Traffic Impact Study

Crossroads-Meadowbrook & Reagan Ranch

Colorado Springs, Colorado

PCD File No. CR201 & SP207

Add PCD File No. P208 and SP2011

Unresolved.

Prepared for:

Pikes Peak Investments LLC

c/o The Equity Group

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

Curtis D. Rowe, P.E., PTOE, PE #36355

February 19, 2021
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

This Master TIS must also include site specific recommendations since this is provided as the supporting TIS for the preliminary plan applications for Crossroads Mix Use (SP2011), Meadowbrook Park (PUDSP208), and Crossroads North (SP207). Please look at the review comment to the TIS under each PCD File No. The redline comments to the TIS were specifically focused for the given project. This revised TIS appears to have only addressed review comments provided under the SP207 submittal. See SP2011 and PUDSP208 review 1 comments for additional TIS comments.

1. Provide recommendations for the internal private road classification/cross section in Crossroads Mixed Use. The trip generation estimate is 11,554 ADT while the preliminary plan showed an urban local road cross section (design ADT of 3,000) for the internal private road. **Unresolved. It seems the private road should be designed to a non-residential collector cross-section.**

2. Provide roundabout analysis. Current policy is to design per the Wisconsin DOT roundabout design criteria.
- Autoturn analysis of the intersection. Per ECM Table 2-7 design vehicle is WB-50.
- Table of critical design parameters.
- Rodel model report.
- Fastest path analysis/exhibit.
- Entry angle exhibit.

Unresolved. Address the original comments tomake sure the roundabout shown in the preliminary layout is appropriate.

February 2021

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 EXECUTIVE SUMMARY

The proposed development areas of Crossroads North, Crossroads Mix Use, Meadowbrook Park, and Reagan Ranch are combined in this study to represent one Master Traffic Impact Study for all project areas. These development areas are located in the City of Colorado Springs and El Paso County, Colorado. Crossroads North is proposed to be located on the northwest corner of the SH-94 and Marksheffel Road intersection while Crossroads Mix Use and Meadowbrook Park are proposed to be located on the southwest and northwest corners of the SH-94/Newt Dr and US-24 intersection, respectively. Reagan Ranch is evaluated with three distinct project areas; one area is located on the southwest corner of the SH-94 and Marksheffel Road intersection, a second area is located on the southeast corner of the SH-94 and Marksheffel Road intersection, while a third development area is located on the southeast corner of the intersection of Space Village Avenue and Marksheffel Road. Crossroads-Meadowbrook is expected to be a 10-year build while Regan Ranch is anticipated to be a 15 to 20-year build. As such, an initial phase of development was evaluated in a 2026 horizon while full buildout was evaluated in the long-term 2040 horizon.

Crossroads North proposes to contain retail uses and a park/sports complex while Crossroads Mix Use will contain multifamily housing and retail uses. Meadowbrook Park will include single family residences. The northwest area of Reagan Ranch will contain industrial uses while the northeast area will include retail uses and single-family residences. The southeast region of Reagan Ranch proposes retail, office, multifamily housing, and single-family residences.

The purpose of this study is to identify project traffic generation characteristics, to identify potential project traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study in accordance with City of Colorado Springs, El Paso County, and Colorado Department of Transportation (CDOT) standards and requirements:

- Meadowbrook Parkway and Marksheffel Road (Intersection #1)
- US-24 and Marksheffel Road (#2)
- Newt Drive and Meadowbrook Parkway (#3)
- SH-94/Newt Drive and US-24 (#4)
- SH-94 and Marksheffel Road (#5)

- SH-94 and Space Village Avenue (#6)
- Space Village Avenue and Marksheffel Road (#7)

In addition, 14 project accesses (Intersections #8-21) proposed along Meadowbrook Parkway, Marksheffel Road, and Space Village Avenue were included for evaluation. Further, and as requested by El Paso County, four (4) internal intersections (#22-25) along public roadways proposed within Crossroads North were also included for evaluation.

Regional access to the project is provided by Interstate 25 (I-25) and US-24. Primary access to the project will be provided by SH-94, Marksheffel Road, and Space Village Avenue. Direct access to the proposed project is to be provided by 14 project accesses located along Meadowbrook Parkway, Marksheffel Road, and Space Village Avenue.

Phase 1 development of the projects in 2026 is expected to generate approximately 34,458 daily weekday external vehicle trips with 2,748 of these trips occurring during the morning peak hour and 2,806 trips occurring during the afternoon peak hour. With full buildout of the developments by 2040, the projects are expected to generate approximately 58,582 daily weekday external vehicle trips with 3,481 of these trips occurring during the morning peak hour and 5,121 trips occurring during the afternoon peak hour.

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, anticipated surrounding development areas, expected roadway improvements, and the proposed access system for the project. Separate distributions were prepared for each development area to accurately identify the amount of traffic to be assigned to each project. Assignment of project traffic was based upon the trip generation described previously and the distributions developed for each project area. Assigned traffic was added to future traffic volumes projected at the study area intersections to conduct a traffic analysis for the determination of possible improvements needed.

Based on the analysis presented in this report, Kimley-Horn believes the Crossroads-Meadowbrook-Reagan Ranch developments will be successfully incorporated into the existing and future roadway network. The proposed background traffic volume growth, project

development, and expected future traffic volumes in each of the 2026 Phase 1 and 2040 full buildout horizons resulted in the following recommendations/conclusions:

Phase 1 2026 Recommendations:

- CDOT will likely require Access Permits for the intersections of SH-94/US-24 (#4) SH-94/Marksheffel Road (#5), and SH-94/Space Village Avenue (#6) in association with the project.

- Southwestbound dual left turn lanes are recommended to be designated along US-24 at the Marksheffel Road intersection (#2). Presently there is a single left turn lane with a striped-out area to shadow the dual left turn lanes on northeastbound US-24. These new southwestbound dual left turn lanes should be designated with a length of 1,100 feet plus 600-foot taper (25 to 1).

- It is recommended that a single lane roundabout be constructed at the Meadowbrook Parkway and Newt Drive intersection (#3) with development of the Crossroads Mix Use project. The roundabout should have single lane approaches on the eastbound Newt Drive, northbound Meadowbrook Parkway, and southbound Meadowbrook Parkway approaches and a two-lane approach on westbound Newt Drive with a shared left turn/through lane into the roundabout and a separate right turn lane.

- The intersection of SH-94/US-24 (#4) currently operates poorly during the peak hours in the existing condition. As a regional capacity improvement, it was found that US-24 may need to provide three through lanes in each direction from the Peterson Road interchange through this intersection with SH-94 in the near-term horizon. The additional through lanes should be considered by CDOT and El Paso County in the near future. If and when US-24 is improved to provide three through lanes in each direction, it is recommended that a separate 600-foot plus 225-foot taper right turn deceleration lane be constructed to maintain free right turn movements to eastbound SH-94. For southwestbound US-24 at SH-94 (#4), the existing acceleration lane along US-24 will need to be reconstructed with 960 feet of length plus a 225-foot taper if and when US-24 is improved to provide three through lanes along westbound US-24. For northeastbound US-24 at SH-94, it is recommended that this acceleration lane be

converted to the third northbound through lane as the acceleration lane is not warranted. Further, the northeastbound US-24 third through lane needs to continue for 1,200 feet plus provide a 660-foot taper based on MUTCD standards. In addition to these regional improvements, it is recommended that the existing single 900-foot left turn lane be changed to 850-feet plus 225-foot taper with dual left turn lanes on the northeastbound US-24 approach for the left turn to Newt Drive. The area for these dual lefts is presently available (mostly); however, the lane is striped out which will require restriping with a slight extension that may also need to be constructed. Also at the intersection of US-24 and SH-94 (#4), it is recommended that the existing dual westbound left turn lanes on SH-94 be converted to triple left turn lanes by restriping the inside westbound through lane to a left turn lane. The inside two westbound left turn lanes should be extended to a length of 760 feet plus a 225-foot taper per CDOT SHAC requirements. With the expansion of US-24 to three westbound lanes to the Peterson Road interchange off-ramp, these triple left turn lanes will be able to be received. A traffic signal modification will be required at the intersection to incorporate all of these improvements.

- At SH-94 and Marksheffel Road (#5), it is recommended that the eastbound and westbound right turns operate with overlap phasing, while the northbound and southbound right turns operate with free movements with acceleration lanes constructed in accordance with the CDOT State Highway Access Code (SHAC). The acceleration lane along westbound SH-94 is recommended to tie into the outside through lane on the approach to US-24. The eastbound left turn lane shall be extended to a length of 750 feet with a 225-foot taper while the westbound left turn lane should be extended to a length of 650 feet with a 225-foot taper. The eastbound and westbound right turn lanes should be extended to 600 feet. The eastbound acceleration lane from the Marksheffel Road northbound right turn should be constructed to 1,380 feet with a 300-foot taper. These improvements at this intersection may already be identified with the SH-94 improvements already being planned by CDOT.

- In order to comply with the CDOT State Highway Access Code, it was found that the existing 150-foot westbound left turn lane at the intersection of SH-94 and Space Village Avenue (#6) does not meet current CDOT standards with a length need of 900 feet and a 300-foot taper. An eastbound acceleration lane along SH-94 from the Space Village Avenue northbound right

turn is also warranted based on existing traffic. This existing 300-foot with 200-foot taper acceleration lane would need to be extended to a length of 1,380 feet with a 300-foot taper to meet current CDOT standards. Extension of these lanes may not be feasible due to the bridge along SH-94 to the east, which is likely why CDOT constructed to lengths shorter than standard.

Update either the preliminary plan or the TIS analysis for consistency.
The preliminary plan is showing full movement at the northeastern access.

- Currently the intersection of Space Village Avenue and Marksheffel Road (#7) is unsignalized. By 2026, this intersection is anticipated to meet the Four-Hour Vehicle Volume signal warrant with development of Reagan Ranch; therefore, it is recommended that a traffic signal be installed at this intersection.

- With completion of the Crossroads Mix Use project, the site proposes three accesses along the southeast side of Meadowbrook Parkway. The northeastern access along Meadowbrook Parkway for Crossroads Mix Use may be right-in/right-out while the two southern most access will provide full movements with stop control on the minor legs. All three project access driveways to Crossroads Mix Use are recommended to have R1-1 "STOP" signs installed for the exiting approaches.

- The Meadowbrook Park development area has one proposed driveway access (#8) along the east side of Meadowbrook Parkway that will align with Preble Drive. Left turn movements for entering this project access will be provided from an existing two-way left turn lane along Meadowbrook Parkway. The westbound exiting approach of this driveway should provide stop control with installation of a R1-1 "STOP" sign.

- Traffic signals are anticipated to be needed and warranted at both full movement access intersections (#9 and #10) along Marksheffel Road for Crossroads North. Therefore, traffic signals are recommended for installation at these two access intersections with development of Crossroads North. It is recommended that a 235-foot with 200-foot taper (based on El Paso County standards for 50 mph) southbound right turn lane be constructed at both access intersections along Marksheffel Road due to the volume of traffic entering Crossroads North at this access. Likewise, northbound left turn lanes with 235 feet of length plus 200-foot tapers should also be constructed at both full movement access intersections along Marksheffel

Road for Crossroads North. Lastly, separate eastbound left turn and right turn lanes are recommended to serve exiting traffic out of Crossroads North. As requested by El Paso County, a sensitivity analysis has been prepared later in Section 5.8 comparing the north access along Marksheffel Road as a full movement signalized intersection and a three-quarter movement unsignalized intersection due to these accesses not meeting El Paso County standards for intersection spacing.

- For the northwest development area of Reagan Ranch, a right-in/right access is proposed along Marksheffel Road (#11) between SH-94 and Space Village Avenue (to also serve the northeast development area of Reagan Ranch) and a full movement access is proposed along Space Village Avenue (#12). It is likely that rights to an easement for a proposed new access along Space Village Avenue will be acquired and was evaluated as such in this traffic study. It is recommended that the access along Space Village Avenue (#12) to the northwest region of Reagan Ranch have a 200-foot plus 180-foot taper eastbound left turn lane to accommodate volumes entering the northwest region of Reagan Ranch.

- Three accesses are proposed to serve the northeast development area of Reagan Ranch. These include a right-in/right-out access on the east side of Marksheffel Road between SH-94 and Space Village Avenue (to align with the previously mentioned access intersection #11) and two roundabouts providing full turning movements along Space Village Avenue between Marksheffel Road and SH-94 (#13 and #14). It is recommended that the roundabouts have single lane approaches on all entering legs.

- For the southeast development area of Reagan Ranch, access will be gained at these same two roundabouts along Space Village Avenue (#13 and #14) as well as seven (7) accesses (#15-21) planned along the east side of Marksheffel Road south of Space Village Avenue at the standard City 600-foot spacing. The access intersection at the approximate half-mile spacing (#18) is expected to require signalization by 2040 while the access in alignment with Peterson Air Force Base (#21) is expected to need signalization by the short-term 2026 horizon. The accesses at the quarter-mile spacing are proposed as three-quarter movement accesses (#16 and #20) while the accesses at the eighth-mile spacing are proposed as right-in/right-out accesses (#15 and #17 and #19).

- It is recommended that the two three-quarter movement accesses along Marksheffel Road (#16 and #20) as well as the northern full movement access (#18) along Marksheffel Road provide 235-foot plus 200-foot taper southbound left turn lanes to accommodate volumes entering the southeast region of Reagan Ranch.

- The southern full movement access intersection (#21) for Reagan Ranch is proposed to align with the existing Peterson Air Force Base High-T intersection (Intersection #21). With this access alignment, it is recommended that the intersection be signalized. This intersection will need to be reconfigured so that a southbound left turn lane and dual eastbound left turn lanes can be provided. The southbound left turn lane is recommended to include a length of 235 feet plus 200-foot taper and the dual eastbound left turn lanes are recommended to provide a length of 400 feet.

- As requested by El Paso County, an internal street evaluation was conducted for the Crossroads North development area. The south access to Crossroads North along Marksheffel Road is proposed to be named Air Lane and is expected to be classified as an El Paso County Urban Non-Residential Collector roadway with a 60-foot right-of-way (ROW). Air Lane extends east-west and is proposed to connect with a north-south extending Non-Residential Collector street (#24) and a north-south extending Urban Local street (#25). Intersection #25 (collector to collector) is proposed to be located approximately 660 feet west of Marksheffel Road while Intersection #24 (collector to local street) is located approximately 380 feet west of Marksheffel Road. These distances meet the El Paso County Urban Non-Residential Collector spacing standards of 660 feet to other collectors and 330 feet to intersections with a local street. The north-south extending Non-Residential Collector street also connects with an east-west collector street (#22) that extends from the north access to Marksheffel Road as well as with an Urban Local street on site (#23). The north access street connecting with Marksheffel Road is proposed to be classified as an El Paso County Urban Non-Residential Collector roadway. The recommended left-turn lanes internal to Crossroads North should provide 115 feet of length plus 120-foot tapers to meet El Paso County standards.

2040 Recommendations:

- If future traffic volume projections are realized, US-24 may need to provide three through lanes in each direction through the Marksheffel Road intersection. Likewise, Marksheffel Road between US-24 and Peterson Air Force Base East Gate may need to provide three through lanes in each direction. It is recommended that traffic volumes continue to be monitored by CDOT, the City of Colorado Springs, and El Paso County, as applicable, to determine if and when these regional improvements will be needed.

- A traffic signal is anticipated to be needed at the northern full movement access intersection for Reagan Ranch (#18) along Marksheffel Road by 2040.

- A westbound right turn lane may be needed at the southern full movement access intersection for Reagan Ranch (#21) proposed to align with the existing Peterson Air Force Base Access by 2040.

- Several extensions of auxiliary turn lanes may be needed by 2040 and should be monitored by CDOT, the City of Colorado Springs, and El Paso County, as applicable, to determine if and when the recommended turn lane lengths will be needed.

General Recommendations:

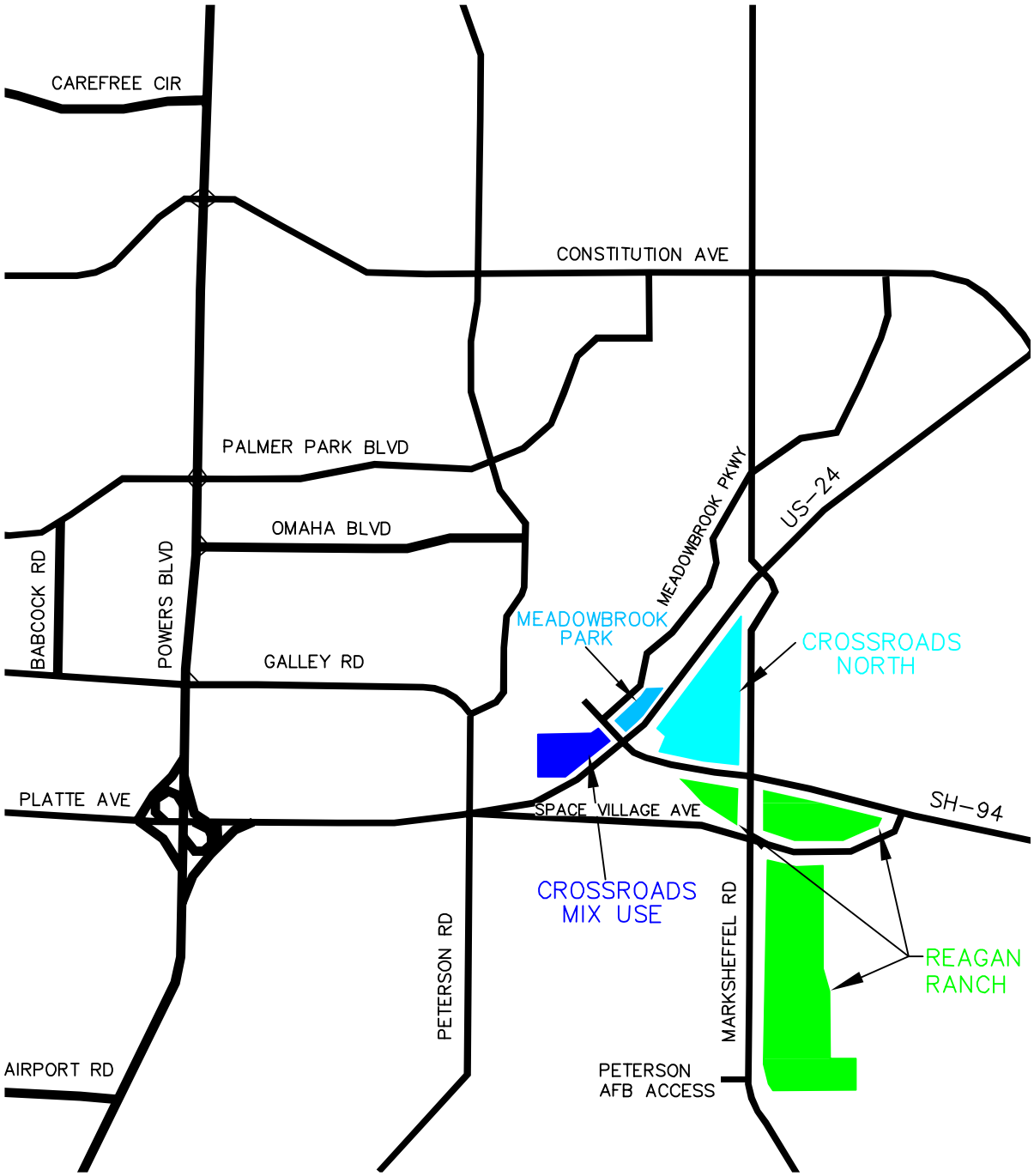
- Any on-site and off-site roadway, signing, striping, and signal improvements should be incorporated into the Civil Drawings, and conform to City of Colorado Springs, El Paso County, and/or CDOT standards as applicable, as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) has prepared this report to document the results of a Master Traffic Impact Study of future traffic conditions associated with Crossroads North, Crossroads Mix Use, Meadowbrook Park, and Reagan Ranch development areas to be located in the City of Colorado Springs and El Paso County, Colorado. A vicinity map illustrating the location of each development area is shown in **Figure 1**.

Crossroads North is proposed to be located on the northwest corner of the SH-94 and Marksheffel Road intersection while Crossroads Mix Use and Meadowbrook Park are proposed to be located on the southwest and northwest corners of the SH-94/Newt Dr and US-24 intersection, respectively. Reagan Ranch is evaluated with three distinct project areas; one area is located on the southwest corner of the SH-94 and Marksheffel Road intersection, a second area is located on the southeast corner of the SH-94 and Marksheffel Road intersection, while a third development area is located on the southeast corner of the intersection of Space Village Avenue and Marksheffel Road. Trip generation, trip distribution, and traffic assignment were calculated separately for these areas to accurately identify the amount of entering and exiting traffic into each development area. Crossroads-Meadowbrook is expected to be a 10-year build while Regan Ranch is anticipated to be a 15 to 20-year build. As such, an initial phase of development was evaluated in a five-year 2026 horizon while full buildout was evaluated in the long-term twenty-year 2040 horizon.

Crossroads North proposes to contain retail uses and a park/sports complex while Crossroads Mix Use will contain multifamily housing and retail uses. Meadowbrook Park will include single family residences. The northwest area of Reagan Ranch will contain industrial uses while the northeast area will include retail uses and single-family residences. The southeast region of Reagan Ranch proposes retail, office, multifamily housing, and single-family residences. Conceptual site plans for each development area is attached in **Appendix H**.



CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
VICINITY MAP

FIGURE 1

The purpose of this study is to identify project traffic generation characteristics, to identify potential project traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study in accordance with City of Colorado Springs, El Paso County, and Colorado Department of Transportation (CDOT) standards and requirements:

- Meadowbrook Parkway and Marksheffel Road (Intersection #1)
- US-24 and Marksheffel Road (#2)
- Newt Drive and Meadowbrook Parkway (#3)
- SH-94/Newt Drive and US-24 (#4)
- SH-94 and Marksheffel Road (#5)
- SH-94 and Space Village Avenue (#6)
- Space Village Avenue and Marksheffel Road (#7)

In addition, 14 project accesses (Intersections #8-21) proposed along Meadowbrook Parkway, Marksheffel Road, and Space Village Avenue were included for evaluation. Further, and as requested by El Paso County, four (4) internal intersections (#22-25) along public roadways proposed within Crossroads North were also included for evaluation.

Regional access to the project is provided by Interstate 25 (I-25) and US-24. Primary access to the project will be provided by SH-94, Marksheffel Road, and Space Village Avenue. Direct access to the proposed project is to be provided by 14 project accesses located along Meadowbrook Parkway, Marksheffel Road, and Space Village Avenue.

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing and Future Study Area

The existing site areas are comprised of vacant land. The surrounding area contains a mix of uses. Directly east of Crossroads North and north of Regan Ranch is an existing water treatment plant. The surrounding area to the east and south is vacant land. Directly to the west is mainly residential neighborhoods. Other industrial uses are proposed north of Meadowbrook Park. Outside of these uses, Peterson Air Force Base and the Colorado Springs Airport exists to the south and southwest. The site area is shown in the aerial of **Figure 2**.

3.2 Existing and Future Roadway Network

Regional access to the project is provided by Interstate 25 (I-25) and US-24. Primary access to the project will be provided by SH-94, Marksheffel Road, and Space Village Avenue. Direct access to the proposed project is to be provided by 14 project accesses located along Meadowbrook Parkway, Marksheffel Road, and Space Village Avenue.

Direct access to Meadowbrook Park is proposed at one full movement access along Meadowbrook Parkway to align with the existing Preble Drive (#8). Direct access to Crossroads North is proposed from two full movement accesses (#9 and #10) along Marksheffel Road approximately 2,000 feet and 1,000 feet north of SH-94. Access to Crossroad Mix Use will be provided by a future south leg to the intersection of Newt Drive and Meadowbrook Parkway (#3) while direct access is proposed along the future extension of Meadowbrook Parkway at two full movement accesses and an eastern right-in/right-out access.

For the Reagan Ranch northwest development area, a right-in/right access is proposed along Marksheffel Road (#11) between SH-94 and Space Village Avenue and a full movement access is proposed along Space Village Avenue (#12).

Three accesses are proposed to serve the northeast development area of Reagan Ranch. These include a right-in/right-out access on the east side of Marksheffel Road between SH-94 and Space Village Avenue (previously mentioned #11) and two roundabouts providing full turning movements along Space Village Avenue between Marksheffel Road and SH-94 (#13 and #14).

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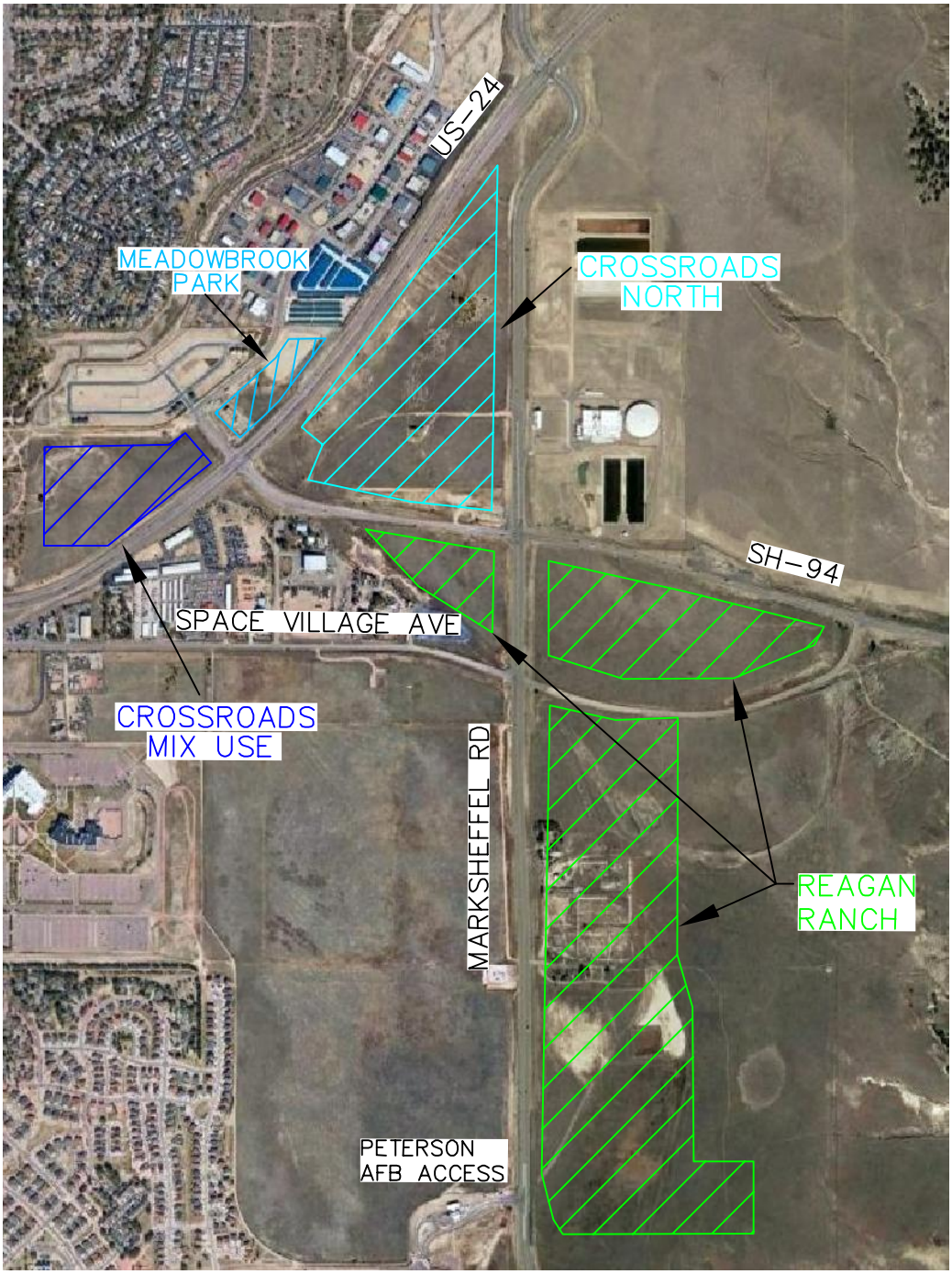

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
SITE AREA

FIGURE 2

Kimley»Horn

For the southeast development area of Reagan Ranch, access will be gained at these same two roundabouts along Space Village Avenue (#13 and #14) as well as seven (7) accesses (#15-21) planned along the east side of Marksheffel Road south of Space Village Avenue at the standard City 600-foot spacing. The access intersection at the approximate half-mile spacing (#18) as well as the access in alignment with Peterson Air Force Base (#21) will be full movement signalized intersections. The accesses at the quarter-mile spacing are proposed as three-quarter movement accesses (#16 and #20) while the accesses at the eighth-mile spacing are proposed as right-in/right-out accesses (#15 and #17 and #19).

SH-94 is a CDOT Highway, categorized E-X: Expressway, Major Bypass that provides one through lane of travel both eastbound and westbound in the vicinity of the site. SH-94 has a 40 mile per hour speed limit at US-24, a 55-mph speed limit through the Marksheffel Road intersection and a 65-mph speed limit east of Marksheffel Road. US-24 is a CDOT Highway, categorized E-X: Expressway, Major Bypass that provides two through lanes of travel with a 55 mile per hour speed limit through the study area. Marksheffel Road is classified as an El Paso County 4-Lane Urban Principal Arterial north of SH-94. Marksheffel Road provides two through lanes of travel in each direction, northbound and southbound, with a 55 mile per hour speed limit through the study area. It should be noted that this study determines that Marksheffel Road may need to provide three through lanes in each direction by 2040 which would categorize as an El Paso County 6-Lane Urban Principal Arterial. Likewise, the El Paso County Major Transportation Corridors Plan identifies Marksheffel within the preservation plan to be a 6-lane roadway in the long term future. Space Village Avenue provides one lane of travel in each direction, eastbound and westbound, with a 45 mile per hour speed limit through the study area. Meadowbrook Parkway is an El Paso County Non-Residential Collector roadway that provides one lane of travel in each direction, with a 35 mile per hour speed limit through the study area.

The Meadowbrook Parkway and Marksheffel Road (#1) intersection is a four-leg signalized intersection. The eastbound Meadowbrook Parkway approach consists of dual left turn lanes, one through lane, and a right turn lane. The westbound approach consists of a left turn lane, a through lane, and one right turn lane. The northbound and southbound approaches of Marksheffel Road consist of one left turn lane, two through lanes, and a right turn lane.

The US-24 and Marksheffel Road (#2) intersection is a four-leg signalized intersection. The traffic software for this intersection assigned Marksheffel Road as east-west and US-24 as north-south based on roadway alignment. The southbound US-24 and the eastbound and westbound Marksheffel Road approaches consist of a left turn lane, two through lanes, and separate right turn lanes operating with free right turn movements. The northbound US-24 approach consists of dual left turn lanes, two through lanes, and a right turn lane with free movements.

The Newt Drive and Meadowbrook Parkway (#3) intersection is a T-intersection with stop control on the eastbound and westbound approaches of Newt Drive. The westbound approach consists of one through lane and a right turn lane. The eastbound approach consists of one left turn lane and one through lane. The southbound approach consists of a two-way left turn lane and a right turn lane. With the construction of the Crossroads Mix Use project, a southwest leg will be constructed at this intersection by extension of Meadowbrook Parkway adjacent to the development area.

The intersection of SH-94 and US-24 (#4) is signalized with four-legs. Both state highways run east-west, however the traffic software for this intersection assigned SH-94 as east-west and US-24 as north-south. The eastbound Newt Drive approach consists of dual left turn lanes, one through lane, and a free right turn lane. The westbound SH-94 approach consists of dual left turn lanes, two through lanes, and a free right turn lane. The US-24 approaches each consist of a left turn lane, two through lanes, and a right turn lane.

The SH-94 and Marksheffel Road (#5) intersection is a four-leg signalized intersection. The eastbound and westbound approaches consist of a left turn lane, one through lane, and one right turn lane. The northbound and southbound approaches consist of a left turn lane, two through lanes, and a right turn lane.

The SH-94 and Space Village Avenue (#6) intersection is a T-intersection with stop control on the northbound approach. The eastbound approach consists of one through lane and a right turn lane. The westbound approach consists of one left turn lane and one through lane. The northbound approach consists of a single lane for shared left turn and right turn movements.

The Space Village Avenue and Marksheffel Road (#7) intersection is a four-leg intersection that operates with stop-control on the eastbound and westbound approaches. The eastbound and westbound approaches consist of a left turn lane, one through lane, and one right turn lane. The northbound and southbound approaches each consist of one left turn lane, two through lanes, and one right turn lane. Existing intersection lane configurations and control for the study area are shown in **Figure 3**.

3.3 Existing Traffic Volumes

Due to the effects on traffic from COVID-19, traffic counts at each intersection were derived by different methodologies. Existing peak hour turning movement counts, pedestrian counts, heavy vehicle percentages, and bicycle counts were conducted at the intersections of Meadowbrook Parkway/Marksheffel Road (#1) and US-24/Marksheffel Road (#2) on Thursday, June 4, 2020, and at the intersections of Newt Drive/Meadowbrook Parkway (#3), SH-94/US-24 (#4), SH-94/Marksheffel Road (#5) and SH-94/Space Village Avenue (#6) on Tuesday, June 2, 2020. The weekday counts were conducted in 15-minute intervals during the AM and PM peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. The turning movement counts were grown based on data obtained from hourly counts from the CDOT OTIS database and additional historical CDOT traffic information provided to Kimley-Horn to account for a COVID-19 adjustment for this area. Based on this information and through coordination with CDOT, the morning and afternoon peak hour counts were adjusted by 35 percent except for the counts at the intersection of SH-94 and Marksheffel Road which were not adjusted in the morning peak hour but were adjusted by 44 percent for the afternoon peak hour.

The existing peak hour turning movements for the intersection of Marksheffel Road and Space Village Avenue (#7) were obtained from a signal warrant study and were conducted on Thursday, March 12, 2020. The counts at the intersection of Marksheffel Road and Space Village Avenue were used without adjustment since the counts were conducted before the COVID-19 pandemic. Existing turning movement counts are shown in **Figure 4** while the adjusted turning movement counts are shown in **Figure 5** with count sheets and COVID-19 count adjustment data provided in **Appendix A**. It should be noted that heavy vehicle percentages are documented in the count sheets and these percentages were used in the intersection operational analysis.

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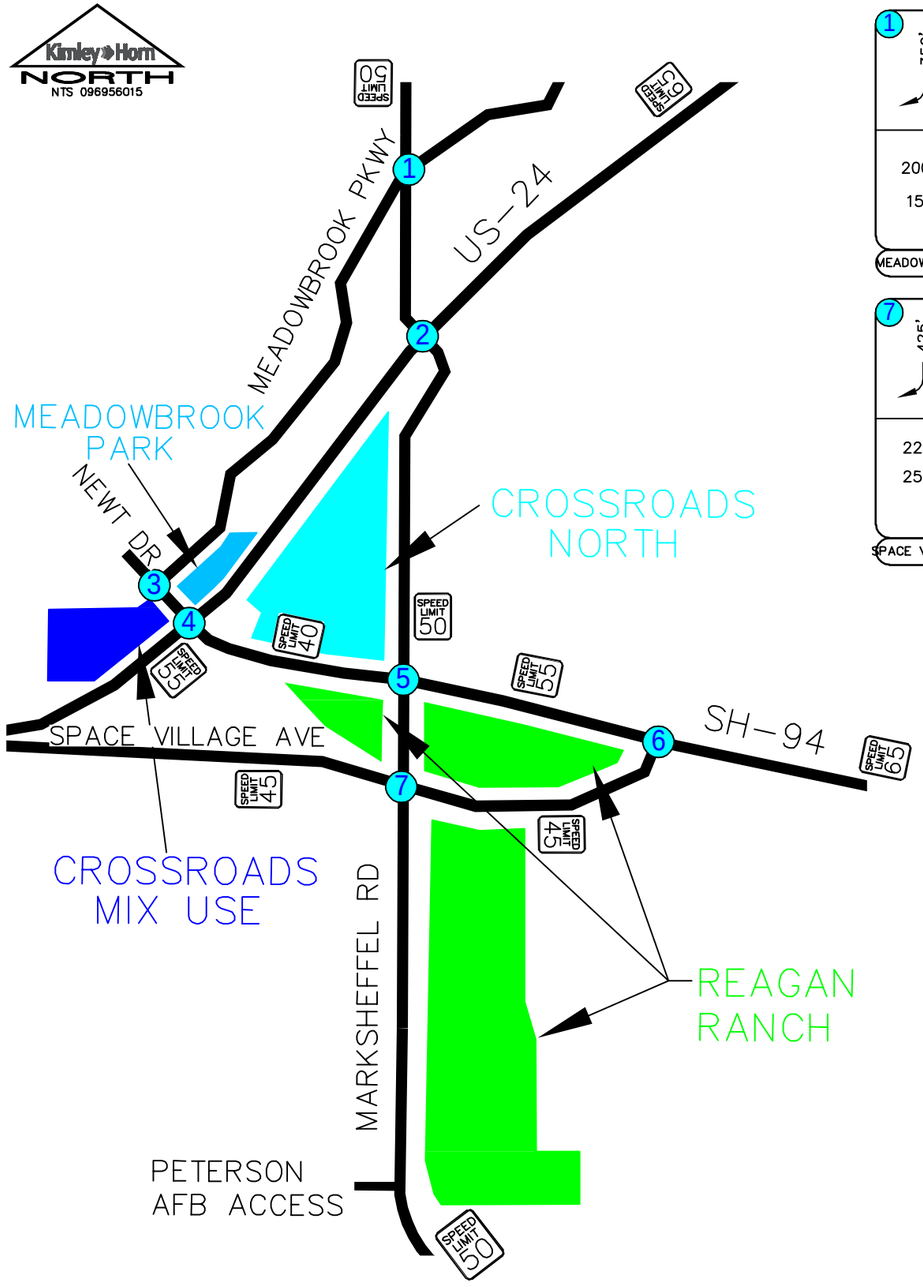
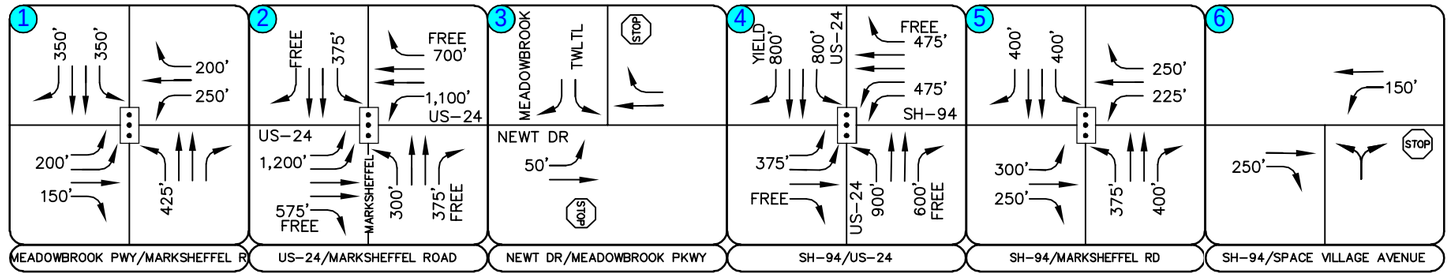
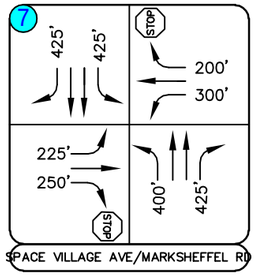






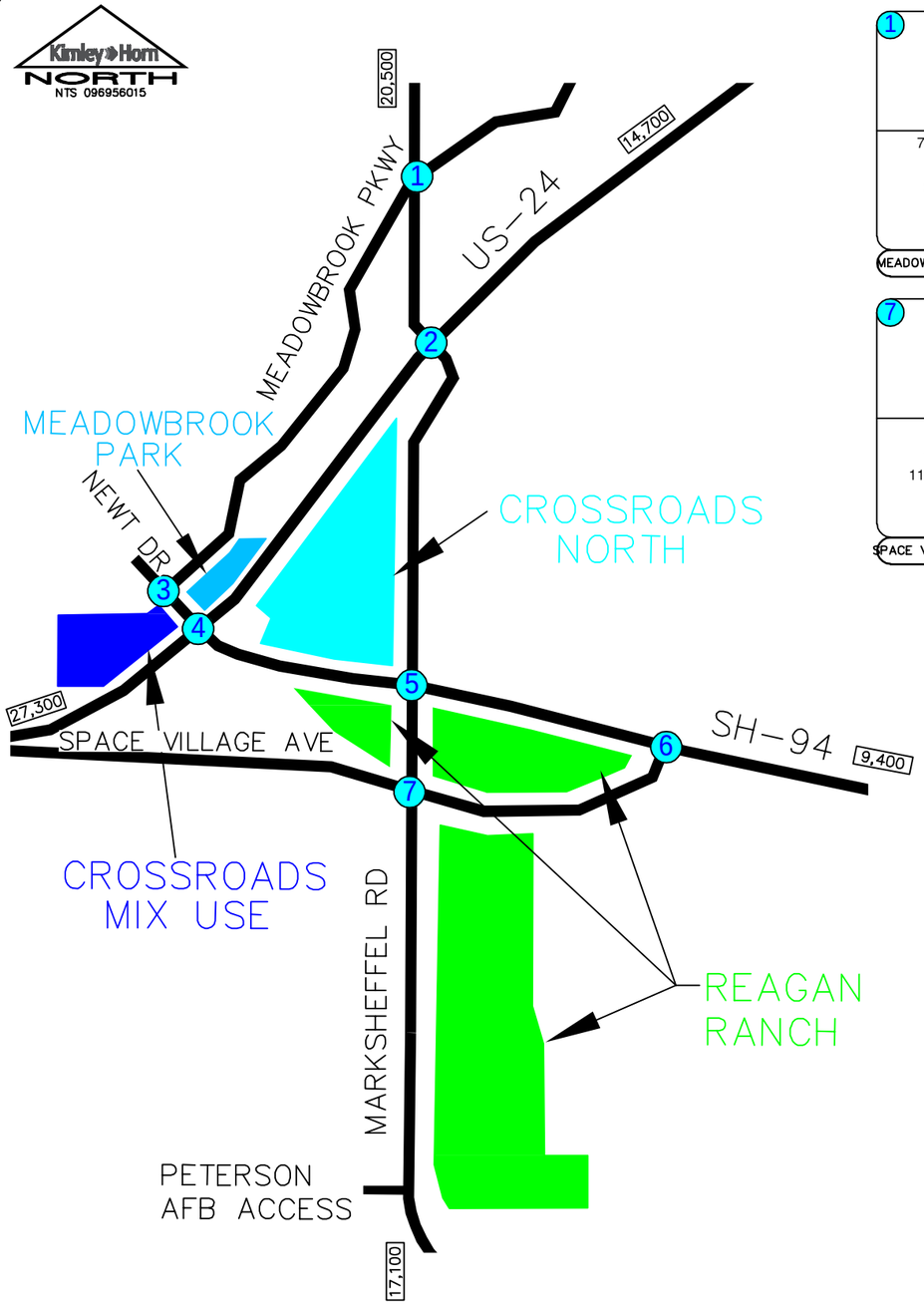
LEGEND

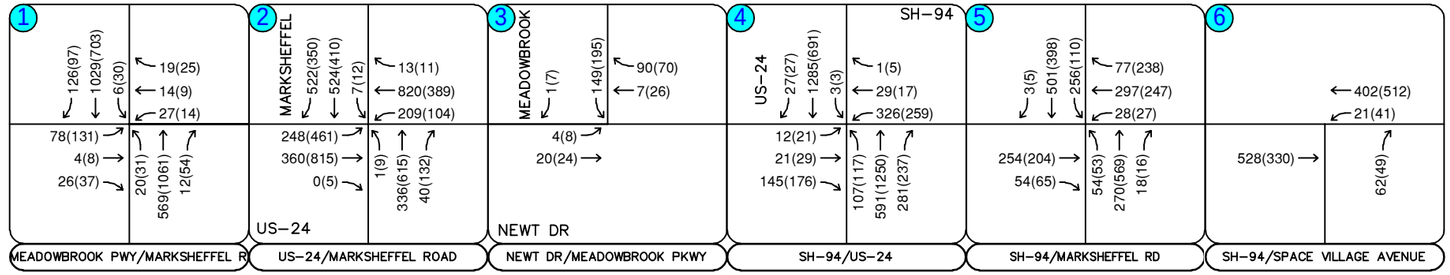
X	Existing Key Intersection
	Signalized Intersection
STOP	Stop Controlled Approach
SPEED LIMIT XX	Roadway Speed Limit
TWLTL	Two-Way Left Turn Lane
FREE	Free Right Turn Lane
100'	Turn Lane Length (feet)

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
EXISTING LANE CONFIGURATIONS AND CONTROL

FIGURE 3

Kimley»Horn



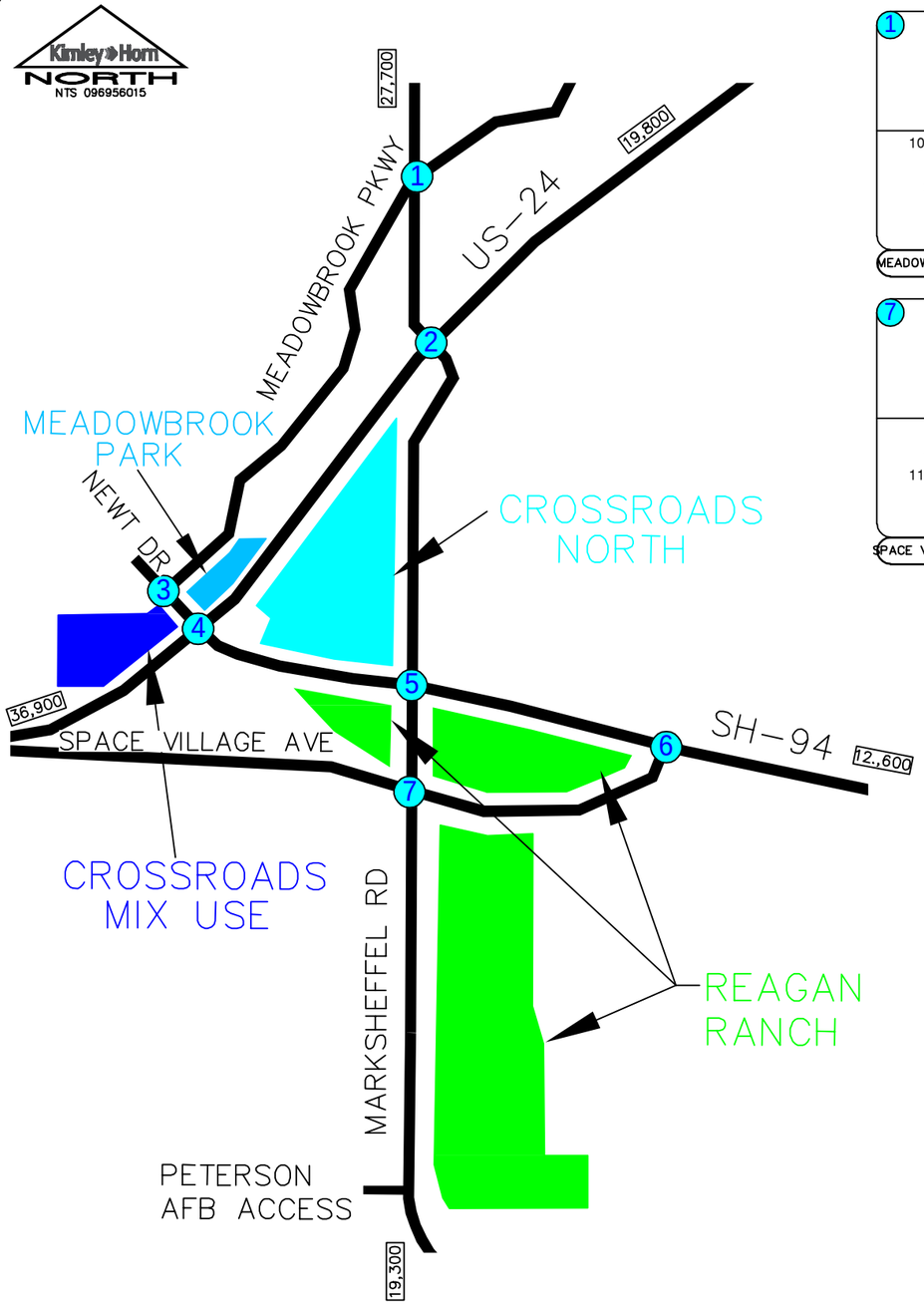


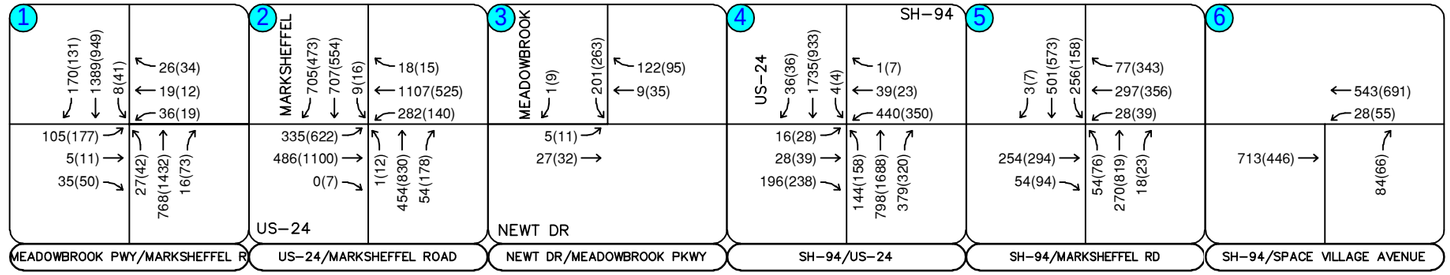
LEGEND

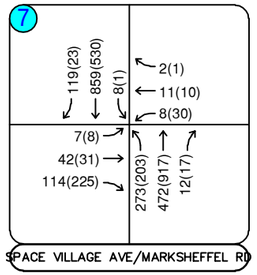
X	Existing Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2020 EXISTING TRAFFIC VOLUMES

FIGURE 4







LEGEND

X	Existing Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2020 ADJUSTED EXISTING TRAFFIC VOLUMES

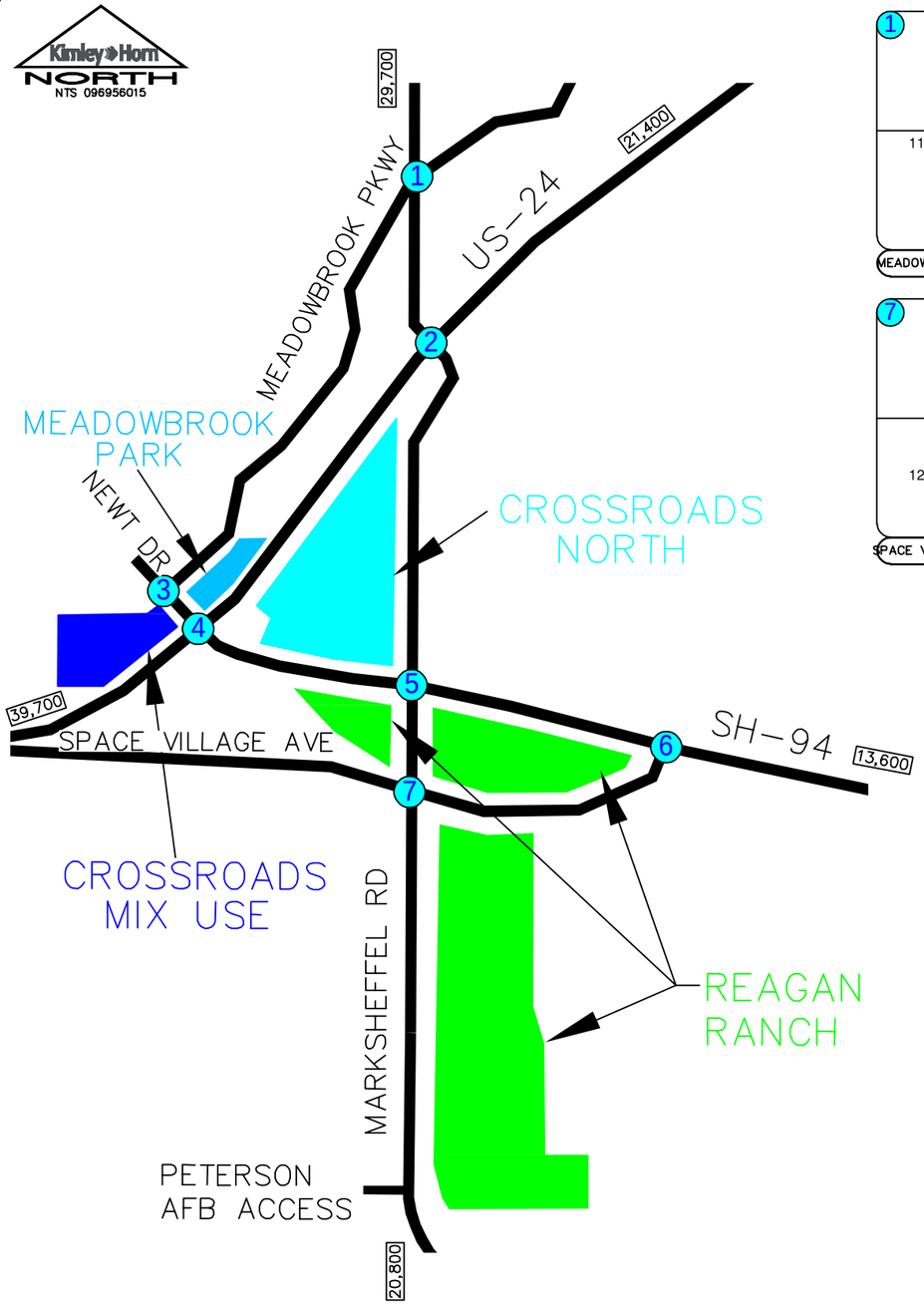
FIGURE 5

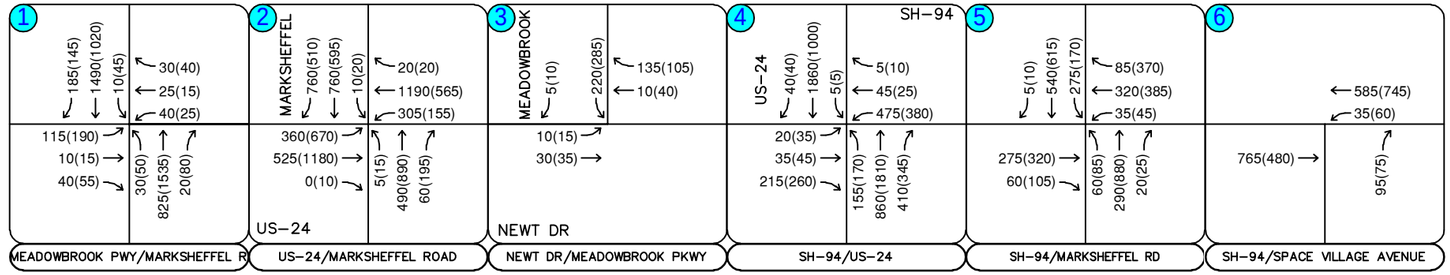
Kimley»Horn

3.4 Unspecified Development Traffic Growth

According to information provided on the website for the Colorado Department of Transportation (CDOT), the average 20-year growth factor along SH-94 in the vicinity of the site is 1.29. This value equates to an annual growth rate of 1.16 percent. SH-94 traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**. Based on this, an annual growth rate of 1.16 percent was used to calculate future traffic volumes within the project study area. This annual growth rate was used to estimate near term 2026 and long term 2040 traffic volume projections at the key intersections.

