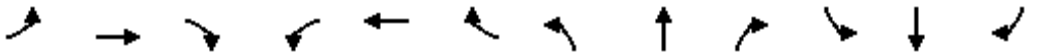
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	358	369	14	447	91	366	246	23	120	461	86
Future Volume (vph)	39	358	369	14	447	91	366	246	23	120	461	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3209		1805	1792	1615	1805	3491		1805	3440	
Flt Permitted	0.19	1.00		0.21	1.00	1.00	0.27	1.00		0.57	1.00	
Satd. Flow (perm)	345	3209		404	1792	1615	512	3491		1089	3440	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	389	401	15	486	99	398	267	25	130	501	93
RTOR Reduction (vph)	0	184	0	0	0	67	0	7	0	0	14	0
Lane Group Flow (vph)	42	606	0	15	486	32	398	285	0	130	580	0
Heavy Vehicles (%)	5%	8%	0%	0%	6%	0%	0%	2%	3%	0%	2%	5%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	33.7	30.5		31.5	29.4	29.4	40.1	30.0		33.1	26.5	
Effective Green, g (s)	33.7	30.5		31.5	29.4	29.4	40.1	30.0		33.1	26.5	
Actuated g/C Ratio	0.37	0.33		0.34	0.32	0.32	0.44	0.33		0.36	0.29	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	174	1067		170	574	517	366	1142		444	994	
v/s Ratio Prot	c0.01	0.19		0.00	c0.27		c0.12	0.08		0.02	0.17	
v/s Ratio Perm	0.08			0.03		0.02	c0.36			0.08		
v/c Ratio	0.24	0.57		0.09	0.85	0.06	1.09	0.25		0.29	0.58	
Uniform Delay, d1	20.8	25.2		20.7	29.0	21.6	22.5	22.6		20.2	27.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.7		0.2	11.1	0.1	72.5	0.1		0.4	0.9	
Delay (s)	21.5	25.9		20.9	40.1	21.6	95.0	22.7		20.5	28.8	
Level of Service	C	C		C	D	C	F	C		C	C	
Approach Delay (s)		25.7			36.6			64.4			27.3	
Approach LOS		C			D			E			C	

Intersection Summary			
HCM 2000 Control Delay	37.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	91.7	Sum of lost time (s)	22.5
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

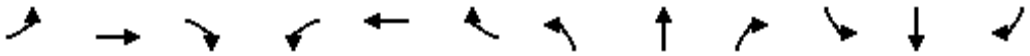
PM Phase II



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	783	565	175	255	29	424	552	153	80	606	303
Future Volume (vph)	255	783	565	175	255	29	424	552	153	80	606	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3574	1509	1787	3406	1538	1656	1863	1599	1805	1863	1583
Flt Permitted	0.41	1.00	1.00	0.18	1.00	1.00	0.09	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	770	3574	1509	330	3406	1538	160	1863	1599	634	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	851	614	190	277	32	461	600	166	87	659	329
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	64	0	0	63
Lane Group Flow (vph)	277	851	614	190	277	9	461	600	102	87	659	266
Heavy Vehicles (%)	2%	1%	7%	1%	6%	5%	9%	2%	1%	0%	2%	2%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	42.3	29.2	59.1	30.8	22.8	34.9	67.9	56.7	69.8	45.3	38.9	58.4
Effective Green, g (s)	42.3	29.2	59.1	30.8	22.8	34.9	67.9	56.7	69.8	45.3	38.9	58.4
Actuated g/C Ratio	0.35	0.24	0.49	0.25	0.19	0.29	0.56	0.47	0.58	0.37	0.32	0.48
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	388	862	737	180	641	443	388	872	922	299	598	764
v/s Ratio Prot	0.08	c0.24	0.41	c0.07	0.08	0.01	c0.24	0.32	0.06	0.02	0.35	0.17
v/s Ratio Perm	0.16			0.20			c0.43			0.09		
v/c Ratio	0.71	0.99	0.83	1.06	0.43	0.02	1.19	0.69	0.11	0.29	1.10	0.35
Uniform Delay, d1	30.8	45.7	26.7	42.1	43.4	30.8	38.4	25.2	11.6	25.3	41.0	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	27.2	8.0	82.5	0.5	0.0	107.7	2.3	0.1	0.5	67.9	0.3
Delay (s)	36.9	72.9	34.7	124.7	43.8	30.8	146.1	27.5	11.6	25.8	108.9	19.7
Level of Service	D	E	C	F	D	C	F	C	B	C	F	B
Approach Delay (s)		53.7			73.8			69.9			74.9	
Approach LOS		D			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	65.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	121.0	Sum of lost time (s)	20.7
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
Description: 4:15-5:15pm			