Along with the annual growth, calculated trips from an additional 1,123 single family detached housing units, located in the parcels east of the southeast area of Reagan Ranch, were added to the 2040 background volumes. Further, project traffic from the single-family housing development to the west at Newt Drive were estimated based on the number of homes yet to be occupied and added to the background traffic volumes. The Pikes Peak Area Council of Governments (PPACOG) 2040 traffic volume projections were used as a comparison to future traffic volume projections with this study. All future average daily traffic volume projections in this study exceed the PPACOG projections; therefore, the annual growth rate of 1.16 percent should be conservative. As requested by El Paso County, it should be noted that all known development traffic studies have been included in this study and this includes the Kimley-Horn traffic studies completed in the immediate area in the last five years. Background traffic volumes for 2026 and 2040 are shown in **Figures 6** and **7**, respectively.





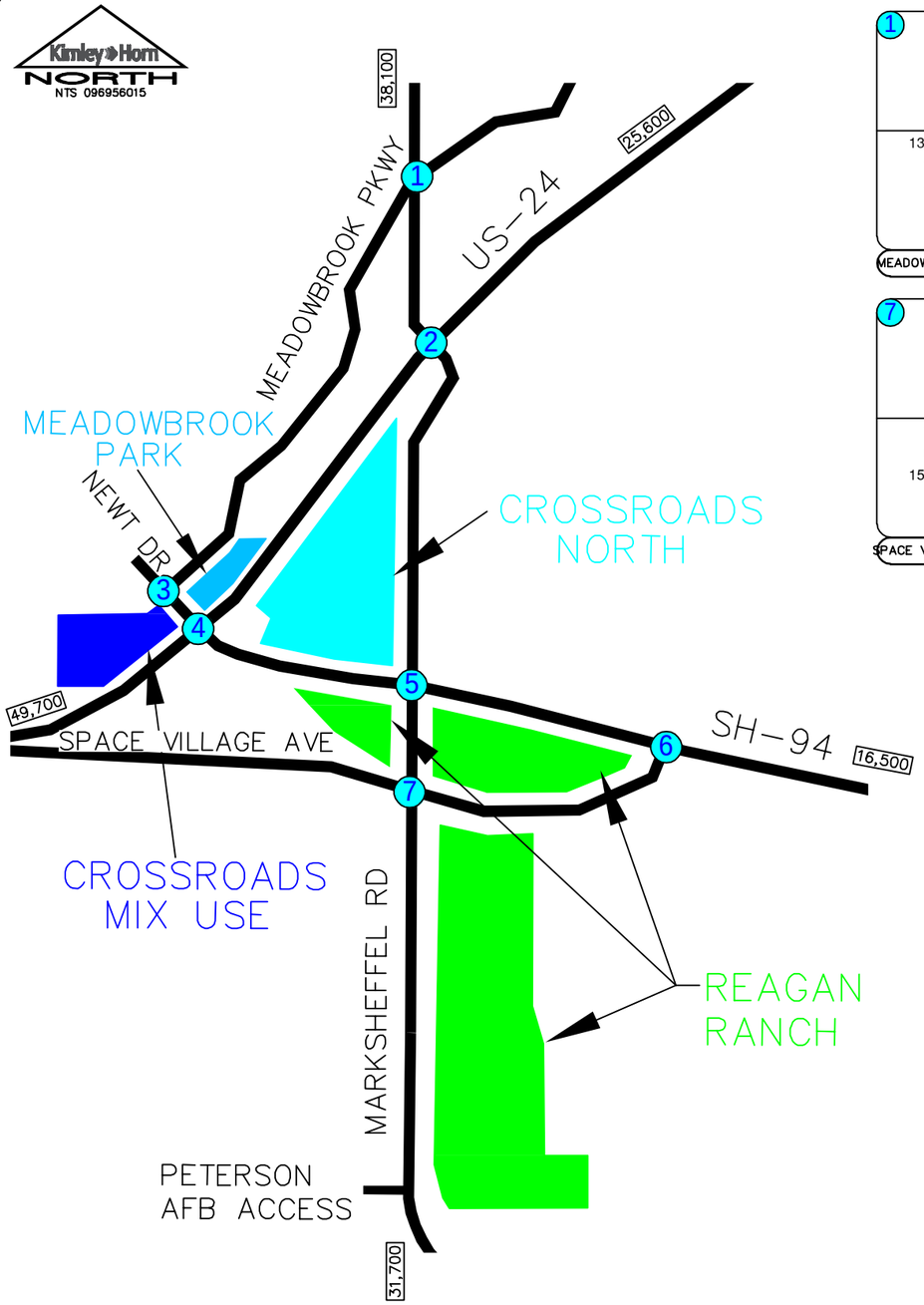
LEGEND

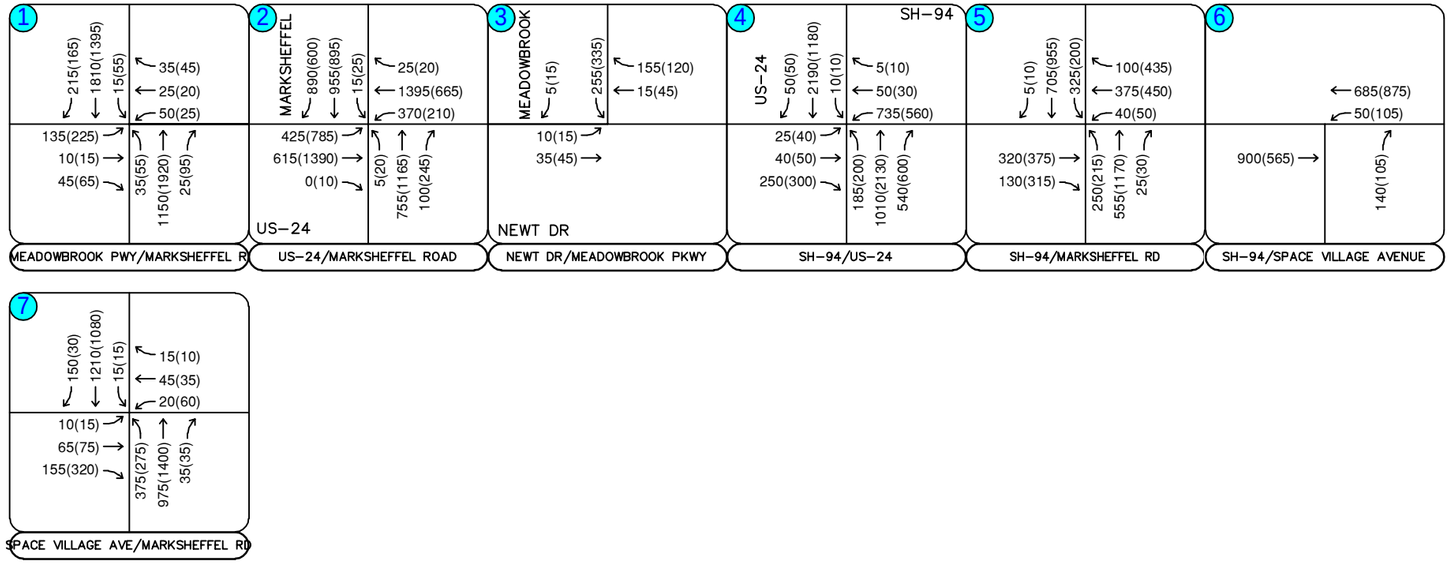
X	Existing Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2026 BACKGROUND TRAFFIC VOLUMES

FIGURE 6

Kimley»Horn





LEGEND

X	Existing Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2040 BACKGROUND TRAFFIC VOLUMES

FIGURE 7

Kimley»Horn

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*[1] published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

As mentioned previously, the projects were evaluated with a Phase 1 2026 horizon and a full buildout 2040 horizon. For this study, Kimley-Horn used the ITE Trip Generation Manual average rates and fitted curve equations that apply to Industrial Park (ITE Code 130), Single-Family Detached House (ITE 210), Mid-Rise Multifamily Housing (ITE 221), Public Park (ITE 411), Movie Theater (ITE 444), General Office Building (ITE 710), Shopping Center (ITE 820), Tire Superstore (ITE 849), Home Improvement Superstore (ITE 862), Pharmacy (ITE 881), Furniture Store (ITE 890), Sit-Down Restaurant (ITE 932), Fast-Food Restaurant with Drive Through (ITE 934), Coffee/Donut Shop with Drive Through (ITE 937), and Gasoline Station with Convenience Market (ITE 960) for traffic associated with all development areas of the project.

Since the project is proposed to contain a mix of uses, internal capture trips are expected to occur on site as well. These internal capture trips are shared trips from vehicles already within the internal street network. These shared trips reduce the number of total external trips and were calculated directly per the ITE procedure but were capped based on thresholds set forth by CDOT. Based on the CDOT access code, internal trip reductions cannot not exceed two percent for the AM peak or eight percent for PM peaks unless clearly justified and documented by actual studies. As such, an internal capture rate of two (2) percent was used during the morning peak hour and a rate of eight (8) percent during the afternoon peak for areas that apply. Phase 1 development of the projects in 2026 is expected to generate approximately 34,458 daily weekday external vehicle trips with 2,748 of these trips occurring during the morning peak hour and 2,806 trips occurring during the afternoon peak hour. Calculations were based on the procedure and

[1] Institute of Transportation Engineers, *Trip Generation Manual*, Tenth Edition, Washington DC, 2017.

information provided in the ITE *Trip Generation Manual, 10th Edition – Volume 1: User's Guide and Handbook*, 2017. **Table 1** provides the estimated trip generation for Phase 1 of the project. The trip generation calculations are included in **Appendix C.**

Table 1 – Phase 1 Project Traffic Generation

Use	Quantity	Daily	Weekday Vehicle Trips					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Crossroads North								
Public Park (ITE 411)	20 Acres	16	0	0	0	1	1	2
Tire Superstore (ITE 849)	7,000 SF	144	6	3	9	7	8	15
Home Improvement Superstore (ITE 862)	127,000 SF	3,904	113	86	199	145	151	296
Furniture Store (ITE 890)	114,000 SF	720	21	9	30	28	31	59
Sit Down Restaurant (ITE 932)	11,000 SF	1,234	60	49	109	66	41	107
Fast-Food Restaurant (ITE 934)	2,500 SF	1,178	51	49	100	43	39	82
Gas Station Super Convenience (ITE 960)	6,000 SF	5,026	249	250	499	208	208	416
Total Crossroads North Trips		12,222	500	446	946	498	479	977
Crossroads North Trips after Internal Capture		**11,246**	**490**	**437**	**927**	**458**	**441**	**899**
Meadowbrook Park								
Single Family Housing (ITE 210)	67 Units	720	13	39	52	43	26	69
Meadowbrook Park Total Trips		**720**	**13**	**39**	**52**	**43**	**26**	**69**
Crossroads Mix Use								
Mid-Rise Multifamily Housing (ITE 221)	300 Units	1,634	26	74	100	77	50	127
Shopping Center (ITE 820)	10,000 SF	1,256	97	60	157	48	51	99
Sit Down Restaurant (ITE 932)	4,000 SF	450	22	18	40	24	15	39
Fast Food Restaurant (ITE 934)	11,000 SF	5,182	225	217	442	187	172	359
Coffee Shop (ITE 937)	2,500 SF	2,050	113	109	222	55	55	110
Total Crossroads Mix Use Trips		10,572	483	478	961	391	343	734
Crossroads Mix Use Trips after Internal Capture		**9,726**	**474**	**468**	**942**	**359**	**316**	**675**
Reagan Ranch Northwest Area								
Industrial Park (ITE 130)	220,000 SF	742	71	17	88	18	70	88
Reagan Ranch Northwest Area Total Trips		**742**	**71**	**17**	**88**	**18**	**70**	**88**
Reagan Ranch Northeast Area								
Single Family Housing (ITE 210)	125 Units	1,276	22	72	94	79	47	126
Shopping Center (ITE 820)	30,000 SF	2,652	104	63	167	107	116	223
Total Reagan Ranch Northeast Area Trips		3,928	126	135	261	186	163	349
Reagan Ranch NE Area Trips after Internal Capture		**3,614**	**124**	**132**	**256**	**171**	**150**	**321**
Reagan Ranch Southeast Area								
Single Family Housing (ITE 210)	255 Units	2,460	45	141	186	156	94	250
Mid-Rise Multifamily Housing (ITE 221)	360 Units	1,962	31	89	120	93	59	152
Shopping Center (ITE 820)	70,000 SF	4,718	116	71	187	200	217	417
Total Reagan Ranch Southeast Area Trips		9,140	192	301	493	449	370	819
Reagan Ranch SE Area Trips after Internal Capture		**8,410**	**188**	**295**	**483**	**413**	**340**	**753**
Total Site Generated Trips		**37,324**	**1,385**	**1,416**	**2,801**	**1,585**	**1,451**	**3,036**
Total Site External Trips after Internal Capture		**34,458**	**1,360**	**1,389**	**2,748**	**1,462**	**1,343**	**2,806**

With full project buildout by 2040, the three development areas are expected to generate approximately 58,582 daily weekday external vehicle trips with 3,481 of these trips occurring during the morning peak hour and 5,121 trips occurring during the afternoon peak hour. **Table 2** provides the estimated trip generation for full buildout of the project.

Table 2 – Full Buildout Project Traffic Generation

Use	Quantity	Daily	Weekday Vehicle Trips					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Crossroads North								
Public Park (ITE 411)	20 Acres	16	0	0	0	1	1	2
Movie Theatre (ITE 444)	52,000 SF	4,062	5	6	11	302	19	321
Tire Superstore (ITE 849)	7,000 SF	144	6	3	9	7	8	15
Home Improvement Superstore (ITE 862)	127,000 SF	3,904	113	86	199	145	151	296
Furniture Store (ITE 890)	114,000 SF	720	21	9	30	28	31	59
Sit Down Restaurant (ITE 932)	11,000 SF	1,234	60	49	109	66	41	107
Fast-Food Restaurant (ITE 934)	5,000 SF	2,356	103	98	201	85	78	163
Gas Station Super Convenience (ITE 960)	6,000 SF	5,026	249	250	499	208	208	416
Total Crossroads North Trips		17,462	557	501	1,058	842	537	1,379
Crossroads North Trips after Internal Capture		**16,066**	**546**	**491**	**1,037**	**775**	**494**	**1,269**
Meadowbrook Park								
Single Family Housing (ITE 210)	67 Units	720	13	39	52	43	26	69
Meadowbrook Park Total Trips		**720**	**13**	**39**	**52**	**43**	**26**	**69**
Crossroads Mix Use								
Mid-Rise Multifamily Housing (ITE 221)	300 Units	1,634	26	74	100	77	50	127
Shopping Center (ITE 820)	10,000 SF	1,256	97	60	157	48	51	99
Pharmacy (ITE 881)	14,000 SF	1,528	29	25	54	72	72	144
Sit Down Restaurant (ITE 932)	8,000 SF	898	44	36	80	48	30	78
Fast Food Restaurant (ITE 934)	11,000 SF	5,182	225	217	442	187	172	359
Coffee Shop (ITE 937)	2,500 SF	2,050	113	109	222	55	55	110
Total Crossroads Mix Use Trips		12,548	534	521	1,055	487	430	917
Crossroads Mix Use Trips after Internal Capture		**11,544**	**523**	**511**	**1,034**	**448**	**396**	**844**
Reagan Ranch Northwest Area								
Industrial Park (ITE 130)	365,000 SF	1,232	118	28	146	31	115	146
Reagan Ranch Northwest Area Total Trips		**1,232**	**118**	**28**	**146**	**31**	**115**	**146**
Reagan Ranch Northeast Area								
Single Family Housing (ITE 210)	200 Units	1,968	37	110	147	125	73	198
Shopping Center (ITE 820)	175,000 SF	8,796	148	91	239	395	427	822
Total Reagan Ranch Northeast Area Trips		10,764	185	201	386	520	500	1,020
Reagan Ranch NE Area Trips after Internal Capture		**9,904**	**181**	**197**	**378**	**478**	**460**	**938**
Reagan Ranch Southeast Area								
Single Family Housing (ITE 210)	393 Units	3,662	71	213	284	238	140	378
Mid-Rise Multifamily Housing (ITE 221)	360 Units	1,962	31	89	120	93	59	152
Office (ITE 710)	100,000 SF	1,062	103	17	120	18	96	114
Shopping Center (ITE 820)	350,000 SF	14,092	203	124	327	659	714	1,373
Total Reagan Ranch Southeast Area Trips		20,778	408	443	851	1,008	1,009	2,017
Reagan Ranch SE Area Trips after Internal Capture		**19,116**	**400**	**434**	**834**	**928**	**928**	**1,856**
Total Site Generated Trips		**63,504**	**1,815**	**1,733**	**3,548**	**2,931**	**2,617**	**5,548**
Total Site External Trips after Internal Capture		**58,582**	**1,781**	**1,700**	**3,481**	**2,703**	**2,419**	**5,121**

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, expected roadway improvements, and the proposed access system for the project. Separate distributions were prepared for each development area to accurately identify the amount of traffic to be assigned to each project. Assignment of project traffic was based upon the trip generation described previously and the distributions developed for each project area. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution is illustrated in **Figure 8.**

4.3 Traffic Assignment and Total (Background Plus Project) Traffic

Traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1** and **Table 2**. Phase 1 project traffic assignment

signment is shown in

represent estimated

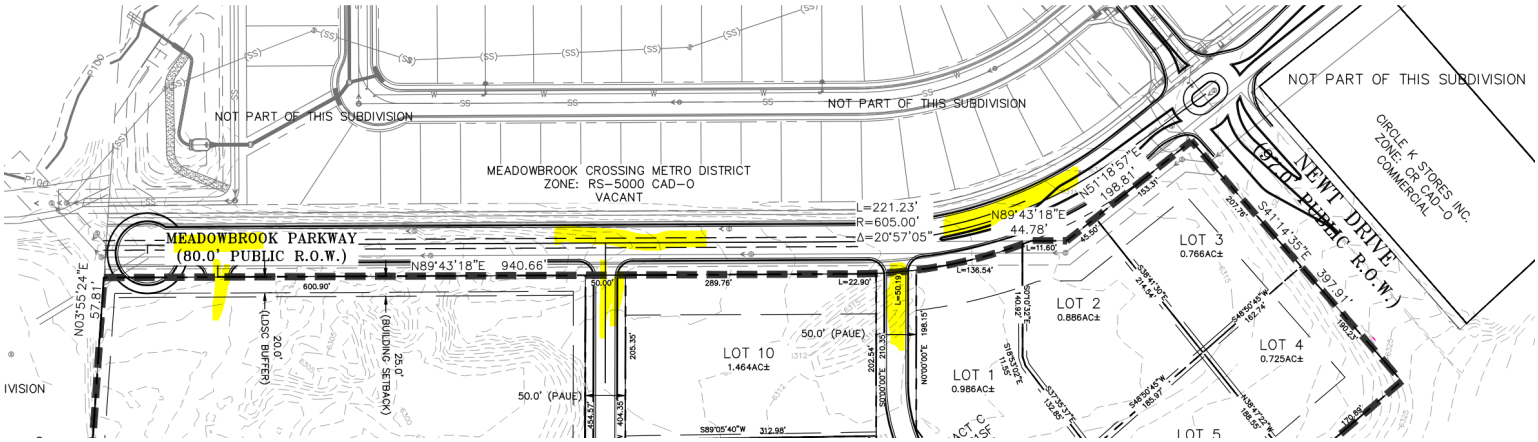
n. These background

26 and 2040 horizon

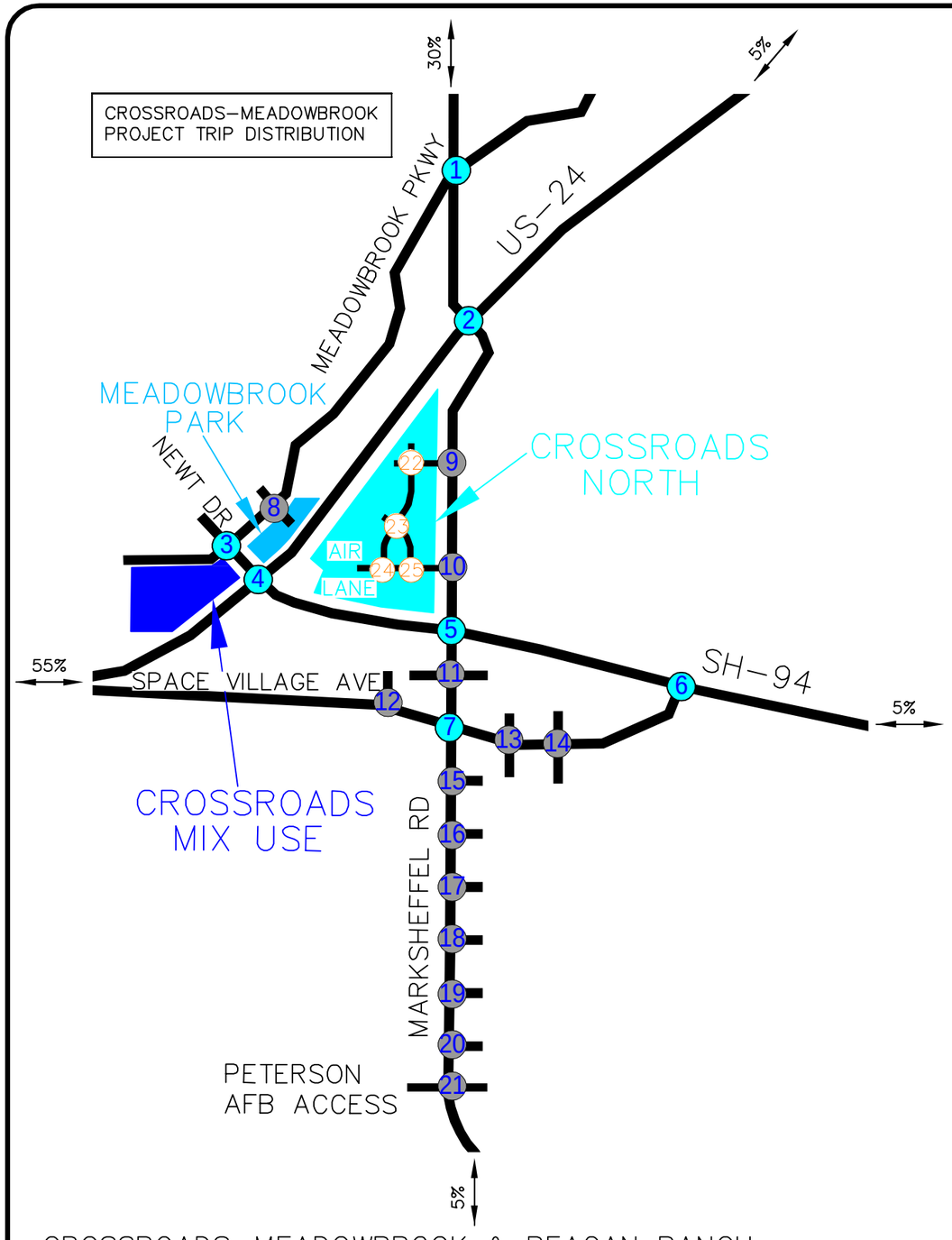
As part of the preliminary plan, provide trip distribution and traffic assignment analysis for the proposed access to Crossroads Mixed Use and provide recommendations for the intersection configuration and auxiliary lanes.

State/list ECM criteria for stacking, storage, and taper for every affected auxiliary lane and access and state whether this access can be met. If it can't be met, state the required modification so it can be met (a deviation request may be required if an alternative to the criteria is proposed)

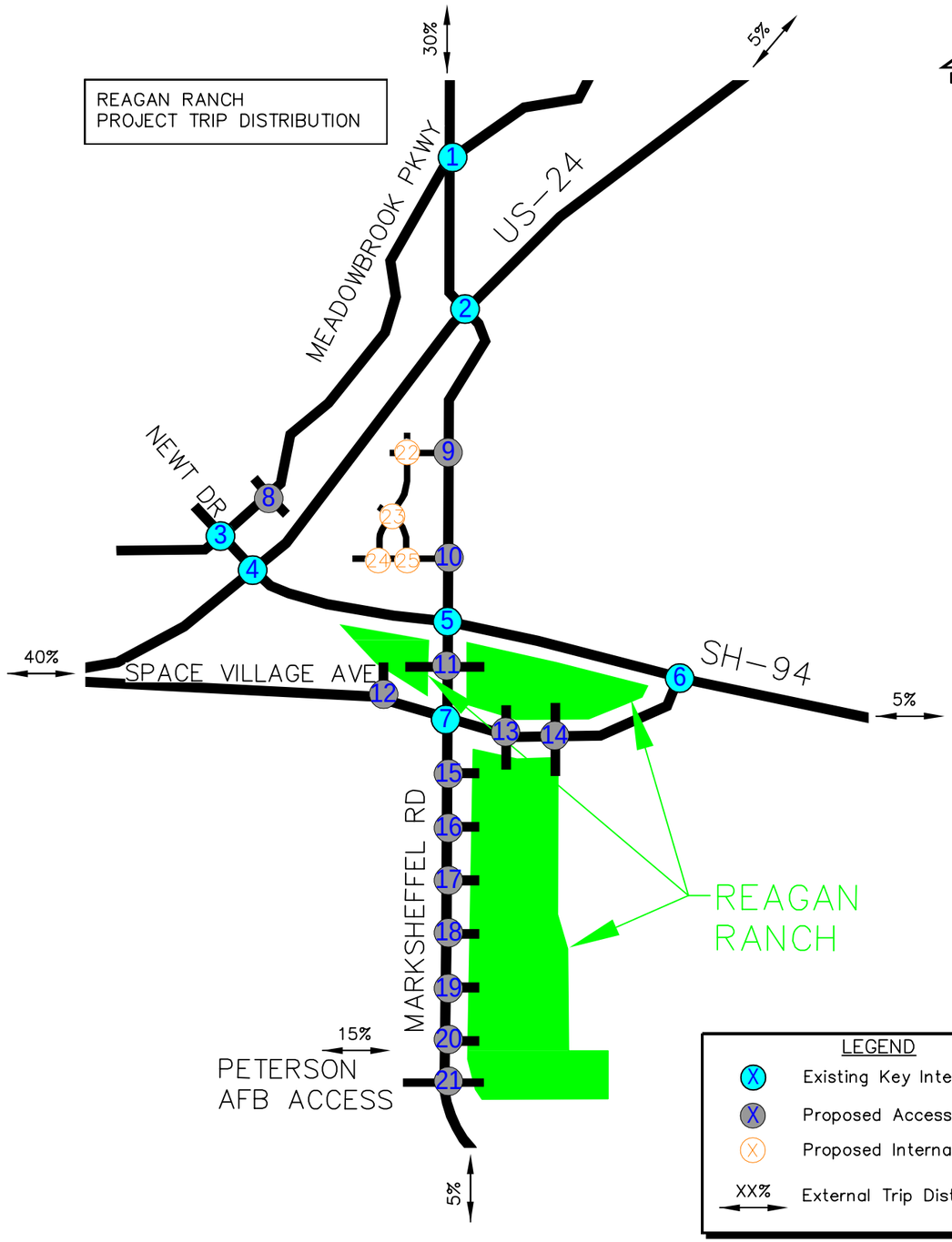
Unresolved. Address the original comments to ensure access spacing, ROW widths, and street layout are appropriate.



CROSSROADS–MEADOWBROOK
PROJECT TRIP DISTRIBUTION



REAGAN RANCH
PROJECT TRIP DISTRIBUTION

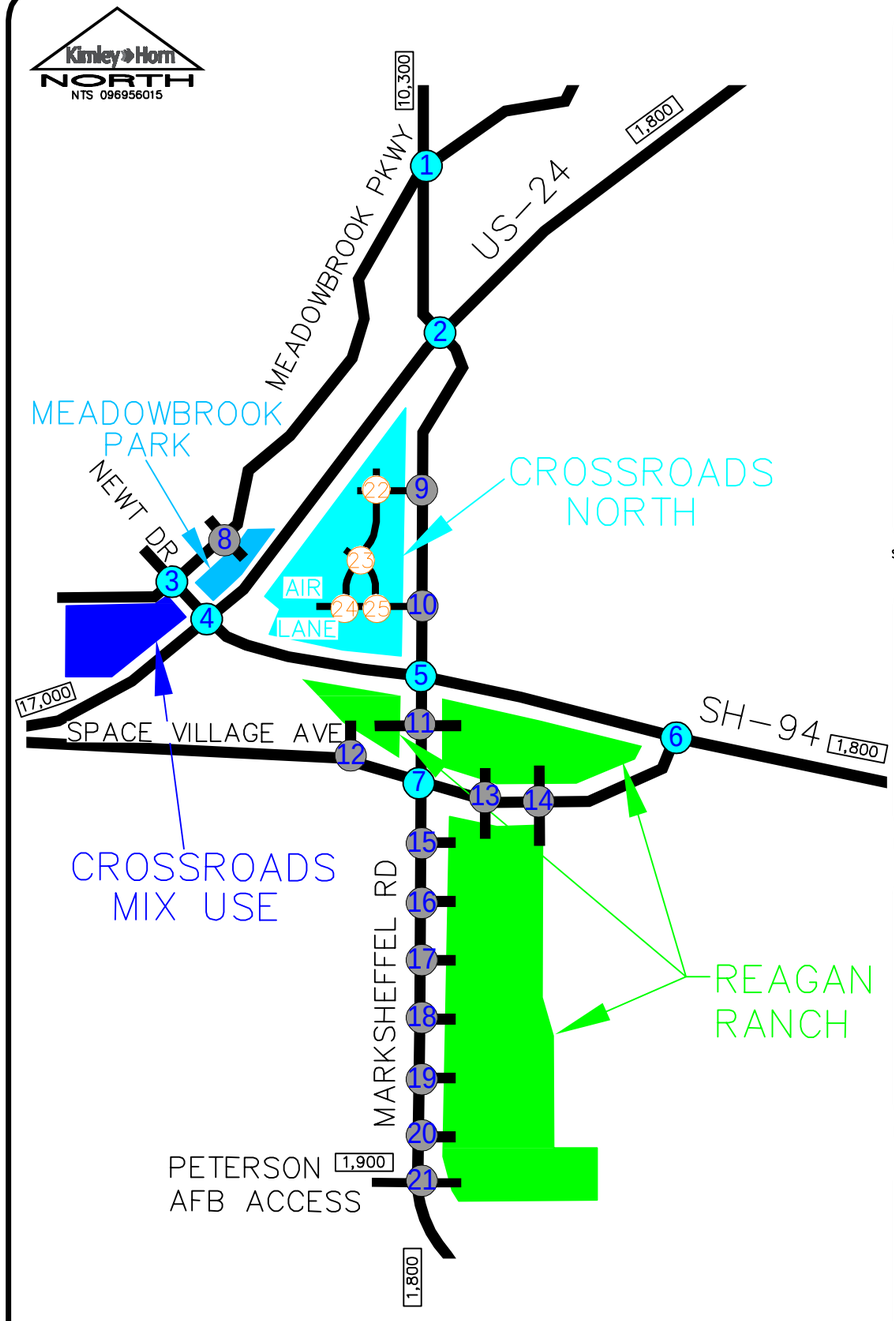


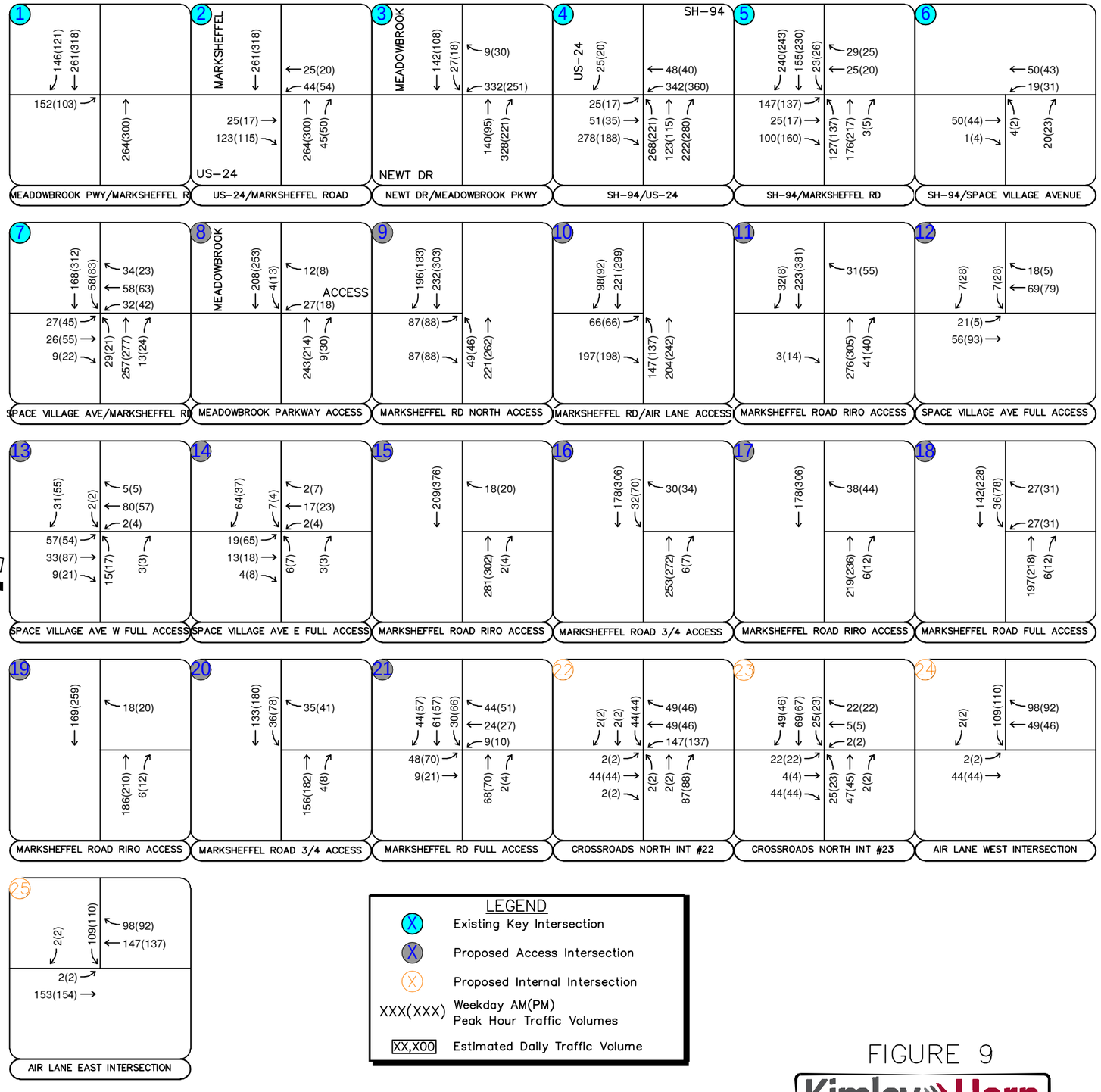
LEGEND

- Existing Key Intersection
- Proposed Access Intersection
- Proposed Internal Intersection
- XX% External Trip Distribution

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
PROJECT TRIP DISTRIBUTION

FIGURE 8





LEGEND

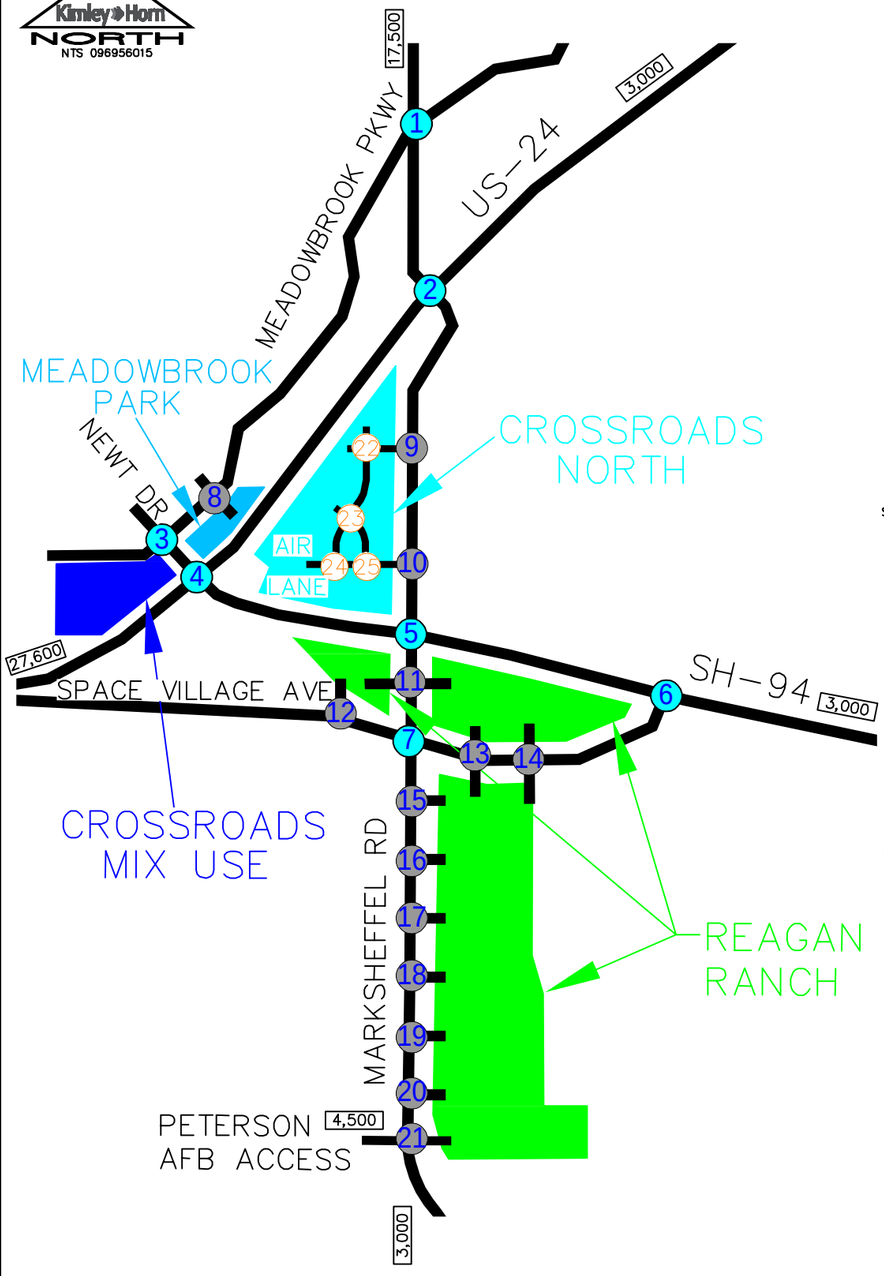
- (X) Existing Key Intersection
- (X) Proposed Access Intersection
- (X) Proposed Internal Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2026 PROJECT TRAFFIC ASSIGNMENT

FIGURE 9

Kimley»Horn

Kimley»Horn
NORTH
NTS 096956015



CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2040 PROJECT TRAFFIC ASSIGNMENT

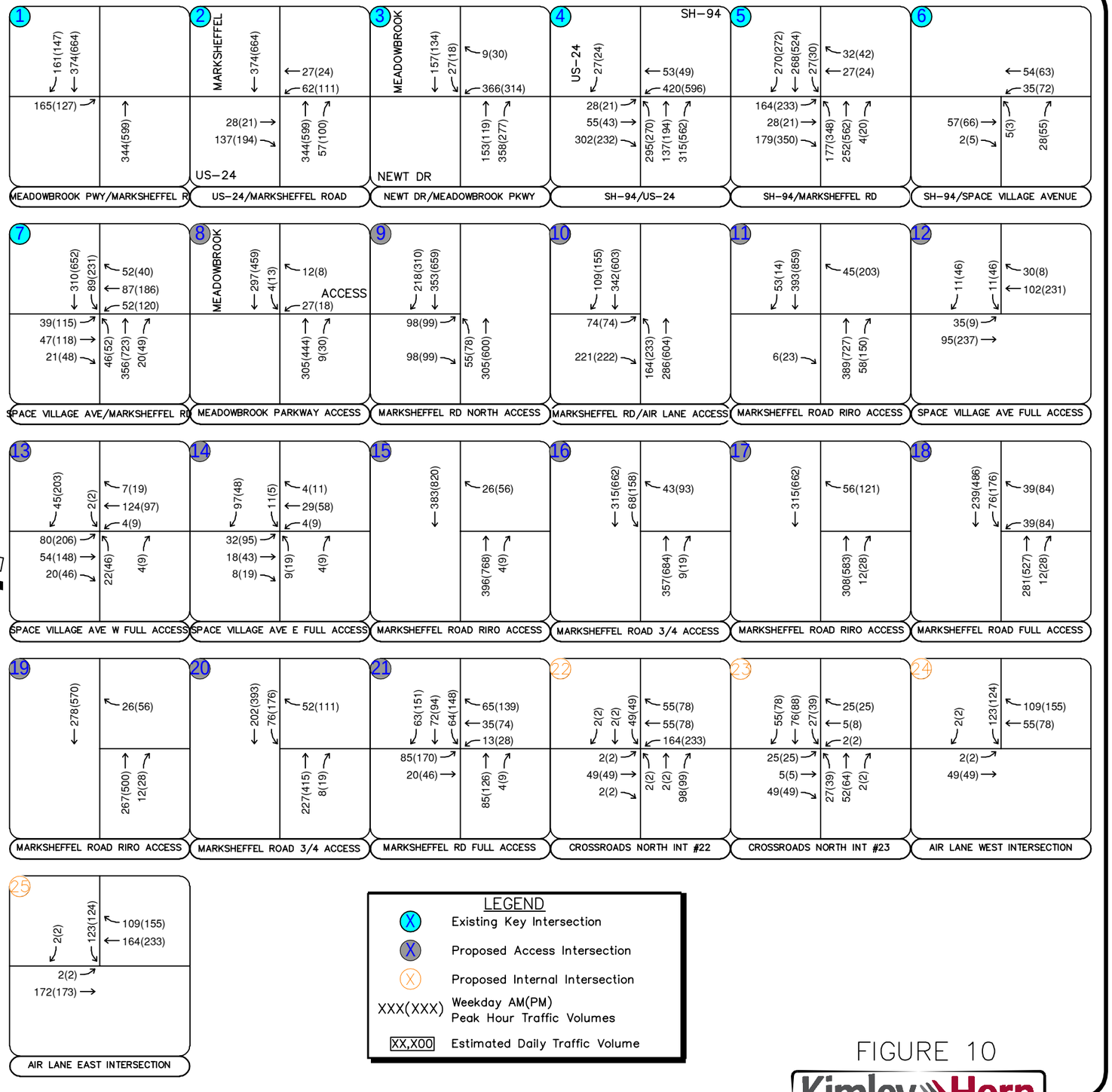
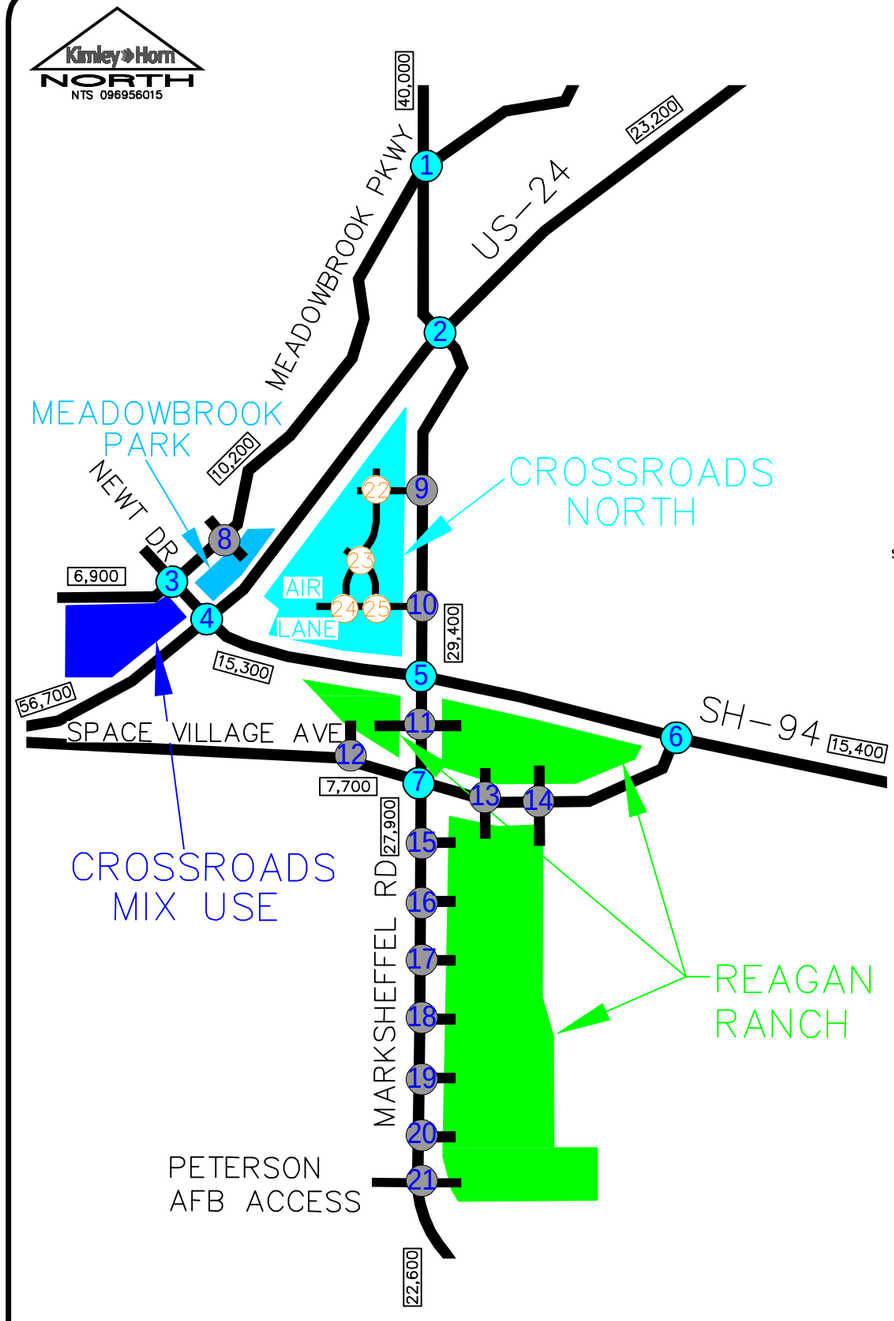
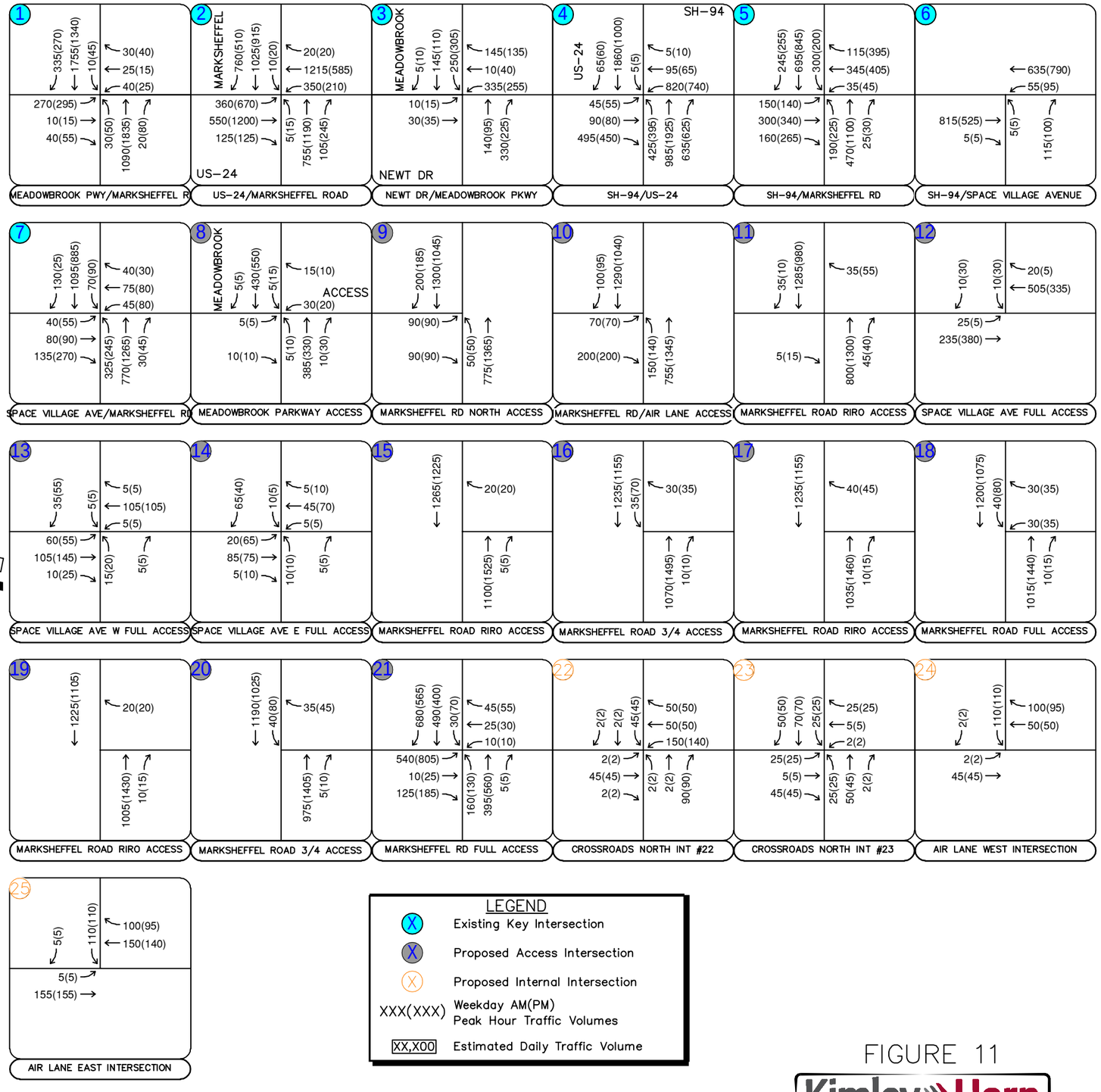


FIGURE 10

Kimley»Horn

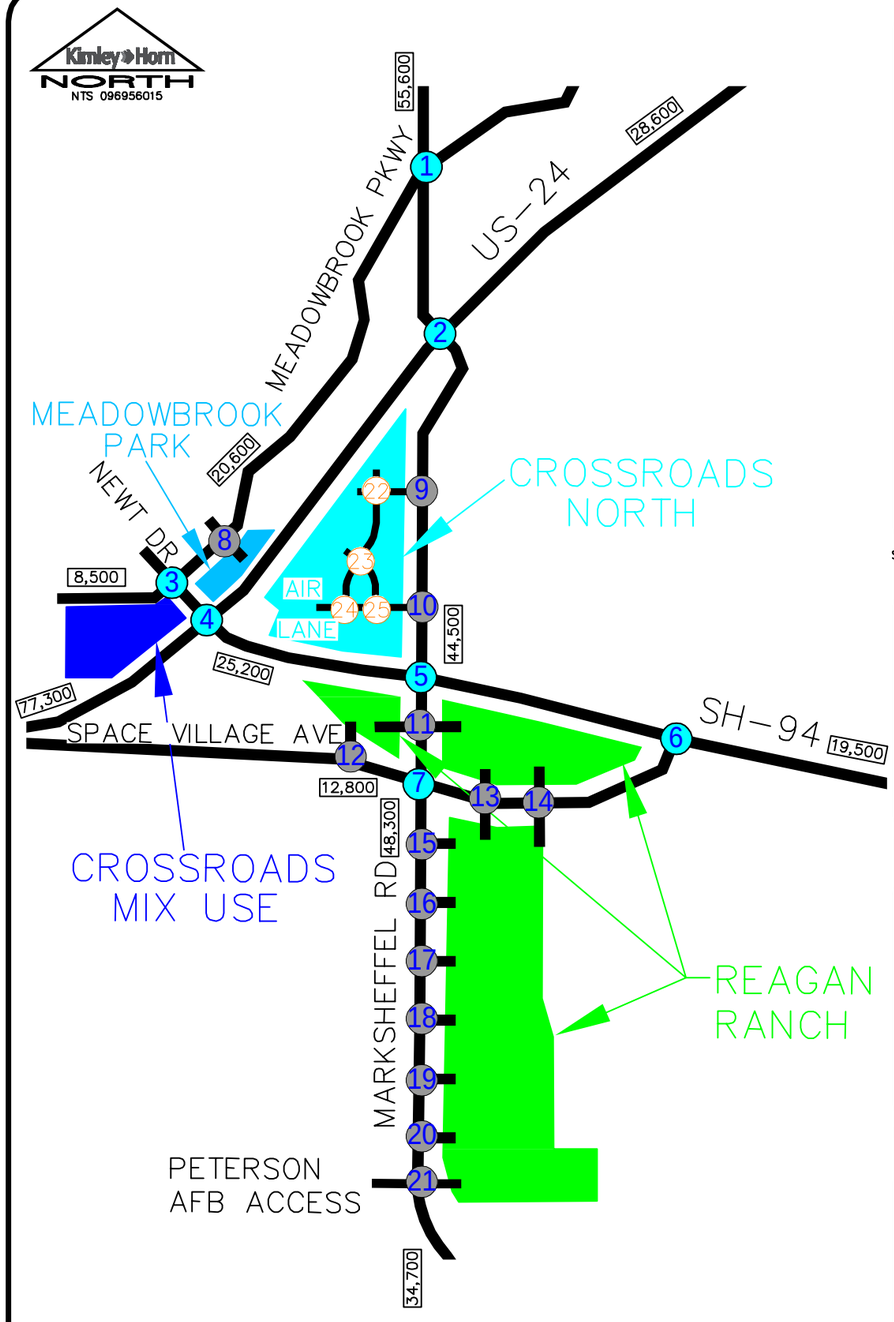




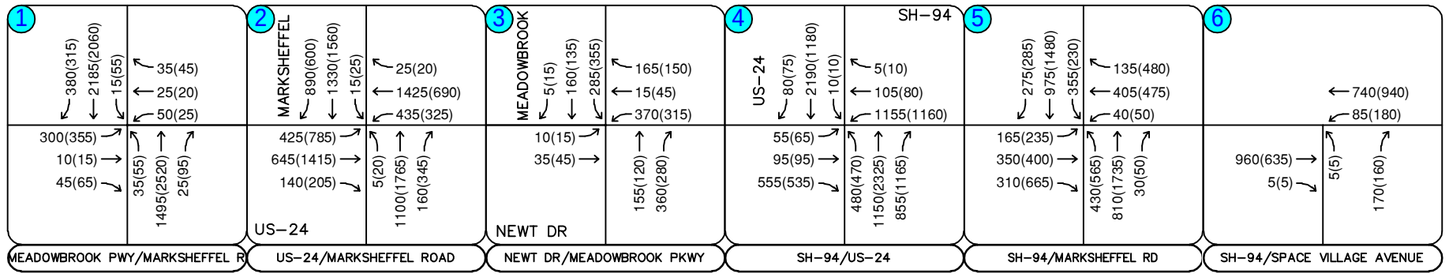
CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2026 TOTAL TRAFFIC VOLUMES

FIGURE 11

Kimley»Horn



CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2040 TOTAL TRAFFIC VOLUMES



LEGEND

- X — Existing Key Intersection
- X — Proposed Access Intersection
- X — Proposed Internal Intersection
- XXX(XXX) — Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 — Estimated Daily Traffic Volume

FIGURE 12

Kimley»Horn

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2026 and 2040 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual*[2].

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends intersection LOS D as the minimum threshold for acceptable operations for signalized intersections and LOS E for movements of unsignalized intersections. **Table 3** shows the definition of level of service for signalized and unsignalized intersections.

Table 3 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Control Delay (sec/veh)	Unsignalized Intersection Average Total Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Study area intersections were analyzed based on average total control delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service for a two-way stop-controlled intersection is not defined for the intersection as a whole. Level of service for a signalized and four-way stop controlled intersection is defined for the overall intersection.

[2] Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the level of service at the key intersections identified for study are provided in **Appendix D**. The existing and background traffic analyses are based on the lane geometry and intersection control shown in **Figure 3**. The signalized intersection analysis utilizes the observed cycle lengths with existing phasing and timing. Based on increased national attention given to setting appropriate yellow and all-red clearance intervals to improve intersection safety, these have been calculated and are applied for the approaches to the signalized intersections. The increase in the yellow and all red time sacrifices intersection capacity for improved safety. These yellow and all red time calculations are also included in **Appendix E**. Existing peak hour factors were used for all horizons while the recommended HCM urban area peak hour factor of 0.92 was used for the project accesses. Synchro traffic analysis software was used to analyze the study area intersections and access drives for level of service. The Synchro Highway Capacity Manual (HCM) methodology reports were used to analyze intersection control delay and level of service.

Meadowbrook Parkway and Marksheffel Road (#1)

Meadowbrook Parkway and Marksheffel Road (#1) is a four-leg signalized intersection. This intersection currently operates with LOS B during the morning and afternoon peak hours under the existing lane configuration and signal control. With or without the completion of the proposed developments, the intersection is anticipated to operate acceptably with LOS D or better during both the morning and afternoon peak hours throughout 2040. **Table 4** provides the results of the level of service at this intersection.

Table 4 – Meadowbrook Parkway and Marksheffel Road (#1) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Adjusted Existing	10.5	B	14.0	B
2026 Background	11.4	B	14.0	B
2026 Background Plus Project	25.7	C	23.4	C
2040 Background	12.5	B	16.4	B
2040 Background Plus Project	24.9	C	35.5	D

US-24 and Marksheffel Road (#2)

US-24 and Marksheffel Road (#2) is a four-leg signalized intersection. This intersection currently operates with a LOS D during the morning and afternoon peak hours under the existing lane configuration and signal control. During the afternoon peak hour in 2026, the intersection may operate with a LOS E, with the addition of development project traffic. Therefore, it is recommended that westbound dual left turn lanes be designated along US-24. With these improvements, the intersection is expected to operate with LOS D during both peak hours in the 2026 total condition.

By 2040, it is anticipated that the intersection will operate with long delays during the peak hours without the addition of project traffic. To improve operations at this intersection, both US-24 and Marksheffel Road may need to provide three through lanes on all approaches. With these improvements, the intersection is anticipated to operate at LOS D during the peak hours in 2040. **Table 5** provides the results of the level of service at this intersection.

Table 5 – US-24 and Marksheffel Road (#2) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Adjusted Existing	39.7	D	42.9	D
2026 Background	44.0	D	45.9	D
2026 Background Plus Project	53.9	D	58.7	E
2026 Background Plus Project #	53.7	D	54.2	D
2040 Background	71.7	E	74.6	E
2040 Background Plus Project ##	42.4	D	51.5	D

= US-24 westbound dual left turn lanes, ## = Three through lanes on all approaches

Newt Drive and Meadowbrook Parkway (#3)

The existing intersection of Newt Drive and Meadowbrook Parkway (#3) is a three-leg stop-controlled intersection with the east and west legs along Newt Drive providing stop control. This intersection currently operates with all movements at LOS B. In the 2026 background condition, the movements at this intersection are anticipated to continue to operate at LOS B. With the completion of phase 1 development in 2026, and specifically the Crossroads Mix Use development area in 2026, a south leg of Meadowbrook Parkway will be constructed and extended to the west limits of the Crossroads Mix Use property. The project does not have plans to extend Meadowbrook Parkway to Peterson Boulevard. Once this northbound leg is constructed, the westbound approach is anticipated to operate at LOS F during both peak hours. Based on projected traffic volumes, it is recommended that a roundabout with single lane approaches eastbound, northbound and southbound and a shared left turn/through lane with separate right turn lane on westbound Newt Drive be constructed at this intersection by 2026. With the recommended improvements, it is anticipated that the intersection will operate acceptably throughout 2040, with or without the addition of project traffic, with LOS B or better. **Table 6** provides the results of the level of service at this intersection.

Table 6 – Newt Drive and Meadowbrook Parkway (#3) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Adjusted Existing				
Eastbound Approach	12.3	B	14.0	B
Westbound Approach	12.0	B	14.1	B
2026 Background				
Eastbound Approach	12.7	B	14.7	B
Westbound Approach	12.3	B	14.7	B
2026 Background Plus Project #				
Eastbound Left	33.0	D	45.7	E
Eastbound Through/Right	30.1	D	33.6	D
Westbound Left	>300	F	>300	F
Westbound Through	20.3	C	27.0	D
Westbound Right	11.8	B	10.8	B
Southbound Left	9.9	A	9.4	A
2026 Background Plus Project ##	9.2	A	8.6	A
2040 Background ##	4.3	A	5.1	A
2040 Background Plus Project ##	11.2	A	12.3	B

= South Leg and Associated Movements; ## = Roundabout

SH-94/Newt Drive and US-24 (#4)

SH-94/Newt Drive and US-24 (#4) is a four-leg signalized intersection. Although both highways are east-west, the traffic software at this intersection assigned US-24 as north-south based on cardinal direction of existing roadway alignments. This intersection currently operates with LOS E during the morning and afternoon peak hours under the existing lane configuration and signal control. With or without the completion of the phase 1 development in 2026, the intersection is anticipated to operate with LOS F during the morning and afternoon peak hours. If future project volumes are realized, it is recommended that an additional through lane be considered as a regional improvement on the US-24 approaches. The US-24 right turn to eastbound SH-94 is recommended to include a separate right turn lane operating with free movements. Accelerations lanes currently exist in both directions along US-24 from both Newt Drive and SH-94. For southwestbound US-24 at SH-94 (#4), the existing acceleration lane along US-24 will need to be reconstructed with 960 feet of length plus a 225-foot taper if and when US-24 is improved to provide three through lanes along northbound US-24. For northeastbound US-24 at SH-94, it is recommended that this acceleration lane be converted to the third northbound through lane as the acceleration lane is not warranted. Further, the northeastbound US-24 third through lane needs to continue for 1,200 feet plus provide a 660-foot taper based on MUTCD standards. Also, it is recommended that triple westbound left turns be designated by converting the inside westbound through lane to a left turn lane. It is believed that with these improvements, the intersection is at its ultimate configuration. With the ultimate configuration the intersection improves significantly and operates acceptably in 2026, but long delays may still occur during the peak hours in 2040. As such, and as requested by CDOT, an additional analysis was performed with an interchange grade separation including a westbound left turn flyover ramp condition. With this westbound left turn flyover ramp, this intersection is expected to operate acceptably with LOS D or better during the peak hours throughout the 2040 horizon. **Table 7** provides the results of the level of service at this intersection.

Table 7 – SH-94/Newt Drive and US-24 (#4) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Adjusted Existing	76.6	E	58.3	E
2026 Background	98.8	F	77.0	E
2026 Background Plus Project	207.1	F	153.3	F
2026 Background Plus Project #	54.7	D	46.0	D
2026 Background Plus Project ## (WBL Flyover)	32.4	C	28.1	C
2040 Background #	66.1	E	43.0	D
2040 Background Plus Project #	133.2	F	118.3	F
2040 Background Plus Project ## (WBL Flyover)	44.7	D	32.0	C

= Three northbound and southbound through lanes, dual northbound left turn lanes, triple westbound left turn lanes.
= Three northbound and southbound through lanes, dual northbound left turn lanes and westbound left flyover ramp

SH-94 and Marksheffel Road (#5)

The existing intersection of SH-94 and Marksheffel Road (#5) is currently a four-leg signalized intersection. This intersection currently operates with LOS C during the morning and afternoon peaks hours with existing traffic volumes and lane configurations. With the completion of the phase 1 development in 2026, the northbound and southbound right turns at this intersection are anticipated to be a free southbound right turn due to CDOT State Highway Access Code guidelines. By completion of Phase 1 development in 2026, this intersection is expected to continue to operate acceptably during the peak hours with existing lane configurations and control. With the completion of the proposed development by 2040, the following improvements are recommended: eastbound and westbound right turn movements to implement permissive/overlap phasing, two eastbound and westbound through lanes, and three northbound and southbound through lanes. With these improvements, this intersection is anticipated to operate acceptable with LOS D or better during the peak hours in 2040. **Table 8** provides the results of the level of service at this intersection.

Table 8 – SH-94 and Marksheffel Road (#5) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Adjusted Existing	24.8	C	25.9	C
2026 Background	25.0	C	27.0	C
2026 Background Plus Project #	26.3	C	31.6	C
2040 Background	23.8	C	28.2	C
2040 Background Plus Project ##	31.6	C	49.3	D

= NB to EB right turn acceleration lane, and SB to WB right turn acceleration lane

= Two eastbound and westbound through lanes, three northbound and southbound through lanes, NB to EB right turn acceleration lane, and SB to WB right turn acceleration lane

SH-94 and Space Village Avenue (#6)

The existing intersection of SH-94 and Space Village Avenue (#6) is a three-leg stop-controlled intersection with the northbound leg providing stop control. This intersection currently operates acceptably with all movements at LOS B or better during the peak hours. With or without the completion of the proposed development, all movements at the intersection are anticipated to operate acceptably during the peak hours throughout the 2040 horizon. **Table 9** provides the results of the level of service at this intersection.

Table 9 – SH-94 and Space Village Avenue (#6) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Existing				
Northbound Approach	14.4	B	10.6	B
Westbound Left	10.3	B	8.6	A
2026 Background				
Northbound Approach	16.3	C	11.0	B
Westbound Left	11.1	B	8.8	A
2026 Background Plus Project				
Northbound Approach	19.5	C	12.9	B
Westbound Left	11.8	B	9.3	A
2040 Background				
Northbound Approach	26.3	D	12.3	B
Westbound Left	13.6	B	9.6	A
2026 Background Plus Project				
Northbound Approach	48.6	E	16.2	C
Westbound Left	16.8	C	10.7	B

Space Village Avenue and Marksheffel Road (#7)

The existing intersection of Space Village Avenue and Marksheffel Road (#7) is a four-leg two-way stop-controlled intersection with the east and west legs providing stop control. This intersection currently operates poorly with LOS F on the eastbound and westbound approaches during the morning and afternoon peak hours. By completion of phase 1 development in 2026, a signal is expected to be warranted for this intersection. With construction of a traffic signal, the intersection operates acceptably with LOS B during the peak hours in 2026. By 2040, three through lanes northbound and southbound are recommended along Marksheffel Road north of

the Peterson Air Force Base Access. With construction of the additional through lanes, this intersection continues to operate acceptably with LOS C or better during both peak hours in 2040. A signal warrant analysis figure is included in **Appendix E** for this intersection. **Table 10** provides the results of the level of service at this intersection.

Table 10 – Space Village Avenue and Marksheffel Road (#7) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS
2020 Existing				
Northbound Left	10.5	B	8.4	A
Eastbound Left	93.6	F	48.1	E
Eastbound Through	279.4	F	146.6	F
Eastbound Right	10.9	B	10.8	B
Westbound Left	V>C	F	>300	F
Westbound Through	154.0	F	87.5	F
Westbound Right	9.9	A	12.0	B
Southbound Left	8.6	A	10.3	B
2026 Background				
Northbound Left	11.2	B	8.5	A
Eastbound Left	>300	F	80.7	F
Eastbound Through	>300	F	277.4	F
Eastbound Right	11.3	B	11.1	B
Westbound Left	V>C	F	>300	F
Westbound Through	>300	F	151.3	F
Westbound Right	10.1	B	12.4	B
Southbound Left	8.7	A	10.7	B
2026 Background Plus Project				
Northbound Left	12.6	B	9.5	A
Eastbound Left	V>C	F	V>C	F
Eastbound Through	>300	F	>300	F
Eastbound Right	12.5	B	13.6	B
Westbound Left	V>C	F	V>C	F
Westbound Through	>300	F	>300	F
Westbound Right	11.8	B	15.0	C
Southbound Left	10.3	B	14.5	B
2026 Background Plus Project #	13.4	B	15.2	B
2040 Background #	27.1	C	17.4	B
2040 Background Plus Project ##	33.3	C	33.0	C

Signalized; ## = Three northbound and southbound through lanes

See comment on page 26. Meadowbrook Pkwy will eventually connect to Peterson Rd when the adjacent property to the west develops. Long range horizon should analyze for this eventuality. The access locations need to be analyzed to determine the required lane configuration.

5.3 Project Access Oper

With completion of the Cr ed for evaluation is propos 3), Marksheffel Road (#9-11 ng includes project access in

Crossroads Mix Use and Meadowbrook Park

With completion of the Crossroads Mix Use project, the site proposes three accesses along the east side of Meadowbrook Parkway. The northeastern access along Meadowbrook Parkway for Crossroads Mix Use may be right-in/right-out while the two southern most access will provide full movements with stop control on the minor legs. These three accesses to Crossroads Mix Use were not included for evaluation as Meadowbrook Parkway terminates to the west property limits and these are private streets. However, all three project access driveways to Crossroads Mix Use are recommended to have R1-1 "STOP" signs installed for the exiting approaches.

The Meadowbrook Park development area has one proposed driveway access (#8) along the east side of Meadowbrook Parkway that will align with Preble Drive. Left turn movements for entering this project access will be provided from an existing two-way left turn lane along Meadowbrook Parkway. The westbound exiting approach of this driveway should provide stop control with installation of a R1-1 "STOP" sign. With the recommended lane configurations and control at the Project Access (#8)/Preble Drive and Meadowbrook Parkway intersection, all movements are expected to operate acceptably during the peak hours throughout the 2040 horizon.

Crossroads North

Direct access to Crossroads North is proposed from two full movement accesses (#9 and #10) along Marksheffel Road approximately 2,000 feet and 1,000 feet north of SH-94. The south access is currently proposed to be named Air Lane which will provide east-west collector roadway connectivity to Crossroads North. These accesses do not meet the El Paso County standard of half-mile spacing for full movement accesses along Urban Principal Arterial roadways. The spacing of these proposed accesses is believed to be only deviations from El Paso County standards. As such and as requested by El Paso County, a sensitivity analysis has been prepared

later in Section 5.8 comparing the north access along Marksheffel Road as a full movement signalized intersection and a three-quarter movement unsignalized intersection due to these accesses not meeting El Paso County standards for full movement intersection spacing.

El Paso County uses the CDOT State Highway Access Code for determination of turn lanes. Based on this, a right turn lane is required for any access with a projected peak hour right ingress turning volume of 25 vehicles per hour or greater for principal arterials, therefore it is recommended that a southbound right turn lane be constructed at both intersections due to the volumes being 200 vehicles per hour at the north access and 100 vehicles per hour at the south access in 2026. Northbound left turn lanes will also be required at both of these accesses (#9 and #10) along Marksheffel Road. Based on El Paso County standards, the two northbound left turn lanes and two southbound right turns lanes should provide a turn lane length of 235 feet plus a 200-foot taper.

The eastbound left turn movements at these two proposed accesses along Marksheffel Road are expected to operate with LOS F during the peak hours in 2026 under stop control. As such, a signal warrant evaluation was performed, and warrants are expected to be met at these two accesses based on 2026 traffic volume projections. The signal warrant analysis is attached in **Appendix E**. With signal control, the two Crossroads North access intersections to Marksheffel Road are expected to operate acceptably with LOS A during the peak hours throughout the 2040 horizon. El Paso County does not have specified criteria for when acceleration lanes are required but references the AASHTO “Green Book” for when these lanes are not desirable. Based on acceptable operations of LOS A and vehicle queues being accommodated on-site, right turn acceleration lanes are not recommended at the two accesses to Crossroads North along Marksheffel Road.

Reagan Ranch

For the northwest development area of Reagan Ranch, a right-in/right access is proposed along Marksheffel Road (#11) between SH-94 and Space Village Avenue (to also serve the northeast development area of Reagan Ranch) and a full movement access is proposed along Space Village Avenue (#12). It is likely that rights to an easement for a proposed new access along Space Village Avenue will be acquired and was evaluated as such in this traffic study.

Three accesses are proposed to serve the northeast development area of Reagan Ranch. These include a right-in/right-out access on the east side of Marksheffel Road between SH-94 and Space Village Avenue (previously mentioned #11) and two roundabouts providing full turning movements along Space Village Avenue between Marksheffel Road and SH-94 (#13 and #14).

For the southeast development area of Reagan Ranch, access will be gained at these same two roundabouts along Space Village Avenue (#13 and #14) as well as seven (7) accesses (#15-21) planned along the east side of Marksheffel Road south of Space Village Avenue at the standard City 600-foot spacing. The access intersection at the approximate half-mile spacing (#18) is expected to require signalization by 2040 while the access in alignment with Peterson Air Force Base (#21) is expected to need signalization by the short-term 2026 horizon. The accesses at the quarter-mile spacing are proposed as three-quarter movement accesses (#16 and #20) while the accesses at the eighth-mile spacing are proposed as right-in/right-out accesses (#15 and #17 and #19).

By 2040, most of the accesses along Marksheffel Road to the south of SH-94 are anticipated to operate poorly. For these intersections to operate acceptably, it is recommended that three northbound and southbound through lanes be considered on Marksheffel Road, north of the Peterson Air Force Base Access throughout the project area if future traffic volume growth is realized.

With the recommended lane configurations and intersection control, all movements at the project accesses to Reagan Ranch (#11-21) are expected to operate acceptably during the peak hours in the 2026 and 2040 horizons. A four-hour vehicle volume signal warrant analysis was performed at the north and south full movement accesses to Reagan Ranch along Marksheffel Road. A traffic signal is expected to be needed at the south access (#21) aligning with the Air Force Base Access in 2026 while the north full movement access (#18) to Reagan Ranch along Marksheffel Road is expected to meet warrants in 2040. The signal warrant analysis graphs are attached in **Appendix E**. With the signal improvements at both full movement accesses along Marksheffel Road and dual eastbound left turns at the Peterson Air Force Base Access (#21), the intersections operate acceptably with LOS D or better throughout the 2026 horizon. With the additional northbound and southbound through lanes in 2040, the north signalized full movement access

(#18) along Marksheffel Road is anticipated to continue operating acceptably. For the south full access (#21) to operate acceptably in 2040, it is recommended that the westbound right turn lane be provided at this access.

Crossroads North Internal Intersections

As requested by El Paso County, an internal street evaluation was conducted for the Crossroads North development area. The south access to Crossroads North along Marksheffel Road is proposed to be named Air Lane and is expected to be classified as an El Paso County Urban Non-Residential Collector roadway with a 60-foot right-of-way (ROW). Air Lane extends east-west and is proposed to connect with a north-south extending Non-Residential Collector street (#24) and a north-south extending Urban Local street (#25). Intersection #25 (collector to collector) is proposed to be located approximately 660 feet west of Marksheffel Road while Intersection #24 (collector to local street) is located approximately 380 feet west of Marksheffel Road. These distances meet the El Paso County Urban Non-Residential Collector spacing standards of 660 feet to other collectors and 330 feet to intersections with a local street. The north-south extending Non-Residential Collector street also connects with an east-west collector street (#22) that extends from the north access to Marksheffel Road as well as with an Urban Local street on site (#23). The north access street connecting with Marksheffel Road is proposed to be classified as an El Paso County Urban Non-Residential Collector roadway. The recommended left-turn lanes internal to Crossroads North should provide 115 feet of length plus 120-foot tapers to meet El Paso County standards. With the recommended lane configurations and control, all movements at four internal intersections (#22-25) to Crossroads North expected to operate acceptably with LOS C or better during the peak hours throughout the 2040 horizon. As requested by El Paso County, **Figure 13** illustrates the street classification map for roadways internal to Crossroads North.

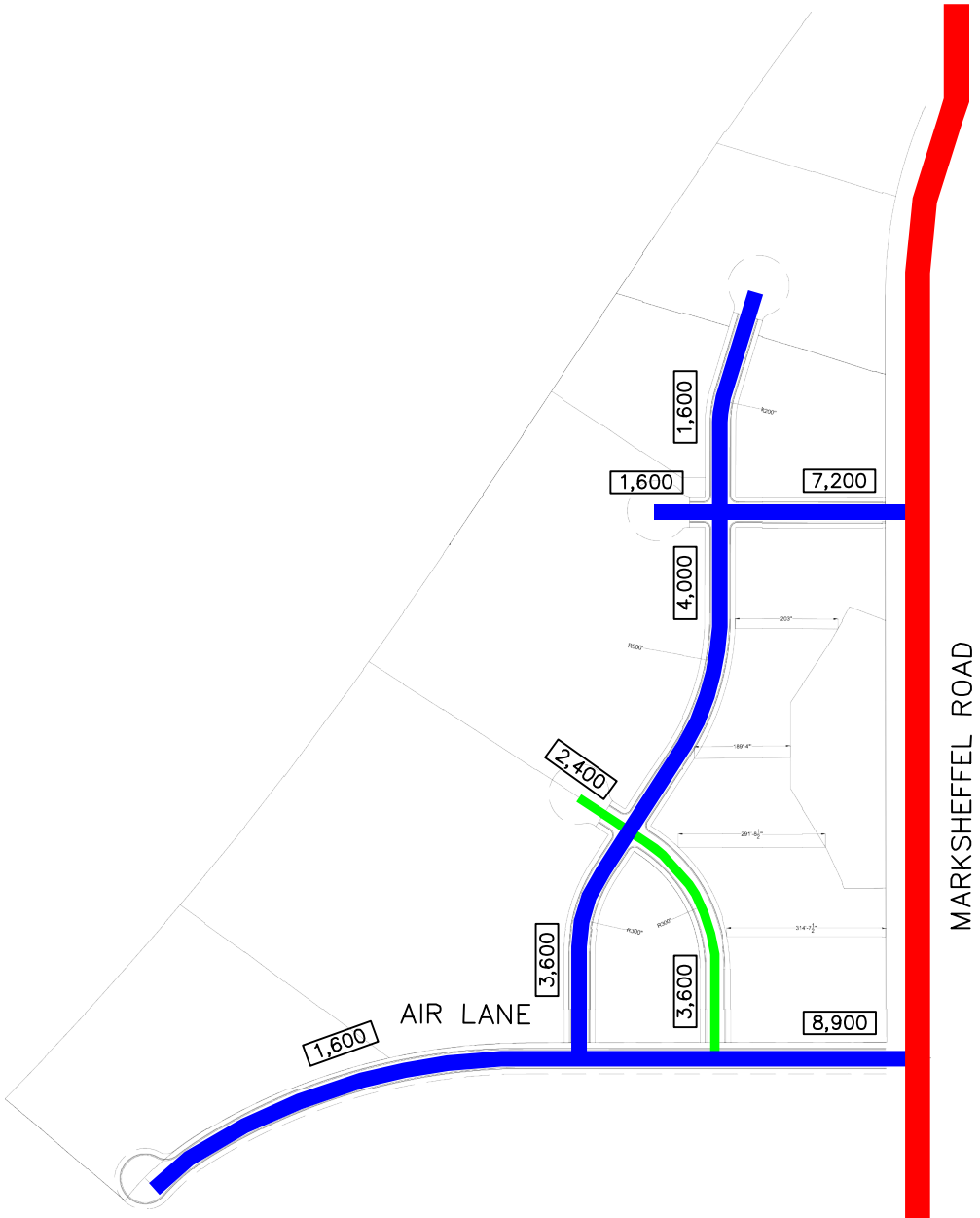
The operational analysis at the proposed project driveways of all four development areas as well as the internal intersections to Crossroads North is summarized in **Table 11** for phase 1 development in 2026 and for the long-term 2040 horizon. Detailed results of the operational analysis are also provided in **Appendix D**.

Table 11 – Project Access LOS Results

Access and Movement	2026 Total Traffic				2040 Total Traffic			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS
Meadowbrook Parkway Access (#8)								
Northbound Left	8.3	A	8.7	A	9.0	A	10.9	B
Eastbound Approach	12.5	B	13.8	B	16.2	C	24.5	C
Westbound Approach	14.4	B	15.1	C	21.0	C	29.7	D
Southbound Left	8.2	A	8.1	A	9.2	A	9.5	A
Crossroads North: Marksheffel Road North Access (#9)								
Northbound Left	15.6	C	12.9	B	-	-	-	-
Eastbound Left	76.7	F	62.1	F				
Eastbound Right	17.8	C	14.8	B				
Crossroads North: Marksheffel Rd North Access (#9 - Signal)	8.6	A	6.7	A	# 3.9	# A	# 3.1	# A
Crossroads North: Marksheffel Road South Access (#10)								
Northbound Left	18.0	C	13.8	B	-	-	-	-
Eastbound Left	108.3	F	74.1	F				
Eastbound Right	26.3	D	19.2	C				
Crossroads North: Marksheffel Rd South Access (#10 - Signal)	8.2	A	9.4	A	# 8.7	# A	# 7.6	# A
NW & NE Reagan Ranch: Marksheffel Road RIRO Access (#11)					#	#	#	#
Eastbound Right	11.7	B	10.5	B	12.6	B	13.7	B
Westbound Right	12.4	B	17.5	C	11.7	B	25.3	D
Northwest Reagan Ranch: Space Village Avenue Full Access (#12)								
Eastbound Left	8.8	A	8.2	A	10.2	B	9.1	A
Southbound Left	13.9	B	13.4	B	17.6	C	21.0	C
Southbound Right	12.2	B	10.7	B	12.6	B	11.7	B
Space Village Ave West Full Access (#13) (Roundabout)	3.8	A	4.0	A	4.6	A	6.5	A
Space Village Ave East Full Access (#14) (Roundabout)	3.4	A	3.5	A	3.8	A	4.4	A
Marksheffel Rd RIRO Access (#15)					#	#	#	#
Westbound Right	13.5	B	17.4	C	13.2	B	19.7	C
Marksheffel Rd 3/4 Access (#16)					#	#	#	#
Westbound Right	13.6	B	17.8	C	13.5	B	21.8	C
Southbound Left	11.5	B	16.4	C	11.4	B	27.2	D
Marksheffel Rd RIRO Access (#17)					#	#	#	#
Westbound Approach	13.5	B	17.9	C	13.9	B	21.7	C
Marksheffel Rd Full Access (#18)								
Westbound Approach	23.6	C	45.9	E	-	-	-	-
Southbound Left	11.2	B	16.1	C				

Access and Movement	2026 Total Traffic				2040 Total Traffic			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS	Control Delay (sec/ veh)	LOS
Marksheffel Rd Full Access (#18 - Signalized)	-	-	-	-	# 4.2	# A	# 16.1	# B
Marksheffel Rd RIRO Access (#19)					#	#	#	#
Westbound Right	12.9	B	16.5	C	12.1	B	15.8	C
Marksheffel Rd Three-Quarter Access (#20)					#	#	#	#
Westbound Right	12.9	B	17.2	C	12.5	B	18.3	C
Southbound Left	10.9	B	15.5	C	10.5	B	20.1	C
Marksheffel Rd Peterson AFB / Access (#21)								
Northbound Left	14.6	B	11.9	B				
Eastbound Left	>300	F	>300	F				
Eastbound Through/Right	15.9	C	19.9	C	-	-	-	-
Westbound Left	295.3	F	220.4	F				
Westbound Through/Right	120.5	F	48.4	E				
Southbound Left	8.3	A	9.1	A				
Marksheffel Rd Peterson AFB / Access (#21) (Signalized)	34.8	C	39.3	D	## 32.4	## C	## 54.5	## D
Crossroads North Internal Intersections: North Intersection (#22)								
Northbound Left	12.4	B	12.1	B	12.9	B	15.6	C
Northbound Through/Right	9.0	A	9.0	A	9.1	A	9.2	A
Eastbound Left	7.4	A	7.4	A	7.5	A	7.6	A
Westbound Left	7.6	A	7.6	A	7.6	A	7.8	A
Southbound Left	13.6	B	13.3	B	14.5	B	17.5	C
Southbound Through/Right	10.7	B	10.6	B	11.0	B	12.3	B
Crossroads North Internal Intersections: Middle Intersection (#23)								
Northbound Left	7.5	A	7.5	A	7.6	A	7.7	A
Eastbound Approach	10.0	B	10.0	B	10.1	B	10.5	B
Westbound Approach	9.2	A	9.2	A	9.3	A	9.9	A
Southbound Left	7.4	A	7.4	A	7.4	A	7.4	A
Crossroads North Internal Intersections: Air Lane West Intersection (#24)								
Eastbound Left	7.5	A	7.5	A	7.6	A	7.8	A
Southbound Left	10.3	B	10.2	B	10.5	B	10.8	B
Southbound Right	8.8	A	8.8	A	8.9	A	9.1	A
Crossroads North Internal Intersections: Air Lane East Intersection (#25)								
Eastbound Left	7.8	A	7.8	A	7.9	A	8.2	A
Southbound Approach	11.7	B	11.6	B	12.2	B	13.2	B

= Three northbound and southbound through lanes



LEGEND

- URBAN 4-LANE PRINCIPAL ARTERIAL
- URBAN NON-RESIDENTIAL COLLECTOR
- URBAN LOCAL
- XX,X00 ESTIMATED 2040 DAILY TRAFFIC VOLUME

NOTE: EL PASO COUNTY STREET CLASSIFICATIONS

CROSSROADS-MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
CROSSROADS NORTH SITE CIRCULATION

FIGURE 13

Update sight distance criteria for County owned/maintained road based on EPC Engineering Criteria Manual. See example below.

5.4 Sight Distance Evaluation

It is recommended that appropriate sight distance triangles be provided at all site access points to give drivers exiting the development areas a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. Intersection sight distances for left turn from stop and right turn from stop were analyzed for the proposed project accesses along Marksheffel Road, Meadowbrook Parkway, and Space Village

provide an exhibit showing the sight distance/line-of-sight for the proposed accesses to the mixed use.
Unresolved. Include a conclusion/finding narrative verifying that the proposed access locations shown on the preliminary plan meets sight distance criteria. If it does not meet criteria, identify the required modifications so that it can be met.

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from stop should be clear to the right within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way (typical position of the minor road driver's eye when stopped) and a line of sight distance of 610 feet located in the middle of the nearest lane opposite of the center median for both accesses along Marksheffel Road. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way and a

Update. Meadowbrook Parkway is a non-residential collector which has a design speed of 40 mph. Per ECM Chapter 2 Section 2.3.6 Table 2-21 intersection sight distance is 445 ft.

es along

Along with the accesses along Marksheffel Road, the access along Meadowbrook Parkway was analyzed for sight distance requirements. With AASHTO standards and a design speed of 35 miles per hour along Meadowbrook Parkway, the intersection sight distance for a vehicle turning left from stop is 390 feet, while the sight distance for a vehicle turning right from stop is 335 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way and a line of sight distance of 390 feet located in the middle of the nearest lane opposite of the center median for the access along Meadowbrook Parkway. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way and a line of sight distance of 335 feet located in the middle of the nearest lane for the access along Meadowbrook Parkway.

Revise to 13' per ECM

With AASHTO standards and a design speed of 45 miles per hour along Space Village Avenue, the intersection sight distance for a vehicle turning left from stop is 500 feet, while the sight distance for a vehicle turning right from stop is 430 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way and a line of sight distance of 500 feet located in the middle of the nearest lane opposite of the center median for both accesses along Space Village Avenue. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 14.5 feet from the edge of the major road traveled way and a line of sight distance of 430 feet located in the middle of the nearest lane for the accesses along Space Village Avenue.

5.5 Bicycle and Pedestrian Access

Bicycle and pedestrian access evaluations were conducted for the Crossroads-Meadowbrook-Reagan Ranch project. This focused on the areas of Meadowbrook Parkway, Marksheffel Road, US-24, SH-94, and Space Village Avenue adjacent to the site development areas. The following provides a description of the assessment.

Adjacent to the site, Meadowbrook Parkway provides the only sidewalks within the project area along both sides of the street. Pedestrian access is good along Meadowbrook Parkway between Newt Drive and Marksheffel Road with wide sidewalks with minimal gaps and signalized crossings of Marksheffel Road, where a great level of service exists for pedestrians. To the east of Marksheffel Road, Meadowbrook Parkway leads into a neighborhood with no sidewalks on either side of the road. Although the only sidewalks that exist within the study area are on Meadowbrook Parkway there are very few destinations outside of the ones provided on Meadowbrook Parkway. The only new sidewalks shown on the site plan are along the east side of Meadowbrook Parkway at the Meadowbrook Park development. Sidewalks will be provided internal to the development areas and connections will be made to the external public streets.

Transit within the Colorado Springs area is provided by Mountain Metropolitan Transit. From review of the most recent route map from August 1, 2019 there are currently no transit routes that run through the site area.

5.6 CDOT Turn Lane Evaluation

CDOT Access Permits will be required for the intersections of SH-94/US-24 (#4) SH-94/Marksheffel Road (#5), and SH-94/Space Village Avenue (#6) in association with the project.

Since US-24 and SH-94 are state owned and maintained facilities, it is recommended that auxiliary turn lanes along US-24 and SH-94 be constructed in accordance with the current CDOT State Highway Access Code (SHAC). CDOT categorizes the segments of US-24 and SH-94 through the study area as E-X: Expressway, Major Bypass. According to the State Highway Access Code for category E-X roadways, the following thresholds apply:

- A left turn deceleration lane is required for any access with a projected average daily left turn ingress volume greater than 10 with the transition taper included within the required deceleration length. If the projected peak hour left ingress turning volume is greater than 10 vehicles per hour (vph), a left turn deceleration, storage, and taper lane is required for any access.
- A right turn lane with deceleration and taper lengths is required for any access with a projected peak hour right ingress turning volume greater than 10 vph.
- A right turn lane with acceleration and taper lengths is required for any access with a project peak hour turning volume greater than 10 vph.

Based on traffic projections and the above thresholds, auxiliary turn lane requirements were calculated for the key intersections along SH-94. SH-94 provides one lane of travel in each direction and has a posted speed limit of 40 miles per hour at US-24, 55 miles per hour west of Marksheffel Road and 65 miles per hour east of Marksheffel Road. US-24 provides two lanes of travel in each direction and has a posted speed limit of 55 miles per hour through the SH-94 intersection. As such, turn lane requirements at the study area intersections along SH-94 to be impacted by project traffic are as follows:

<u>SH-94 and US-24 (#4)</u>

Left Turn Deceleration Lanes:

- A westbound left turn deceleration lane exists and **<u>is</u>** warranted based on projected 2026 background plus project traffic being 820 westbound left turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the left turn lane

requirement is deceleration, storage, and taper lengths. Currently there are westbound dual left-turn lanes of approximately a 475-foot length with a 525-foot taper. Based on the 40-mile per hour speed limit, the deceleration lane length is 370 feet, plus a 150-foot taper. Since triple left turn lanes are recommended here with conversion of the inside westbound through lane to a left turn lane, the storage requirement is 275 feet per lane. Therefore, it is recommended that these two left turn lanes be constructed and designated to 645 feet plus a 200-foot taper, with the outside third left turn lane being continuous. By 2040, this turn lane may need to be 760 feet plus a 200-foot taper.

- A northbound left turn deceleration lane exists and **is** warranted along US-24 approach to Newt Drive/SH-94 based on projected 2026 background plus project traffic being 225 left turns during the peak hour. Since US-24 has a category of E-X the left turn lane requirement is deceleration, storage, and taper lengths. Currently the northbound left-turn lane is approximately 900 feet long and the taper is approximately 150 feet. Based on the 55-mile per hour speed limit, the deceleration lane length is 600 feet, plus a 225-foot taper, and 480 feet of storage for a total length of 1,080 feet plus 225-foot taper. However, by 2026 it is recommended that dual northbound US-24 left turn lanes be designated at this intersection. Dividing the storage in half results in 850-foot plus 225-foot taper northbound dual left turn lanes.

- A southbound US-24 left turn deceleration lane exists but **is not** warranted based on projected 2026 background plus project traffic being 5 southbound left turns during the peak hour and the threshold being greater than 10 vph.

Right Turn Deceleration Lanes:

- A northbound right turn deceleration lane along US-24 exists and **is** warranted based on projected 2026 background plus project traffic being 635 northbound right turns during the peak hour and the threshold being 10 vph. Since US-24 has a category of E-X the right turn lane requirement is deceleration and taper lengths. The northbound right turn lane is currently 600 feet with a 225-foot taper. Based on the 55-mile per hour speed limit, the deceleration lane length is 600 feet plus a 225-foot taper. Therefore, the existing northbound right turn lane meets current CDOT SHAC requirements.

- A southbound US-24 right turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 65 southbound right turns during the peak hour and the threshold being 10 vph. Since US-24 has a category of E-X the right turn lane requirement is deceleration, and taper lengths. The southbound right turn lane is currently 800 feet long with a 200-foot taper. Based on the 55-mile per hour speed limit, the deceleration lane length is 600 feet plus a 225-foot taper. Therefore, the existing southbound right turn lane meets current CDOT SHAC requirements.

- A westbound right turn deceleration lane exists but **is not** warranted based on projected 2026 background plus project traffic being 10 westbound right turns during the peak hour and the threshold being greater than 10 vph. Since US-24 has a category of E-X the right turn lane requirement is deceleration, and taper lengths. The westbound right turn lane is currently 475 feet long with a 750-foot taper. Based on the 40-mile per hour speed limit, the deceleration lane length is 370 feet, plus a 150-foot taper. Therefore, the existing westbound right turn lane meets current CDOT SHAC requirements.

Acceleration Lanes:

- An eastbound acceleration lane along SH-94 from the US-24 northbound right turn exists and **is** warranted based on projected 2026 background plus project traffic being 635 northbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is acceleration and taper length. Currently the eastbound acceleration lane is approximately 425 feet long with a 175-foot taper. Based on the 40-mile per hour speed limit, the acceleration lane length requirement is 380 feet plus a 145-foot taper. Therefore, no improvements are needed for this lane.

- A southwestbound right turn acceleration lane along US-24 from the Newt Drive right turn exists and **is** warranted based on projected 2026 background plus project traffic being 495 eastbound right turns during the peak hour and the threshold being 10 vph. Since US-24 has a category of E-X and a speed limit of 55 mph the right turn lane requirement is acceleration, and taper lengths. Based on the 55-mile per hour speed limit, the acceleration lane length requirement is 960 feet plus a 225-foot taper. This acceleration

lane exists today for a length of 760 feet plus 225-foot taper; therefore, this lane should be extended from 760 feet to 960 feet.

- A northeastbound acceleration lane along US-24 from the SH-94 westbound right turn exists but **is not** warranted based on projected 2026 background plus project traffic being 10 westbound right turns during the peak hour and the threshold being greater than 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is acceleration and taper length. Currently the eastbound acceleration lane is approximately 1,425 feet long with a 300-foot taper. Based on the 55-mile per hour speed limit, the acceleration lane length requirement is 960 feet plus a 225-foot taper. Therefore, no improvements are needed for this lane. However, if and when a third northbound through lane is provided along US-24 at SH-94, it is recommended that this acceleration lane be converted to the third northbound through lane as the acceleration lane is not warranted.

SH-94 and Marksheffel Road (#5)

Left Turn Deceleration Lanes:

- An eastbound left turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 150 eastbound left turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the left turn lane requirement is deceleration, storage, and taper lengths. Currently the eastbound left-turn lanes are approximately 300 feet long with a 100-foot taper. Based on the 55-mile per hour speed limit, the deceleration lane length is 600 feet, plus a 225-foot taper. The storage requirement is 150 feet in 2026 and 235 feet in 2040 based on the projected left turning volume. Therefore, it is recommended that this left turn lane be constructed and designated to 750 feet plus a 225-foot taper in 2026 and 835 feet plus a 225-foot taper in 2040.

- A westbound left turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 45 westbound left turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the left turn lane requirement is deceleration, storage, and taper lengths. Currently the westbound left-turn lanes are approximately 225 feet long with a 200-foot taper. Based on the 55-mile per hour speed

limit, the deceleration lane length is 600 feet, plus a 225-foot taper. The storage requirement is 50 feet based on the projected left turning volume. Therefore, it is recommended that this lane be constructed to 650 feet with a 225-foot taper.

Right Turn Deceleration Lanes:

- An eastbound right turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 265 eastbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is deceleration plus taper length. The eastbound right turn lane is currently 250 feet long with a 200-foot taper. Based on the 55-mile per hour speed limit, the deceleration lane length requirement is 600 feet plus a 225-foot taper. Therefore, the existing eastbound right turn lane does not meet current CDOT SHAC requirements. It is recommended that this lane be constructed to 600 feet plus a 225-foot taper.

- A westbound right turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 395 westbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is deceleration plus taper length. The westbound right turn lane is currently 250 feet long with a 275-foot taper. Based on the 55-mile per hour speed limit, the deceleration lane length requirement is 600 feet plus a 225-foot taper. Therefore, the existing westbound right turn lane does not meet current CDOT SHAC requirements. It is recommended that this lane be constructed to 600 feet plus a 225-foot taper.