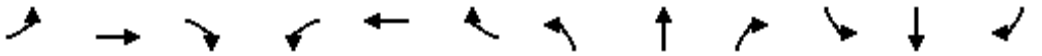
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	319	322	27	444	142	374	673	24	78	352	57
Future Volume (vph)	55	319	322	27	444	142	374	673	24	78	352	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3305		1671	1792	1615	1641	3521		1805	3408	
Flt Permitted	0.17	1.00		0.28	1.00	1.00	0.39	1.00		0.26	1.00	
Satd. Flow (perm)	325	3305		501	1792	1615	667	3521		497	3408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	347	350	29	483	154	407	732	26	85	383	62
RTOR Reduction (vph)	0	196	0	0	0	106	0	3	0	0	14	0
Lane Group Flow (vph)	60	501	0	29	483	48	407	755	0	85	431	0
Heavy Vehicles (%)	2%	2%	0%	8%	6%	0%	10%	2%	2%	0%	4%	2%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	34.8	30.2		30.2	27.9	27.9	38.1	30.2		31.5	26.9	
Effective Green, g (s)	34.8	30.2		30.2	27.9	27.9	38.1	30.2		31.5	26.9	
Actuated g/C Ratio	0.39	0.34		0.34	0.31	0.31	0.42	0.34		0.35	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	1111		198	556	501	368	1184		241	1020	
v/s Ratio Prot	c0.02	0.15		0.00	c0.27		c0.10	0.21		0.02	0.13	
v/s Ratio Perm	0.10			0.05		0.03	c0.37			0.11		
v/c Ratio	0.30	0.45		0.15	0.87	0.10	1.11	0.64		0.35	0.42	
Uniform Delay, d1	19.7	23.3		20.4	29.2	22.0	24.3	25.2		20.2	25.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.3		0.3	13.5	0.1	78.6	1.1		0.9	0.3	
Delay (s)	20.5	23.6		20.8	42.7	22.1	103.0	26.3		21.1	25.5	
Level of Service	C	C		C	D	C	F	C		C	C	
Approach Delay (s)		23.4			37.0			53.1			24.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	22.5
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

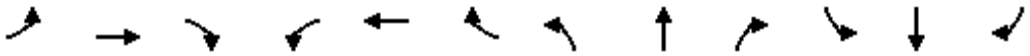
PM Phase II Modified



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	783	565	175	255	29	424	552	153	80	606	303
Future Volume (vph)	255	783	565	175	255	29	424	552	153	80	606	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.7	5.7	5.1	5.7	5.7	4.8	5.1	5.1	4.8	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3574	1509	1787	3406	1538	1656	1863	1599	1805	1863	1583
Flt Permitted	0.41	1.00	1.00	0.18	1.00	1.00	0.09	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	770	3574	1509	330	3406	1538	160	1863	1599	634	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	851	614	190	277	32	461	600	166	87	659	329
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	64	0	0	63
Lane Group Flow (vph)	277	851	614	190	277	9	461	600	102	87	659	266
Heavy Vehicles (%)	2%	1%	7%	1%	6%	5%	9%	2%	1%	0%	2%	2%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	42.3	29.2	59.1	30.8	22.8	34.9	67.9	56.7	69.8	45.3	38.9	58.4
Effective Green, g (s)	42.3	29.2	59.1	30.8	22.8	34.9	67.9	56.7	69.8	45.3	38.9	58.4
Actuated g/C Ratio	0.35	0.24	0.49	0.25	0.19	0.29	0.56	0.47	0.58	0.37	0.32	0.48
Clearance Time (s)	5.1	5.7		5.1	5.7		4.8	5.1		4.8	5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	388	862	737	180	641	443	388	872	922	299	598	764
v/s Ratio Prot	0.08	c0.24	0.41	c0.07	0.08	0.01	c0.24	0.32	0.06	0.02	0.35	0.17
v/s Ratio Perm	0.16			0.20			c0.43			0.09		
v/c Ratio	0.71	0.99	0.83	1.06	0.43	0.02	1.19	0.69	0.11	0.29	1.10	0.35
Uniform Delay, d1	30.8	45.7	26.7	42.1	43.4	30.8	38.4	25.2	11.6	25.3	41.0	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	27.2	8.0	82.5	0.5	0.0	107.7	2.3	0.1	0.5	67.9	0.3
Delay (s)	36.9	72.9	34.7	124.7	43.8	30.8	146.1	27.5	11.6	25.8	108.9	19.7
Level of Service	D	E	C	F	D	C	F	C	B	C	F	B
Approach Delay (s)		53.7			73.8			69.9			74.9	
Approach LOS		D			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	65.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	121.0	Sum of lost time (s)	20.7
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
Description: 4:15-5:15pm			

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	319	322	27	444	142	374	673	24	78	352	57
Future Volume (vph)	55	319	322	27	444	142	374	673	24	78	352	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3305		1671	1792	1615	1641	3521		1805	3408	
Flt Permitted	0.17	1.00		0.28	1.00	1.00	0.39	1.00		0.26	1.00	
Satd. Flow (perm)	325	3305		501	1792	1615	667	3521		497	3408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	347	350	29	483	154	407	732	26	85	383	62
RTOR Reduction (vph)	0	196	0	0	0	106	0	3	0	0	14	0
Lane Group Flow (vph)	60	501	0	29	483	48	407	755	0	85	431	0
Heavy Vehicles (%)	2%	2%	0%	8%	6%	0%	10%	2%	2%	0%	4%	2%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	34.8	30.2		30.2	27.9	27.9	38.1	30.2		31.5	26.9	
Effective Green, g (s)	34.8	30.2		30.2	27.9	27.9	38.1	30.2		31.5	26.9	
Actuated g/C Ratio	0.39	0.34		0.34	0.31	0.31	0.42	0.34		0.35	0.30	
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.2	6.1		5.2	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	1111		198	556	501	368	1184		241	1020	
v/s Ratio Prot	c0.02	0.15		0.00	c0.27		c0.10	0.21		0.02	0.13	
v/s Ratio Perm	0.10			0.05		0.03	c0.37			0.11		
v/c Ratio	0.30	0.45		0.15	0.87	0.10	1.11	0.64		0.35	0.42	
Uniform Delay, d1	19.7	23.3		20.4	29.2	22.0	24.3	25.2		20.2	25.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.3		0.3	13.5	0.1	78.6	1.1		0.9	0.3	
Delay (s)	20.5	23.6		20.8	42.7	22.1	103.0	26.3		21.1	25.5	
Level of Service	C	C		C	D	C	F	C		C	C	
Approach Delay (s)		23.4			37.0			53.1			24.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	22.5
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			