Acceleration Lanes:

- An eastbound acceleration lane along SH-94 from the Marksheffel Road northbound right turn **is** warranted based on projected 2026 background plus project traffic being 30 northbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is acceleration, and taper lengths. The right turn lane currently has no acceleration lane. Based on the 65-mile per hour speed limit, a 1,380-foot acceleration lane with 300-foot taper is recommended.

- A westbound acceleration lane along SH-94 from the Marksheffel Road southbound right turn **is** warranted based on projected 2026 background plus project traffic being 255 westbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is acceleration, and taper lengths. The right turn lane currently has no acceleration lane. Based on the 40-mile per hour speed limit, a 380-foot acceleration lane with a 145-foot taper is required; however, it is recommended that this acceleration lane be a continuous lane to tie into the outside westbound through lane on the approach to US-24.

SH-94 and Space Village Avenue (#6)

- A westbound left turn deceleration lane exists and **is** warranted based on projected 2026 background plus project traffic being 95 westbound left turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X, the left turn lane requirement is deceleration, storage, and taper lengths. Currently the westbound left-turn lane is approximately 150 feet long with a 100-foot taper. Based on the 65-mile per hour speed limit, the deceleration lane length is 800 feet, plus a 300-foot taper. The storage requirement is 100 feet based on the projected 95 left turns. Therefore, it is recommended that this lane be constructed to 900 feet with a 300-foot taper by 2026.

- An eastbound right turn deceleration lane exists and **is not** warranted based on projected 2026 background plus project traffic being 5 eastbound right turns during the peak hour and the threshold being 10 vph. A short 250-foot with 225-foot taper eastbound right turn lane exists at this intersection already today and is recommended to remain in place as-is with development of the project.

- An eastbound acceleration lane along SH-94 from the Space Village Avenue northbound right turn exists and **is** warranted based on projected 2026 background plus project traffic being 50 northbound right turns during the peak hour and the threshold being 10 vph. Since SH-94 has a category of E-X the right turn lane requirement is acceleration, and taper lengths. The right turn movement currently has a short 300-foot with 200-foot taper acceleration lane. Based on the 65-mile per hour speed limit, a 1,380-foot acceleration lane with 300-foot taper is recommended.

5.7 Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 12** with calculations provided within the level of service operational sheets of **Appendix D** for the unsignalized intersections and **Appendix F** for signalized intersections.

Table 12 – Turn Lane Storage Length Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2026 Calculated Queue Length (feet)	2026 Recommended Turn Lane Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Turn Lane Length (feet)
Meadowbrook Parkway & Marksheffel Road (#1)					
Eastbound Left	200' DL	249' DL	200' DL*	310' DL	200' DL*
Eastbound Right	150'	25'	150'	36'	150'
Westbound Left	250'	60'	250'	70'	250'
Westbound Right	200'	25'	200'	25'	200'
Northbound Left	425'	25'	425'	57'	425'
Northbound Right	C	25'	C	25'	C
Southbound Left	350'	96'	350'	92'	350'
Southbound Right	350'	31'	350'	55'	350'
US-24 (EB/WB) & Marksheffel Road (NB/SB) (#2)					
Eastbound Left	1200' DL	355' DL	1200' DL	423' DL	1200' DL
Eastbound Right	575'	FREE	575'	139'	575'
Westbound Left	1100'	184' DL	1,100' DL (CDOT)	235' DL	1,100' DL (CDOT)
Westbound Right	700'	FREE	700'	25'	700'
Northbound Left	300'	25'	300'	29'	300'
Northbound Right	375'	FREE	375'	FREE	375'
Southbound Left	375'	29'	375'	25'	375'
Southbound Right	C	FREE	C	FREE	C
Newt Dr & Meadowbrook Pkwy (#3) (Future Roundabout)					
Eastbound Approach	NA	25'	C	25'	C
Westbound Left/Through		25'	C (425')	50'	C (425')
Westbound Right		25'	C (425')	25'	C (425')
Northbound Approach		100'	C	125'	C
Southbound Approach		75'	C	150'	C

Intersection Turn Lane	Existing Turn Lane Length (feet)	2026 Calculated Queue Length (feet)	2026 Recommended Turn Lane Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Turn Lane Length (feet)
SH-94 & US-24 (#4)					
Eastbound Newt Drive Left	375' DL	45'	375' DL	51'	375' DL
Eastbound Newt Drive Right	C	FREE	C	FREE	C
Westbound SH-94 Left	475' DL	314'	**645' (CDOT) TL**	587' TL	**760' (CDOT) TL**
Westbound SH-94 Right	475'	FREE	475'	FREE	475'
Northbound US-24 Left	900'	391' DL	900' DL	442'	900' DL
Northbound US-24 Right	600'	FREE	600'	FREE	600'
Southbound US-24 Left	800'	25'	800'	25'	800'
Southbound US-24 Right	800'	25'	800'	25'	800'
SH-94 & Marksheffel Road (#5)					
Eastbound Left	300'	256'	**750' (CDOT)**	239'	**835' (CDOT)**
Eastbound Right	250'	90'	**600' (CDOT)**	439'	600' (CDOT)
Westbound Left	225'	60'	**650' (CDOT)**	56'	650' (CDOT)
Westbound Right	250'	275'	**600' (CDOT)**	371'	600' (CDOT)
Northbound Left	375'	157'	375'	260' DL	375' DL
Northbound Right	400'	FREE	400'	-	**-**
Southbound Left	400'	210'	400'	338'	400'
Southbound Right	400'	FREE	400'	FREE	400'
SH-94 & Space Village Avenue (#6)					
Eastbound Right	250'	25'	250'	25'	250'
Northbound Approach	C	50'	C	125'	C
Westbound Left	150'	25'	**900' (CDOT)**	25'	**980' (CDOT)**
Space Village Avenue & Marksheffel Road (#7)					
Eastbound Left	225'	83'	225'	178'	225'
Eastbound Right	250'	93'	250'	314'	**325'**
Westbound Left	300'	114'	300'	204'	300'
Westbound Right	200'	25'	200'	25'	200'
Northbound Left	400'	199'	400'	523'	**525'**
Northbound Right	425'	25'	425'	-	**-**
Southbound Left	425'	75'	425'	175'	425'
Southbound Right	425'	41'	425'	-	**-**
Meadowbrook Pkwy Access (#8)					
Eastbound Approach	C	25'	C	25'	C
Westbound Approach	DNE	25'	**50'**	25'	50'
Northbound Left	TWLTL	25'	TWLTL	25'	TWLTL
Southbound Left	TWLTL	25'	TWLTL	25'	TWLTL
Crossroads North: Marksheffel Rd North Access (#9)					
Eastbound Left	DNE	126'	**150'**	137'	150'
Eastbound Right	DNE	50'	**C**	52'	C
Northbound Left	DNE	35'	**235'+200' T (EPC)**	57'	235'+200' T (EPC)
Southbound Right	DNE	83'	**235'+200' T (EPC)**	120'	235'+200' T (EPC)

Intersection Turn Lane	Existing Turn Lane Length (feet)	2026 Calculated Queue Length (feet)	2026 Recommended Turn Lane Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Turn Lane Length (feet)
Crossroads North: Marksheffel Rd North Access (#10)					
Eastbound Left	DNE	105’	**150’**	111’	150’
Eastbound Right	DNE	78’	**C**	77’	C
Northbound Left	DNE	106’	**235’+200’ T (EPC)**	152’	235’+200’ T (EPC)
Southbound Right	DNE	25’	**235’+200’ T (EPC)**	25’	235’+200’ T (EPC)
Reagan NW & NE: Marksheffel Rd RIRO Access (#11)					
Eastbound Right	DNE	25’	**C**	25’	C
Westbound Right	DNE	25’	**C**	100’	C
Space Village Ave Full Access (#12)					
Eastbound Left	DNE	25’	**200’+180’T (CS)**	25’	200’+180’T (CS)
Southbound Left	DNE	25’	**50’**	25’	50’
Southbound Right	DNE	25’	**50’**	25’	50’
Space Village Ave West Roundabout Access (#13)					
Eastbound Approach	DNE	25’	**C**	50’	C
Westbound Approach	DNE	25’	**C**	25’	C
Northbound Approach	DNE	25’	**C**	25’	C
Southbound Approach	DNE	25’	**C**	25’	C
Space Village Ave East Roundabout Access (#14)					
Eastbound Approach	DNE	25’	**C**	25’	C
Westbound Approach	DNE	25’	**C**	25’	C
Northbound Approach	DNE	25’	**C**	25’	C
Southbound Approach	DNE	25’	**C**	25’	C
Marksheffel Rd RIRO Access (#15)					
Westbound Right	DNE	25’	**50’**	25’	50’
Marksheffel Road 3/4 Access (#16)					
Westbound Right	DNE	25’	**C**	50’	C
Southbound Left	DNE	25’	**235’ + 200’ T (CS)**	125’	235’ + 200’ T (CS)
Marksheffel Rd RIRO Access (#17)					
Westbound Right	DNE	25’	**75’**	75’	75’
Marksheffel Road Full Access (#18)					
Westbound Approach	DNE	75’	**C**	319’	C
Southbound Left	DNE	25’	**235’ + 200’ T (CS)**	304’	**300’**
Marksheffel Rd RIRO Access (#19)					
Westbound Right	DNE	25’	**50’**	25’	50’
Marksheffel Road 3/4 Access (#20)					
Westbound Right	DNE	25’	**C**	50’	C
Southbound Left	DNE	25’	**235’ + 200’ T (CS)**	100’	235’ + 200’ T (CS)

Intersection Turn Lane	Existing Turn Lane Length (feet)	2026 Calculated Queue Length (feet)	2026 Recommended Turn Lane Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Turn Lane Length (feet)
Marksheffel Road Full Access (#21) & Air Force Base Access					
Eastbound Left	175’	402’ DL	**400’ DL**	623’ DL	**C** DL
Westbound Left	DNE	27’	**155’+160’ T (CS)**	75’	155’+160’ T (CS)
Westbound Right	DNE	-	DNE	114’	**155’+160’ T (CS)**
Northbound Left	600’	107’	600’	142’	600’
Southbound Left	DNE	64’	**235’ +200’T (CS)**	360’	**375’**
Southbound Right	C	93’	C	369’	C
Crossroads North: Internal Access Intersection (#22)					
Eastbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Westbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Northbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Southbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Crossroads North: Internal Access Intersection (#23)					
Eastbound Approach	DNE	25’	**C**	25’	C
Westbound Approach	DNE	25’	**C**	25’	C
Northbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Southbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Crossroads North: Air Lane West Intersection (#24)					
Eastbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Southbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Southbound Right	DNE	25’	**C**	25’	C
Crossroads North: Air Lane East Intersection (#25)					
Eastbound Left	DNE	25’	**115’ (EPC)**	25’	115’ (EPC)
Southbound Approach	DNE	25’	**C**	25’	C

* = Maximum Possible Length, DL = Dual Left Turn Lanes, TL = Triple Left Turn Lanes, DNE = Does Not Exist, C = Continuous Lane, FREE = Free Right Turn Movement, NA = Not Applicable, (CDOT) = CDOT Standard, (EPC) = El Paso County Standard, (CS) = City of Colorado Springs Standard, **Blue text = Improvement or New Turn Lane**

Turn lane lengths along Meadowbrook Parkway and Marksheffel Road, north of SH-94 were derived from El Paso County standards while turn lane lengths along Space Village Avenue and Marksheffel Road south of SH-94 were recommended based on City of Colorado Springs standards. It should be noted that 95th percentile vehicle queue lengths were recommended if they were reporting lengths longer than design standards.

5.8 Crossroads North: North Access Sensitivity Analysis

As requested by El Paso County, a sensitivity analysis within Crossroads North has been prepared comparing the north access along Marksheffel Road as a full movement signalized intersection and a three-quarter movement unsignalized intersection due to the accesses along Marksheffel Road not meeting intersection spacing standards set forth by El Paso County. As such, an intersection operational, vehicle queuing, signal progression, and safety evaluation has been analyzed and prepared comparing both access scenarios.

Intersection Operational Analysis

A traffic operational analysis comparing the north access along Marksheffel Road as a full movement signalized intersection and as a three-quarter movement unsignalized intersection has been evaluated to determine operational differences. **Table 13** provides the results of the level of service at the two control access intersections (#9 and #10) for both access scenarios to Crossroads North.

Table 13 – Crossroads North Access Scenarios LOS Results

	2026 Total Traffic				2040 Total Traffic			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Access and Movement	**Control Delay (sec/ veh)**	**LOS**	**Control Delay (sec/ veh)**	**LOS**	**Control Delay (sec/ veh)**	**LOS**	**Control Delay (sec/ veh)**	**LOS**
Crossroads North: Marksheffel Road North Access (#9) (3/4 Movements – Unsignalized)					#	#	#	#
Northbound Left	15.6	C	12.9	B	12.3	B	14.9	B
Eastbound Right	17.8	C	14.8	B	13.9	B	14.4	B
Crossroads North: Marksheffel Rd North Access (#9) (Full Movements - Signal)	8.6	A	6.7	A	# 3.9	# A	# 3.1	# A
Crossroads North: Marksheffel Rd South Access (#10) (Signal w/ North Access 3/4 Movements)	15.6	B	14.4	B	# 29.2	# C	# 25.5	# C
Crossroads North: Marksheffel Rd South Access (#10) (Signal w/ North Access Signalized)	8.2	A	9.4	A	# 8.7	# A	# 7.6	# A

= Three northbound and southbound through lanes

As shown in **Table 13**, both proposed access intersections (#9 and #10) to Crossroads North along Mark are expected to operate acceptably with LOS C or better during the peak hours under

both access scenarios. It should be noted that the south access (#10) along Marksheffel Road is expected to have delays increase by approximately 20 seconds (from LOS A to LOS C) during the peak hours in 2040 if the north access is unsignalized.

Vehicle Queuing Analysis

A vehicle queuing analysis comparing the north access along Marksheffel Road as a full movement signalized intersection and as a three-quarter movement unsignalized intersection has been evaluated to determine potential vehicle queuing deficiencies. **Table 14** provides the results of the 95th percentile vehicle queues at the two control access intersections (#9 and #10) for both access scenarios to Crossroads North.

Table 14 – Crossroads North Access Scenarios Vehicle Queuing Results

Intersection Turn Lane	2026 Calculated Queue Length (feet)	2040 Calculated Queue Length (feet)
Crossroads North: Marksheffel Rd North Access (#9) (3/4 Movements – Unsignalized)		#
Eastbound Right	25’	25’
Northbound Left	25’	25’
Crossroads North: Marksheffel Rd North Access (#9) (Full Movements - Signal)		#
Eastbound Left	126’	137’
Eastbound Right	50’	52’
Northbound Left	35’	57’
Southbound Right	83’	120’
Crossroads North: Marksheffel Rd North Access (#10) (Signal w/ North Access 3/4 Mvmts)		#
Eastbound Left	192’	218’
Eastbound Right	70’	71’
Northbound Left	120’	171’
Southbound Right	41’	79’
Crossroads North: Marksheffel Rd North Access (#10) (Signal w/ North Access Signalized)		#
Eastbound Left	105’	111’
Eastbound Right	78’	77’
Northbound Left	106’	152’
Southbound Right	25’	25’

= Three northbound and southbound through lanes

As shown in **Table 14**, vehicle queues are relatively uniform between the two access intersections when both are signalized. Eastbound left exiting vehicle queues are longer at the south access intersection when the north access intersection is stop control controlled as all traffic with destinations to the north are routed through the south access.

Signal Progression Analysis

A traffic signal progression analysis was conducted along the approximate 1.6-mile-long segment of Marksheffel Road from Meadowbrook Parkway to the north to the proposed Access Intersection #18 to the south due to the proposed signalization of the two access intersections (#9 and #10) to Crossroads North, the Space Village Avenue intersection (#7) as well as one of the proposed Reagan Ranch accesses (#18). As such, four (4) new signalized intersections and three (3) existing signalizations for a total of seven (7) signalized intersections were evaluated for progression along this corridor. Further, a comparison evaluation was conducted with the north access (#9) to Crossroads North along Marksheffel Road operating with stop control. In the second scenario, six (6) signalized intersections were evaluated for progression along the Marksheffel Road corridor.

The signal progression analysis was conducted to determine if the four traffic signals proposed along Marksheffel Road would interrupt the northbound and southbound bandwidth and platooning of vehicles along Marksheffel Road. Bandwidth is the window of time within the cycle length of a traffic signal that allows vehicles to travel through coordinated intersections without stopping. The goal of signal coordination is to provide sufficient bandwidth to allow for the progression of traffic along a corridor. Intersection coordination bandwidths for the study area were estimated using *Synchro 10* and were evaluated under full buildout 2040 total traffic conditions during the weekday morning and afternoon peak hours.

With the intersection of Space Village Avenue/Marksheffel Road (#7) and three proposed access intersections (#9, #10, and #18) along Marksheffel Road (two accesses to Crossroads North and one access to Reagan Ranch) as signalized intersections and coordinated with the intersections of Meadowbrook Parkway/Marksheffel Road (#1), US-24/Marksheffel Road (#2), and SH-94/Marksheffel Road (#5), the available vehicle bandwidth through the studied Marksheffel Road corridor is anticipated to be 43 seconds northbound and 44 seconds southbound during the

morning peak hour in 2040. Likewise, the bandwidth during the afternoon peak hour is anticipated to be 36 seconds northbound and 37 seconds southbound in 2040. These bandwidths equate to a platoon efficiency of approximately 36/37 percent and 30/31 percent in the morning and afternoon peak hours, respectively.

With the north access (#9) to Crossroads North along Marksheffel Road operating with stop control, the six (6) studied signalized intersections along the Marksheffel Road corridor are expected to have an available bandwidth of 45 seconds northbound and 49 seconds southbound during the morning peak hour in 2040. Likewise, the bandwidth during the afternoon peak hour is anticipated to be 36 seconds both northbound and southbound in 2040. These bandwidths equate to a platoon efficiency of approximately 38/41 percent and 30 percent in the morning and afternoon peak hours, respectively. The following **Table 15** summarizes the available bandwidths and platoon efficiencies for both access scenarios withing Crossroads North.

Table 15 – Signal Progression Comparison

Analysis Year and Peak	Bandwidth (seconds)		Platoon Efficiency (%)	
	Northbound	Southbound	Northbound	Southbound
Crossroads North: Signalized North Access (7 studied signalized intersections)				
2040 Total AM	43 sec.	44 sec.	36%	37%
2040 Total PM	36 sec.	37 sec.	30%	31%
Crossroads North: Unsignalized North Access (6 studied signalized intersections)				
2040 Total AM	45 sec.	49 sec.	38%	41%
2040 Total PM	36 sec.	36 sec.	30%	30%

Marksheffel Road is comparable to a NR-B: Non-Rural Arterial as defined in the State of Colorado State Highway Access Code. A goal platoon efficiency for an NR-B corridor is typically 30 percent or better, which has been achieved in 2040 for both directions of travel under both access scenarios. Therefore, it is believed that traffic signals at the intersections of Space Village Avenue/Marksheffel Road (#5), two Crossroads North accesses (#9 and #10) and Marksheffel Road, and Reagan Ranch Full Movement Access (#18)/Marksheffel Road would maintain an acceptable platoon efficiency along the Marksheffel Road corridor if coordinated with the adjacent traffic signals. Time-space diagrams for the corridor are attached in **Appendix G**.

Safety Evaluation

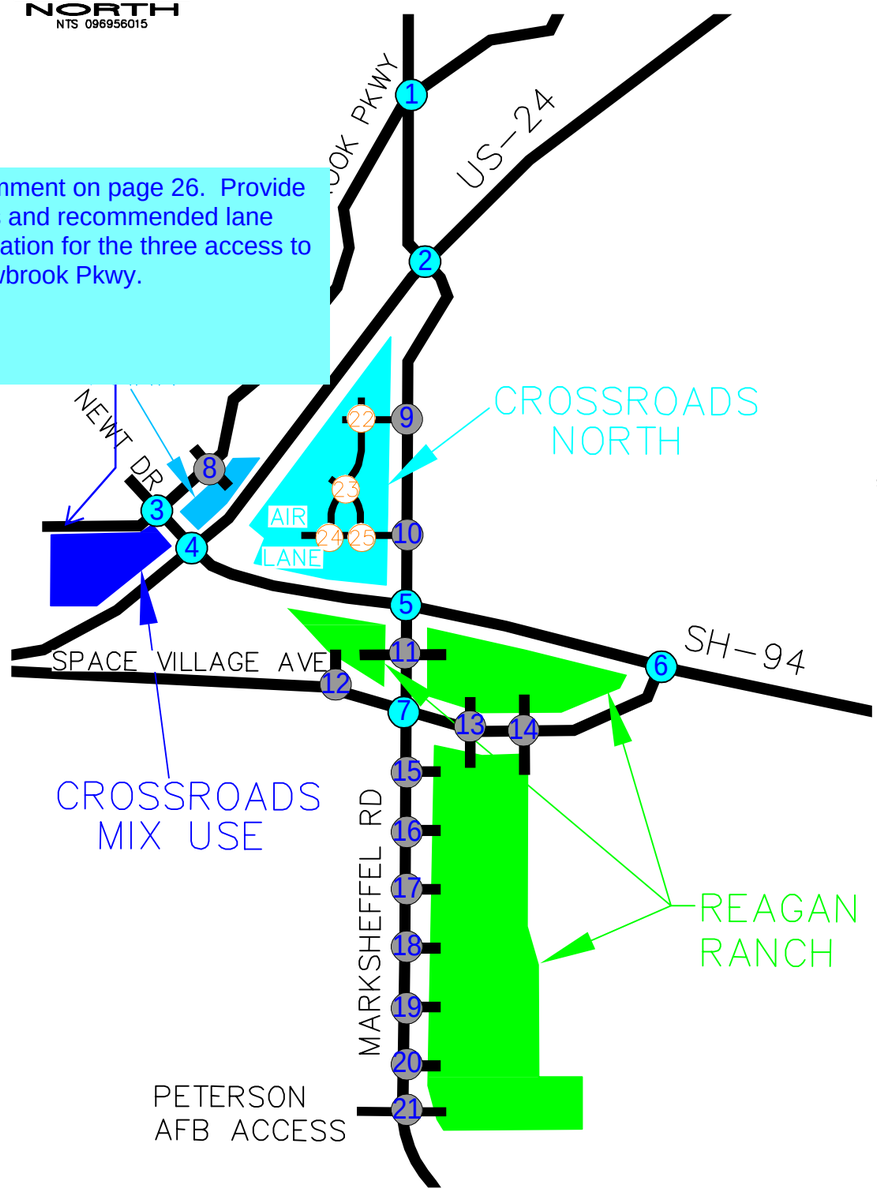
The north access to Crossroads North along Marksheffel Road meets standards for capacity operations, vehicle queues, and signal progression under a signal control. Further, national standards are met for signal warrants, sight distance, and intersection spacing at this access. As such, it is believed that the north access to Crossroads North along Marksheffel Road should be considered for full movement signalized control.

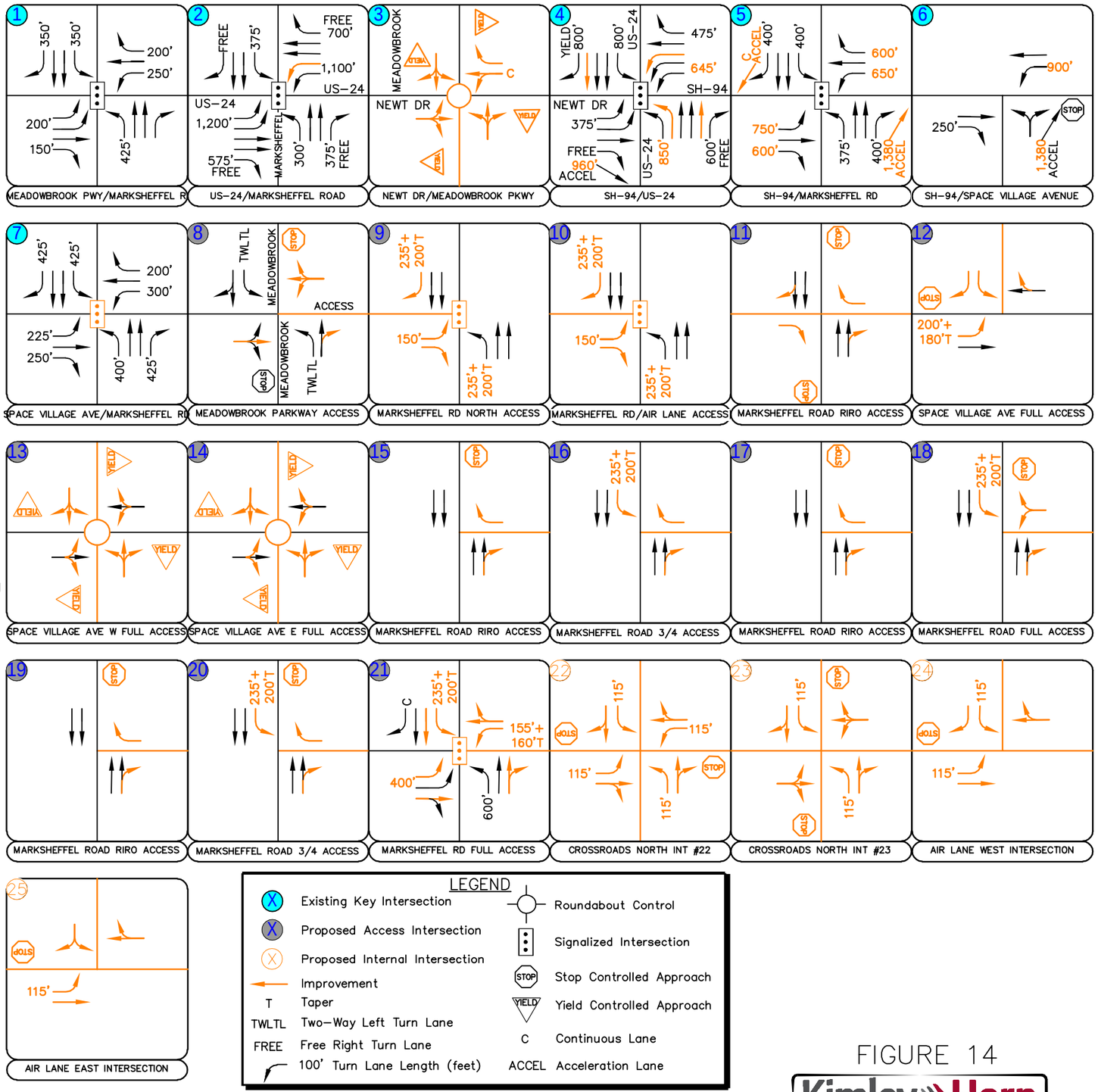
5.9 Improvement Summary

Based on the results of the level of service operational and turn lane analysis for Crossroads-Meadowbrook-Reagan Ranch, the recommended lane configurations and control of the study area intersections for the 2026 short term horizon as well as the 2040 long-term twenty-year horizon are shown in **Figures 14** and **15**, respectively. Likewise, a recommended improvements summary table is provided in **Table 16**. The recommended improvements for nonregional commitments identified in the table shows all geometry, control, and storage lane improvements along with the development area associated with that recommended improvement. Traffic contribution percentages were not defined in the improvement summary table due to multiple review agencies being involved with the project. Further, El Paso County road impact fees were not provided due to a portion of the project being located within the City of Colorado Springs and having studied roadways controlled by CDOT. These will be provided to the appropriate agency as needed through other deliverables.

Kimley»Horn
NORTH
NTS 096956015

See comment on page 26. Provide analysis and recommended lane configuration for the three access to Meadowbrook Pkwy.

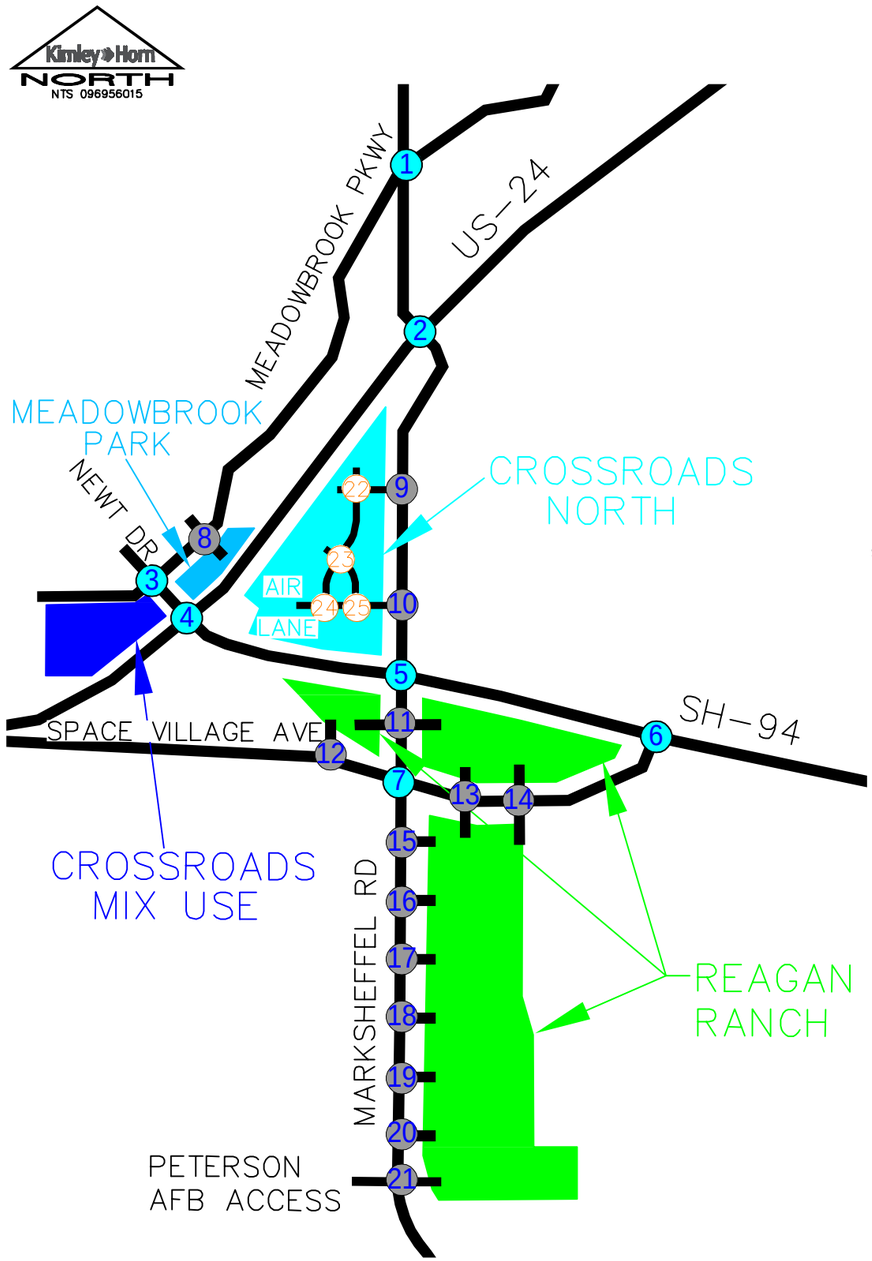


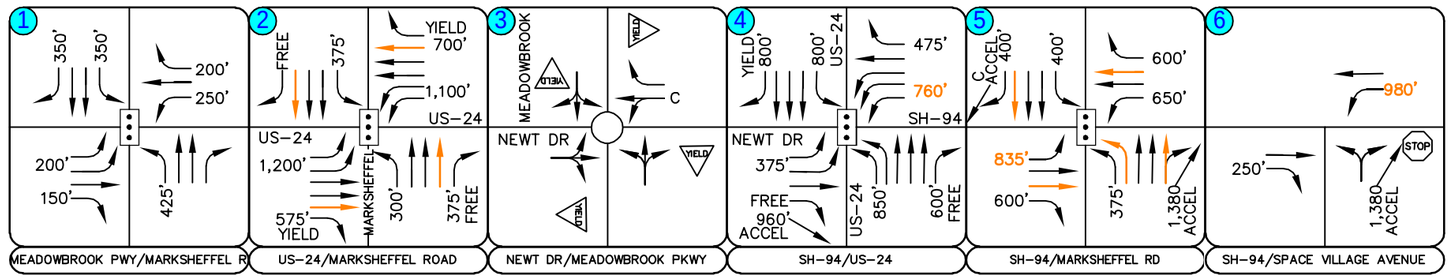


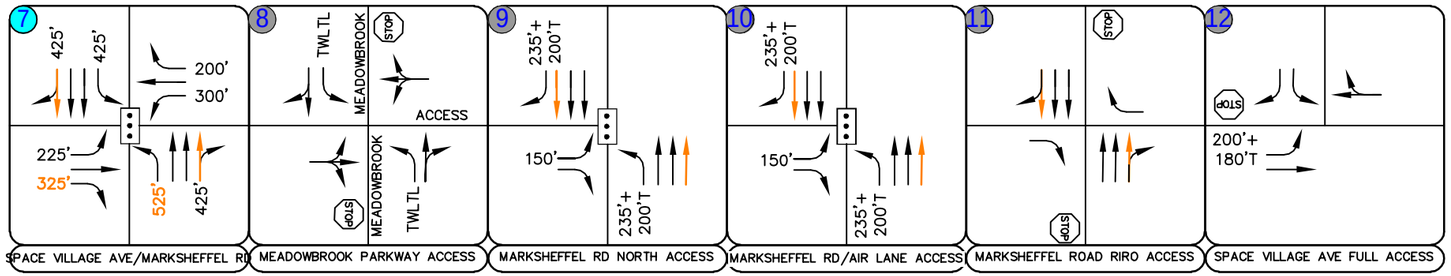
CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2026 RECOMMENDED LANE CONFIGURATIONS

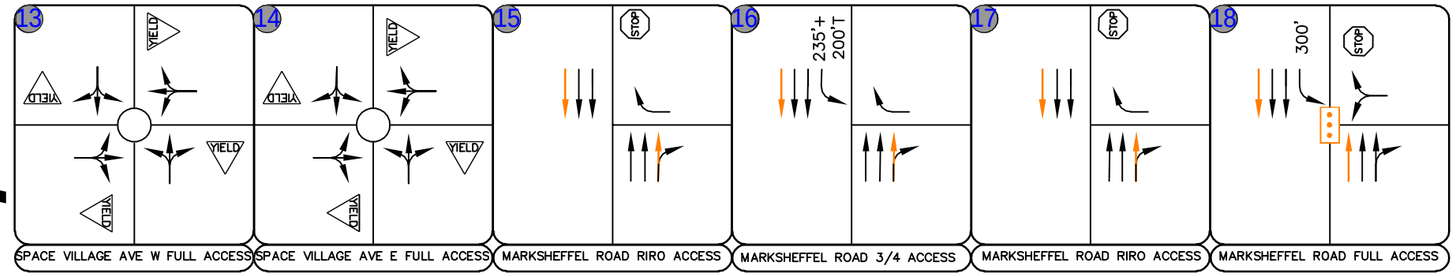
FIGURE 14

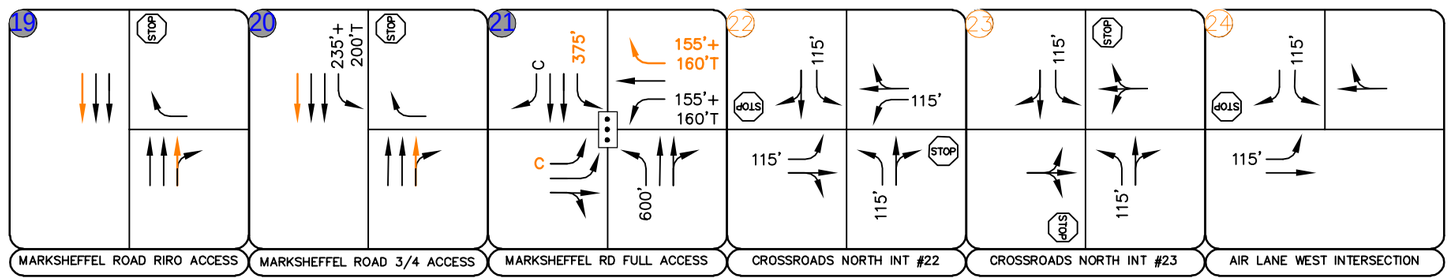
Kimley»Horn

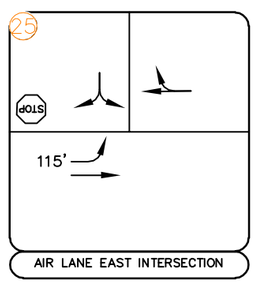












LEGEND

X	Existing Key Intersection		Roundabout Control
X	Proposed Access Intersection		Signalized Intersection
X	Proposed Internal Intersection	STOP	Stop Controlled Approach
	Improvement	YIELD	Yield Controlled Approach
T	Taper	C	Continuous Lane
TWLTL	Two-Way Left Turn Lane	ACCEL	Acceleration Lane
FREE	Free Right Turn Lane		
	100' Turn Lane Length (feet)		

CROSSROADS–MEADOWBROOK & REAGAN RANCH
COLORADO SPRINGS, CO
2040 RECOMMENDED LANE CONFIGURATIONS

FIGURE 15

Table 16 – Crossroads-Meadowbrook-Reagan Ranch Improvement Summary

Intersection	Improvements	Associated Development Area and Horizon Year Needed
Meadowbrook Pkwy & Marksheffel Road (#1)	No Improvements	
US-24 & Marksheffel Road (#2)	Designate westbound dual left turn lanes	Crossroads North & Reagan Ranch 2026
	Three through lanes on all four approaches	All Four Development Areas 2040
Newt Drive & Meadowbrook Pkwy (#3)	Roundabout Control	Crossroads Mix Use 2026
SH-94 & US-24 (#4)	Designate northbound dual left turn lanes with 850-feet plus 225-foot taper	Crossroads Mix Use 2026
	Provide triple westbound left turn lanes with 760 feet plus 145-foot taper	Crossroads North 2026
	Extend eastbound to southwestbound right turn acceleration lane from 760 feet to 960 feet	Crossroads Mix Use 2026
	Three US-24 northbound and southbound through lanes	Crossroads North 2026
SH-94 & Marksheffel Road (#5)	Extend the 300-foot eastbound left turn lane to 835 feet with a 225-foot taper	Crossroads North 2026
	Extend the 250-foot eastbound right turn lane to 600 feet with a 225-foot taper	Reagan Ranch 2026
	Extend the 225-foot westbound left turn lane to 650 feet with a 225-foot taper	No Development Area 2026
	Extend the 250-foot westbound right turn lane to 600 feet with a 225-foot taper	Crossroads North 2026

Intersection	Improvements	Associated Development Area and Horizon Year Needed
SH-94 & Marksheffel Road (#5)	Provide northbound to eastbound right turn acceleration lane	Reagan Ranch 2026
	Provide southbound to westbound right turn acceleration lane	Crossroads North 2026
	Provide northbound dual left turn lanes	Reagan Ranch 2040
	Provide two through lane both eastbound and westbound and three through lanes both northbound and southbound	Reagan Ranch & Crossroads North 2040
Space Village Avenue & SH-94 (#6)	Extend the 300-foot northbound to eastbound acceleration lane to 1,380 feet a 300-foot taper	Reagan Ranch 2026
	Extend the 150-foot westbound left turn lane to 900 feet with a 300-foot taper	Reagan Ranch 2026
	Extend westbound left turn lane to 980 feet with a 300-foot taper	Reagan Ranch 2040
Space Village Avenue & Marksheffel Road (#7)	Signalized control	Reagan Ranch 2026
	Provide three northbound and southbound through lanes	Reagan Ranch & Crossroads North 2040
All Development Accesses and Internal Intersections (#8-25)	All Access and Internal Intersections	All Development Areas

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the Crossroads-Meadowbrook-Reagan Ranch developments will be successfully incorporated into the existing and future roadway network. The proposed background traffic volume growth, project development, and expected future traffic volumes in each of the 2026 Phase 1 and 2040 full buildout horizons resulted in the following recommendations/conclusions:

Phase 1 2026 Recommendations:

- CDOT will likely require Access Permits for the intersections of SH-94/US-24 (#4) SH-94/Marksheffel Road (#5), and SH-94/Space Village Avenue (#6) in association with the project.

- Southwestbound dual left turn lanes are recommended to be designated along US-24 at the Marksheffel Road intersection (#2). Presently there is a single left turn lane with a striped-out area to shadow the dual left turn lanes on northeastbound US-24. These new southwestbound dual left turn lanes should be designated with a length of 1,100 feet plus 600-foot taper (25 to 1).

- It is recommended that a single lane roundabout be constructed at the Meadowbrook Parkway and Newt Drive intersection (#3) with development of the Crossroads Mix Use project. The roundabout should have single lane approaches on the eastbound Newt Drive, northbound Meadowbrook Parkway, and southbound Meadowbrook Parkway approaches and a two-lane approach on westbound Newt Drive with a shared left turn/through lane into the roundabout and a separate right turn lane.

- The intersection of SH-94/US-24 (#4) currently operates poorly during the peak hours in the existing condition. As a regional capacity improvement, it was found that US-24 may need to provide three through lanes in each direction from the Peterson Road interchange through this intersection with SH-94 in the near-term horizon. The additional through lanes should be considered by CDOT and El Paso County in the near future. If and when US-24 is improved to provide three through lanes in each direction, it is recommended that a separate 600-foot

plus 225-foot taper right turn deceleration lane be constructed to maintain free right turn movements to eastbound SH-94. For southwestbound US-24 at SH-94 (#4), the existing acceleration lane along US-24 will need to be reconstructed with 960 feet of length plus a 225-foot taper if and when US-24 is improved to provide three through lanes along westbound US-24. For northeastbound US-24 at SH-94, it is recommended that this acceleration lane be converted to the third northbound through lane as the acceleration lane is not warranted. Further, the northeastbound US-24 third through lane needs to continue for 1,200 feet plus provide a 660-foot taper based on MUTCD standards. In addition to these regional improvements, it is recommended that the existing single 900-foot left turn lane be changed to 850-feet plus 225-foot taper with dual left turn lanes on the northeastbound US-24 approach for the left turn to Newt Drive. The area for these dual lefts is presently available (mostly); however, the lane is striped out which will require restriping with a slight extension that may also need to be constructed. Also at the intersection of US-24 and SH-94 (#4), it is recommended that the existing dual westbound left turn lanes on SH-94 be converted to triple left turn lanes by restriping the inside westbound through lane to a left turn lane. The inside two westbound left turn lanes should be extended to a length of 760 feet plus a 225-foot taper per CDOT SHAC requirements. With the expansion of US-24 to three westbound lanes to the Peterson Road interchange off-ramp, these triple left turn lanes will be able to be received. A traffic signal modification will be required at the intersection to incorporate all of these improvements.

- At SH-94 and Marksheffel Road (#5), it is recommended that the eastbound and westbound right turns operate with overlap phasing, while the northbound and southbound right turns operate with free movements with acceleration lanes constructed in accordance with the CDOT State Highway Access Code (SHAC). The acceleration lane along westbound SH-94 is recommended to tie into the outside through lane on the approach to US-24. The eastbound left turn lane shall be extended to a length of 750 feet with a 225-foot taper while the westbound left turn lane should be extended to a length of 650 feet with a 225-foot taper. The eastbound and westbound right turn lanes should be extended to 600 feet. The eastbound acceleration lane from the Marksheffel Road northbound right turn should be constructed to 1,380 feet with a 300-foot taper. These improvements at this intersection may already be identified with the SH-94 improvements already being planned by CDOT.

- In order to comply with the CDOT State Highway Access Code, it was found that the existing 150-foot westbound left turn lane at the intersection of SH-94 and Space Village Avenue (#6) does not meet current CDOT standards with a length need of 900 feet and a 300-foot taper. An eastbound acceleration lane along SH-94 from the Space Village Avenue northbound right turn is also warranted based on existing traffic. This existing 300-foot with 200-foot taper acceleration lane would need to be extended to a length of 1,380 feet with a 300-foot taper to meet current CDOT standards. Extension of these lanes may not be feasible due to the bridge along SH-94 to the east, which is likely why CDOT constructed to lengths shorter than standard.

- Currently the intersection of Space Village Avenue and Marksheffel Road (#7) is unsignalized. By 2026, this intersection is anticipated to meet the Four-Hour Vehicle Volume signal warrant with development of Reagan Ranch; therefore, it is recommended that a traffic signal be installed at this intersection.

- With completion of the Crossroads Mix Use project, the site proposes three accesses along the southeast side of Meadowbrook Parkway. The northeastern access along Meadowbrook Parkway for Crossroads Mix Use may be right-in/right-out while the two southern most access will provide full movements with stop control on the minor legs. All three project access driveways to Crossroads Mix Use are recommended to have R1-1 “STOP” signs installed for the exiting approaches.

- The Meadowbrook Park development area has one proposed driveway access (#8) along the east side of Meadowbrook Parkway that will align with Preble Drive. Left turn movements for entering this project access will be provided from an existing two-way left turn lane along Meadowbrook Parkway. The westbound exiting approach of this driveway should provide stop control with installation of a R1-1 “STOP” sign.

- Traffic signals are anticipated to be needed and warranted at both full movement access intersections (#9 and #10) along Marksheffel Road for Crossroads North. Therefore, traffic signals are recommended for installation at these two access intersections with development

of Crossroads North. It is recommended that a 235-foot with 200-foot taper (based on El Paso County standards for 50 mph) southbound right turn lane be constructed at both access intersections along Marksheffel Road due to the volume of traffic entering Crossroads North at this access. Likewise, northbound left turn lanes with 235 feet of length plus 200-foot tapers should also be constructed at both full movement access intersections along Marksheffel Road for Crossroads North. Lastly, separate eastbound left turn and right turn lanes are recommended to serve exiting traffic out of Crossroads North. As requested by El Paso County, a sensitivity analysis has been prepared later in Section 5.8 comparing the north access along Marksheffel Road as a full movement signalized intersection and a three-quarter movement unsignalized intersection due to these accesses not meeting El Paso County standards for intersection spacing.

- For the northwest development area of Reagan Ranch, a right-in/right access is proposed along Marksheffel Road (#11) between SH-94 and Space Village Avenue (to also serve the northeast development area of Reagan Ranch) and a full movement access is proposed along Space Village Avenue (#12). It is likely that rights to an easement for a proposed new access along Space Village Avenue will be acquired and was evaluated as such in this traffic study. It is recommended that the access along Space Village Avenue (#12) to the northwest region of Reagan Ranch have a 200-foot plus 180-foot taper eastbound left turn lane to accommodate volumes entering the northwest region of Reagan Ranch.

- Three accesses are proposed to serve the northeast development area of Reagan Ranch. These include a right-in/right-out access on the east side of Marksheffel Road between SH-94 and Space Village Avenue (to align with the previously mentioned access intersection #11) and two roundabouts providing full turning movements along Space Village Avenue between Marksheffel Road and SH-94 (#13 and #14). It is recommended that the roundabouts have single lane approaches on all entering legs.

- For the southeast development area of Reagan Ranch, access will be gained at these same two roundabouts along Space Village Avenue (#13 and #14) as well as seven (7) accesses (#15-21) planned along the east side of Marksheffel Road south of Space Village Avenue at the standard City 600-foot spacing. The access intersection at the approximate half-mile

spacing (#18) is expected to require signalization by 2040 while the access in alignment with Peterson Air Force Base (#21) is expected to need signalization by the short-term 2026 horizon. The accesses at the quarter-mile spacing are proposed as three-quarter movement accesses (#16 and #20) while the accesses at the eighth-mile spacing are proposed as right-in/right-out accesses (#15 and #17 and #19).

- It is recommended that the two three-quarter movement accesses along Marksheffel Road (#16 and #20) as well as the northern full movement access (#18) along Marksheffel Road provide 235-foot plus 200-foot taper southbound left turn lanes to accommodate volumes entering the southeast region of Reagan Ranch.

- The southern full movement access intersection (#21) for Reagan Ranch is proposed to align with the existing Peterson Air Force Base High-T intersection (Intersection #21). With this access alignment, it is recommended that the intersection be signalized. This intersection will need to be reconfigured so that a southbound left turn lane and dual eastbound left turn lanes can be provided. The southbound left turn lane is recommended to include a length of 235 feet plus 200-foot taper and the dual eastbound left turn lanes are recommended to provide a length of 400 feet.

- As requested by El Paso County, an internal street evaluation was conducted for the Crossroads North development area. The south access to Crossroads North along Marksheffel Road is proposed to be named Air Lane and is expected to be classified as an El Paso County Urban Non-Residential Collector roadway with a 60-foot right-of-way (ROW). Air Lane extends east-west and is proposed to connect with a north-south extending Non-Residential Collector street (#24) and a north-south extending Urban Local street (#25). Intersection #25 (collector to collector) is proposed to be located approximately 660 feet west of Marksheffel Road while Intersection #24 (collector to local street) is located approximately 380 feet west of Marksheffel Road. These distances meet the El Paso County Urban Non-Residential Collector spacing standards of 660 feet to other collectors and 330 feet to intersections with a local street. The north-south extending Non-Residential Collector street also connects with an east-west collector street (#22) that extends from the north access to Marksheffel Road as well as with an Urban Local street on site (#23). The north access street

connecting with Marksheffel Road is proposed to be classified as an El Paso County Urban Non-Residential Collector roadway. The recommended left-turn lanes internal to Crossroads North should provide 115 feet of length plus 120-foot tapers to meet El Paso County standards.

2040 Recommendations:

- If future traffic volume projections are realized, US-24 may need to provide three through lanes in each direction through the Marksheffel Road intersection. Likewise, Marksheffel Road between US-24 and Peterson Air Force Base East Gate may need to provide three through lanes in each direction. It is recommended that traffic volumes continue to be monitored by CDOT, the City of Colorado Springs, and El Paso County, as applicable, to determine if and when these regional improvements will be needed.

- A traffic signal is anticipated to be needed at the northern full movement access intersection for Reagan Ranch (#18) along Marksheffel Road by 2040.

- A westbound right turn lane may be needed at the southern full movement access intersection for Reagan Ranch (#21) proposed to align with the existing Peterson Air Force Base Access by 2040.

- Several extensions of auxiliary turn lanes may be needed by 2040 and should be monitored by CDOT, the City of Colorado Springs, and El Paso County, as applicable, to determine if and when the recommended turn lane lengths will be needed.

General Recommendations:

- Any on-site and off-site roadway, signing, striping, and signal improvements should be incorporated into the Civil Drawings, and conform to City of Colorado Springs, El Paso County, and/or CDOT standards as applicable, as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

APPENDICES

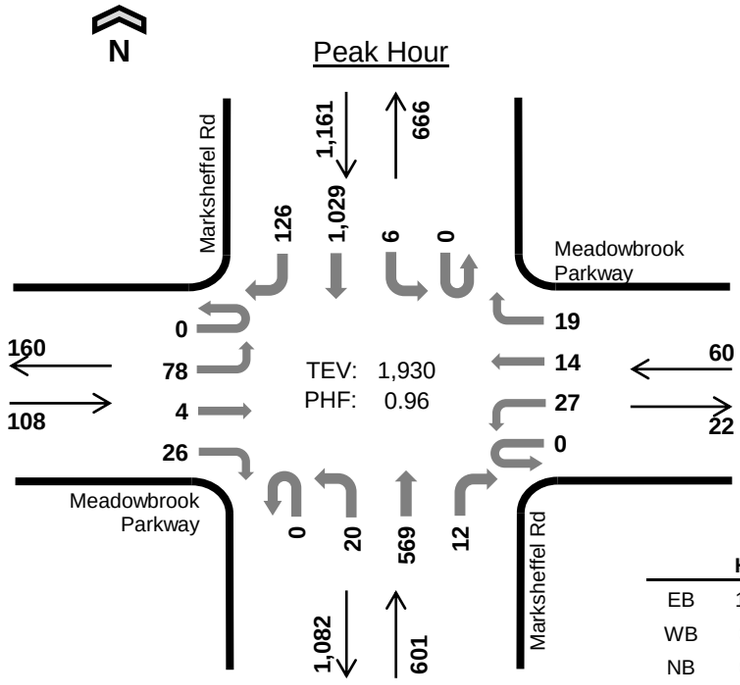
APPENDIX A

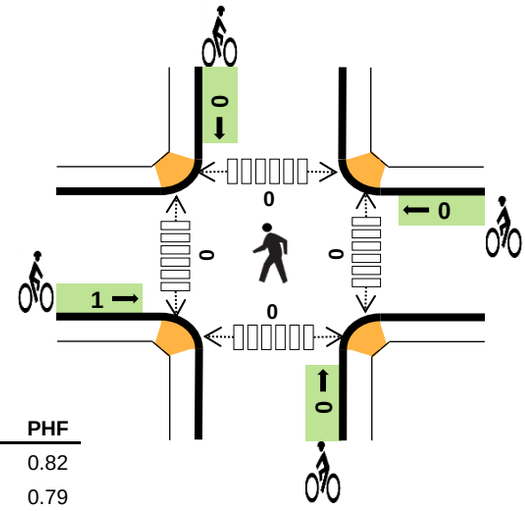
Intersection Count Sheets

COVID-19 Count Adjustment Data

Marksheffel Rd
Meadowbrook Parkway

Date: Thu, Jun 04, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	10.2%	0.82
WB	0.0%	0.79
NB	6.7%	0.87
SB	5.7%	0.92
TOTAL	6.1%	0.96

Two-Hour Count Summaries

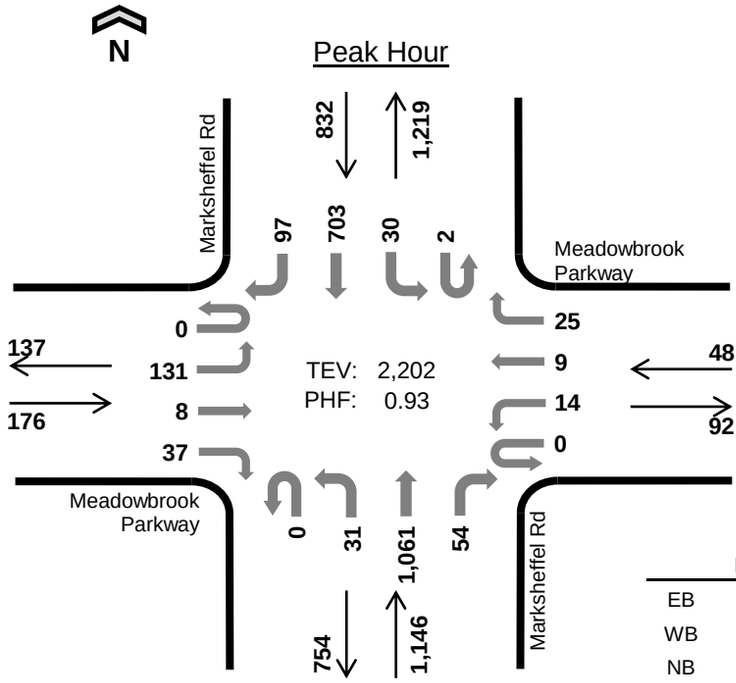
Interval Start	Meadowbrook Parkway Eastbound				Meadowbrook Parkway Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**12**	**2**	**7**	**0**	**11**	**3**	**5**	**0**	**3**	**167**	**2**	**0**	**0**	**268**	**24**	**504**	0
7:15 AM	**0**	**24**	**1**	**5**	**0**	**5**	**3**	**2**	**0**	**4**	**144**	**4**	**0**	**0**	**256**	**26**	**474**	0
7:30 AM	**0**	**18**	**1**	**5**	**0**	**5**	**4**	**6**	**0**	**8**	**130**	**3**	**0**	**3**	**276**	**38**	**497**	0
7:45 AM	**0**	**24**	**0**	**9**	**0**	**6**	**4**	**6**	**0**	**5**	**128**	**3**	**0**	**3**	**229**	**38**	**455**	**1,930**
8:00 AM	0	25	2	9	0	3	4	6	0	9	100	7	0	5	219	24	413	1,839
8:15 AM	0	21	1	3	0	4	2	8	0	2	98	3	1	3	159	25	330	1,695
8:30 AM	0	7	2	4	0	8	4	5	0	4	127	5	0	2	200	27	395	1,593
8:45 AM	0	24	1	4	0	11	2	6	0	4	103	4	0	2	158	30	349	1,487
Count Total	0	155	10	46	0	53	26	44	0	39	997	31	1	18	1,765	232	3,417	0
Peak Hour	**0**	**78**	**4**	**26**	**0**	**27**	**14**	**19**	**0**	**20**	**569**	**12**	**0**	**6**	**1,029**	**126**	**1,930**	**0**

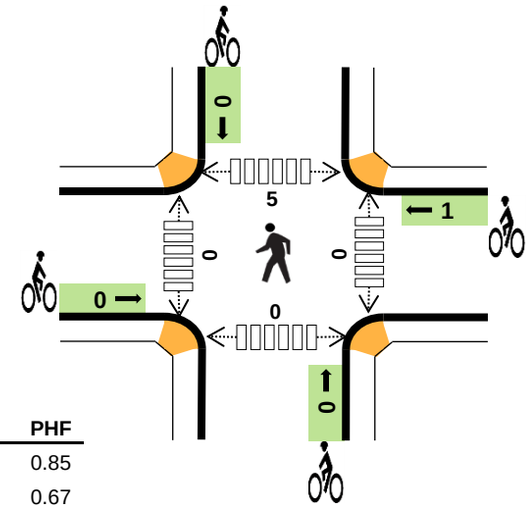
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**2**	**0**	**8**	**21**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**3**	**0**	**9**	**14**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**4**	**0**	**10**	**16**	***30***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**2**	**0**	**13**	**15**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	3	0	12	10	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	4	0	4	12	*20*	0	0	0	0	*0*	0	0	1	0	*1*
8:30 AM	2	0	6	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	9	12	*22*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	20	1	71	107	*199*	1	0	0	0	*1*	0	0	1	0	*1*
Peak Hour	**11**	**0**	**40**	**66**	***117***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

Marksheffel Rd
Meadowbrook Parkway

Date: Thu, Jun 04, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	1.7%	0.85
WB	0.0%	0.67
NB	1.5%	0.90
SB	3.8%	0.87
TOTAL	2.4%	0.93

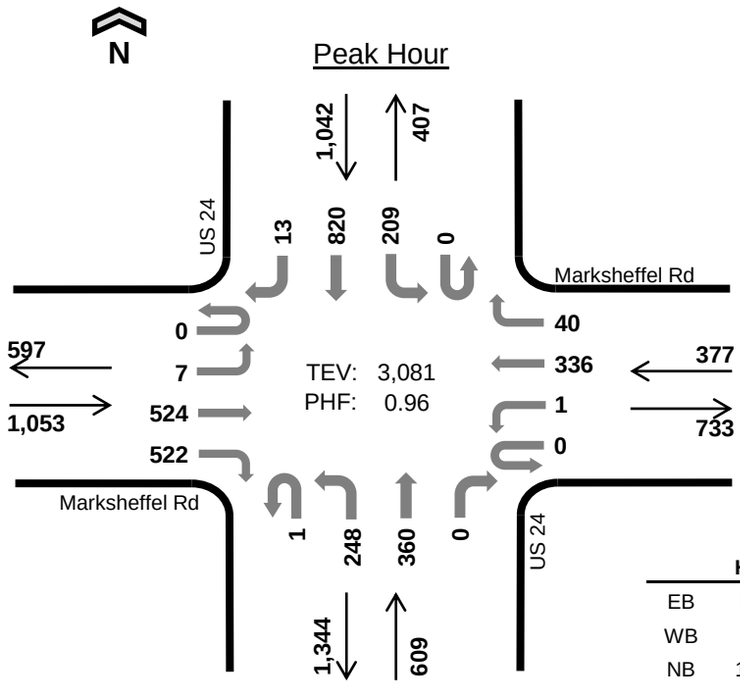
Two-Hour Count Summaries

Interval Start	Meadowbrook Parkway Eastbound				Meadowbrook Parkway Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**43**	**0**	**5**	**0**	**5**	**3**	**10**	**0**	**12**	**227**	**7**	**0**	**5**	**183**	**21**	**521**	0
4:15 PM	**0**	**29**	**3**	**9**	**0**	**5**	**2**	**6**	**0**	**8**	**294**	**16**	**1**	**6**	**164**	**25**	**568**	0
4:30 PM	**0**	**39**	**2**	**11**	**0**	**1**	**1**	**5**	**0**	**5**	**260**	**11**	**1**	**10**	**150**	**27**	**523**	0
4:45 PM	**0**	**20**	**3**	**12**	**0**	**3**	**3**	**4**	**0**	**6**	**280**	**20**	**0**	**9**	**206**	**24**	**590**	**2,202**
5:00 PM	0	42	5	10	0	6	0	5	0	5	226	12	0	10	173	13	507	2,188
5:15 PM	0	29	3	10	0	4	0	9	0	3	260	14	0	7	193	23	555	2,175
5:30 PM	0	18	3	9	0	4	1	5	0	3	214	13	0	12	200	29	511	2,163
5:45 PM	0	24	0	4	0	3	0	8	1	4	194	10	0	7	123	12	390	1,963
Count Total	0	244	19	70	0	31	10	52	1	46	1,955	103	2	66	1,392	174	4,165	0
Peak Hour	**0**	**131**	**8**	**37**	**0**	**14**	**9**	**25**	**0**	**31**	**1,061**	**54**	**2**	**30**	**703**	**97**	**2,202**	**0**

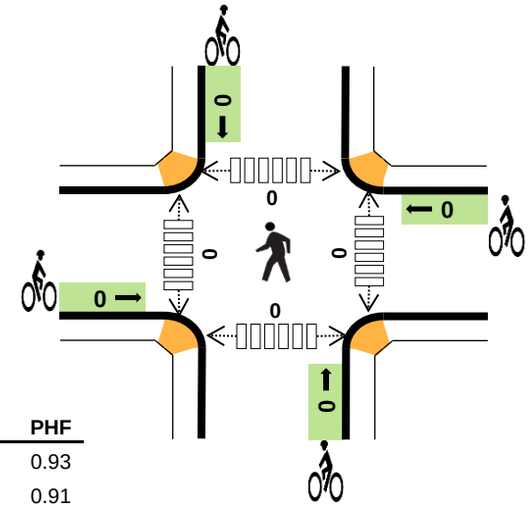
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**5**	**12**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**0**	**3**	**6**	***11***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**2**	**0**	*2*
4:30 PM	**0**	**0**	**4**	**7**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**0**	*3*
4:45 PM	**1**	**0**	**5**	**7**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	2	0	2	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	5	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	0	2	8	*12*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	2	5	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	7	0	28	57	*92*	0	1	0	0	*1*	0	0	5	0	*5*
Peak Hour	**3**	**0**	**17**	**32**	***52***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**5**	**0**	***5***

US 24
Marksheffel Rd



Date: Thu, Jun 04, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.5%	0.93
WB	3.2%	0.91
NB	10.5%	0.93
SB	3.9%	0.94
TOTAL	5.7%	0.96

Two-Hour Count Summaries

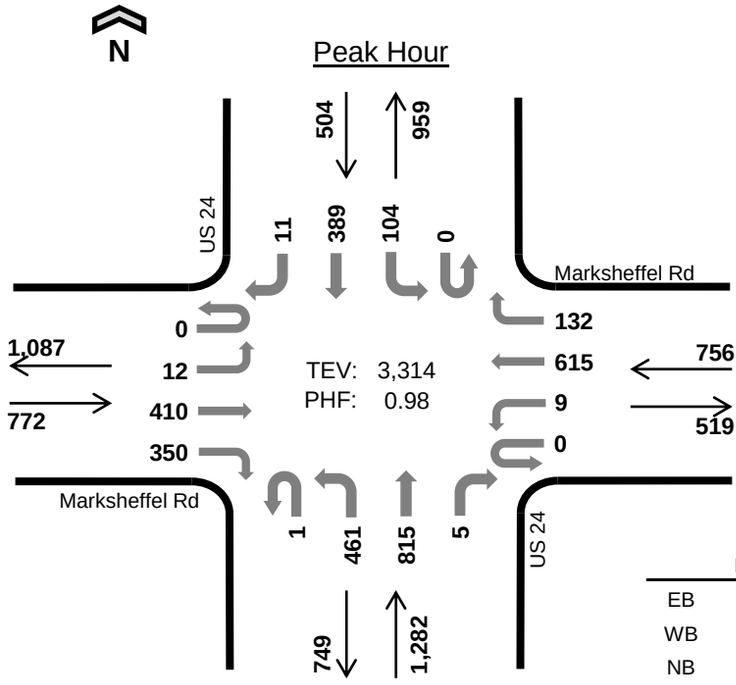
Interval Start	Marksheffel Rd Eastbound				Marksheffel Rd Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**122**	**138**	**0**	**0**	**94**	**6**	**0**	**68**	**96**	**0**	**0**	**50**	**203**	**1**	**778**	0
7:15 AM	**0**	**0**	**155**	**127**	**0**	**0**	**96**	**8**	**1**	**59**	**96**	**0**	**0**	**43**	**213**	**3**	**801**	0
7:30 AM	**0**	**3**	**123**	**142**	**0**	**1**	**80**	**14**	**0**	**62**	**78**	**0**	**0**	**59**	**214**	**5**	**781**	0
7:45 AM	**0**	**4**	**124**	**115**	**0**	**0**	**66**	**12**	**0**	**59**	**90**	**0**	**0**	**57**	**190**	**4**	**721**	**3,081**
8:00 AM	0	8	106	109	0	2	57	17	0	50	75	0	0	37	125	7	593	2,896
8:15 AM	0	1	87	90	0	0	48	16	0	50	73	1	0	42	138	1	547	2,642
8:30 AM	0	3	83	105	0	1	84	13	0	48	71	0	0	30	155	1	594	2,455
8:45 AM	0	0	92	85	0	2	58	8	0	52	91	0	0	39	162	5	594	2,328
Count Total	0	19	892	911	0	6	583	94	1	448	670	1	0	357	1,400	27	5,409	0
Peak Hour	**0**	**7**	**524**	**522**	**0**	**1**	**336**	**40**	**1**	**248**	**360**	**0**	**0**	**209**	**820**	**13**	**3,081**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

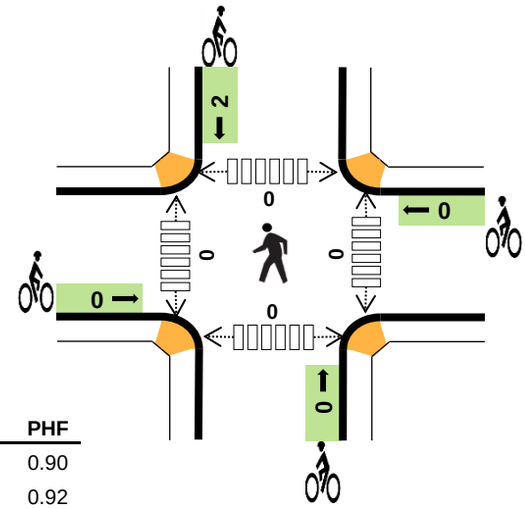
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**18**	**3**	**10**	**8**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**12**	**3**	**17**	**10**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**14**	**4**	**21**	**13**	***52***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**14**	**2**	**16**	**10**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	9	3	18	11	*41*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	9	1	12	7	*29*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	9	2	10	9	*30*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	11	4	22	21	*58*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	96	22	126	89	*333*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**58**	**12**	**64**	**41**	***175***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

US 24
Marksheffel Rd



Date: Thu, Jun 04, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	2.8%	0.90
WB	1.3%	0.92
NB	1.7%	0.97
SB	2.8%	0.91
TOTAL	2.1%	0.98

Two-Hour Count Summaries

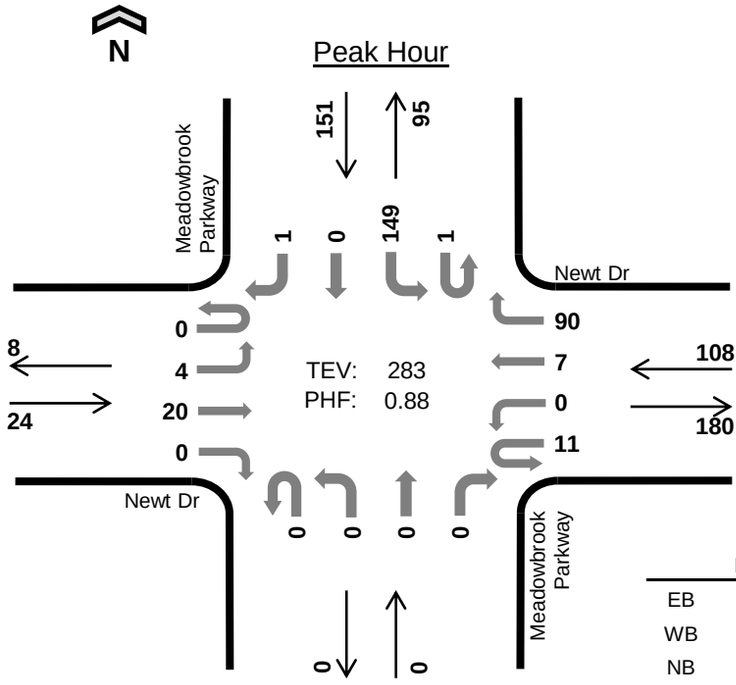
Interval Start	Marksheffel Rd Eastbound				Marksheffel Rd Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	102	84	0	3	163	33	0	78	159	0	1	21	132	0	778	0
4:15 PM	0	7	82	73	0	1	172	39	2	131	166	1	0	32	121	4	831	0
4:30 PM	**0**	**4**	**92**	**73**	**0**	**4**	**165**	**37**	**0**	**119**	**207**	**0**	**0**	**23**	**100**	**2**	**826**	0
4:45 PM	**0**	**5**	**117**	**92**	**0**	**1**	**162**	**34**	**0**	**128**	**185**	**4**	**0**	**17**	**90**	**5**	**840**	3,275
5:00 PM	**0**	**3**	**96**	**92**	**0**	**2**	**140**	**34**	**1**	**96**	**210**	**1**	**0**	**27**	**101**	**1**	**804**	3,301
5:15 PM	**0**	**0**	**105**	**93**	**0**	**2**	**148**	**27**	**0**	**118**	**213**	**0**	**0**	**37**	**98**	**3**	**844**	**3,314**
5:30 PM	0	3	111	87	0	1	115	29	0	108	178	1	0	15	109	2	759	3,247
5:45 PM	0	3	78	62	0	6	110	20	0	96	122	0	0	24	91	1	613	3,020
Count Total	0	27	783	656	0	20	1,175	253	3	874	1,440	7	1	196	842	18	6,295	0
Peak Hour	**0**	**12**	**410**	**350**	**0**	**9**	**615**	**132**	**1**	**461**	**815**	**5**	**0**	**104**	**389**	**11**	**3,314**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

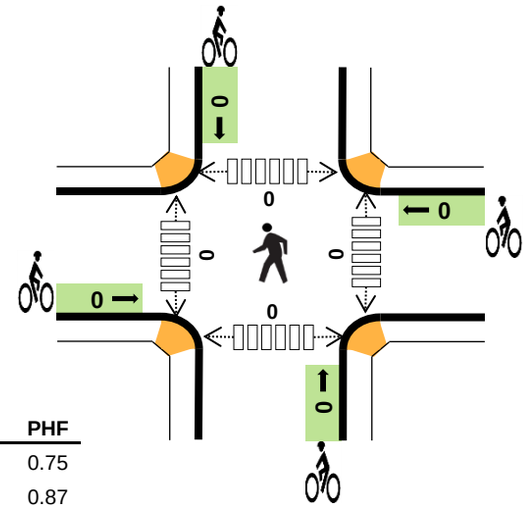
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	12	3	7	8	*30*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	6	2	10	5	*23*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**4**	**4**	**6**	**6**	***20***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**6**	**2**	**6**	**1**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**7**	**2**	**6**	**3**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**5**	**2**	**4**	**4**	***15***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***
5:30 PM	6	0	5	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	2	2	3	2	*9*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	48	17	47	34	*146*	0	0	0	3	*3*	0	0	0	0	*0*
Peak Hour	**22**	**10**	**22**	**14**	***68***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Meadowbrook Parkway
Newt Dr



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.0%	0.75
WB	1.9%	0.87
NB	-	-
SB	6.0%	0.74
TOTAL	3.9%	0.88

Two-Hour Count Summaries

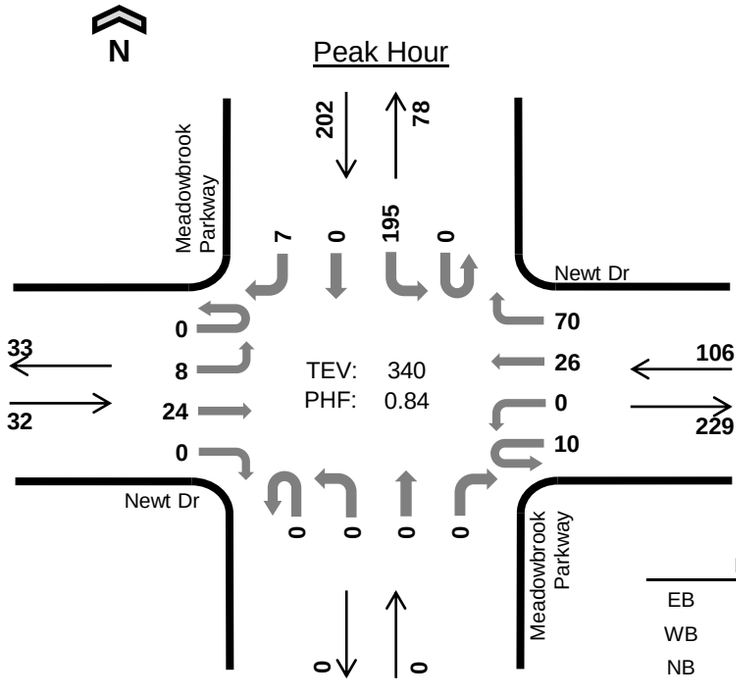
Interval Start	Newt Dr Eastbound				Newt Dr Westbound				Meadowbrook Parkway Northbound				Meadowbrook Parkway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**3**	**5**	**0**	**4**	**0**	**1**	**21**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**1**	**76**	0
7:15 AM	**0**	**0**	**5**	**0**	**4**	**0**	**0**	**22**	**0**	**0**	**0**	**0**	**1**	**31**	**0**	**0**	**63**	0
7:30 AM	**0**	**1**	**3**	**0**	**2**	**0**	**4**	**19**	**0**	**0**	**0**	**0**	**0**	**51**	**0**	**0**	**80**	0
7:45 AM	**0**	**0**	**7**	**0**	**1**	**0**	**2**	**28**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**64**	**283**
8:00 AM	0	4	2	0	4	0	3	24	0	0	0	0	0	32	0	0	69	276
8:15 AM	0	0	4	0	0	0	3	11	0	0	0	0	0	34	0	0	52	265
8:30 AM	0	0	4	0	4	0	2	18	0	0	0	0	0	25	0	0	53	238
8:45 AM	0	1	5	0	4	0	2	17	0	0	0	0	0	30	0	0	59	233
Count Total	0	9	35	0	23	0	17	160	0	0	0	0	1	270	0	1	516	0
Peak Hour	**0**	**4**	**20**	**0**	**11**	**0**	**7**	**90**	**0**	**0**	**0**	**0**	**1**	**149**	**0**	**1**	**283**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

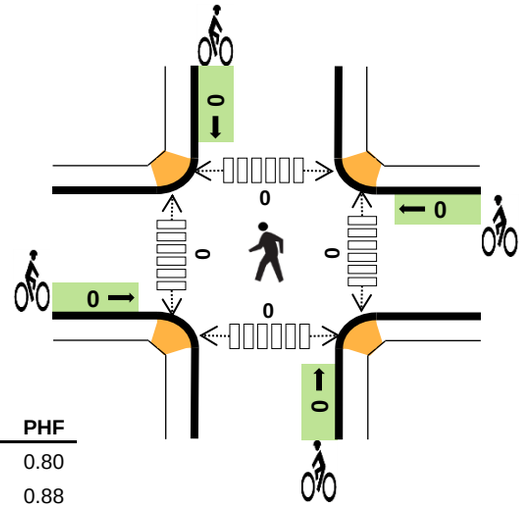
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**0**	**0**	**4**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**1**	**0**	**4**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	6	0	15	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**2**	**0**	**9**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Meadowbrook Parkway
Newt Dr



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	6.3%	0.80
WB	7.5%	0.88
NB	-	-
SB	1.5%	0.71
TOTAL	3.8%	0.84

Two-Hour Count Summaries

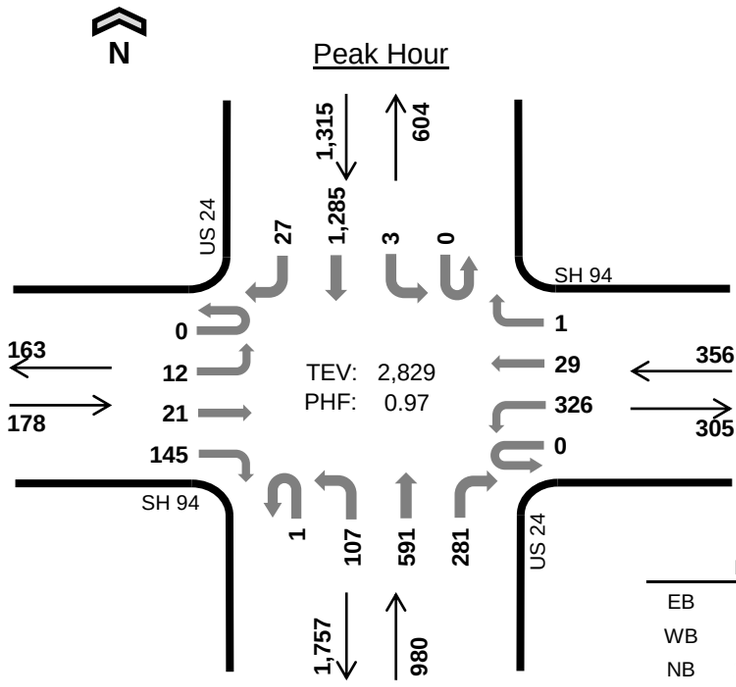
Interval Start	Newt Dr Eastbound				Newt Dr Westbound				Meadowbrook Parkway Northbound				Meadowbrook Parkway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	2	0	4	0	6	26	0	0	0	0	0	38	0	0	78	0
4:15 PM	0	2	3	0	4	0	6	15	0	0	0	0	0	44	0	1	75	0
4:30 PM	**0**	**2**	**6**	**0**	**2**	**0**	**3**	**23**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**4**	**82**	0
4:45 PM	**0**	**1**	**8**	**0**	**2**	**0**	**7**	**21**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**80**	315
5:00 PM	**0**	**2**	**3**	**0**	**4**	**0**	**12**	**9**	**0**	**0**	**0**	**0**	**0**	**70**	**0**	**1**	**101**	338
5:15 PM	**0**	**3**	**7**	**0**	**2**	**0**	**4**	**17**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**2**	**77**	**340**
5:30 PM	0	0	4	0	6	0	4	8	0	0	0	0	0	27	0	0	49	307
5:45 PM	0	1	4	0	2	0	6	7	0	0	0	0	0	29	0	1	50	277
Count Total	0	13	37	0	26	0	48	126	0	0	0	0	0	333	0	9	592	0
Peak Hour	**0**	**8**	**24**	**0**	**10**	**0**	**26**	**70**	**0**	**0**	**0**	**0**	**0**	**195**	**0**	**7**	**340**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

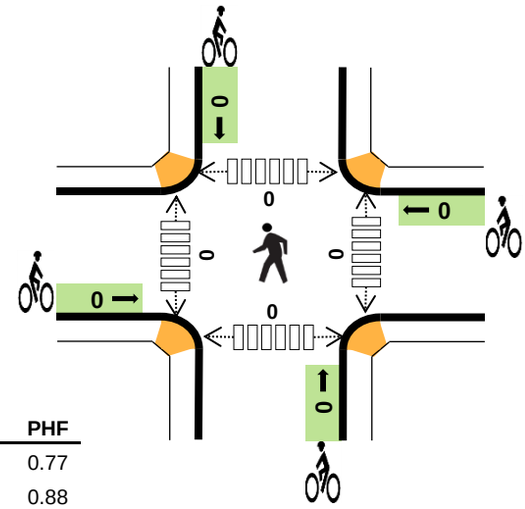
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**4**	**0**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**2**	**0**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	10	0	5	*17*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**8**	**0**	**3**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

US 24
SH 94



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.1%	0.77
WB	3.9%	0.88
NB	10.4%	0.97
SB	5.5%	0.96
TOTAL	7.0%	0.97

Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**1**	**6**	**45**	**0**	**81**	**10**	**0**	**0**	**27**	**147**	**65**	**0**	**1**	**319**	**7**	**709**	0
7:15 AM	**0**	**6**	**7**	**21**	**0**	**90**	**10**	**1**	**0**	**25**	**145**	**79**	**0**	**0**	**336**	**8**	**728**	0
7:30 AM	**0**	**5**	**6**	**47**	**0**	**85**	**5**	**0**	**0**	**20**	**152**	**80**	**0**	**0**	**310**	**6**	**716**	0
7:45 AM	**0**	**0**	**2**	**32**	**0**	**70**	**4**	**0**	**1**	**35**	**147**	**57**	**0**	**2**	**320**	**6**	**676**	**2,829**
8:00 AM	0	4	4	25	0	51	7	1	0	28	120	54	0	3	230	5	532	2,652
8:15 AM	0	4	4	34	0	51	6	0	1	17	107	64	0	1	207	10	506	2,430
8:30 AM	0	1	4	26	0	66	2	0	0	25	128	55	0	0	223	4	534	2,248
8:45 AM	0	3	7	29	0	48	6	1	1	23	131	44	0	1	197	9	500	2,072
Count Total	0	24	40	259	0	542	50	3	3	200	1,077	498	0	8	2,142	55	4,901	0
Peak Hour	**0**	**12**	**21**	**145**	**0**	**326**	**29**	**1**	**1**	**107**	**591**	**281**	**0**	**3**	**1,285**	**27**	**2,829**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**1**	**19**	**20**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**5**	**27**	**16**	***48***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**4**	**3**	**31**	**15**	***53***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**5**	**25**	**21**	***52***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	8	20	15	*44*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	3	2	24	9	*38*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	7	27	13	*47*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	5	15	18	*40*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	15	36	188	127	*366*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**9**	**14**	**102**	**72**	***197***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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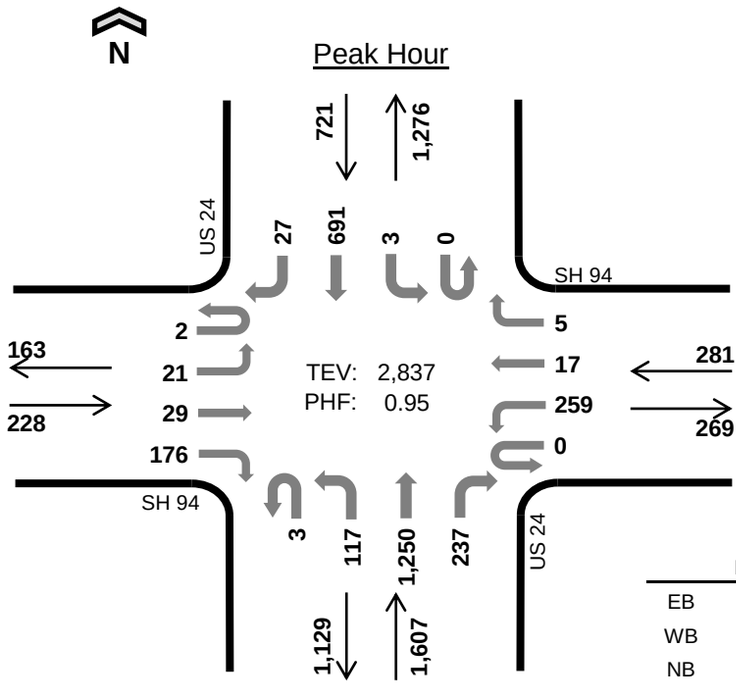
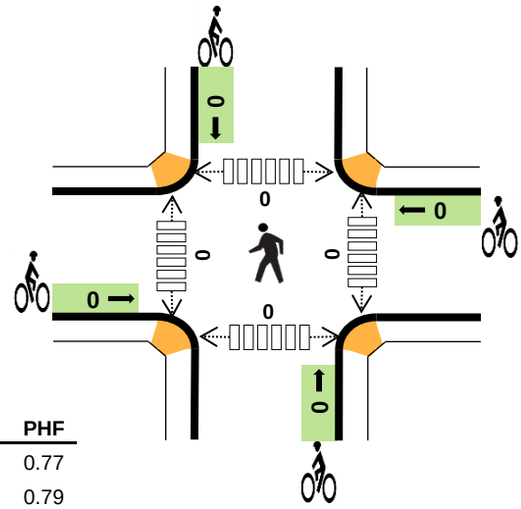
US 24
SH 94



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.9%	0.77
WB	2.8%	0.79
NB	3.0%	0.96
SB	5.0%	0.90
TOTAL	3.3%	0.95

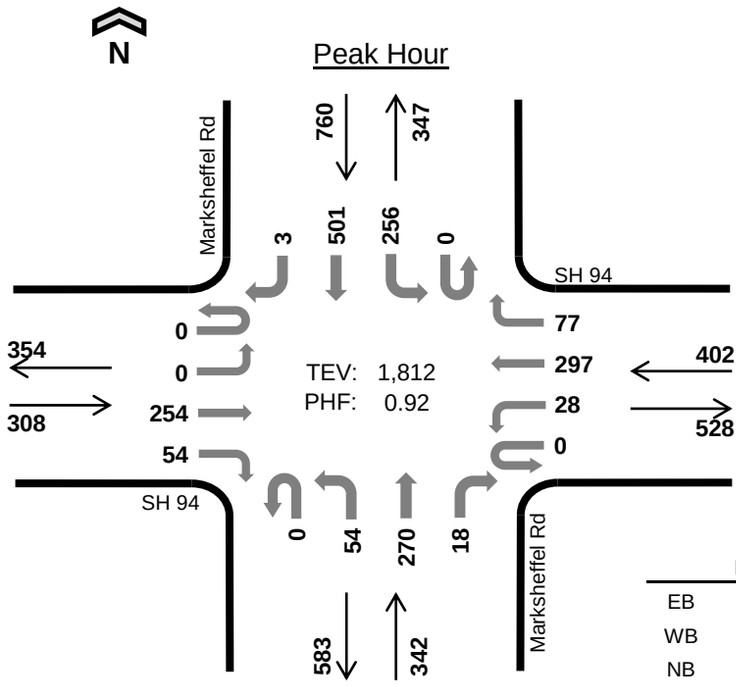
Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	5	4	32	0	73	7	0	1	31	284	80	1	2	177	7	704	0
4:15 PM	**0**	**5**	**4**	**45**	**0**	**51**	**2**	**2**	**1**	**30**	**327**	**62**	**0**	**3**	**153**	**7**	**692**	0
4:30 PM	**0**	**4**	**13**	**33**	**0**	**66**	**7**	**0**	**1**	**29**	**300**	**46**	**0**	**0**	**194**	**7**	**700**	0
4:45 PM	**0**	**9**	**1**	**40**	**0**	**83**	**5**	**1**	**0**	**31**	**307**	**53**	**0**	**0**	**158**	**7**	**695**	2,791
5:00 PM	**2**	**3**	**11**	**58**	**0**	**59**	**3**	**2**	**1**	**27**	**316**	**76**	**0**	**0**	**186**	**6**	**750**	**2,837**
5:15 PM	0	8	7	36	0	49	8	0	0	19	299	80	0	0	170	8	684	2,829
5:30 PM	0	5	4	29	0	44	7	1	0	19	267	85	0	0	183	4	648	2,777
5:45 PM	0	3	8	24	0	38	4	1	0	12	252	62	0	0	142	10	556	2,638
Count Total	2	42	52	297	0	463	43	7	4	198	2,352	544	1	5	1,363	56	5,429	0
Peak Hour	**2**	**21**	**29**	**176**	**0**	**259**	**17**	**5**	**3**	**117**	**1,250**	**237**	**0**	**3**	**691**	**27**	**2,837**	**0**

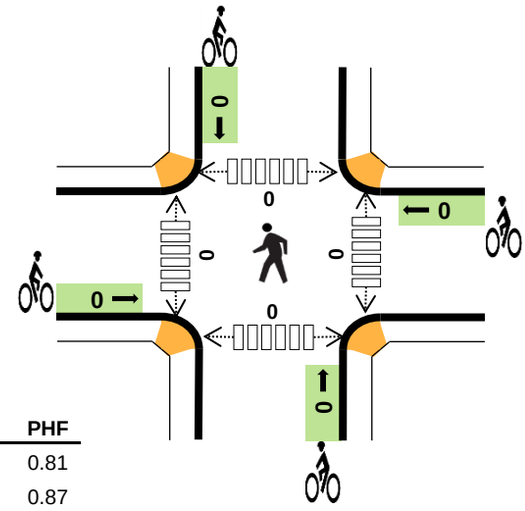
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	4	16	12	*32*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**3**	**11**	**12**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**1**	**20**	**12**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**1**	**14**	**5**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**3**	**4**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	1	2	10	6	*19*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	1	7	11	*21*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	2	3	7	*13*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	17	85	72	*180*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**8**	**49**	**36**	***95***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Marksheffel Rd
SH 94



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	8.1%	0.81
WB	5.5%	0.87
NB	4.7%	0.82
SB	2.6%	0.87
TOTAL	4.6%	0.92

Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**57**	**8**	**0**	**2**	**73**	**22**	**0**	**11**	**71**	**7**	**0**	**79**	**110**	**0**	**440**	0
7:15 AM	**0**	**0**	**79**	**16**	**0**	**7**	**87**	**21**	**0**	**10**	**51**	**3**	**0**	**74**	**143**	**1**	**492**	0
7:30 AM	**0**	**0**	**61**	**21**	**0**	**8**	**69**	**13**	**0**	**24**	**76**	**4**	**0**	**67**	**133**	**1**	**477**	0
7:45 AM	**0**	**0**	**57**	**9**	**0**	**11**	**68**	**21**	**0**	**9**	**72**	**4**	**0**	**36**	**115**	**1**	**403**	**1,812**
8:00 AM	0	4	39	14	0	2	43	12	0	10	50	2	0	47	115	1	339	1,711
8:15 AM	0	0	61	11	0	2	49	21	0	8	59	2	0	32	89	0	334	1,553
8:30 AM	0	1	50	15	0	6	67	25	0	9	52	4	0	32	85	1	347	1,423
8:45 AM	0	0	36	14	0	4	44	17	0	14	49	1	0	21	85	2	287	1,307
Count Total	0	5	440	108	0	42	500	152	0	95	480	27	0	388	875	7	3,119	0
Peak Hour	**0**	**0**	**254**	**54**	**0**	**28**	**297**	**77**	**0**	**54**	**270**	**18**	**0**	**256**	**501**	**3**	**1,812**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**2**	**5**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**6**	**4**	**4**	**4**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**9**	**6**	**4**	**8**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**6**	**10**	**3**	**3**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	3	7	2	9	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	10	5	2	4	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	8	5	8	7	*28*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	8	6	1	5	*20*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	54	45	29	45	*173*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**25**	**22**	**16**	**20**	***83***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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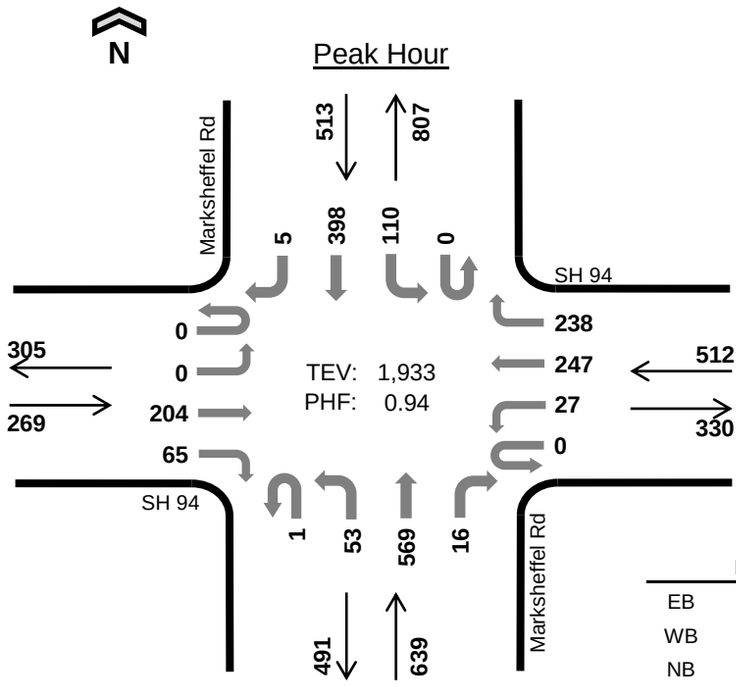
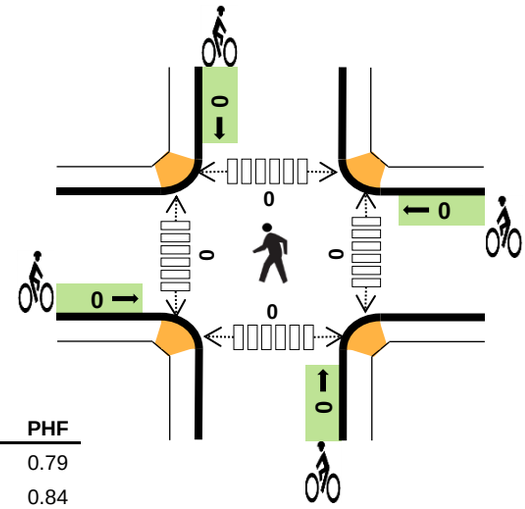
Marksheffel Rd
SH 94



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	3.3%	0.79
WB	2.7%	0.84
NB	2.3%	0.92
SB	3.9%	0.97
TOTAL	3.0%	0.94

Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**58**	**27**	**0**	**7**	**63**	**49**	**0**	**14**	**140**	**2**	**0**	**24**	**94**	**1**	**479**	0
4:15 PM	**0**	**0**	**57**	**15**	**0**	**10**	**65**	**78**	**1**	**10**	**142**	**6**	**0**	**28**	**102**	**1**	**515**	0
4:30 PM	**0**	**0**	**42**	**13**	**0**	**6**	**47**	**62**	**0**	**12**	**159**	**2**	**0**	**25**	**105**	**1**	**474**	0
4:45 PM	**0**	**0**	**47**	**10**	**0**	**4**	**72**	**49**	**0**	**17**	**128**	**6**	**0**	**33**	**97**	**2**	**465**	**1,933**
5:00 PM	1	1	72	14	0	5	52	48	0	8	107	2	0	20	84	2	416	1,870
5:15 PM	1	0	73	13	0	5	37	44	0	18	112	3	0	29	110	0	445	1,800
5:30 PM	0	0	69	19	0	1	40	31	0	12	75	3	0	28	115	0	393	1,719
5:45 PM	0	0	47	21	0	0	32	31	0	7	122	2	0	28	110	0	400	1,654
Count Total	2	1	465	132	0	38	408	392	1	98	985	26	0	215	817	7	3,587	0
Peak Hour	**0**	**0**	**204**	**65**	**0**	**27**	**247**	**238**	**1**	**53**	**569**	**16**	**0**	**110**	**398**	**5**	**1,933**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**1**	**5**	**4**	**7**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**3**	**4**	**4**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**2**	**4**	**5**	**8**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**4**	**2**	**2**	**1**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	1	2	2	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	2	1	3	2	*8*	0	0	1	0	*1*	0	0	0	0	*0*
5:30 PM	3	0	2	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	1	3	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	16	18	25	31	*90*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hour	**9**	**14**	**15**	**20**	***58***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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Traffic Data Resources

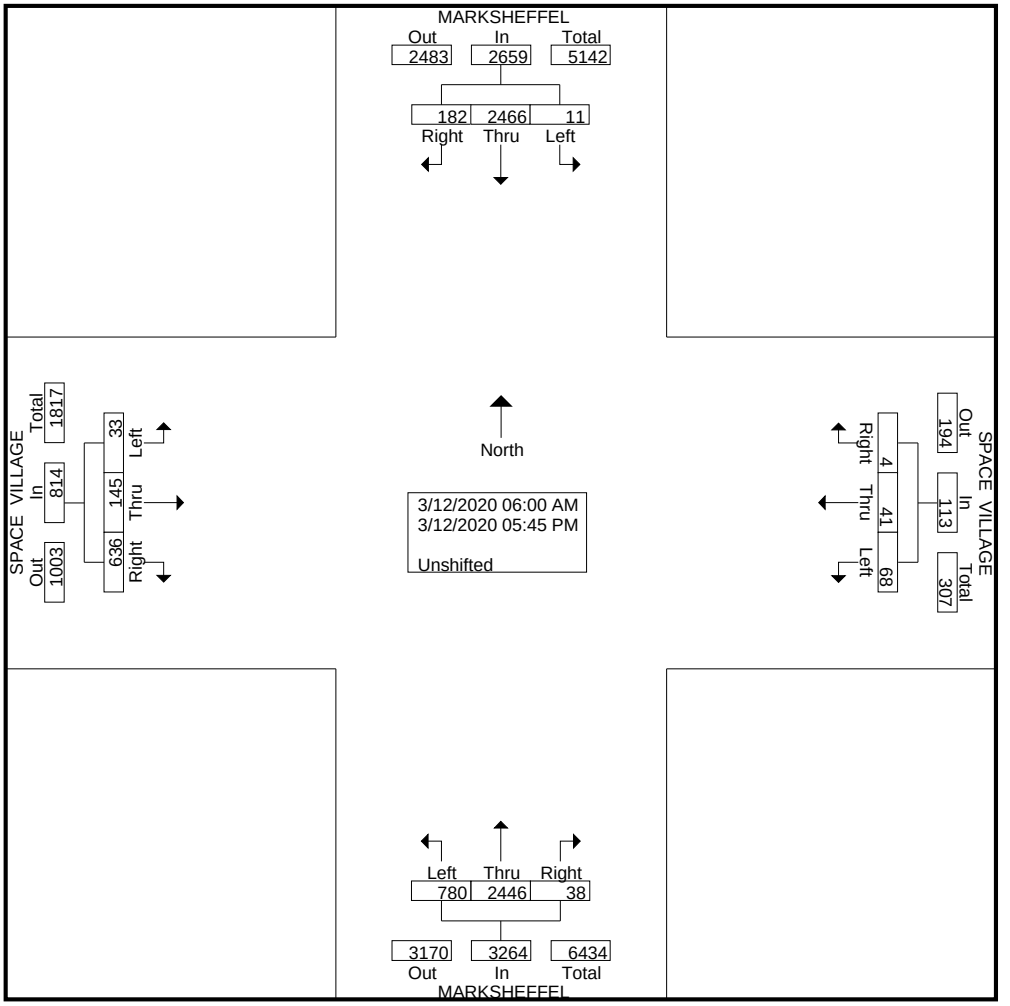
Location: Marksheffel @ Space Village
Turning Movement Count
Weather: Clear
Comments: Heavy truck traffic

File Name : MARKSHEFFEL @ SPACE VILLAGE-THUR-WSP-3-20
Site Code : 00000000
Start Date : 3/12/2020
Page No : 1

Groups Printed- Unshifted

	MARKSHEFFEL From North				SPACE VILLAGE From East				MARKSHEFFEL From South				SPACE VILLAGE From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
06:00 AM	1	84	0	85	0	0	7	7	0	47	20	67	23	5	1	29	188
06:15 AM	4	140	0	144	0	2	2	4	2	68	33	103	17	9	1	27	278
06:30 AM	4	157	0	161	0	2	0	2	1	92	40	133	19	13	2	34	330
06:45 AM	13	164	0	177	0	6	8	14	2	109	54	165	26	9	4	39	395
Total	22	545	0	567	0	10	17	27	5	316	147	468	85	36	8	129	1191
07:00 AM	18	196	6	220	1	1	3	5	6	121	51	178	35	19	2	56	459
07:15 AM	37	201	0	238	1	4	3	8	1	110	62	173	35	8	2	45	464
07:30 AM	33	235	1	269	0	3	1	4	4	124	83	211	23	9	2	34	518
07:45 AM	31	227	1	259	0	3	1	4	1	117	77	195	21	6	1	28	486
Total	119	859	8	986	2	11	8	21	12	472	273	757	114	42	7	163	1927
*** BREAK ***																	
04:00 PM	7	147	0	154	0	4	4	8	3	210	40	253	55	8	3	66	481
04:15 PM	8	149	0	157	0	3	7	10	5	263	46	314	46	8	2	56	537
04:30 PM	5	122	1	128	0	2	10	12	6	228	56	290	52	10	1	63	493
04:45 PM	3	132	0	135	1	3	9	13	1	213	46	260	62	6	4	72	480
Total	23	550	1	574	1	12	30	43	15	914	188	1117	215	32	10	257	1991
05:00 PM	7	127	0	134	0	2	4	6	5	213	55	273	65	7	1	73	486
05:15 PM	4	155	2	161	0	1	2	3	1	226	48	275	58	10	4	72	511
05:30 PM	5	119	0	124	1	2	6	9	0	153	38	191	53	12	1	66	390
05:45 PM	2	111	0	113	0	3	1	4	0	152	31	183	46	6	2	54	354
Total	18	512	2	532	1	8	13	22	6	744	172	922	222	35	8	265	1741
Grand Total	182	2466	11	2659	4	41	68	113	38	2446	780	3264	636	145	33	814	6850
Apprch %	6.8	92.7	0.4		3.5	36.3	60.2		1.2	74.9	23.9		78.1	17.8	4.1		
Total %	2.7	36	0.2	38.8	0.1	0.6	1	1.6	0.6	35.7	11.4	47.6	9.3	2.1	0.5	11.9	

File Name : MARKSHEFFEL @ SPACE VILLAGE-THUR-WSP-3-20
Site Code : 00000000
Start Date : 3/12/2020
Page No : 2



	MARKSHEFFEL From North				SPACE VILLAGE From East				MARKSHEFFEL From South				SPACE VILLAGE From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**8**	**149**	0	**157**	0	**3**	7	10	5	**263**	46	**314**	46	8	2	56	**537**
04:30 PM	5	122	**1**	128	0	2	**10**	12	**6**	228	**56**	290	52	**10**	1	63	493
04:45 PM	3	132	0	135	**1**	3	9	**13**	1	213	46	260	62	6	**4**	72	480
05:00 PM	7	127	0	134	0	2	4	6	5	213	55	273	**65**	7	1	**73**	486
Total Volume	23	530	1	554	1	10	30	41	17	917	203	1137	225	31	8	264	1996
% App. Total	4.2	95.7	0.2		2.4	24.4	73.2		1.5	80.7	17.9		85.2	11.7	3		
PHF	.719	.889	.250	.882	.250	.833	.750	.788	.708	.872	.906	.905	.865	.775	.500	.904	.929

Station ID: 103943
Date: 7/11/2019
Route: 094A
Description: SH 94 E/O Marksheffel Rd, Colorado Springs

COUNTDIR	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
P	21	16	9	23	82	299	705	500	366	246	211	243	253	246	252	271	391	383	282	193	178	120	99	54
S	17	6	10	14	45	141	322	359	287	278	237	292	270	272	395	606	824	541	282	153	90	54	40	51

Marsheffel and SH 94			
Peak Hour Counts	528	95%	
	402	89%	
Percent Difference	92%		

Marsheffel and SH 94			
Peak Hour Counts	330	118%	
	512	161%	
Percent Difference	144%		

Station ID: 100851
Date: 2/20/2020
Route: 024G
Description: SH 24 NE/O SH 94, Colorado Springs

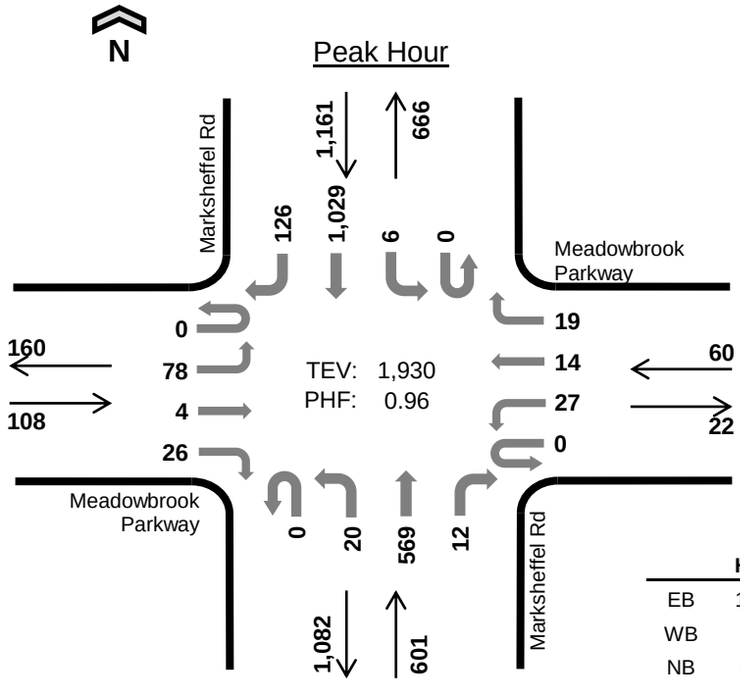
COUNTDIR	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
P	55	33	24	26	94	150	465	601	503	409	468	614	622	633	920	1088	1495	1289	704	712	452	268	159	82
S	36	17	38	95	301	818	1863	1716	1023	715	636	665	609	577	613	655	693	685	369	224	183	124	79	53

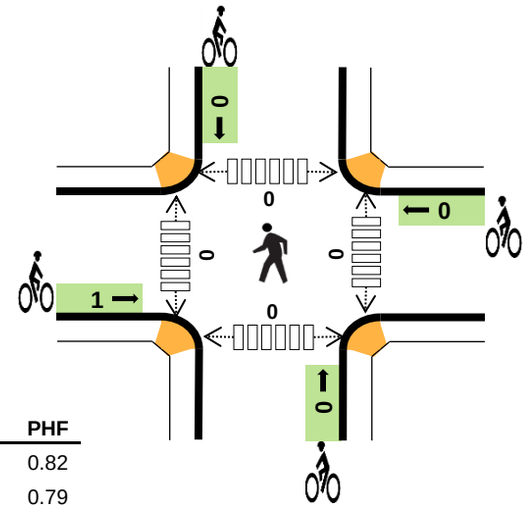
US 24 and SH 94			
Peak Hour Counts	604	100%	
	1315	130%	
Percent Difference	121%		
US 24 and Marksheffel			
Peak Hour Counts	609	99%	
	1344	128%	
Percent Difference	119%		

US 24 and SH 94			
Peak Hour Counts	1276	117%	
	721	96%	
Percent Difference	110%		
US 24 and Marksheffel			
Peak Hour Counts	1282	117%	
	749	93%	
Percent Difference	108%		

Marksheffel Rd
Meadowbrook Parkway

Date: Thu, Jun 04, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	10.2%	0.82
WB	0.0%	0.79
NB	6.7%	0.87
SB	5.7%	0.92
TOTAL	6.1%	0.96

Two-Hour Count Summaries

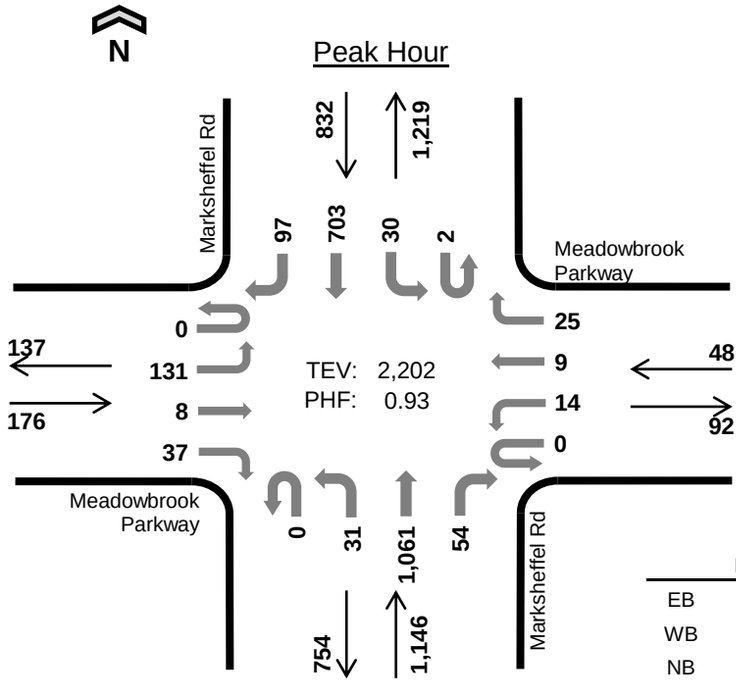
Interval Start	Meadowbrook Parkway Eastbound				Meadowbrook Parkway Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**12**	**2**	**7**	**0**	**11**	**3**	**5**	**0**	**3**	**167**	**2**	**0**	**0**	**268**	**24**	**504**	0
7:15 AM	**0**	**24**	**1**	**5**	**0**	**5**	**3**	**2**	**0**	**4**	**144**	**4**	**0**	**0**	**256**	**26**	**474**	0
7:30 AM	**0**	**18**	**1**	**5**	**0**	**5**	**4**	**6**	**0**	**8**	**130**	**3**	**0**	**3**	**276**	**38**	**497**	0
7:45 AM	**0**	**24**	**0**	**9**	**0**	**6**	**4**	**6**	**0**	**5**	**128**	**3**	**0**	**3**	**229**	**38**	**455**	**1,930**
8:00 AM	0	25	2	9	0	3	4	6	0	9	100	7	0	5	219	24	413	1,839
8:15 AM	0	21	1	3	0	4	2	8	0	2	98	3	1	3	159	25	330	1,695
8:30 AM	0	7	2	4	0	8	4	5	0	4	127	5	0	2	200	27	395	1,593
8:45 AM	0	24	1	4	0	11	2	6	0	4	103	4	0	2	158	30	349	1,487
Count Total	0	155	10	46	0	53	26	44	0	39	997	31	1	18	1,765	232	3,417	0
Peak Hour	**0**	**78**	**4**	**26**	**0**	**27**	**14**	**19**	**0**	**20**	**569**	**12**	**0**	**6**	**1,029**	**126**	**1,930**	**0**

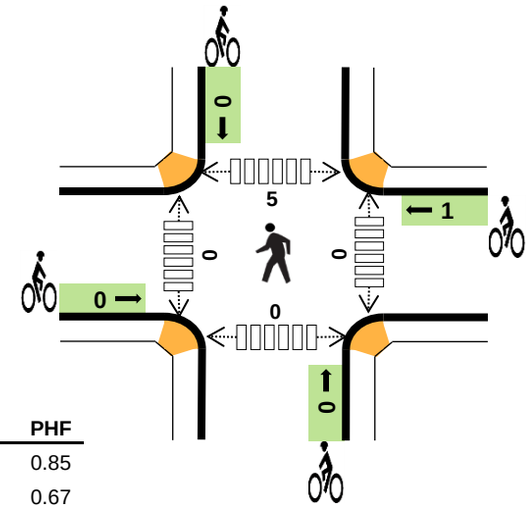
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**2**	**0**	**8**	**21**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**3**	**0**	**9**	**14**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**4**	**0**	**10**	**16**	***30***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**2**	**0**	**13**	**15**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	3	0	12	10	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	4	0	4	12	*20*	0	0	0	0	*0*	0	0	1	0	*1*
8:30 AM	2	0	6	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	9	12	*22*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	20	1	71	107	*199*	1	0	0	0	*1*	0	0	1	0	*1*
Peak Hour	**11**	**0**	**40**	**66**	***117***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

Marksheffel Rd
Meadowbrook Parkway

Date: Thu, Jun 04, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	1.7%	0.85
WB	0.0%	0.67
NB	1.5%	0.90
SB	3.8%	0.87
TOTAL	2.4%	0.93

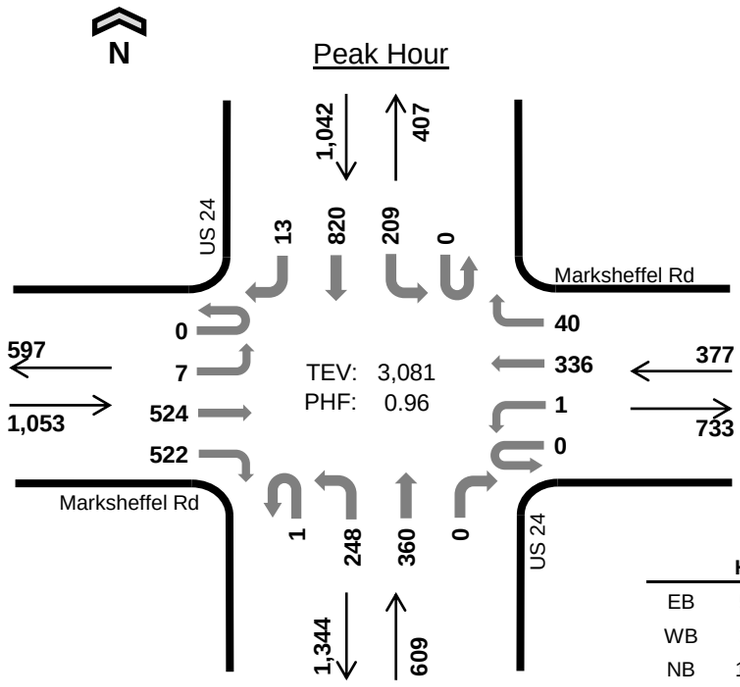
Two-Hour Count Summaries

Interval Start	Meadowbrook Parkway Eastbound				Meadowbrook Parkway Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**43**	**0**	**5**	**0**	**5**	**3**	**10**	**0**	**12**	**227**	**7**	**0**	**5**	**183**	**21**	**521**	0
4:15 PM	**0**	**29**	**3**	**9**	**0**	**5**	**2**	**6**	**0**	**8**	**294**	**16**	**1**	**6**	**164**	**25**	**568**	0
4:30 PM	**0**	**39**	**2**	**11**	**0**	**1**	**1**	**5**	**0**	**5**	**260**	**11**	**1**	**10**	**150**	**27**	**523**	0
4:45 PM	**0**	**20**	**3**	**12**	**0**	**3**	**3**	**4**	**0**	**6**	**280**	**20**	**0**	**9**	**206**	**24**	**590**	**2,202**
5:00 PM	0	42	5	10	0	6	0	5	0	5	226	12	0	10	173	13	507	2,188
5:15 PM	0	29	3	10	0	4	0	9	0	3	260	14	0	7	193	23	555	2,175
5:30 PM	0	18	3	9	0	4	1	5	0	3	214	13	0	12	200	29	511	2,163
5:45 PM	0	24	0	4	0	3	0	8	1	4	194	10	0	7	123	12	390	1,963
Count Total	0	244	19	70	0	31	10	52	1	46	1,955	103	2	66	1,392	174	4,165	0
Peak Hour	**0**	**131**	**8**	**37**	**0**	**14**	**9**	**25**	**0**	**31**	**1,061**	**54**	**2**	**30**	**703**	**97**	**2,202**	**0**

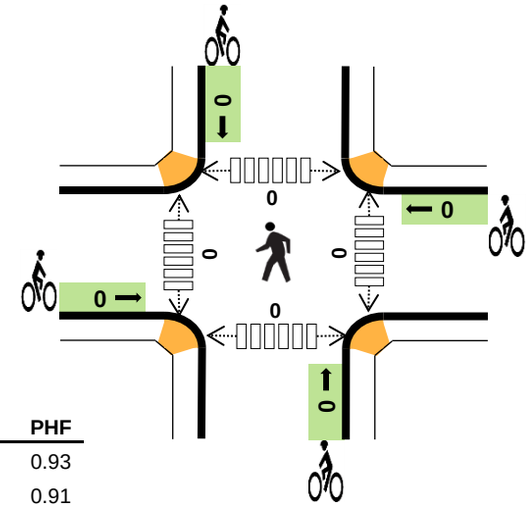
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**5**	**12**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**0**	**3**	**6**	***11***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**2**	**0**	*2*
4:30 PM	**0**	**0**	**4**	**7**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**0**	*3*
4:45 PM	**1**	**0**	**5**	**7**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	2	0	2	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	5	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	0	2	8	*12*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	2	5	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	7	0	28	57	*92*	0	1	0	0	*1*	0	0	5	0	*5*
Peak Hour	**3**	**0**	**17**	**32**	***52***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**5**	**0**	***5***

US 24
Marksheffel Rd



Date: Thu, Jun 04, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.5%	0.93
WB	3.2%	0.91
NB	10.5%	0.93
SB	3.9%	0.94
TOTAL	5.7%	0.96

Two-Hour Count Summaries

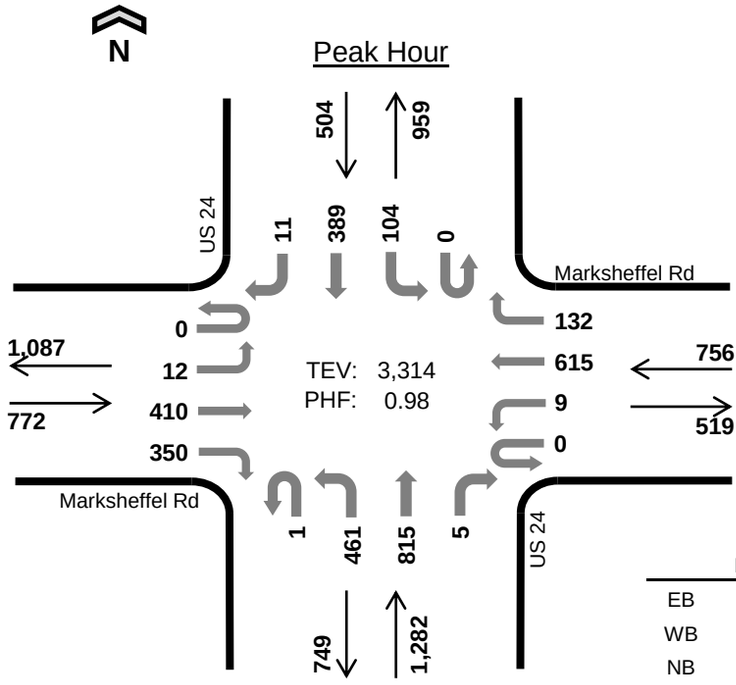
Interval Start	Marksheffel Rd Eastbound				Marksheffel Rd Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**122**	**138**	**0**	**0**	**94**	**6**	**0**	**68**	**96**	**0**	**0**	**50**	**203**	**1**	**778**	0
7:15 AM	**0**	**0**	**155**	**127**	**0**	**0**	**96**	**8**	**1**	**59**	**96**	**0**	**0**	**43**	**213**	**3**	**801**	0
7:30 AM	**0**	**3**	**123**	**142**	**0**	**1**	**80**	**14**	**0**	**62**	**78**	**0**	**0**	**59**	**214**	**5**	**781**	0
7:45 AM	**0**	**4**	**124**	**115**	**0**	**0**	**66**	**12**	**0**	**59**	**90**	**0**	**0**	**57**	**190**	**4**	**721**	**3,081**
8:00 AM	0	8	106	109	0	2	57	17	0	50	75	0	0	37	125	7	593	2,896
8:15 AM	0	1	87	90	0	0	48	16	0	50	73	1	0	42	138	1	547	2,642
8:30 AM	0	3	83	105	0	1	84	13	0	48	71	0	0	30	155	1	594	2,455
8:45 AM	0	0	92	85	0	2	58	8	0	52	91	0	0	39	162	5	594	2,328
Count Total	0	19	892	911	0	6	583	94	1	448	670	1	0	357	1,400	27	5,409	0
Peak Hour	**0**	**7**	**524**	**522**	**0**	**1**	**336**	**40**	**1**	**248**	**360**	**0**	**0**	**209**	**820**	**13**	**3,081**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

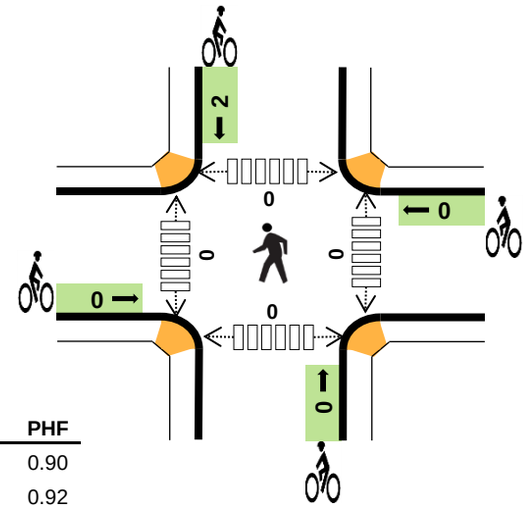
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**18**	**3**	**10**	**8**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**12**	**3**	**17**	**10**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**14**	**4**	**21**	**13**	***52***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**14**	**2**	**16**	**10**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	9	3	18	11	*41*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	9	1	12	7	*29*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	9	2	10	9	*30*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	11	4	22	21	*58*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	96	22	126	89	*333*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**58**	**12**	**64**	**41**	***175***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

US 24
Marksheffel Rd



Date: Thu, Jun 04, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	2.8%	0.90
WB	1.3%	0.92
NB	1.7%	0.97
SB	2.8%	0.91
TOTAL	2.1%	0.98

Two-Hour Count Summaries

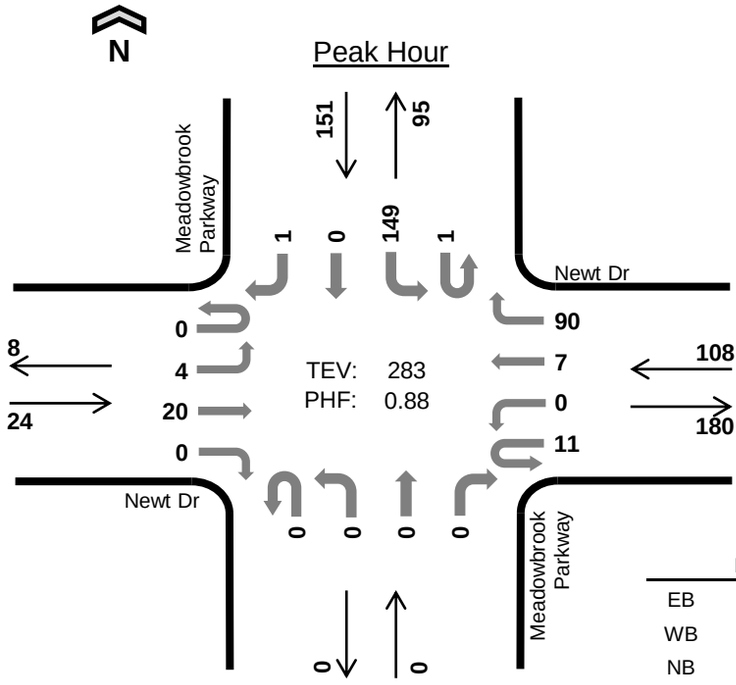
Interval Start	Marksheffel Rd Eastbound				Marksheffel Rd Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	102	84	0	3	163	33	0	78	159	0	1	21	132	0	778	0
4:15 PM	0	7	82	73	0	1	172	39	2	131	166	1	0	32	121	4	831	0
4:30 PM	**0**	**4**	**92**	**73**	**0**	**4**	**165**	**37**	**0**	**119**	**207**	**0**	**0**	**23**	**100**	**2**	**826**	0
4:45 PM	**0**	**5**	**117**	**92**	**0**	**1**	**162**	**34**	**0**	**128**	**185**	**4**	**0**	**17**	**90**	**5**	**840**	3,275
5:00 PM	**0**	**3**	**96**	**92**	**0**	**2**	**140**	**34**	**1**	**96**	**210**	**1**	**0**	**27**	**101**	**1**	**804**	3,301
5:15 PM	**0**	**0**	**105**	**93**	**0**	**2**	**148**	**27**	**0**	**118**	**213**	**0**	**0**	**37**	**98**	**3**	**844**	**3,314**
5:30 PM	0	3	111	87	0	1	115	29	0	108	178	1	0	15	109	2	759	3,247
5:45 PM	0	3	78	62	0	6	110	20	0	96	122	0	0	24	91	1	613	3,020
Count Total	0	27	783	656	0	20	1,175	253	3	874	1,440	7	1	196	842	18	6,295	0
Peak Hour	**0**	**12**	**410**	**350**	**0**	**9**	**615**	**132**	**1**	**461**	**815**	**5**	**0**	**104**	**389**	**11**	**3,314**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

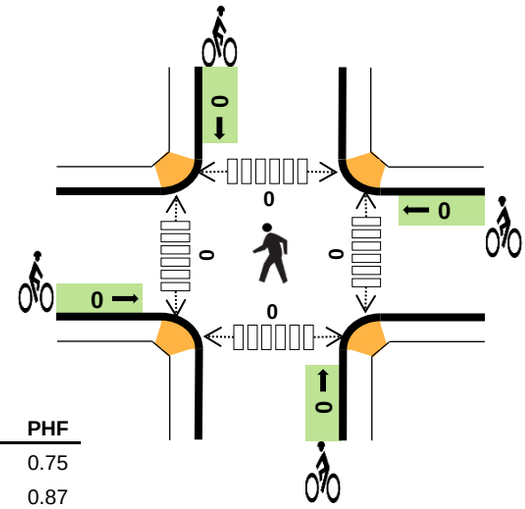
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	12	3	7	8	*30*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	6	2	10	5	*23*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**4**	**4**	**6**	**6**	***20***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**6**	**2**	**6**	**1**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**7**	**2**	**6**	**3**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**5**	**2**	**4**	**4**	***15***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***
5:30 PM	6	0	5	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	2	2	3	2	*9*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	48	17	47	34	*146*	0	0	0	3	*3*	0	0	0	0	*0*
Peak Hour	**22**	**10**	**22**	**14**	***68***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Meadowbrook Parkway
Newt Dr



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.0%	0.75
WB	1.9%	0.87
NB	-	-
SB	6.0%	0.74
TOTAL	3.9%	0.88

Two-Hour Count Summaries

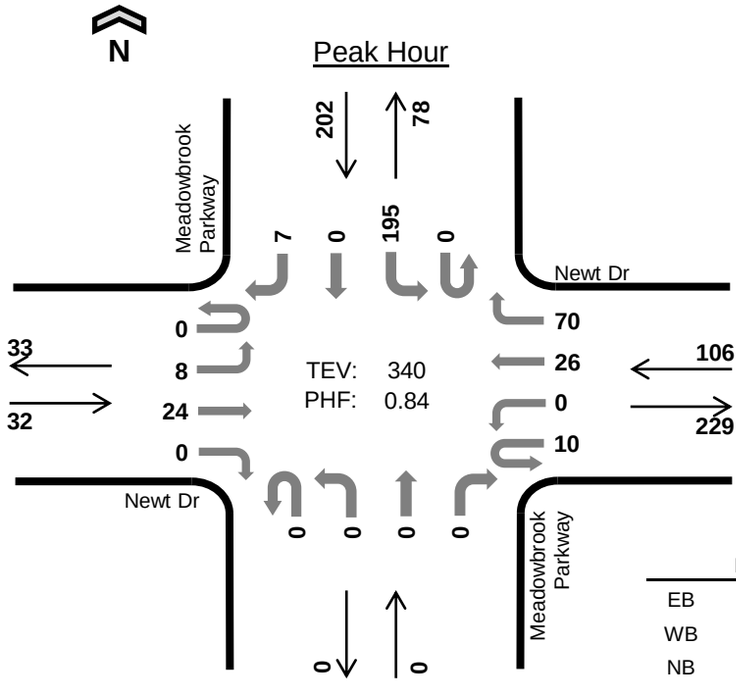
Interval Start	Newt Dr Eastbound				Newt Dr Westbound				Meadowbrook Parkway Northbound				Meadowbrook Parkway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**3**	**5**	**0**	**4**	**0**	**1**	**21**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**1**	**76**	0
7:15 AM	**0**	**0**	**5**	**0**	**4**	**0**	**0**	**22**	**0**	**0**	**0**	**0**	**1**	**31**	**0**	**0**	**63**	0
7:30 AM	**0**	**1**	**3**	**0**	**2**	**0**	**4**	**19**	**0**	**0**	**0**	**0**	**0**	**51**	**0**	**0**	**80**	0
7:45 AM	**0**	**0**	**7**	**0**	**1**	**0**	**2**	**28**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**64**	**283**
8:00 AM	0	4	2	0	4	0	3	24	0	0	0	0	0	32	0	0	69	276
8:15 AM	0	0	4	0	0	0	3	11	0	0	0	0	0	34	0	0	52	265
8:30 AM	0	0	4	0	4	0	2	18	0	0	0	0	0	25	0	0	53	238
8:45 AM	0	1	5	0	4	0	2	17	0	0	0	0	0	30	0	0	59	233
Count Total	0	9	35	0	23	0	17	160	0	0	0	0	1	270	0	1	516	0
Peak Hour	**0**	**4**	**20**	**0**	**11**	**0**	**7**	**90**	**0**	**0**	**0**	**0**	**1**	**149**	**0**	**1**	**283**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

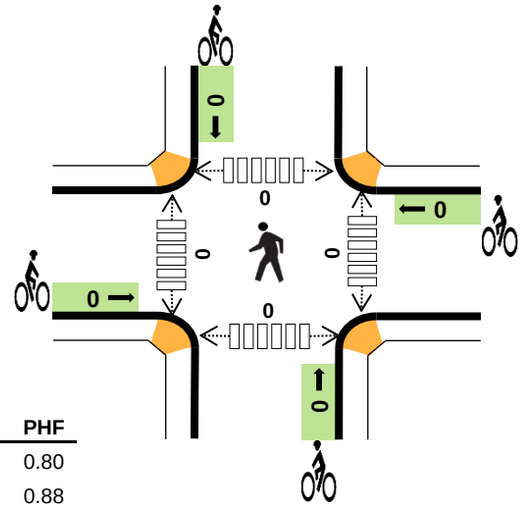
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**0**	**0**	**4**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**1**	**0**	**4**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	6	0	15	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**2**	**0**	**9**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Meadowbrook Parkway
Newt Dr



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	6.3%	0.80
WB	7.5%	0.88
NB	-	-
SB	1.5%	0.71
TOTAL	3.8%	0.84

Two-Hour Count Summaries

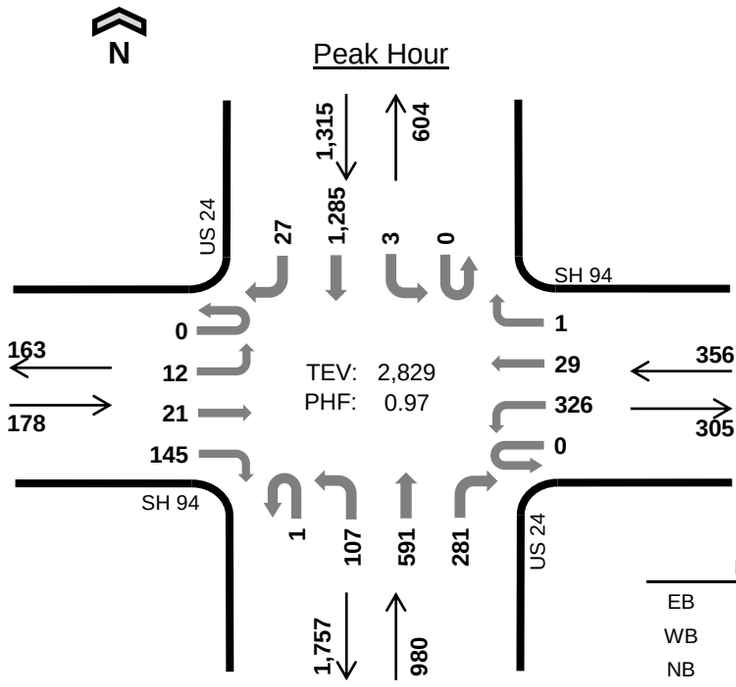
Interval Start	Newt Dr Eastbound				Newt Dr Westbound				Meadowbrook Parkway Northbound				Meadowbrook Parkway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	2	0	4	0	6	26	0	0	0	0	0	38	0	0	78	0
4:15 PM	0	2	3	0	4	0	6	15	0	0	0	0	0	44	0	1	75	0
4:30 PM	**0**	**2**	**6**	**0**	**2**	**0**	**3**	**23**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**4**	**82**	0
4:45 PM	**0**	**1**	**8**	**0**	**2**	**0**	**7**	**21**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**80**	315
5:00 PM	**0**	**2**	**3**	**0**	**4**	**0**	**12**	**9**	**0**	**0**	**0**	**0**	**0**	**70**	**0**	**1**	**101**	338
5:15 PM	**0**	**3**	**7**	**0**	**2**	**0**	**4**	**17**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**2**	**77**	**340**
5:30 PM	0	0	4	0	6	0	4	8	0	0	0	0	0	27	0	0	49	307
5:45 PM	0	1	4	0	2	0	6	7	0	0	0	0	0	29	0	1	50	277
Count Total	0	13	37	0	26	0	48	126	0	0	0	0	0	333	0	9	592	0
Peak Hour	**0**	**8**	**24**	**0**	**10**	**0**	**26**	**70**	**0**	**0**	**0**	**0**	**0**	**195**	**0**	**7**	**340**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

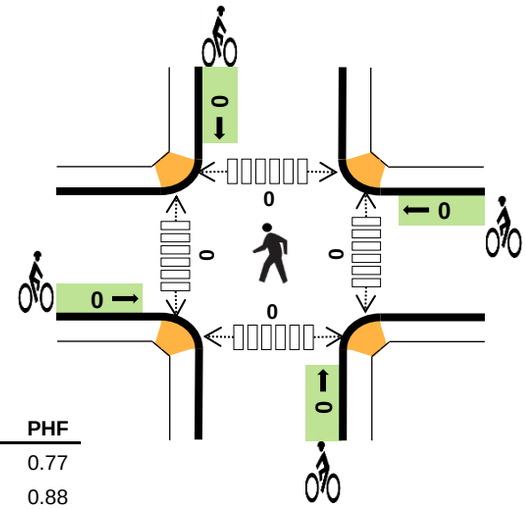
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**4**	**0**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**2**	**0**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	10	0	5	*17*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**8**	**0**	**3**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

US 24
SH 94



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.1%	0.77
WB	3.9%	0.88
NB	10.4%	0.97
SB	5.5%	0.96
TOTAL	7.0%	0.97

Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**1**	**6**	**45**	**0**	**81**	**10**	**0**	**0**	**27**	**147**	**65**	**0**	**1**	**319**	**7**	**709**	0
7:15 AM	**0**	**6**	**7**	**21**	**0**	**90**	**10**	**1**	**0**	**25**	**145**	**79**	**0**	**0**	**336**	**8**	**728**	0
7:30 AM	**0**	**5**	**6**	**47**	**0**	**85**	**5**	**0**	**0**	**20**	**152**	**80**	**0**	**0**	**310**	**6**	**716**	0
7:45 AM	**0**	**0**	**2**	**32**	**0**	**70**	**4**	**0**	**1**	**35**	**147**	**57**	**0**	**2**	**320**	**6**	**676**	**2,829**
8:00 AM	0	4	4	25	0	51	7	1	0	28	120	54	0	3	230	5	532	2,652
8:15 AM	0	4	4	34	0	51	6	0	1	17	107	64	0	1	207	10	506	2,430
8:30 AM	0	1	4	26	0	66	2	0	0	25	128	55	0	0	223	4	534	2,248
8:45 AM	0	3	7	29	0	48	6	1	1	23	131	44	0	1	197	9	500	2,072
Count Total	0	24	40	259	0	542	50	3	3	200	1,077	498	0	8	2,142	55	4,901	0
Peak Hour	**0**	**12**	**21**	**145**	**0**	**326**	**29**	**1**	**1**	**107**	**591**	**281**	**0**	**3**	**1,285**	**27**	**2,829**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**1**	**19**	**20**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**5**	**27**	**16**	***48***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**4**	**3**	**31**	**15**	***53***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**5**	**25**	**21**	***52***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	8	20	15	*44*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	3	2	24	9	*38*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	7	27	13	*47*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	5	15	18	*40*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	15	36	188	127	*366*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**9**	**14**	**102**	**72**	***197***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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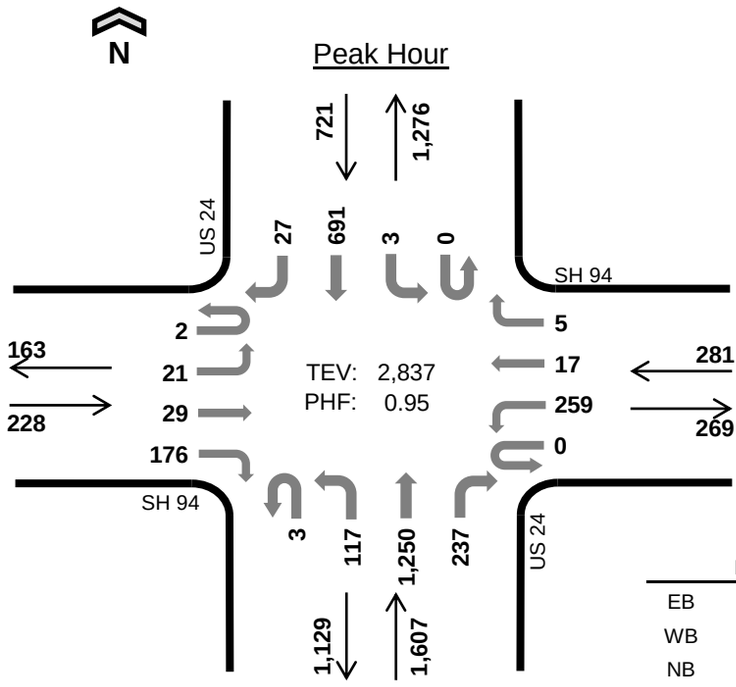
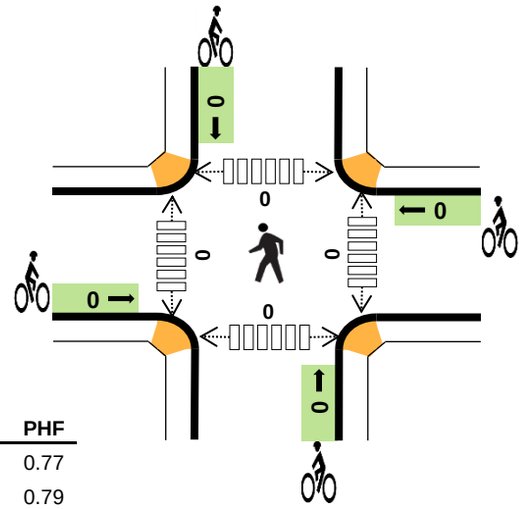
US 24
SH 94



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.9%	0.77
WB	2.8%	0.79
NB	3.0%	0.96
SB	5.0%	0.90
TOTAL	3.3%	0.95

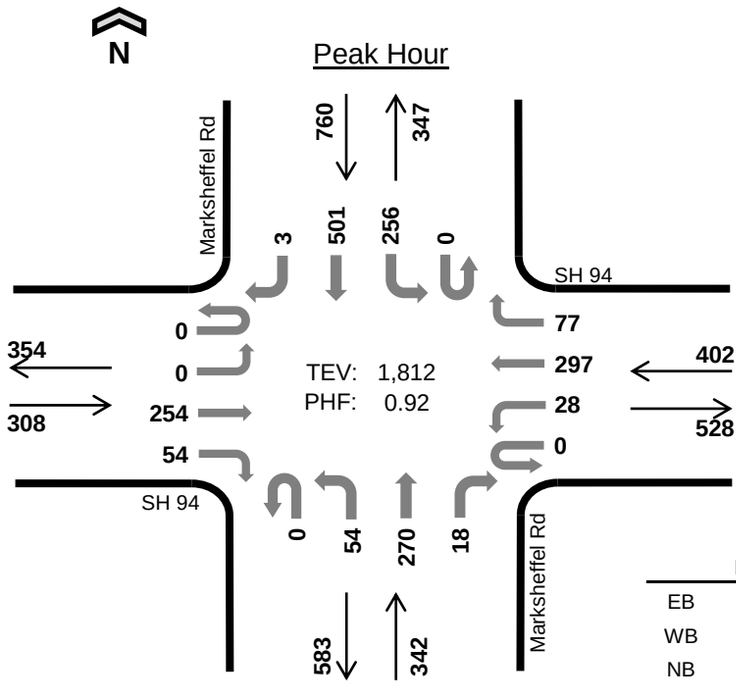
Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				US 24 Northbound				US 24 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	5	4	32	0	73	7	0	1	31	284	80	1	2	177	7	704	0
4:15 PM	**0**	**5**	**4**	**45**	**0**	**51**	**2**	**2**	**1**	**30**	**327**	**62**	**0**	**3**	**153**	**7**	**692**	0
4:30 PM	**0**	**4**	**13**	**33**	**0**	**66**	**7**	**0**	**1**	**29**	**300**	**46**	**0**	**0**	**194**	**7**	**700**	0
4:45 PM	**0**	**9**	**1**	**40**	**0**	**83**	**5**	**1**	**0**	**31**	**307**	**53**	**0**	**0**	**158**	**7**	**695**	2,791
5:00 PM	**2**	**3**	**11**	**58**	**0**	**59**	**3**	**2**	**1**	**27**	**316**	**76**	**0**	**0**	**186**	**6**	**750**	**2,837**
5:15 PM	0	8	7	36	0	49	8	0	0	19	299	80	0	0	170	8	684	2,829
5:30 PM	0	5	4	29	0	44	7	1	0	19	267	85	0	0	183	4	648	2,777
5:45 PM	0	3	8	24	0	38	4	1	0	12	252	62	0	0	142	10	556	2,638
Count Total	2	42	52	297	0	463	43	7	4	198	2,352	544	1	5	1,363	56	5,429	0
Peak Hour	**2**	**21**	**29**	**176**	**0**	**259**	**17**	**5**	**3**	**117**	**1,250**	**237**	**0**	**3**	**691**	**27**	**2,837**	**0**

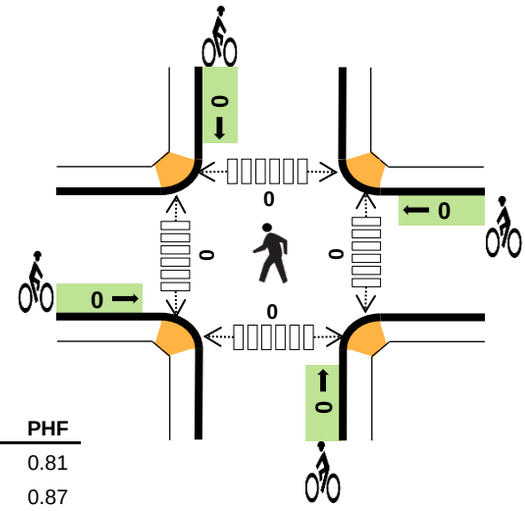
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	4	16	12	*32*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**3**	**11**	**12**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**1**	**20**	**12**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**1**	**14**	**5**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**3**	**4**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	1	2	10	6	*19*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	1	7	11	*21*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	2	3	7	*13*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	17	85	72	*180*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**8**	**49**	**36**	***95***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Marksheffel Rd
SH 94



Date: Tue, Jun 02, 2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	8.1%	0.81
WB	5.5%	0.87
NB	4.7%	0.82
SB	2.6%	0.87
TOTAL	4.6%	0.92

Two-Hour Count Summaries

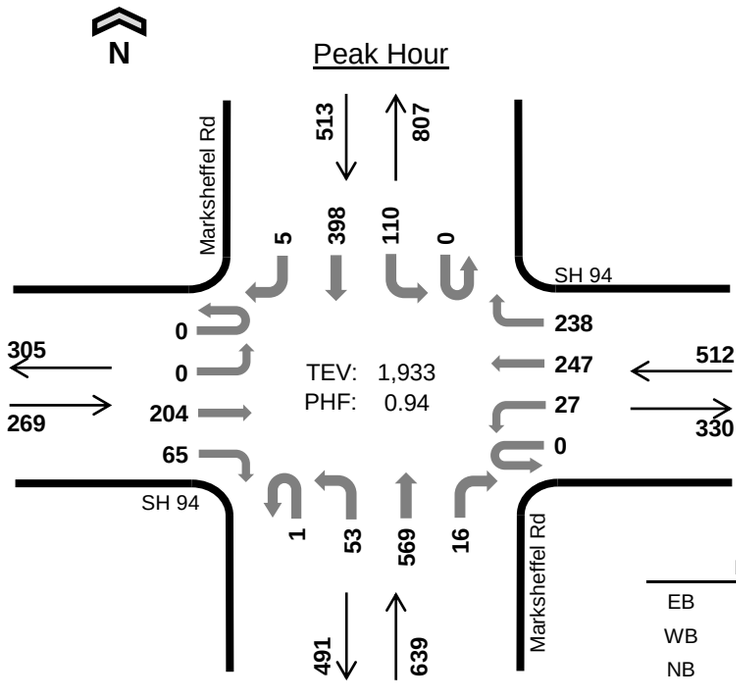
Interval Start	SH 94 Eastbound				SH 94 Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**57**	**8**	**0**	**2**	**73**	**22**	**0**	**11**	**71**	**7**	**0**	**79**	**110**	**0**	**440**	0
7:15 AM	**0**	**0**	**79**	**16**	**0**	**7**	**87**	**21**	**0**	**10**	**51**	**3**	**0**	**74**	**143**	**1**	**492**	0
7:30 AM	**0**	**0**	**61**	**21**	**0**	**8**	**69**	**13**	**0**	**24**	**76**	**4**	**0**	**67**	**133**	**1**	**477**	0
7:45 AM	**0**	**0**	**57**	**9**	**0**	**11**	**68**	**21**	**0**	**9**	**72**	**4**	**0**	**36**	**115**	**1**	**403**	**1,812**
8:00 AM	0	4	39	14	0	2	43	12	0	10	50	2	0	47	115	1	339	1,711
8:15 AM	0	0	61	11	0	2	49	21	0	8	59	2	0	32	89	0	334	1,553
8:30 AM	0	1	50	15	0	6	67	25	0	9	52	4	0	32	85	1	347	1,423
8:45 AM	0	0	36	14	0	4	44	17	0	14	49	1	0	21	85	2	287	1,307
Count Total	0	5	440	108	0	42	500	152	0	95	480	27	0	388	875	7	3,119	0
Peak Hour	**0**	**0**	**254**	**54**	**0**	**28**	**297**	**77**	**0**	**54**	**270**	**18**	**0**	**256**	**501**	**3**	**1,812**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

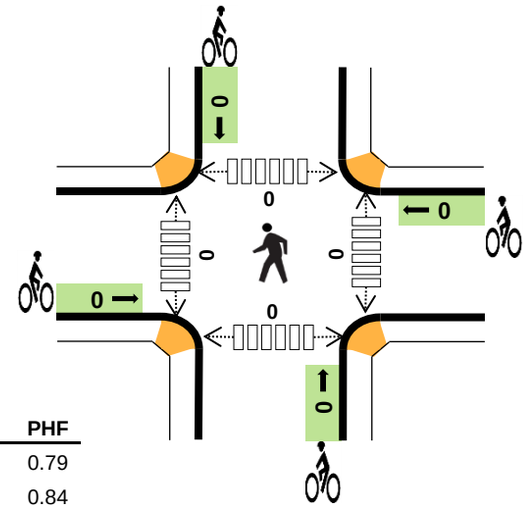
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**2**	**5**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**6**	**4**	**4**	**4**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**9**	**6**	**4**	**8**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**6**	**10**	**3**	**3**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	3	7	2	9	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	10	5	2	4	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	8	5	8	7	*28*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	8	6	1	5	*20*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	54	45	29	45	*173*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**25**	**22**	**16**	**20**	***83***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Marksheffel Rd
SH 94



Date: Tue, Jun 02, 2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	3.3%	0.79
WB	2.7%	0.84
NB	2.3%	0.92
SB	3.9%	0.97
TOTAL	3.0%	0.94

Two-Hour Count Summaries

Interval Start	SH 94 Eastbound				SH 94 Westbound				Marksheffel Rd Northbound				Marksheffel Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**58**	**27**	**0**	**7**	**63**	**49**	**0**	**14**	**140**	**2**	**0**	**24**	**94**	**1**	**479**	0
4:15 PM	**0**	**0**	**57**	**15**	**0**	**10**	**65**	**78**	**1**	**10**	**142**	**6**	**0**	**28**	**102**	**1**	**515**	0
4:30 PM	**0**	**0**	**42**	**13**	**0**	**6**	**47**	**62**	**0**	**12**	**159**	**2**	**0**	**25**	**105**	**1**	**474**	0
4:45 PM	**0**	**0**	**47**	**10**	**0**	**4**	**72**	**49**	**0**	**17**	**128**	**6**	**0**	**33**	**97**	**2**	**465**	**1,933**
5:00 PM	1	1	72	14	0	5	52	48	0	8	107	2	0	20	84	2	416	1,870
5:15 PM	1	0	73	13	0	5	37	44	0	18	112	3	0	29	110	0	445	1,800
5:30 PM	0	0	69	19	0	1	40	31	0	12	75	3	0	28	115	0	393	1,719
5:45 PM	0	0	47	21	0	0	32	31	0	7	122	2	0	28	110	0	400	1,654
Count Total	2	1	465	132	0	38	408	392	1	98	985	26	0	215	817	7	3,587	0
Peak Hour	**0**	**0**	**204**	**65**	**0**	**27**	**247**	**238**	**1**	**53**	**569**	**16**	**0**	**110**	**398**	**5**	**1,933**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**1**	**5**	**4**	**7**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**3**	**4**	**4**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**2**	**4**	**5**	**8**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**4**	**2**	**2**	**1**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	1	2	2	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	2	1	3	2	*8*	0	0	1	0	*1*	0	0	0	0	*0*
5:30 PM	3	0	2	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	1	3	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	16	18	25	31	*90*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hour	**9**	**14**	**15**	**20**	***58***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Traffic Data Resources

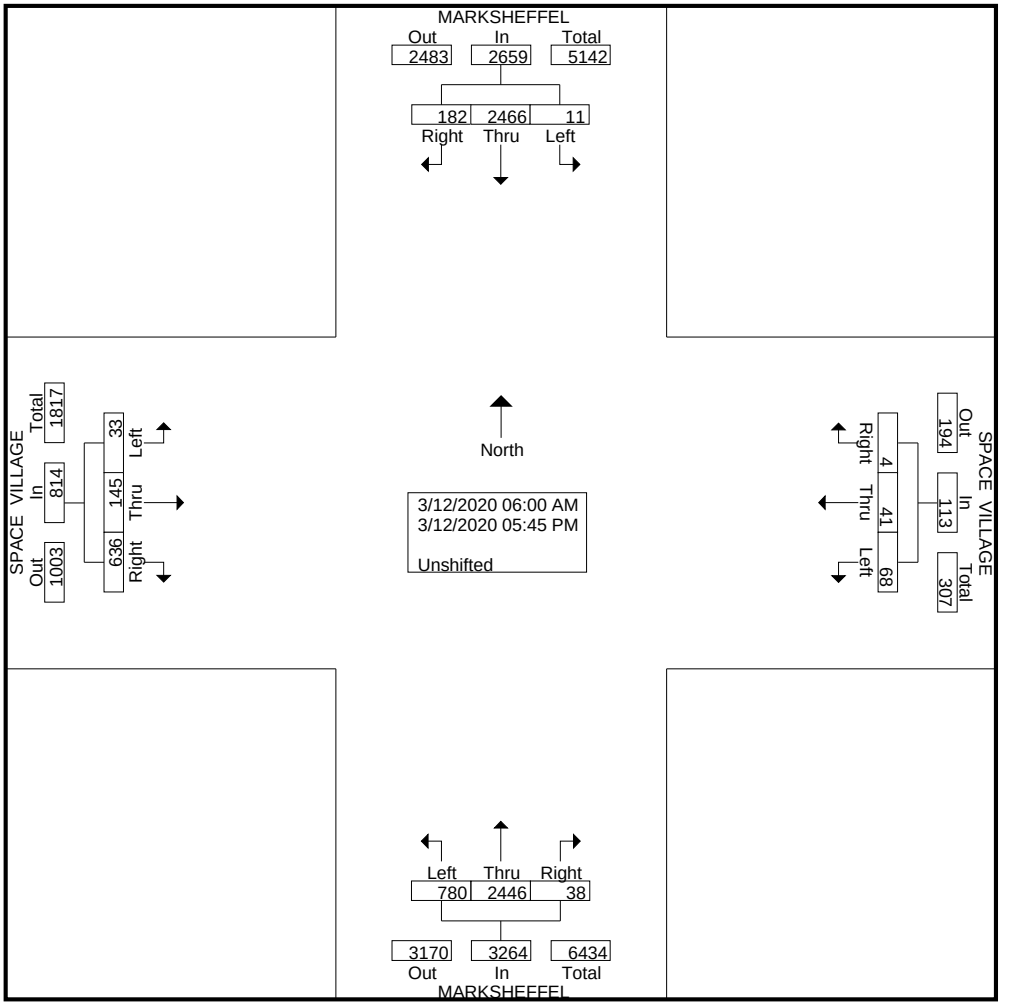
Location: Marksheffel @ Space Village
Turning Movement Count
Weather: Clear
Comments: Heavy truck traffic

File Name : MARKSHEFFEL @ SPACE VILLAGE-THUR-WSP-3-20
Site Code : 00000000
Start Date : 3/12/2020
Page No : 1

Groups Printed- Unshifted

	MARKSHEFFEL From North				SPACE VILLAGE From East				MARKSHEFFEL From South				SPACE VILLAGE From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
06:00 AM	1	84	0	85	0	0	7	7	0	47	20	67	23	5	1	29	188
06:15 AM	4	140	0	144	0	2	2	4	2	68	33	103	17	9	1	27	278
06:30 AM	4	157	0	161	0	2	0	2	1	92	40	133	19	13	2	34	330
06:45 AM	13	164	0	177	0	6	8	14	2	109	54	165	26	9	4	39	395
Total	22	545	0	567	0	10	17	27	5	316	147	468	85	36	8	129	1191
07:00 AM	18	196	6	220	1	1	3	5	6	121	51	178	35	19	2	56	459
07:15 AM	37	201	0	238	1	4	3	8	1	110	62	173	35	8	2	45	464
07:30 AM	33	235	1	269	0	3	1	4	4	124	83	211	23	9	2	34	518
07:45 AM	31	227	1	259	0	3	1	4	1	117	77	195	21	6	1	28	486
Total	119	859	8	986	2	11	8	21	12	472	273	757	114	42	7	163	1927
*** BREAK ***																	
04:00 PM	7	147	0	154	0	4	4	8	3	210	40	253	55	8	3	66	481
04:15 PM	8	149	0	157	0	3	7	10	5	263	46	314	46	8	2	56	537
04:30 PM	5	122	1	128	0	2	10	12	6	228	56	290	52	10	1	63	493
04:45 PM	3	132	0	135	1	3	9	13	1	213	46	260	62	6	4	72	480
Total	23	550	1	574	1	12	30	43	15	914	188	1117	215	32	10	257	1991
05:00 PM	7	127	0	134	0	2	4	6	5	213	55	273	65	7	1	73	486
05:15 PM	4	155	2	161	0	1	2	3	1	226	48	275	58	10	4	72	511
05:30 PM	5	119	0	124	1	2	6	9	0	153	38	191	53	12	1	66	390
05:45 PM	2	111	0	113	0	3	1	4	0	152	31	183	46	6	2	54	354
Total	18	512	2	532	1	8	13	22	6	744	172	922	222	35	8	265	1741
Grand Total	182	2466	11	2659	4	41	68	113	38	2446	780	3264	636	145	33	814	6850
Apprch %	6.8	92.7	0.4		3.5	36.3	60.2		1.2	74.9	23.9		78.1	17.8	4.1		
Total %	2.7	36	0.2	38.8	0.1	0.6	1	1.6	0.6	35.7	11.4	47.6	9.3	2.1	0.5	11.9	

File Name : MARKSHEFFEL @ SPACE VILLAGE-THUR-WSP-3-20
Site Code : 00000000
Start Date : 3/12/2020
Page No : 2



	MARKSHEFFEL From North				SPACE VILLAGE From East				MARKSHEFFEL From South				SPACE VILLAGE From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**8**	**149**	0	**157**	0	**3**	7	10	5	**263**	46	**314**	46	8	2	56	**537**
04:30 PM	5	122	**1**	128	0	2	**10**	12	**6**	228	**56**	290	52	**10**	1	63	493
04:45 PM	3	132	0	135	**1**	3	9	**13**	1	213	46	260	62	6	**4**	72	480
05:00 PM	7	127	0	134	0	2	4	6	5	213	55	273	**65**	7	1	**73**	486
Total Volume	23	530	1	554	1	10	30	41	17	917	203	1137	225	31	8	264	1996
% App. Total	4.2	95.7	0.2		2.4	24.4	73.2		1.5	80.7	17.9		85.2	11.7	3		
PHF	.719	.889	.250	.882	.250	.833	.750	.788	.708	.872	.906	.905	.865	.775	.500	.904	.929

APPENDIX B

CDOT Annual Traffic Data

2040 PPACOG Traffic Model

Station ID: 103943
Date: 7/11/2019
Route: 094A
Description: SH 94 E/O Marksheffel Rd, Colorado Springs

COUNTDIR	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
P	21	16	9	23	82	299	705	500	366	246	211	243	253	246	252	271	391	383	282	193	178	120	99	54
S	17	6	10	14	45	141	322	359	287	278	237	292	270	272	395	606	824	541	282	153	90	54	40	51

Marsheffel and SH 94			
Peak Hour Counts	528	95%	
	402	89%	
Percent Difference	92%		

Marsheffel and SH 94			
Peak Hour Counts	330	118%	
	512	161%	
Percent Difference	144%		

Station ID: 100851
Date: 2/20/2020
Route: 024G
Description: SH 24 NE/O SH 94, Colorado Springs

COUNTDIR	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
P	55	33	24	26	94	150	465	601	503	409	468	614	622	633	920	1088	1495	1289	704	712	452	268	159	82
S	36	17	38	95	301	818	1863	1716	1023	715	636	665	609	577	613	655	693	685	369	224	183	124	79	53

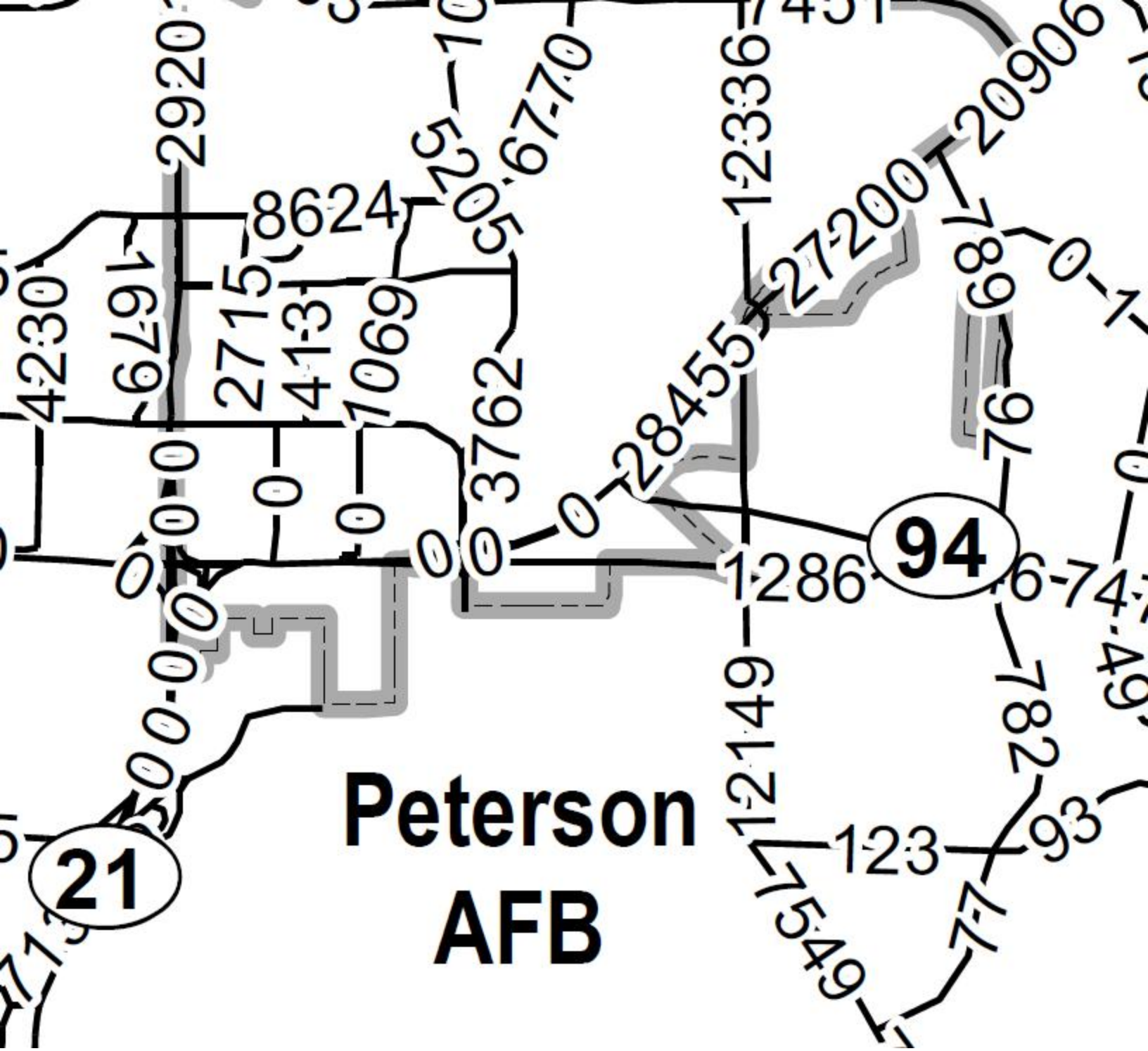
US 24 and SH 94			
Peak Hour Counts	604	100%	
	1315	130%	
Percent Difference	121%		
US 24 and Marksheffel			
Peak Hour Counts	609	99%	
	1344	128%	
Percent Difference	119%		

US 24 and SH 94			
Peak Hour Counts	1276	117%	
	721	96%	
Percent Difference	110%		
US 24 and Marksheffel			
Peak Hour Counts	1282	117%	
	749	93%	
Percent Difference	108%		

Reagan Ranch Traffic Projection

ROUTE	REFPT	ENDREFPT	LENGTH	YR20FACTOR	DHV	LOCATION
094A	0.548	1	0.47	1.33	13.5	ON SH 94 E/O MARKSHEFFEL RD COLORADO SPRINGS
094A	1	8.085	7.077	1.25	12.5	ON SH 94 E/O SPACE VILLAGE AVE CR 2804

Station ID	2018 AADT	2040 AADT	Growth Factor	Yearly Growth Rate
103943	10000	13630	1.33	1.30%
103944	11000	14025	1.25	1.02%
		Avg Growth Rate		1.16%



2040 PPACOG MODEL

APPENDIX C

Trip Generation Worksheets

Crossroads-Meadowbrook-Reagan Ranch Phase 1 Trip Generation Summary

Use	Quantity	Daily	Weekday Vehicle Trips					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Crossroads North								
Public Park (ITE 411)	20 Acres	16	0	0	0	1	1	2
Tire Superstore (ITE 849)	7,000 SF	144	6	3	9	7	8	15
Home Improvement Superstore (ITE 862)	127,000 SF	3,904	113	86	199	145	151	296
Furniture Store (ITE 890)	114,000 SF	720	21	9	30	28	31	59
Sit Down Restaurant (ITE 932)	11,000 SF	1,234	60	49	109	66	41	107
Fast-Food Restaurant (ITE 934)	2,500 SF	1,178	51	49	100	43	39	82
Gas Station Super Convenience (ITE 960)	6,000 SF	5,026	249	250	499	208	208	416
Total Crossroads North Trips		12,222	500	446	946	498	479	977
Crossroads North Trips after Internal Capture		**11,246**	**490**	**437**	**927**	**458**	**441**	**899**
Meadowbrook Park								
Single Family Housing (ITE 210)	67 Units	720	13	39	52	43	26	69
Meadowbrook Park Total Trips		**720**	**13**	**39**	**52**	**43**	**26**	**69**
Crossroads Mix Use								
Mid-Rise Multifamily Housing (ITE 221)	300 Units	1,634	26	74	100	77	50	127
Shopping Center (ITE 820)	10,000 SF	1,256	97	60	157	48	51	99
Sit Down Restaurant (ITE 932)	4,000 SF	450	22	18	40	24	15	39
Fast Food Restaurant (ITE 934)	11,000 SF	5,182	225	217	442	187	172	359
Coffee Shop (ITE 937)	2,500 SF	2,050	113	109	222	55	55	110
Total Crossroads Mix Use Trips		10,572	483	478	961	391	343	734
Crossroads Mix Use Trips after Internal Capture		**9,726**	**474**	**468**	**942**	**359**	**316**	**675**
Reagan Ranch Northwest Area								
Industrial Park (ITE 130)	220,000 SF	742	71	17	88	18	70	88
Reagan Ranch Northwest Area Total Trips		**742**	**71**	**17**	**88**	**18**	**70**	**88**
Reagan Ranch Northeast Area								
Single Family Housing (ITE 210)	125 Units	1,276	22	72	94	79	47	126
Shopping Center (ITE 820)	30,000 SF	2,652	104	63	167	107	116	223
Total Reagan Ranch Northeast Area Trips		3,928	126	135	261	186	163	349
Reagan Ranch NE Area Trips after Internal Capture		**3,614**	**124**	**132**	**256**	**171**	**150**	**321**
Reagan Ranch Southeast Area								
Single Family Housing (ITE 210)	255 Units	2,460	45	141	186	156	94	250
Mid-Rise Multifamily Housing (ITE 221)	360 Units	1,962	31	89	120	93	59	152
Shopping Center (ITE 820)	70,000 SF	4,718	116	71	187	200	217	417
Total Reagan Ranch Southeast Area Trips		9,140	192	301	493	449	370	819
Reagan Ranch SE Area Trips after Internal Capture		**8,410**	**188**	**295**	**483**	**413**	**340**	**753**
Total Site Generated Trips		**37,324**	**1,385**	**1,416**	**2,801**	**1,585**	**1,451**	**3,036**
Total Site External Trips after Internal Capture		**34,458**	**1,360**	**1,389**	**2,748**	**1,462**	**1,343**	**2,806**

Crossroads-Meadowbrook-Reagan Ranch Full Buildout Trip Generation Summary

Use	Quantity	Daily	Weekday Vehicle Trips					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Crossroads North								
Public Park (ITE 411)	20 Acres	16	0	0	0	1	1	2
Movie Theatre (ITE 444)	52,000 SF	4,062	5	6	11	302	19	321
Tire Superstore (ITE 849)	7,000 SF	144	6	3	9	7	8	15
Home Improvement Superstore (ITE 862)	127,000 SF	3,904	113	86	199	145	151	296
Furniture Store (ITE 890)	114,000 SF	720	21	9	30	28	31	59
Sit Down Restaurant (ITE 932)	11,000 SF	1,234	60	49	109	66	41	107
Fast-Food Restaurant (ITE 934)	5,000 SF	2,356	103	98	201	85	78	163
Gas Station Super Convenience (ITE 960)	6,000 SF	5,026	249	250	499	208	208	416
Total Crossroads North Trips		17,462	557	501	1,058	842	537	1,379
Crossroads North Trips after Internal Capture		**16,066**	**546**	**491**	**1,037**	**775**	**494**	**1,269**
Meadowbrook Park								
Single Family Housing (ITE 210)	67 Units	720	13	39	52	43	26	69
Meadowbrook Park Total Trips		**720**	**13**	**39**	**52**	**43**	**26**	**69**
Crossroads Mix Use								
Mid-Rise Multifamily Housing (ITE 221)	300 Units	1,634	26	74	100	77	50	127
Shopping Center (ITE 820)	10,000 SF	1,256	97	60	157	48	51	99
Pharmacy (ITE 881)	14,000 SF	1,528	29	25	54	72	72	144
Sit Down Restaurant (ITE 932)	8,000 SF	898	44	36	80	48	30	78
Fast Food Restaurant (ITE 934)	11,000 SF	5,182	225	217	442	187	172	359
Coffee Shop (ITE 937)	2,500 SF	2,050	113	109	222	55	55	110
Total Crossroads Mix Use Trips		12,548	534	521	1,055	487	430	917
Crossroads Mix Use Trips after Internal Capture		**11,544**	**523**	**511**	**1,034**	**448**	**396**	**844**
Reagan Ranch Northwest Area								
Industrial Park (ITE 130)	365,000 SF	1,232	118	28	146	31	115	146
Reagan Ranch Northwest Area Total Trips		**1,232**	**118**	**28**	**146**	**31**	**115**	**146**
Reagan Ranch Northeast Area								
Single Family Housing (ITE 210)	200 Units	1,968	37	110	147	125	73	198
Shopping Center (ITE 820)	175,000 SF	8,796	148	91	239	395	427	822
Total Reagan Ranch Northeast Area Trips		10,764	185	201	386	520	500	1,020
Reagan Ranch NE Area Trips after Internal Capture		**9,904**	**181**	**197**	**378**	**478**	**460**	**938**
Reagan Ranch Southeast Area								
Single Family Housing (ITE 210)	393 Units	3,662	71	213	284	238	140	378
Mid-Rise Multifamily Housing (ITE 221)	360 Units	1,962	31	89	120	93	59	152
Office (ITE 710)	100,000 SF	1,062	103	17	120	18	96	114
Shopping Center (ITE 820)	350,000 SF	14,092	203	124	327	659	714	1,373
Total Reagan Ranch Southeast Area Trips		20,778	408	443	851	1,008	1,009	2,017
Reagan Ranch SE Area Trips after Internal Capture		**19,116**	**400**	**434**	**834**	**928**	**928**	**1,856**
Total Site Generated Trips		**63,504**	**1,815**	**1,733**	**3,548**	**2,931**	**2,617**	**5,548**
Total Site External Trips after Internal Capture		**58,582**	**1,781**	**1,700**	**3,481**	**2,703**	**2,419**	**5,121**

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North - Phase 1)				
Subject	Trip Generation - Public Park				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - Public Park (411)
Independant Variable - Acres (X)

Acres 20
X = 20
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (400 Series Page 3)

(T) = 0.02 (X)
(T) = 0.02 * (20.0)

Directional Distribution: 59% ent. 41% exit.
T = 0 Average Vehicle Trip Ends
0 entering 0 exiting
0 + 0 = 0

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (400 Series Page 4)

(T) = 0.11 (X)
(T) = 0.11 * (20.0)

Directional Distribution: 55% ent. 45% exit.
T = 2 Average Vehicle Trip Ends
1 entering 1 exiting
1 + 1 = 2

Weekday (400 Series page 2)

Average Weekday
T = 0.78* (X)
T = 0.78 * 20

Directional Distribution: 50% entering, 50% exiting
T = 16 Average Vehicle Trip Ends
8 entering 8 exiting

8 + 8 = 16

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for Tire Superstore				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Tire Superstore (849)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 7,000 Square Feet
X = 7.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 262)

Directional Distribution: 65% ent. 35% exit.
T = 1.34 (X)
T = 1.34 * 7.000
T = 9 Average Vehicle Trip Ends
6 entering 3 exiting

6 + 3 = 9

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 263)

Directional Distribution: 47% ent. 53% exit.
T = 2.11 (X)
T = 2.11 * 7.000
T = 15 Average Vehicle Trip Ends
7 entering 8 exiting

7 + 8 = 15

Weekday (800 Series Page 261)

Average Weekday
T = 20.37 (X)
T = 20.37* 7.000
Directional Distribution: 50% entering, 50% exiting
T = 144 Average Vehicle Trip Ends
72 entering 72 exiting

72 + 72 = 144

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for Home Improvements Superstore				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Home Improvement Superstore (862)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 127,000 Square Feet
X = 127.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 437)

Directional Distribution: 57% ent. 43% exit.
T = 1.57 (X)
T = 1.57 * 127.000
T = 199 Average Vehicle Trip Ends
113 entering 86 exiting

113 (*) · 86 = 199

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 438)

Directional Distribution: 49% ent. 51% exit.
T = 2.33 (X)
T = 2.33 * 127.000
T = 296 Average Vehicle Trip Ends
145 entering 151 exiting

145 + 151 = 296

Weekday (800 Series Page 436)

Average Weekday
T = 30.74 (X)
T = 30.74* 127.000
Directional Distribution: 50% entering, 50% exiting
T = 3904 Average Vehicle Trip Ends
1952 entering 1952 exiting

1952 + 1952 = 3904

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for Furniture Store				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rates

Land Use Code - Furniture Store (890)

Independent Variable - 1000 Square Feet (X)
SF = 114,000
X = 114.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 585)

Directional Distribution: 71% ent. 29% exit.
(T) = 0.26 (X) T = 30 Average Vehicle Trip Ends
(T) = 0.26 * (114.0) 21 entering 9 exiting

21 + 9 = 30

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 586)

Directional Distribution: 47% ent. 53% exit.
(T) = 0.52 (X) T = 59 Average Vehicle Trip Ends
(T) = 0.52 * (114.0) 28 entering 31 exiting

28 + 31 = 59

Weekday (800 Series Page 584)

Average Weekday Directional Distribution: 50% ent. 50% exit.
(T) = 6.30 (X) T = 720 Average Vehicle Trip Ends
(T) = 6.30 * (114.0) 360 entering 360 exiting

360 + 360 = 720

Saturday, Peak Hour of Generator (800 Series Page 590)

Daily Weekday Directional Distribution: 54% ent. 46% exit.
(T) = 1.10 (X) T = 125 Average Vehicle Trip Ends
(T) = 1.10 * (114.0) 68 entering 58 exiting

68 + 57 = 125

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for High-Turnover (Sit-Down) Restaurant				
Designed by	TES	*Date*	June 24, 2020	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - High Turnover Sit-Down Restaurant (932)
Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 11,000 Square Feet
X = 11.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 97)

Average Weekday — Directional Distribution: 55% ent. 45% exit.
T = 9.94 (X) — T = 109 Average Vehicle Trip Ends
T = 9.94 * 11.000 — 60 entering 49 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 98)

Average Weekday — Directional Distribution: 62% ent. 38% exit.
T = 9.77 (X) — T = 107 Average Vehicle Trip Ends
T = 9.77 * 11.000 — 66 entering 41 exiting

Weekday (900 Series Page 96)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 112.18 (X) — T = 1234 Average Vehicle Trip Ends
T = 112.18 * 11.000 — 617 entering 617 exiting

P.M. Peak Hour of Generator (900 Series Page 100)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 17.41 (X) — T = 192 Average Vehicle Trip Ends
T = 17.41 * 11.000 — 100 entering 92 exiting

Saturday Peak Hour of Generator (900 Series Page 105

Average Saturday — Directional Distribution: 51% ent. 49% exit.
T = 11.19 (X) — T = 124 Average Vehicle Trip Ends
T = 11.19 * 11.000 — 63 entering 61 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 207)

AM Peak Hour = 57% Non-Pass By — PM Peak Hour = 57% Non-Pass By

	IN	Out	Total
AM Peak	34	28	62
PM Peak	38	23	61
Daily	352	352	704

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 207)

AM Peak Hour = 43% Pass By — PM Peak Hour = 43% Pass By

	IN	Out	Total
AM Peak	26	21	48
PM Peak	28	18	46
Daily	265	265	530

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for Fast-Food Restaurant with Drive-Through Window				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Fast Food Restaurant With Drive-Through Window (934)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 2,500 Square Feet
X = 2.500
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series page 158)

Average Weekday — Directional Distribution: 51% ent. 49% exit.
T = 40.19 (X) — T = 100 Average Vehicle Trip Ends
T = 40.19 * 2.500 — 51 entering 49 exiting

51 + 49 = 100

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 159)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 32.67 (X) — T = 82 Average Vehicle Trip Ends
T = 32.67 * 2.500 — 43 entering 39 exiting

43 + 39 (*) = 82

Weekday (900 Series page 157)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 470.95 (X) — T = 1178 Average Vehicle Trip Ends
T = 470.95 * 2.500 — 589 entering 589 exiting

589 + 589 = 1178

Saturday Peak Hour of Generator (900 Series page 163)

Directional Distribution: 51% ent. 49% exit.
T = 54.86 (X) — T = 137 Average Vehicle Trip Ends
T = 54.86 * 2.500 — 70 entering 67 exiting

70 + 67 = 137

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 51% Non-Pass By — PM Peak Hour = 50% Non-Pass By

	IN	Out	Total	
AM Peak	26	25	51	
PM Peak	22	20	41	
Daily	295	295	590	PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 49% Pass By — PM Peak Hour = 50% Pass By

	IN	Out	Total	
AM Peak	25	24	49	
PM Peak	22	20	41	
Daily	294	294	588	PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North Phase 1)				
Subject	Trip Generation for Super Convenience Market/Gas Station				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Super Convenience Market/Gas Station (960)

Independant Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = 6,000 Square Feet
X = 6.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 404)

T = 83.14 (X)
T = 83.14 * 6.000

Directional Distribution: 50% ent. 50% exit.
T = 499 Average Vehicle Trip Ends
249 entering 250 exiting

249 + 250 = 499

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 405)

T = 69.28 (X)
T = 69.28 * 6.000

Directional Distribution: 50% ent. 50% exit.
T = 416 Average Vehicle Trip Ends
208 entering 208 exiting

208 + 208 = 416

Weekday (800 Series page 335)

Average Weekday
T = 837.58 (X)
T = 837.58 * 6.000

Directional Distribution: 50% entering, 50% exiting
T = 5026 Average Vehicle Trip Ends
2513 entering 2513 exiting

2513 + 2513 = 5026

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

PM Peak Hour = 44% Non-Pass By
AM Peak Hour = 38% Non-Pass By
* Utilized ITE 945 pass-by calculations

	IN	Out	Total
AM Peak	95	95	190
PM Peak	92	92	183
Daily	1106	1106	2212

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

PM Peak Hour = 56% Pass By
AM Peak Hour = 62% Pass By

	IN	Out	Total
AM Peak	154	155	309
PM Peak	116	116	233
Daily	1407	1407	2814

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadwobrook-Reagan Ranch (Meadowbrook Park Phase 1)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 67
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (67) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 52 Average Vehicle Trip Ends
13 entering 39 exiting

13 + 39 = 52

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(67) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 69 Average Vehicle Trip Ends
43 entering 26 exiting

43 + 26 = 69

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (67) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 74 Average Vehicle Trip Ends
40 entering 34 exiting

40 + 34 = 74

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(67) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 720 Average Vehicle Trip Ends
360 entering 360 exiting

360 + 360 = 720

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use Phase 1)				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 300
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(300.0) - 0.98

Directional Distribution: 26% ent. 74% exit.
T = 100 Average Vehicle Trip Ends
26 entering 74 exiting

26 + 74 = 100

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(300.0) - 0.63

Directional Distribution: 61% ent. 39% exit.
T = 127 Average Vehicle Trip Ends
77 entering 50 exiting

77 + 50 = 127

Weekday (Series 200 Page 73)

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 300 - 1.75

Directional Distribution: 50% ent. 50% exit.
T = 1634 Average Vehicle Trip Ends
817 entering 817 exiting

817 + 817 = 1634

Peak Hour of Generator, Saturday (Series 200 Page 79)

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 300 + 6.73

Directional Distribution: 49% ent. 51% exit.
T = 133 Average Vehicle Trip Ends
65 entering 68 exiting

65 + 68 = 133

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use Phase 1)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)
Gross Leasable Area = 10,000 Square Feet
X = 10.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.
T = 0.50 * (X) + 151.78
T = 157 Average Vehicle Trip Ends
T = 0.50 * 10 + 151.78
97 entering 60 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.
Ln(T) = 0.74 Ln(X) + 2.89
T = 99 Average Vehicle Trip Ends
Ln(T) = 0.74 * Ln(10) + 2.89
48 entering 51 exiting

Weekday (800 Series Page 138)

Daily Weekday
Directional Distribution: 50% entering, 50% exiting
Ln(T) = 0.68 Ln(X) + 5.57
T = 1256 Average Vehicle Trip Ends
Ln(T) = 0.68 * Ln(10) + 5.57
628 entering 628 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday
Directional Distribution: 52% ent. 48% exit.
Ln(T) = 0..79 Ln(X) + 2.79
T = 100 Average Vehicle Trip Ends
Ln(T) = 0.79 * Ln(10) + 2.79
52 entering 48 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	64	39	103
PM Peak	32	34	65
Daily	414	414	828

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	33	20	54
PM Peak	16	17	34
Daily	214	214	428

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use Phase 1)				
Subject	Trip Generation for High-Turnover (Sit-Down) Restaurant				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - High Turnover Sit-Down Restaurant (932)
Independant Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = 4,000 Square Feet
X = 4.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 97)

Average Weekday — Directional Distribution: 55% ent. 45% exit.
T = 9.94 (X) — T = 40 Average Vehicle Trip Ends
T = 9.94 * 4.000 — 22 entering 18 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 98)

Average Weekday — Directional Distribution: 62% ent. 38% exit.
T = 9.77 (X) — T = 39 Average Vehicle Trip Ends
T = 9.77 * 4.000 — 24 entering 15 exiting

Weekday (900 Series Page 96)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 112.18 (X) — T = 450 Average Vehicle Trip Ends
T = 112.18 * 4.000 — 225 entering 225 exiting

P.M. Peak Hour of Generator (900 Series Page 100)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 17.41 (X) — T = 70 Average Vehicle Trip Ends
T = 17.41 * 4.000 — 36 entering 34 exiting

Saturday Peak Hour of Generator (900 Series Page 105

Average Saturday — Directional Distribution: 51% ent. 49% exit.
T = 11.19 (X) — T = 46 Average Vehicle Trip Ends
T = 11.19 * 4.000 — 23 entering 23 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 207)

AM Peak Hour = 57% Non-Pass By — PM Peak Hour = 57% Non-Pass By

	IN	Out	Total
AM Peak	12	10	23
PM Peak	14	8	22
Daily	128	128	256

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 207)

AM Peak Hour = 43% Pass By — PM Peak Hour = 43% Pass By

	IN	Out	Total
AM Peak	9	8	18
PM Peak	10	6	17
Daily	97	97	194

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use Phase 1)				
Subject	Trip Generation for Fast-Food Restaurant with Drive-Through Window				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Fast Food Restaurant With Drive-Through Window (934)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 11,000 Square Feet
X = 11.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series page 158)

Average Weekday — Directional Distribution: 51% ent. 49% exit.
T = 40.19 (X) — T = 442 Average Vehicle Trip Ends
T = 40.19 * 11.000 — 225 entering 217 exiting

225 + 217 = 442

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 159)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 32.67 (X) — T = 359 Average Vehicle Trip Ends
T = 32.67 * 11.000 — 187 entering 172 exiting

187 + 172 = 359

Weekday (900 Series page 157)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 470.95 (X) — T = 5182 Average Vehicle Trip Ends
T = 470.95 * 11.000 — 2591 entering 2591 exiting

2591 + 2591 = 5182

Saturday Peak Hour of Generator (900 Series page 163)

Directional Distribution: 51% ent. 49% exit.
T = 54.86 (X) — T = 603 Average Vehicle Trip Ends
T = 54.86 * 11.000 — 308 entering 295 exiting

308 (*) 295 = 603

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 51% Non-Pass By — PM Peak Hour = 50% Non-Pass By

	IN	Out	Total	
AM Peak	115	111	225	
PM Peak	94	86	180	
Daily	1296	1296	2592	PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 49% Pass By — PM Peak Hour = 50% Pass By

	IN	Out	Total	
AM Peak	110	106	217	
PM Peak	94	86	180	
Daily	1295	1295	2590	PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use Phase 1)				
Subject	Trip Generation for Coffee/Donut Shop with Drive Through				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Coffee/Donut Shop with Drive Through (937)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 2,500
X = 2.5
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 900 Page 232)

Directional Distribution: 51% ent. 49% exit.
T = 88.99 (X)
T = 88.99 * 2.5
T = 222 Average Vehicle Trip Ends
113 entering 109 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 900 Page 233)

Directional Distribution: 50% ent. 50% exit.
T = 43.38 (X)
T = 43.38 * 2.5
T = 110 Average Vehicle Trip Ends
55 entering 55 exiting

Weekday (Series 900 Page 231)

Average Weekday
(T) = 820.38 (X)
(T) = 820.38 * (2.5)
Directional Distribution: 50% entering, 50% exiting
T = 2050 Average Vehicle Trip Ends
1025 entering 1025 exiting

1025 + 1025 = 2050

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NW Parcel Phase 1)				
Subject	Trip Generation for Industrial Park				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Industrial Park (130)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 220,000
X = 220.0
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 22)

Directional Distribution: 81% ent. 19% exit.
T = 0.40 (X) T = 88 Average Vehicle Trip Ends
T = 0.40 * 220 71 entering 17 exiting

71 + 17 = 88

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 23)

Directional Distribution: 21% ent. 79% exit.
T = 0.40 (X) T = 88 Average Vehicle Trip Ends
T = 0.40 * 220 18 entering 70 exiting

18 + 70 = 88

Weekday (100 Series Page 21)

Directional Distribution: 50% entering, 50% exiting
T = 3.37 (X) T = 742 Average Vehicle Trip Ends
T = 3.37 * 220 371 entering 371 exiting

371 + 371 = 742

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NE Parcel Phase 1)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 125
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (125) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 94 Average Vehicle Trip Ends
22 entering 71 exiting

22 + 72 = 94

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(125) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 126 Average Vehicle Trip Ends
79 entering 47 exiting

79 + 47 = 126

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (125) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 123 Average Vehicle Trip Ends
66 entering 57 exiting

66 + 57 = 123

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(125) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 1276 Average Vehicle Trip Ends
638 entering 638 exiting

638 + 638 = 1276

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NE Parcel Phase 1)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)
Gross Leasable Area = 30,000 Square Feet
X = 30.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.
T = 0.50 * (X) + 151.78
T = 0.50 * 30 + 151.78
T = 167 Average Vehicle Trip Ends
104 entering 63 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.
Ln(T) = 0.74 Ln(X) + 2.89
Ln(T) = 0.74 * Ln(30) + 2.89
T = 223 Average Vehicle Trip Ends
107 entering 116 exiting

Weekday (800 Series Page 138)

Daily Weekday
Directional Distribution: 50% entering, 50% exiting
Ln(T) = 0.68 Ln(X) + 5.57
Ln(T) = 0.68 * Ln(30) + 5.57
T = 2652 Average Vehicle Trip Ends
1326 entering 1326 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday
Directional Distribution: 52% ent. 48% exit.
Ln(T) = 0..79 Ln(X) + 2.79
Ln(T) = 0.79 * Ln(30) + 2.79
T = 239 Average Vehicle Trip Ends
124 entering 115 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	69	42	110
PM Peak	71	77	147
Daily	875	875	1750

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	35	21	57
PM Peak	36	39	76
Daily	451	451	902

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel Phase 1)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 255
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (255) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 186 Average Vehicle Trip Ends
45 entering 140 exiting

45 + 141 = 186

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(255) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 250 Average Vehicle Trip Ends
156 entering 93 exiting

156 + 94 = 250

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (255) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 232 Average Vehicle Trip Ends
125 entering 107 exiting

125 + 107 = 232

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(255) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 2460 Average Vehicle Trip Ends
1230 entering 1230 exiting

1230 + 1230 = 2460

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel Phase 1)				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 360
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(360.0) - 0.98

Directional Distribution: 26% ent. 74% exit.
T = 120 Average Vehicle Trip Ends
31 entering 89 exiting

31 + 89 = 120

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(360.0) - 0.63

Directional Distribution: 61% ent. 39% exit.
T = 152 Average Vehicle Trip Ends
93 entering 59 exiting

93 + 59 = 152

Weekday (Series 200 Page 73)

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 360 - 1.75

Directional Distribution: 50% ent. 50% exit.
T = 1962 Average Vehicle Trip Ends
981 entering 981 exiting

981 + 981 = 1962

Peak Hour of Generator, Saturday (Series 200 Page 79)

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 360 + 6.73

Directional Distribution: 49% ent. 51% exit.
T = 158 Average Vehicle Trip Ends
77 entering 81 exiting

77 + 81 = 158

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel Phase 1)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = 70,000 Square Feet
X = 70.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.

T = 0.50 * (X) + 151.78
T = 0.50 * 70 + 151.78
T = 187 Average Vehicle Trip Ends
116 entering 71 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.

Ln(T) = 0.74 Ln(X) + 2.89
Ln(T) = 0.74 * Ln(70) + 2.89
T = 417 Average Vehicle Trip Ends
200 entering 217 exiting

Weekday (800 Series Page 138)

Daily Weekday
Ln(T) = 0.68 Ln(X) + 5.57
Ln(T) = 0.68 * Ln(70) + 5.57
Directional Distribution: 50% entering, 50% exiting
T = 4718 Average Vehicle Trip Ends
2359 entering 2359 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday
Ln(T) = 0..79 Ln(X) + 2.79
Ln(T) = 0.79 * Ln(70) + 2.79
Directional Distribution: 52% ent. 48% exit.
T = 467 Average Vehicle Trip Ends
243 entering 224 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	76	47	123
PM Peak	132	143	275
Daily	1557	1557	3114

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	39	24	64
PM Peak	68	74	142
Daily	802	802	1604

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation - Public Park				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

P

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - Public Park (411)
Independant Variable - Acres (X)

Acres 20
X = 20
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (400 Series Page 3)

Directional Distribution: 59% ent. 41% exit.
(T) = 0.02 (X) T = 0 Average Vehicle Trip Ends
(T) = 0.02 * (20.0) 0 entering 0 exiting
0 + 0 = 0

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (400 Series Page 4)

Directional Distribution: 55% ent. 45% exit.
(T) = 0.11 (X) T = 2 Average Vehicle Trip Ends
(T) = 0.11 * (20.0) 1 entering 1 exiting
1 + 1 = 2

Weekday (400 Series page 2)

Average Weekday Directional Distribution: 50% entering, 50% exiting
T = 0.78* (X) T = 16 Average Vehicle Trip Ends
T = 0.78 * 20 8 entering 8 exiting

8 + 8 = 16

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Movie Theater				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Movie Theater (444)

Independent Variable - Gross Floor Area

Gross Floor Area = 52,000 Square Feet
X = 52.0
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (400 Series Page 111)

Directional Distribution: 50% ent. 50% exit.

T = 0.22 (X)
T = 0.22 * 52

T = 11 Average Vehicle Trip Ends
5 entering 6 exiting

5 (*) - 6 = 11

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (400 Series Page 112)

Directional Distribution: 94% ent. 6% exit.

T = 6.17 (X)
T = 6.17 * 52

T = 321 Average Vehicle Trip Ends
302 entering 19 exiting

302 + 19 = 321

Weekday (400 Series Page 110)

Average Weekday
T = 78.09 (X)
T = 78.09* 52

Directional Distribution: 50% entering, 50% exiting
T = 4062 Average Vehicle Trip Ends
2031 entering 2031 exiting

2031 + 2031 = 4062

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Tire Superstore				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Tire Superstore (849)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 7,000 Square Feet
X = 7.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 262)

Directional Distribution: 65% ent. 35% exit.
T = 1.34 (X)
T = 1.34 * 7.000
T = 9 Average Vehicle Trip Ends
6 entering 3 exiting

6 + 3 = 9

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 263)

Directional Distribution: 47% ent. 53% exit.
T = 2.11 (X)
T = 2.11 * 7.000
T = 15 Average Vehicle Trip Ends
7 entering 8 exiting

7 + 8 = 15

Weekday (800 Series Page 261)

Average Weekday
T = 20.37 (X)
T = 20.37* 7.000
Directional Distribution: 50% entering, 50% exiting
T = 144 Average Vehicle Trip Ends
72 entering 72 exiting

72 + 72 = 144

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Home Improvements Superstore				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Home Improvement Superstore (862)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 127,000 Square Feet
X = 127.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 437)

Directional Distribution: 57% ent. 43% exit.
T = 1.57 (X)
T = 1.57 * 127.000
T = 199 Average Vehicle Trip Ends
113 entering 86 exiting

113 (*) · 86 = 199

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 438)

Directional Distribution: 49% ent. 51% exit.
T = 2.33 (X)
T = 2.33 * 127.000
T = 296 Average Vehicle Trip Ends
145 entering 151 exiting

145 + 151 = 296

Weekday (800 Series Page 436)

Average Weekday
T = 30.74 (X)
T = 30.74* 127.000
Directional Distribution: 50% entering, 50% exiting
T = 3904 Average Vehicle Trip Ends
1952 entering 1952 exiting

1952 + 1952 = 3904

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Furniture Store				
Designed by	JRP	*Date* ###	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rates

Land Use Code - Furniture Store (890)

Independent Variable - 1000 Square Feet (X)
SF = 114,000
X = 114.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 585)

Directional Distribution: 71% ent. 29% exit.
(T) = 0.26 (X) T = 30 Average Vehicle Trip Ends
(T) = 0.26 * (114.0) 21 entering 9 exiting

21 + 9 = 30

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 586)

Directional Distribution: 47% ent. 53% exit.
(T) = 0.52 (X) T = 59 Average Vehicle Trip Ends
(T) = 0.52 * (114.0) 28 entering 31 exiting

28 + 31 = 59

Weekday (800 Series Page 584)

Average Weekday Directional Distribution: 50% ent. 50% exit.
(T) = 6.30 (X) T = 720 Average Vehicle Trip Ends
(T) = 6.30 * (114.0) 360 entering 360 exiting

360 + 360 = 720

Saturday, Peak Hour of Generator (800 Series Page 590)

Daily Weekday Directional Distribution: 54% ent. 46% exit.
(T) = 1.10 (X) T = 125 Average Vehicle Trip Ends
(T) = 1.10 * (114.0) 68 entering 58 exiting

68 + 57 = 125

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for High-Turnover (Sit-Down) Restaurant				
Designed by	TES	*Date*	June 24, 2020	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - High Turnover Sit-Down Restaurant (932)
Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 11,000 Square Feet
X = 11.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 97)

Average Weekday — Directional Distribution: 55% ent. 45% exit.
T = 9.94 (X) — T = 109 Average Vehicle Trip Ends
T = 9.94 * 11.000 — 60 entering 49 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 98)

Average Weekday — Directional Distribution: 62% ent. 38% exit.
T = 9.77 (X) — T = 107 Average Vehicle Trip Ends
T = 9.77 * 11.000 — 66 entering 41 exiting

Weekday (900 Series Page 96)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 112.18 (X) — T = 1234 Average Vehicle Trip Ends
T = 112.18 * 11.000 — 617 entering 617 exiting

P.M. Peak Hour of Generator (900 Series Page 100)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 17.41 (X) — T = 192 Average Vehicle Trip Ends
T = 17.41 * 11.000 — 100 entering 92 exiting

Saturday Peak Hour of Generator (900 Series Page 105

Average Saturday — Directional Distribution: 51% ent. 49% exit.
T = 11.19 (X) — T = 124 Average Vehicle Trip Ends
T = 11.19 * 11.000 — 63 entering 61 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 207)

AM Peak Hour = 57% Non-Pass By — PM Peak Hour = 57% Non-Pass By

	IN	Out	Total
AM Peak	34	28	62
PM Peak	38	23	61
Daily	352	352	704

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 207)

AM Peak Hour = 43% Pass By — PM Peak Hour = 43% Pass By

	IN	Out	Total
AM Peak	26	21	48
PM Peak	28	18	46
Daily	265	265	530

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Fast-Food Restaurant with Drive-Through Window				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Fast Food Restaurant With Drive-Through Window (934)

Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 5,000 Square Feet
X = 5.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series page 158)

Average Weekday — Directional Distribution: 51% ent. 49% exit.
T = 40.19 (X) — T = 201 Average Vehicle Trip Ends
T = 40.19 * 5.000 — 103 entering 98 exiting

103 + 98 (*) = 201

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 159)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 32.67 (X) — T = 163 Average Vehicle Trip Ends
T = 32.67 * 5.000 — 85 entering 78 exiting

85 + 78 = 163

Weekday (900 Series page 157)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 470.95 (X) — T = 2356 Average Vehicle Trip Ends
T = 470.95 * 5.000 — 1178 entering 1178 exiting

1178 + 1178 = 2356

Saturday Peak Hour of Generator (900 Series page 163)

Directional Distribution: 51% ent. 49% exit.
T = 54.86 (X) — T = 274 Average Vehicle Trip Ends
T = 54.86 * 5.000 — 140 entering 134 exiting

140 + 134 = 274

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 51% Non-Pass By — PM Peak Hour = 50% Non-Pass By

	IN	Out	Total
AM Peak	53	50	103
PM Peak	43	39	82
Daily	589	589	1178

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 49% Pass By — PM Peak Hour = 50% Pass By

	IN	Out	Total
AM Peak	50	48	98
PM Peak	43	39	82
Daily	589	589	1178

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads North)				
Subject	Trip Generation for Super Convenience Market/Gas Station				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Super Convenience Market/Gas Station (960)

Independant Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = 6,000 Square Feet
X = 6.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 404)

T = 83.14 (X)
T = 83.14 * 6.000

Directional Distribution: 50% ent. 50% exit.
T = 499 Average Vehicle Trip Ends
249 entering 250 exiting

249 + 250 = 499

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 405)

T = 69.28 (X)
T = 69.28 * 6.000

Directional Distribution: 50% ent. 50% exit.
T = 416 Average Vehicle Trip Ends
208 entering 208 exiting

208 + 208 = 416

Weekday (800 Series page 335)

Average Weekday
T = 837.58 (X)
T = 837.58 * 6.000

Directional Distribution: 50% entering, 50% exiting
T = 5026 Average Vehicle Trip Ends
2513 entering 2513 exiting

2513 + 2513 = 5026

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

PM Peak Hour = 44% Non-Pass By
AM Peak Hour = 38% Non-Pass By
* Utilized ITE 945 pass-by calculations

	IN	Out	Total
AM Peak	95	95	190
PM Peak	92	92	183
Daily	1106	1106	2212

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

PM Peak Hour = 56% Pass By
AM Peak Hour = 62% Pass By

	IN	Out	Total
AM Peak	154	155	309
PM Peak	116	116	233
Daily	1407	1407	2814

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadwobrook-Reagan Ranch (Meadowbrook Park)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 67
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (67) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 52 Average Vehicle Trip Ends
13 entering 39 exiting

13 + 39 = 52

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(67) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 69 Average Vehicle Trip Ends
43 entering 26 exiting

43 + 26 = 69

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (67) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 74 Average Vehicle Trip Ends
40 entering 34 exiting

40 + 34 = 74

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(67) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 720 Average Vehicle Trip Ends
360 entering 360 exiting

360 + 360 = 720

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 300
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Directional Distribution: 26% ent. 74% exit.

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(300.0) - 0.98

T = 100 Average Vehicle Trip Ends
26 entering 74 exiting

26 + 74 = 100

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Directional Distribution: 61% ent. 39% exit.

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(300.0) - 0.63

T = 127 Average Vehicle Trip Ends
77 entering 50 exiting

77 + 50 = 127

Weekday (Series 200 Page 73)

Directional Distribution: 50% ent. 50% exit.

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 300 - 1.75

T = 1634 Average Vehicle Trip Ends
817 entering 817 exiting

817 + 817 = 1634

Peak Hour of Generator, Saturday (Series 200 Page 79)

Directional Distribution: 49% ent. 51% exit.

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 300 + 6.73

T = 133 Average Vehicle Trip Ends
65 entering 68 exiting

65 + 68 = 133

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = 10,000 Square Feet
X = 10.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.

T = 0.50 * (X) + 151.78
T = 0.50 * 10 + 151.78

T = 157 Average Vehicle Trip Ends
97 entering 60 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.

Ln(T) = 0.74 Ln(X) + 2.89
Ln(T) = 0.74 * Ln(10) + 2.89

T = 99 Average Vehicle Trip Ends
48 entering 51 exiting

Weekday (800 Series Page 138)

Daily Weekday

Directional Distribution: 50% entering, 50% exiting

Ln(T) = 0.68 Ln(X) + 5.57
Ln(T) = 0.68 * Ln(10) + 5.57

T = 1256 Average Vehicle Trip Ends
628 entering 628 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday

Directional Distribution: 52% ent. 48% exit.

Ln(T) = 0..79 Ln(X) + 2.79
Ln(T) = 0.79 * Ln(10) + 2.79

T = 100 Average Vehicle Trip Ends
52 entering 48 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	64	39	103
PM Peak	32	34	65
Daily	414	414	828

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	33	20	54
PM Peak	16	17	34
Daily	214	214	428

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for Pharmacy/Drugstore with Drive-Through Window				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by				*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Pharmacy/Drugstore with Drive-Through Window (881)

Independant Variable - 1000 Sq. Feet Gross Floor Area (X)
SF= 14000
X = 14.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (page Series 800 Page 562)

Average Weekday
T = 3.84 (X)
(T) = 3.84* (14.0)

Directional Distribution: 53% ent. 47% exit.
T = 54 Average Vehicle Trip Ends
29 entering 25 exiting

29 + 25 = 54

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 800 page 563)

Average Weekday
T = 10.29 (X)
(T) = 10.29 * (14.0)

Directional Distribution: 50% ent. 50% exit.
T = 144 Average Vehicle Trip Ends
72 entering 72 exiting

72 + 72 = 144

Weekday (Series 800 page 561)

Average Weekday
T = 109.16 (X)
(T) = 109.16 * (14.0)

Directional Distribution: 50% entering, 50% exiting
T = 1528 Average Vehicle Trip Ends
764 entering 764 exiting

764 + 764 = 1528

Saturday Peak Hour of Generator (page 1807)

Directional Distribution: 49% ent. 51% exit.
T = 115 Average Vehicle Trip Ends
T = 8.20 (X)
(T) = 8.20 * (14.0)
56 entering 59 exiting

56 + 59 = 115

Non-Pass-by Trip Volumes (page 63, ITE Trip Generation Handbook, December 2012)

PM Average Pass By Percentage: 51% Pass By

	IN	Out	Total	
AM Peak	15	13	28	PM Rate Applied to AM Peak
PM Peak	37	37	73	
Daily	390	390	780	PM Rate Applied to Daily
Saturday	29	30	59	PM Rate Applied to Saturday

Pass-by Trip Volumes (page 63, ITE Trip Generation Handbook, December 2012)

PM Average Pass By Percentage: 49% Pass By

	IN	Out	Total	
AM Peak	14	12	26	PM Rate Applied to AM Peak
PM Peak	35	35	71	
Daily	374	374	750	PM Rate Applied to Daily
Saturday	27	29	56	PM Rate Applied to Saturday

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for High-Turnover (Sit-Down) Restaurant				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	_____ *of* _____

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations
Land Use Code - High Turnover Sit-Down Restaurant (932)
Independant Variable - 1000 Square Feet Gross Floor Area (X)
Gross Floor Area = 8,000 Square Feet
X = 8.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 97)

Average Weekday — Directional Distribution: 55% ent. 45% exit.
T = 9.94 (X) — T = 80 Average Vehicle Trip Ends
T = 9.94 * 8.000 — 44 entering 36 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 98)

Average Weekday — Directional Distribution: 62% ent. 38% exit.
T = 9.77 (X) — T = 78 Average Vehicle Trip Ends
T = 9.77 * 8.000 — 48 entering 30 exiting

Weekday (900 Series Page 96)

Average Weekday — Directional Distribution: 50% entering, 50% exiting
T = 112.18 (X) — T = 898 Average Vehicle Trip Ends
T = 112.18 * 8.000 — 449 entering 449 exiting

P.M. Peak Hour of Generator (900 Series Page 100)

Average Weekday — Directional Distribution: 52% ent. 48% exit.
T = 17.41 (X) — T = 139 Average Vehicle Trip Ends
T = 17.41 * 8.000 — 72 entering 67 exiting

Saturday Peak Hour of Generator (900 Series Page 105

Average Saturday — Directional Distribution: 51% ent. 49% exit.
T = 11.19 (X) — T = 90 Average Vehicle Trip Ends
T = 11.19 * 8.000 — 46 entering 44 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 207)

AM Peak Hour = 57% Non-Pass By — PM Peak Hour = 57% Non-Pass By

	IN	Out	Total
AM Peak	25	20	45
PM Peak	28	17	45
Daily	256	256	512

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 207)

AM Peak Hour = 43% Pass By — PM Peak Hour = 43% Pass By

	IN	Out	Total
AM Peak	19	15	35
PM Peak	21	13	34
Daily	193	193	386

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for Fast-Food Restaurant with Drive-Through Window				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Fast Food Restaurant With Drive-Through Window (934)

Independant Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = 11,000 Square Feet Fast

X = 11.000

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series page 158)

Average Weekday — Directional Distribution: 51% ent. 49% exit.

T = 40.19 (X) — T = 442 Average Vehicle Trip Ends

T = 40.19 * 11.000 — 225 entering 217 exiting

225 + 217 = 442

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 159)

Average Weekday — Directional Distribution: 52% ent. 48% exit.

T = 32.67 (X) — T = 359 Average Vehicle Trip Ends

T = 32.67 * 11.000 — 187 entering 172 exiting

187 + 172 = 359

Weekday (900 Series page 157)

Average Weekday — Directional Distribution: 50% entering, 50% exiting

T = 470.95 (X) — T = 5182 Average Vehicle Trip Ends

T = 470.95 * 11.000 — 2591 entering 2591 exiting

2591 + 2591 = 5182

Saturday Peak Hour of Generator (900 Series page 163)

Directional Distribution: 51% ent. 49% exit.

T = 54.86 (X) — T = 603 Average Vehicle Trip Ends

T = 54.86 * 11.000 — 308 entering 295 exiting

308 (*) 295 = 603

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 51% Non-Pass By PM Peak Hour = 50% Non-Pass By

	IN	Out	Total	
AM Peak	115	111	225	
PM Peak	94	86	180	
Daily	1296	1296	2592	PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hour = 49% Pass By PM Peak Hour = 50% Pass By

	IN	Out	Total	
AM Peak	110	106	217	
PM Peak	94	86	180	
Daily	1295	1295	2590	PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Crossroads Mix Use)				
Subject	Trip Generation for Coffee/Donut Shop with Drive Through				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Coffee/Donut Shop with Drive Through (937)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 2,500
X = 2.5
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 900 Page 232)

Directional Distribution: 51% ent. 49% exit.
T = 88.99 (X)
T = 88.99 * 2.5
T = 222 Average Vehicle Trip Ends
113 entering 109 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 900 Page 233)

Directional Distribution: 50% ent. 50% exit.
T = 43.38 (X)
T = 43.38 * 2.5
T = 110 Average Vehicle Trip Ends
55 entering 55 exiting

Weekday (Series 900 Page 231)

Average Weekday
(T) = 820.38 (X)
(T) = 820.38 * (2.5)
Directional Distribution: 50% entering, 50% exiting
T = 2050 Average Vehicle Trip Ends
1025 entering 1025 exiting

1025 + 1025 = 2050

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NW Parcel)				
Subject	Trip Generation for Industrial Park				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Industrial Park (130)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 365,000
X = 365.0
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 22)

Directional Distribution: 81% ent. 19% exit.
T = 0.40 (X) T = 146 Average Vehicle Trip Ends
T = 0.40 * 365 118 entering 28 exiting

118 + 28 = 146

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 23)

Directional Distribution: 21% ent. 79% exit.
T = 0.40 (X) T = 146 Average Vehicle Trip Ends
T = 0.40 * 365 31 entering 115 exiting

31 + 115 = 146

Weekday (100 Series Page 21)

Directional Distribution: 50% entering, 50% exiting
T = 3.37 (X) T = 1232 Average Vehicle Trip Ends
T = 3.37 * 365 616 entering 616 exiting

616 + 616 = 1232

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NE Parcel)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 200
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (200) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 147 Average Vehicle Trip Ends
37 entering 110 exiting

37 + 110 = 147

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(200) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 198 Average Vehicle Trip Ends
125 entering 73 exiting

125 + 73 = 198

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (200) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 186 Average Vehicle Trip Ends
100 entering 86 exiting

100 + 86 = 186

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(200) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 1968 Average Vehicle Trip Ends
984 entering 984 exiting

984 + 984 = 1968

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch NE Parcel)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)
Gross Leasable Area = 175,000 Square Feet
X = 175.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.
T = 0.50 * (X) + 151.78
T = 239 Average Vehicle Trip Ends
T = 0.50 * 175 + 151.78
148 entering 91 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.
Ln(T) = 0.74 Ln(X) + 2.89
T = 822 Average Vehicle Trip Ends
Ln(T) = 0.74 * Ln(175) + 2.89
395 entering 427 exiting

Weekday (800 Series Page 138)

Daily Weekday
Directional Distribution: 50% entering, 50% exiting
Ln(T) = 0.68 Ln(X) + 5.57
T = 8796 Average Vehicle Trip Ends
Ln(T) = 0.68 * Ln(175) + 5.57
4398 entering 4398 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday
Directional Distribution: 52% ent. 48% exit.
Ln(T) = 0..79 Ln(X) + 2.79
T = 963 Average Vehicle Trip Ends
Ln(T) = 0.79 * Ln(175) + 2.79
501 entering 462 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	98	60	158
PM Peak	261	282	543
Daily	2903	2903	5806

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	50	31	82
PM Peak	134	145	279
Daily	1495	1495	2990

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 393
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (393) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 284 Average Vehicle Trip Ends
71 entering 213 exiting

71 + 213 = 284

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(393) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 378 Average Vehicle Trip Ends
238 entering 140 exiting

238 + 140 = 378

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (393) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 348 Average Vehicle Trip Ends
188 entering 160 exiting

188 + 160 = 348

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(393) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 3662 Average Vehicle Trip Ends
1831 entering 1831 exiting

1831 + 1831 = 3662

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel)				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 360
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(360.0) - 0.98

Directional Distribution: 26% ent. 74% exit.
T = 120 Average Vehicle Trip Ends
31 entering 89 exiting

31 + 89 = 120

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(360.0) - 0.63

Directional Distribution: 61% ent. 39% exit.
T = 152 Average Vehicle Trip Ends
93 entering 59 exiting

93 + 59 = 152

Weekday (Series 200 Page 73)

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 360 - 1.75

Directional Distribution: 50% ent. 50% exit.
T = 1962 Average Vehicle Trip Ends
981 entering 981 exiting

981 + 981 = 1962

Peak Hour of Generator, Saturday (Series 200 Page 79)

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 360 + 6.73

Directional Distribution: 49% ent. 51% exit.
T = 158 Average Vehicle Trip Ends
77 entering 81 exiting

77 + 81 = 158

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel)				
Subject	Trip Generation for Office Building (South Parcel)				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by				*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - General Office Building (710)

Independent Variable - 1000 Square Feet (X)
SF = 100,000
X = 100.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (700 Series Page 4)

T = 0.94 (X) + 26.49
T = 0.94 * (100.0) + 26.49

Directional Distribution: 86% ent. 14% exit.
T = 120 Average Vehicle Trip Ends
103 entering 17 exiting

103 + 17 = 120

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (700 Series Page 5)

Ln(T) = 0.95 Ln(X) + 0.36
Ln(T) = 0.95 * Ln(100.0) + 0.36

Directional Distribution: 16% ent. 84% exit.
T = 114 Average Vehicle Trip Ends
18 entering 96 exiting

18 + 96 = 114

Weekday (700 Series Page 3)

Average Weekday
Ln(T) = 0.97 Ln(X) + 2.50
Ln(T) = 0.97 * Ln(100.0) + 2.50

Directional Distribution: 50% entering, 50% exiting
T = 1062 Average Vehicle Trip Ends
531 entering 531 exiting

531 + 531 = 1062

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (Reagan Ranch SE Parcel)				
Subject	Trip Generation for Shopping Center				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	*of*

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations
Land Use Code - Shopping Center (820)
Independant Variable - 1000 Square Feet Gross Leasable Area (X)
Gross Leasable Area = 350,000 Square Feet
X = 350.000
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Directional Distribution: 62% ent. 38% exit.
T = 0.50 * (X) + 151.78
T = 327 Average Vehicle Trip Ends
T = 0.50 * 350 + 151.78
203 entering 124 exiting

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 140)

Directional Distribution: 48% ent. 52% exit.
Ln(T) = 0.74 Ln(X) + 2.89
T = 1373 Average Vehicle Trip Ends
Ln(T) = 0.74 * Ln(350) + 2.89
659 entering 714 exiting

Weekday (800 Series Page 138)

Daily Weekday
Directional Distribution: 50% entering, 50% exiting
Ln(T) = 0.68 Ln(X) + 5.57
T = 14092 Average Vehicle Trip Ends
Ln(T) = 0.68 * Ln(350) + 5.57
7046 entering 7046 exiting

Saturday Peak Hour of Generator (Page 144)

Average Saturday
Directional Distribution: 52% ent. 48% exit.
Ln(T) = 0..79 Ln(X) + 2.79
T = 1665 Average Vehicle Trip Ends
Ln(T) = 0.79 * Ln(350) + 2.79
866 entering 799 exiting

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour = 66% Non-Pass By PM Peak Hour = 66% Non-Pass By

	IN	Out	Total
AM Peak	134	82	216
PM Peak	435	471	906
Daily	4650	4650	9300

PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour = 34% Pass By PM Peak Hour = 34% Pass By

	IN	Out	Total
AM Peak	69	42	112
PM Peak	224	243	467
Daily	2396	2396	4792

PM Peak Hour Rate Applied to Daily

Kimley»Horn

Project	Crossroads-Meadowbrook-Reagan Ranch (East of Reagan Ranch 2040 Background Parcel)				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	February 08, 2021	*Job No.*	096956015
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 1,123
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (1123) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 802 Average Vehicle Trip Ends
201 entering 602 exiting

201 + 601 = 802

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(1123) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 1036 Average Vehicle Trip Ends
653 entering 383 exiting

653 + 383 = 1036

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (1123) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 961 Average Vehicle Trip Ends
519 entering 442 exiting

519 + 442 = 961

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(1123) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 9622 Average Vehicle Trip Ends
4811 entering 4811 exiting

4811 + 4811 = 9622

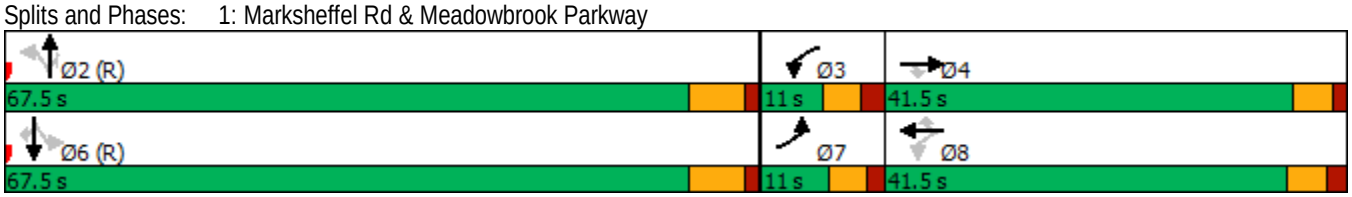
APPENDIX D

Intersection Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	5	35	36	19	26	27	768	16	8	1389	170
Future Volume (vph)	105	5	35	36	19	26	27	768	16	8	1389	170
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	11.0	41.5	41.5	11.0	41.5	41.5	67.5	67.5	67.5	67.5	67.5	67.5
Total Split (%)	9.2%	34.6%	34.6%	9.2%	34.6%	34.6%	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.0	7.3	7.3	10.1	6.9	6.9	94.6	94.6	94.6	94.6	94.6	94.6
Actuated g/C Ratio	0.05	0.06	0.06	0.08	0.06	0.06	0.79	0.79	0.79	0.79	0.79	0.79
v/c Ratio	0.69	0.05	0.22	0.27	0.19	0.16	0.13	0.30	0.01	0.02	0.54	0.14
Control Delay	77.9	53.0	3.0	50.0	57.4	2.1	14.8	15.4	2.8	4.2	6.3	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	53.0	3.0	50.0	57.4	2.1	14.8	15.4	2.8	4.2	6.3	0.9
LOS	E	D	A	D	E	A	B	B	A	A	A	A
Approach Delay		59.1			36.5			15.2			5.7	
Approach LOS		E			D			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	5	35	36	19	26	27	768	16	8	1389	170
Future Volume (veh/h)	105	5	35	36	19	26	27	768	16	8	1389	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1870	1870	1870	1796	1796	1796	1811	1811	1811
Adj Flow Rate, veh/h	109	5	36	38	20	27	28	800	17	8	1447	177
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	10	10	2	2	2	7	7	7	6	6	6
Cap, veh/h	157	97	82	169	77	65	239	2624	1170	512	2645	1180
Arrive On Green	0.05	0.06	0.06	0.03	0.04	0.04	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	3237	1752	1485	1781	1870	1585	298	3413	1522	648	3441	1535
Grp Volume(v), veh/h	109	5	36	38	20	27	28	800	17	8	1447	177
Grp Sat Flow(s),veh/h/ln	1618	1752	1485	1781	1870	1585	298	1706	1522	648	1721	1535
Q Serve(g_s), s	4.0	0.3	2.8	2.4	1.2	2.0	5.0	8.5	0.3	0.5	20.1	3.6
Cycle Q Clear(g_c), s	4.0	0.3	2.8	2.4	1.2	2.0	25.1	8.5	0.3	8.9	20.1	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	97	82	169	77	65	239	2624	1170	512	2645	1180
V/C Ratio(X)	0.69	0.05	0.44	0.22	0.26	0.42	0.12	0.30	0.01	0.02	0.55	0.15
Avail Cap(c_a), veh/h	162	533	452	198	561	476	239	2624	1170	512	2645	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	53.7	54.9	52.9	55.8	56.1	10.5	4.2	3.2	5.5	5.5	3.6
Incr Delay (d2), s/veh	11.7	0.2	3.6	0.7	1.8	4.2	0.7	0.2	0.0	0.1	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.1	1.1	1.1	0.6	0.9	0.4	2.6	0.1	0.1	6.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	53.9	58.5	53.6	57.5	60.3	11.3	4.4	3.3	5.6	6.4	3.9
LnGrp LOS	E	D	E	D	E	E	B	A	A	A	A	A
Approach Vol, veh/h		150			85			845			1632	
Approach Delay, s/veh		65.2			56.6			4.6			6.1	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		98.8	9.1	12.2		98.8	10.8	10.4				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		61.0	5.5	* 37		61.0	6.0	36.0				
Max Q Clear Time (g_c+I1), s		27.1	4.4	4.8		22.1	6.0	4.0				
Green Ext Time (p_c), s		7.6	0.0	0.1		17.0	0.0	0.1				

Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									

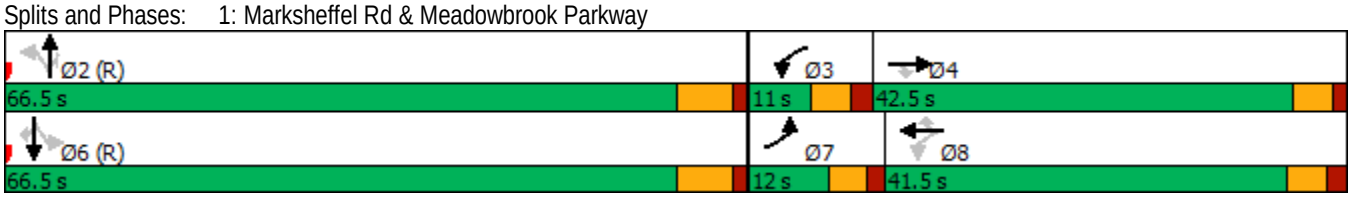
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	11	50	19	12	34	42	1432	73	41	949	131
Future Volume (vph)	177	11	50	19	12	34	42	1432	73	41	949	131
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	12.0	42.5	42.5	11.0	41.5	41.5	66.5	66.5	66.5	66.5	66.5	66.5
Total Split (%)	10.0%	35.4%	35.4%	9.2%	34.6%	34.6%	55.4%	55.4%	55.4%	55.4%	55.4%	55.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	12.3	12.3	10.8	6.4	6.4	91.8	91.8	91.8	91.8	91.8	91.8
Actuated g/C Ratio	0.06	0.10	0.10	0.09	0.05	0.05	0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.95	0.06	0.23	0.14	0.13	0.23	0.12	0.57	0.06	0.24	0.38	0.12
Control Delay	108.3	51.1	6.9	45.5	56.5	3.3	8.0	14.0	3.6	8.9	5.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.3	51.1	6.9	45.5	56.5	3.3	8.0	14.0	3.6	8.9	5.6	0.9
LOS	F	D	A	D	E	A	A	B	A	A	A	A
Approach Delay		84.3			25.2			13.4			5.2	
Approach LOS		F			C			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	11	50	19	12	34	42	1432	73	41	949	131
Future Volume (veh/h)	177	11	50	19	12	34	42	1432	73	41	949	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	190	12	54	20	13	37	45	1540	78	44	1020	141
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	202	140	119	151	77	65	379	2696	1203	237	2654	1184
Arrive On Green	0.06	0.08	0.08	0.02	0.04	0.04	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	484	3554	1585	307	3497	1560
Grp Volume(v), veh/h	190	12	54	20	13	37	45	1540	78	44	1020	141
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	484	1777	1585	307	1749	1560
Q Serve(g_s), s	6.6	0.7	3.9	1.3	0.8	2.7	4.2	22.1	1.5	8.5	11.9	2.9
Cycle Q Clear(g_c), s	6.6	0.7	3.9	1.3	0.8	2.7	16.1	22.1	1.5	30.7	11.9	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	140	119	151	77	65	379	2696	1203	237	2654	1184
V/C Ratio(X)	0.94	0.09	0.45	0.13	0.17	0.57	0.12	0.57	0.06	0.19	0.38	0.12
Avail Cap(c_a), veh/h	202	584	495	197	561	476	379	2696	1203	237	2654	1184
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	51.7	53.1	53.4	55.5	56.5	7.7	6.2	3.7	12.7	4.9	3.8
Incr Delay (d2), s/veh	47.2	0.3	2.7	0.4	1.0	7.5	0.2	0.3	0.0	1.7	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.3	1.7	0.6	0.4	1.2	0.4	7.1	0.4	0.7	3.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.5	51.9	55.8	53.8	56.6	64.0	7.9	6.5	3.7	14.4	5.4	4.0
LnGrp LOS	F	D	E	D	E	E	A	A	A	B	A	A
Approach Vol, veh/h		256			70			1663			1205	
Approach Delay, s/veh		91.0			59.7			6.4			5.5	
Approach LOS		F			E			A			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	97.6	7.9	14.5	97.6	12.0	10.4
Change Period (Y+Rc), s	6.5	5.5	* 5.5	6.5	5.0	5.5
Max Green Setting (Gmax), s	60.0	5.5	* 38	60.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	24.1	3.3	5.9	32.7	8.6	4.7
Green Ext Time (p_c), s	18.0	0.0	0.2	10.4	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

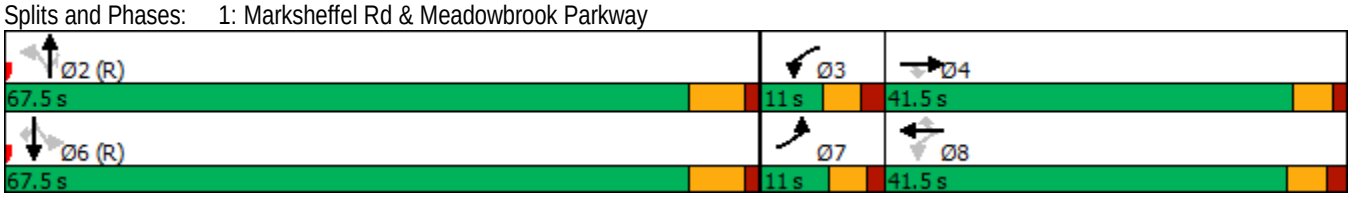
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	10	40	40	25	30	30	825	20	10	1490	185
Future Volume (vph)	115	10	40	40	25	30	30	825	20	10	1490	185
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	11.0	41.5	41.5	11.0	41.5	41.5	67.5	67.5	67.5	67.5	67.5	67.5
Total Split (%)	9.2%	34.6%	34.6%	9.2%	34.6%	34.6%	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.0	7.7	7.7	11.6	7.2	7.2	92.0	92.0	92.0	92.0	92.0	92.0
Actuated g/C Ratio	0.05	0.06	0.06	0.10	0.06	0.06	0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio	0.75	0.09	0.25	0.28	0.23	0.18	0.17	0.33	0.02	0.02	0.59	0.16
Control Delay	84.4	53.6	4.8	48.5	58.1	2.3	17.7	17.2	3.0	4.4	7.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.4	53.6	4.8	48.5	58.1	2.3	17.7	17.2	3.0	4.4	7.8	0.9
LOS	F	D	A	D	E	A	B	B	A	A	A	A
Approach Delay		63.2			36.5			16.8			7.0	
Approach LOS		E			D			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	10	40	40	25	30	30	825	20	10	1490	185
Future Volume (veh/h)	115	10	40	40	25	30	30	825	20	10	1490	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1870	1870	1870	1796	1796	1796	1811	1811	1811
Adj Flow Rate, veh/h	120	10	42	42	26	31	31	859	21	10	1552	193
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	10	10	2	2	2	7	7	7	6	6	6
Cap, veh/h	162	98	83	172	77	66	213	2617	1167	480	2639	1177
Arrive On Green	0.05	0.06	0.06	0.03	0.04	0.04	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	3237	1752	1485	1781	1870	1585	265	3413	1522	611	3441	1535
Grp Volume(v), veh/h	120	10	42	42	26	31	31	859	21	10	1552	193
Grp Sat Flow(s),veh/h/ln	1618	1752	1485	1781	1870	1585	265	1706	1522	611	1721	1535
Q Serve(g_s), s	4.4	0.7	3.3	2.7	1.6	2.3	6.7	9.4	0.4	0.6	23.0	4.0
Cycle Q Clear(g_c), s	4.4	0.7	3.3	2.7	1.6	2.3	29.7	9.4	0.4	10.0	23.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	98	83	172	77	66	213	2617	1167	480	2639	1177
V/C Ratio(X)	0.74	0.10	0.51	0.24	0.34	0.47	0.15	0.33	0.02	0.02	0.59	0.16
Avail Cap(c_a), veh/h	162	533	452	198	561	476	213	2617	1167	480	2639	1177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	53.8	55.0	52.8	55.9	56.2	12.2	4.4	3.3	5.9	5.9	3.7
Incr Delay (d2), s/veh	16.6	0.5	4.7	0.7	2.5	5.2	1.0	0.2	0.0	0.1	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.3	1.3	1.2	0.8	1.0	0.5	2.9	0.1	0.1	7.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.8	54.2	59.8	53.6	58.4	61.4	13.3	4.6	3.3	6.0	6.9	4.0
LnGrp LOS	E	D	E	D	E	E	B	A	A	A	A	A
Approach Vol, veh/h		172			99			911			1755	
Approach Delay, s/veh		68.6			57.3			4.9			6.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		98.5	9.3	12.2		98.5	11.0	10.5				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		61.0	5.5	* 37		61.0	6.0	36.0				
Max Q Clear Time (g_c+I1), s		31.7	4.7	5.3		25.0	6.4	4.3				
Green Ext Time (p_c), s		8.2	0.0	0.1		18.3	0.0	0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

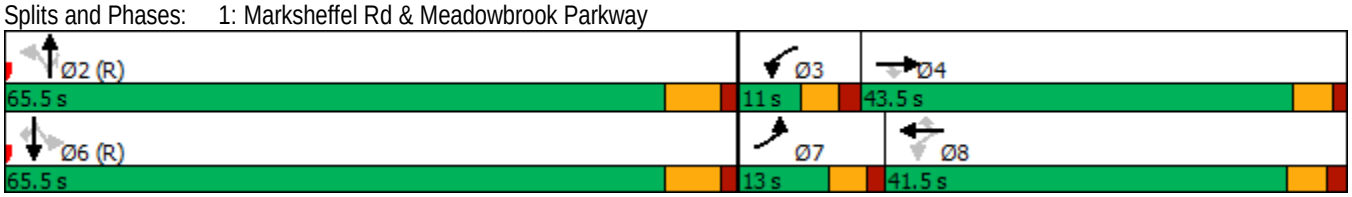
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	15	55	25	15	40	50	1535	80	45	1020	145
Future Volume (vph)	190	15	55	25	15	40	50	1535	80	45	1020	145
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	13.0	43.5	43.5	11.0	41.5	41.5	65.5	65.5	65.5	65.5	65.5	65.5
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.6%	34.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	11.3	11.3	11.0	6.6	6.6	90.6	90.6	90.6	90.6	90.6	90.6
Actuated g/C Ratio	0.07	0.09	0.09	0.09	0.06	0.06	0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.89	0.09	0.26	0.19	0.16	0.26	0.16	0.62	0.07	0.32	0.42	0.13
Control Delay	93.3	51.9	8.2	45.5	56.9	5.5	9.4	16.6	4.2	12.4	6.3	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.3	51.9	8.2	45.5	56.9	5.5	9.4	16.6	4.2	12.4	6.3	1.0
LOS	F	D	A	D	E	A	A	B	A	B	A	A
Approach Delay		72.9			27.6			15.8			5.9	
Approach LOS		E			C			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	15	55	25	15	40	50	1535	80	45	1020	145
Future Volume (veh/h)	190	15	55	25	15	40	50	1535	80	45	1020	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	204	16	59	27	16	43	54	1651	86	48	1097	156
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	230	154	131	163	83	71	340	2655	1184	204	2613	1165
Arrive On Green	0.07	0.08	0.08	0.02	0.04	0.04	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	443	3554	1585	274	3497	1560
Grp Volume(v), veh/h	204	16	59	27	16	43	54	1651	86	48	1097	156
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	443	1777	1585	274	1749	1560
Q Serve(g_s), s	7.0	1.0	4.3	1.7	1.0	3.2	6.1	26.3	1.7	12.0	13.9	3.4
Cycle Q Clear(g_c), s	7.0	1.0	4.3	1.7	1.0	3.2	20.0	26.3	1.7	38.4	13.9	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	154	131	163	83	71	340	2655	1184	204	2613	1165
V/C Ratio(X)	0.89	0.10	0.45	0.17	0.19	0.61	0.16	0.62	0.07	0.23	0.42	0.13
Avail Cap(c_a), veh/h	230	600	509	201	561	476	340	2655	1184	204	2613	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	51.0	52.5	52.8	55.2	56.3	9.3	7.2	4.1	16.2	5.6	4.3
Incr Delay (d2), s/veh	31.0	0.3	2.4	0.5	1.1	8.2	0.3	0.4	0.0	2.7	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.5	1.8	0.8	0.5	1.4	0.6	8.7	0.5	0.9	4.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.5	51.3	54.9	53.2	56.3	64.5	9.6	7.5	4.1	18.9	6.1	4.5
LnGrp LOS	F	D	D	D	E	E	A	A	A	B	A	A
Approach Vol, veh/h		279			86			1791			1301	
Approach Delay, s/veh		77.8			59.4			7.4			6.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		96.1	8.5	15.4		96.1	13.0	10.9				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		59.0	5.5	* 39		59.0	8.0	36.0				
Max Q Clear Time (g_c+I1), s		28.3	3.7	6.3		40.4	9.0	5.2				
Green Ext Time (p_c), s		18.4	0.0	0.2		9.5	0.0	0.2				

Intersection Summary		
HCM 6th Ctrl Delay		14.0
HCM 6th LOS		B

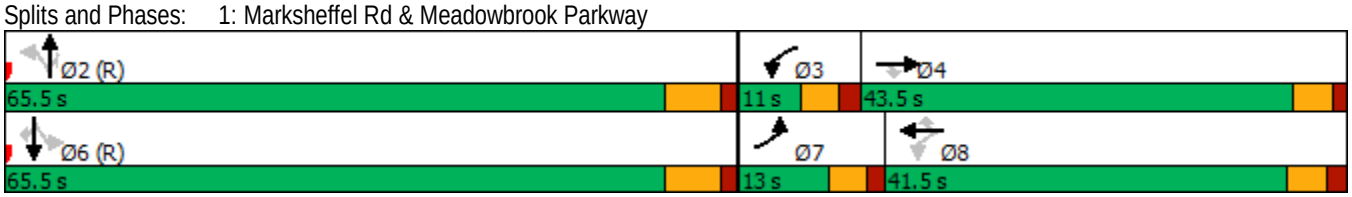
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	10	40	40	25	30	30	1090	20	10	1755	335
Future Volume (vph)	270	10	40	40	25	30	30	1090	20	10	1755	335
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	13.0	43.5	43.5	11.0	41.5	41.5	65.5	65.5	65.5	65.5	65.5	65.5
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.6%	34.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	9.7	9.7	11.6	7.2	7.2	90.0	90.0	90.0	90.0	90.0	90.0
Actuated g/C Ratio	0.07	0.08	0.08	0.10	0.06	0.06	0.75	0.75	0.75	0.75	0.75	0.75
v/c Ratio	1.33	0.07	0.22	0.28	0.23	0.18	0.28	0.45	0.02	0.03	0.72	0.29
Control Delay	218.3	51.2	3.9	46.9	58.1	2.3	24.1	16.8	1.9	5.2	10.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	218.3	51.2	3.9	46.9	58.1	2.3	24.1	16.8	1.9	5.2	10.9	1.4
LOS	F	D	A	D	E	A	C	B	A	A	B	A
Approach Delay		186.3			35.9			16.7			9.4	
Approach LOS		F			D			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	10	40	40	25	30	30	1090	20	10	1755	335
Future Volume (veh/h)	270	10	40	40	25	30	30	1090	20	10	1755	335
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1870	1870	1870	1796	1796	1796	1811	1811	1811
Adj Flow Rate, veh/h	281	10	42	42	26	31	31	1135	21	10	1828	349
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	10	10	2	2	2	7	7	7	6	6	6
Cap, veh/h	216	127	108	172	77	66	141	2561	1142	355	2582	1152
Arrive On Green	0.07	0.07	0.07	0.03	0.04	0.04	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	3237	1752	1485	1781	1870	1585	174	3413	1522	471	3441	1535
Grp Volume(v), veh/h	281	10	42	42	26	31	31	1135	21	10	1828	349
Grp Sat Flow(s),veh/h/ln	1618	1752	1485	1781	1870	1585	174	1706	1522	471	1721	1535
Q Serve(g_s), s	8.0	0.6	3.2	2.7	1.6	2.3	13.9	14.9	0.4	1.0	34.0	8.8
Cycle Q Clear(g_c), s	8.0	0.6	3.2	2.7	1.6	2.3	47.8	14.9	0.4	15.9	34.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	127	108	172	77	66	141	2561	1142	355	2582	1152
V/C Ratio(X)	1.30	0.08	0.39	0.24	0.34	0.47	0.22	0.44	0.02	0.03	0.71	0.30
Avail Cap(c_a), veh/h	216	562	476	198	561	476	141	2561	1142	355	2582	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	51.9	53.1	52.8	55.9	56.2	20.7	5.6	3.8	8.6	8.0	4.8
Incr Delay (d2), s/veh	165.5	0.3	2.3	0.7	2.5	5.2	2.2	0.4	0.0	0.1	1.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.3	1.3	1.2	0.8	1.0	0.6	4.7	0.1	0.1	11.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	221.5	52.2	55.4	53.6	58.4	61.4	23.0	6.0	3.8	8.7	9.7	5.5
LnGrp LOS	F	D	E	D	E	E	C	A	A	A	A	A
Approach Vol, veh/h		333			99			1187			2187	
Approach Delay, s/veh		195.5			57.3			6.4			9.0	
Approach LOS		F			E			A			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	96.5	9.3	14.2	96.5	13.0	10.5
Change Period (Y+Rc), s	6.5	5.5	* 5.5	6.5	5.0	5.5
Max Green Setting (Gmax), s	59.0	5.5	* 39	59.0	8.0	36.0
Max Q Clear Time (g_c+I1), s	49.8	4.7	5.2	36.0	10.0	4.3
Green Ext Time (p_c), s	5.8	0.0	0.2	17.2	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

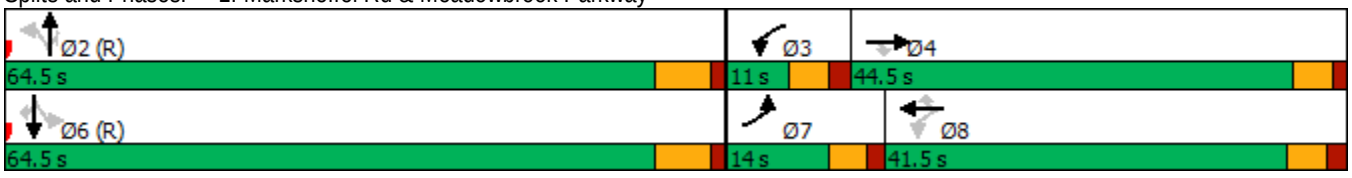
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	15	55	25	15	40	50	1835	80	45	1340	270
Future Volume (vph)	295	15	55	25	15	40	50	1835	80	45	1340	270
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	14.0	44.5	44.5	11.0	41.5	41.5	64.5	64.5	64.5	64.5	64.5	64.5
Total Split (%)	11.7%	37.1%	37.1%	9.2%	34.6%	34.6%	53.8%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.0	12.3	12.3	11.0	6.6	6.6	89.6	89.6	89.6	89.6	89.6	89.6
Actuated g/C Ratio	0.08	0.10	0.10	0.09	0.06	0.06	0.75	0.75	0.75	0.75	0.75	0.75
v/c Ratio	1.23	0.08	0.25	0.19	0.16	0.26	0.26	0.75	0.07	0.59	0.56	0.24
Control Delay	179.8	50.8	7.8	44.7	56.9	5.5	11.8	19.3	4.0	43.2	8.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	50.8	7.8	44.7	56.9	5.5	11.8	19.3	4.0	43.2	8.1	1.1
LOS	F	D	A	D	E	A	B	B	A	D	A	A
Approach Delay		148.6			27.4			18.5			7.9	
Approach LOS		F			C			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 77.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	15	55	25	15	40	50	1835	80	45	1340	270
Future Volume (veh/h)	295	15	55	25	15	40	50	1835	80	45	1340	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	317	16	59	27	16	43	54	1973	86	48	1441	290
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	259	170	144	163	83	71	216	2625	1171	143	2584	1152
Arrive On Green	0.08	0.09	0.09	0.02	0.04	0.04	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	280	3554	1585	200	3497	1560
Grp Volume(v), veh/h	317	16	59	27	16	43	54	1973	86	48	1441	290
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	280	1777	1585	200	1749	1560
Q Serve(g_s), s	9.0	0.9	4.2	1.7	1.0	3.2	12.7	39.1	1.8	22.3	22.0	7.2
Cycle Q Clear(g_c), s	9.0	0.9	4.2	1.7	1.0	3.2	34.7	39.1	1.8	61.4	22.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	170	144	163	83	71	216	2625	1171	143	2584	1152
V/C Ratio(X)	1.22	0.09	0.41	0.17	0.19	0.61	0.25	0.75	0.07	0.34	0.56	0.25
Avail Cap(c_a), veh/h	259	616	522	201	561	476	216	2625	1171	143	2584	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.17	0.17	0.17	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	50.0	51.5	52.8	55.2	56.3	14.7	9.2	4.3	27.2	7.0	5.0
Incr Delay (d2), s/veh	129.8	0.2	1.9	0.5	1.1	8.2	0.5	0.4	0.0	6.3	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.5	1.8	0.8	0.5	1.4	0.8	13.1	0.5	1.3	7.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	185.3	50.3	53.4	53.2	56.3	64.5	15.2	9.6	4.4	33.5	7.8	5.6
LnGrp LOS	F	D	D	D	E	E	B	A	A	C	A	A
Approach Vol, veh/h		392			86			2113			1779	
Approach Delay, s/veh		160.0			59.4			9.5			8.2	
Approach LOS		F			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		95.1	8.5	16.4		95.1	14.0	10.9				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		58.0	5.5	* 40		58.0	9.0	36.0				
Max Q Clear Time (g_c+I1), s		41.1	3.7	6.2		63.4	11.0	5.2				
Green Ext Time (p_c), s		14.0	0.0	0.2		0.0	0.0	0.2				

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

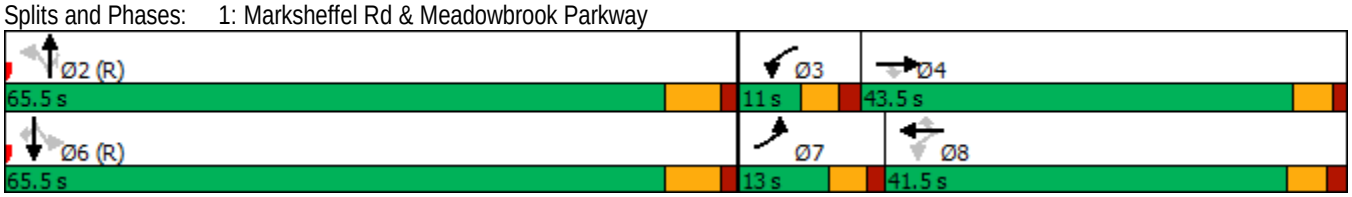
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	10	45	50	25	35	35	1150	25	15	1810	215
Future Volume (vph)	135	10	45	50	25	35	35	1150	25	15	1810	215
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	13.0	43.5	43.5	11.0	41.5	41.5	65.5	65.5	65.5	65.5	65.5	65.5
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.6%	34.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.9	9.7	9.7	11.6	7.2	7.2	90.0	90.0	90.0	90.0	90.0	90.0
Actuated g/C Ratio	0.07	0.08	0.08	0.10	0.06	0.06	0.75	0.75	0.75	0.75	0.75	0.75
v/c Ratio	0.67	0.07	0.24	0.34	0.23	0.21	0.36	0.47	0.02	0.06	0.74	0.19
Control Delay	70.8	51.2	5.7	49.1	58.1	2.7	28.5	16.2	2.3	5.5	11.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	51.2	5.7	49.1	58.1	2.7	28.5	16.2	2.3	5.5	11.5	1.4
LOS	E	D	A	D	E	A	C	B	A	A	B	A
Approach Delay		54.4			36.5			16.3			10.4	
Approach LOS		D			D			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	10	45	50	25	35	35	1150	25	15	1810	215
Future Volume (veh/h)	135	10	45	50	25	35	35	1150	25	15	1810	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1870	1870	1870	1796	1796	1796	1811	1811	1811
Adj Flow Rate, veh/h	141	10	47	52	26	36	36	1198	26	16	1885	224
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	10	10	2	2	2	7	7	7	6	6	6
Cap, veh/h	192	105	89	181	78	66	146	2585	1153	336	2607	1163
Arrive On Green	0.06	0.06	0.06	0.04	0.04	0.04	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	3237	1752	1485	1781	1870	1585	186	3413	1522	441	3441	1535
Grp Volume(v), veh/h	141	10	47	52	26	36	36	1198	26	16	1885	224
Grp Sat Flow(s),veh/h/ln	1618	1752	1485	1781	1870	1585	186	1706	1522	441	1721	1535
Q Serve(g_s), s	5.1	0.6	3.7	3.3	1.6	2.7	15.5	15.7	0.5	1.7	35.2	5.0
Cycle Q Clear(g_c), s	5.1	0.6	3.7	3.3	1.6	2.7	50.7	15.7	0.5	17.4	35.2	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	105	89	181	78	66	146	2585	1153	336	2607	1163
V/C Ratio(X)	0.74	0.10	0.53	0.29	0.33	0.55	0.25	0.46	0.02	0.05	0.72	0.19
Avail Cap(c_a), veh/h	216	562	476	198	561	476	146	2585	1153	336	2607	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	53.3	54.7	52.5	55.9	56.4	21.4	5.4	3.6	8.7	7.8	4.1
Incr Delay (d2), s/veh	10.9	0.4	4.8	0.9	2.5	6.9	2.3	0.3	0.0	0.3	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.3	1.5	1.5	0.8	1.2	0.8	4.9	0.1	0.2	11.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	53.7	59.5	53.4	58.4	63.3	23.7	5.8	3.6	9.0	9.6	4.5
LnGrp LOS	E	D	E	D	E	E	C	A	A	A	A	A
Approach Vol, veh/h		198			114			1260			2125	
Approach Delay, s/veh		64.1			57.7			6.2			9.0	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		97.4	9.9	12.7		97.4	12.1	10.5				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		59.0	5.5	* 39		59.0	8.0	36.0				
Max Q Clear Time (g_c+I1), s		52.7	5.3	5.7		37.2	7.1	4.7				
Green Ext Time (p_c), s		4.4	0.0	0.2		16.5	0.0	0.2				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

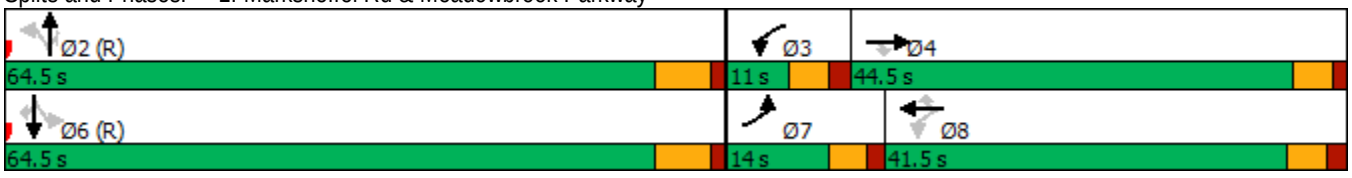
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	15	65	25	20	45	55	1920	95	55	1395	165
Future Volume (vph)	225	15	65	25	20	45	55	1920	95	55	1395	165
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	14.0	44.5	44.5	11.0	41.5	41.5	64.5	64.5	64.5	64.5	64.5	64.5
Total Split (%)	11.7%	37.1%	37.1%	9.2%	34.6%	34.6%	53.8%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.0	12.7	12.7	11.4	7.0	7.0	89.2	89.2	89.2	89.2	89.2	89.2
Actuated g/C Ratio	0.08	0.11	0.11	0.10	0.06	0.06	0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	0.94	0.08	0.29	0.18	0.20	0.28	0.32	0.78	0.09	0.91	0.58	0.15
Control Delay	98.4	50.3	11.4	44.1	57.6	7.4	13.8	22.1	4.7	113.3	8.6	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	50.3	11.4	44.1	57.6	7.4	13.8	22.1	4.7	113.3	8.6	1.0
LOS	F	D	B	D	E	A	B	C	A	F	A	A
Approach Delay		77.5			29.0			21.1			11.4	
Approach LOS		E			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	15	65	25	20	45	55	1920	95	55	1395	165
Future Volume (veh/h)	225	15	65	25	20	45	55	1920	95	55	1395	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	242	16	70	27	22	48	59	2065	102	59	1500	177
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	259	176	149	167	90	76	218	2613	1165	126	2571	1147
Arrive On Green	0.08	0.09	0.09	0.02	0.05	0.05	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	295	3554	1585	180	3497	1560
Grp Volume(v), veh/h	242	16	70	27	22	48	59	2065	102	59	1500	177
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	295	1777	1585	180	1749	1560
Q Serve(g_s), s	8.4	0.9	5.0	1.7	1.4	3.6	13.9	44.1	2.2	37.1	23.9	4.1
Cycle Q Clear(g_c), s	8.4	0.9	5.0	1.7	1.4	3.6	37.8	44.1	2.2	81.1	23.9	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	176	149	167	90	76	218	2613	1165	126	2571	1147
V/C Ratio(X)	0.93	0.09	0.47	0.16	0.24	0.63	0.27	0.79	0.09	0.47	0.58	0.15
Avail Cap(c_a), veh/h	259	616	522	205	561	476	218	2613	1165	126	2571	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	49.6	51.5	52.4	55.0	56.1	16.1	10.0	4.5	35.7	7.4	4.7
Incr Delay (d2), s/veh	38.4	0.2	2.3	0.4	1.4	8.2	0.3	0.2	0.0	11.9	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.5	2.1	0.8	0.7	1.6	0.9	14.7	0.6	2.0	8.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.6	49.9	53.8	52.8	56.4	64.3	16.4	10.3	4.5	47.6	8.3	5.0
LnGrp LOS	F	D	D	D	E	E	B	B	A	D	A	A
Approach Vol, veh/h		328			97			2226			1736	
Approach Delay, s/veh		82.9			59.3			10.2			9.3	
Approach LOS		F			E			B			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		94.7	8.5	16.8		94.7	14.0	11.3				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		58.0	5.5	* 40		58.0	9.0	36.0				
Max Q Clear Time (g_c+I1), s		46.1	3.7	7.0		83.1	10.4	5.6				
Green Ext Time (p_c), s		10.6	0.0	0.3		0.0	0.0	0.2				

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

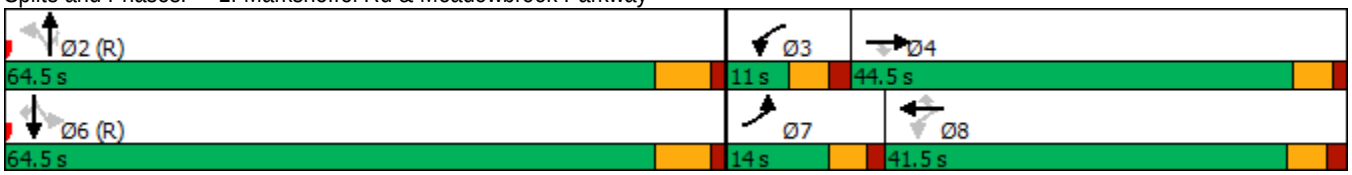
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	10	45	50	25	35	35	1495	25	15	2185	380
Future Volume (vph)	300	10	45	50	25	35	35	1495	25	15	2185	380
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	14.0	44.5	44.5	11.0	41.5	41.5	64.5	64.5	64.5	64.5	64.5	64.5
Total Split (%)	11.7%	37.1%	37.1%	9.2%	34.6%	34.6%	53.8%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.0	10.7	10.7	11.6	7.2	7.2	89.0	89.0	89.0	89.0	89.0	89.0
Actuated g/C Ratio	0.08	0.09	0.09	0.10	0.06	0.06	0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	1.32	0.06	0.23	0.34	0.23	0.21	0.60	0.62	0.02	0.10	0.90	0.33
Control Delay	211.4	50.0	5.2	48.3	58.1	2.7	62.7	29.0	3.5	6.9	19.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	211.4	50.0	5.2	48.3	58.1	2.7	62.7	29.0	3.5	6.9	19.7	2.4
LOS	F	D	A	D	E	A	E	C	A	A	B	A
Approach Delay		180.9			36.1			29.4			17.1	
Approach LOS		F			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 34.3	Intersection LOS: C
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	10	45	50	25	35	35	1495	25	15	2185	380
Future Volume (veh/h)	300	10	45	50	25	35	35	1495	25	15	2185	380
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1870	1870	1870	1796	1796	1796	1811	1811	1811
Adj Flow Rate, veh/h	312	10	47	52	26	36	36	1557	26	16	2276	396
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	10	10	2	2	2	7	7	7	6	6	6
Cap, veh/h	243	133	113	181	78	66	85	2532	1129	292	2553	1139
Arrive On Green	0.08	0.08	0.08	0.04	0.04	0.04	1.00	1.00	1.00	0.74	0.74	0.74
Sat Flow, veh/h	3237	1752	1485	1781	1870	1585	106	3413	1522	313	3441	1535
Grp Volume(v), veh/h	312	10	47	52	26	36	36	1557	26	16	2276	396
Grp Sat Flow(s),veh/h/ln	1618	1752	1485	1781	1870	1585	106	1706	1522	313	1721	1535
Q Serve(g_s), s	9.0	0.6	3.6	3.3	1.6	2.7	28.5	0.0	0.0	1.7	60.5	10.8
Cycle Q Clear(g_c), s	9.0	0.6	3.6	3.3	1.6	2.7	89.0	0.0	0.0	1.7	60.5	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	133	113	181	78	66	85	2532	1129	292	2553	1139
V/C Ratio(X)	1.29	0.08	0.42	0.29	0.33	0.55	0.42	0.62	0.02	0.05	0.89	0.35
Avail Cap(c_a), veh/h	243	577	489	198	561	476	85	2532	1129	292	2553	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.52	0.52	0.52	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	51.5	52.9	52.5	55.9	56.4	34.5	0.0	0.0	4.2	11.8	5.4
Incr Delay (d2), s/veh	155.9	0.2	2.5	0.9	2.5	6.9	7.8	0.6	0.0	0.4	5.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.3	1.4	1.5	0.8	1.2	1.2	0.2	0.0	0.1	21.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	211.4	51.8	55.4	53.4	58.4	63.3	42.3	0.6	0.0	4.6	17.1	6.2
LnGrp LOS	F	D	E	D	E	E	D	A	A	A	B	A
Approach Vol, veh/h		369			114			1619			2688	
Approach Delay, s/veh		187.2			57.7			1.5			15.4	
Approach LOS		F			E			A			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		95.5	9.9	14.6		95.5	14.0	10.5				
Change Period (Y+Rc), s		6.5	5.5	* 5.5		6.5	5.0	5.5				
Max Green Setting (Gmax), s		58.0	5.5	* 40		58.0	9.0	36.0				
Max Q Clear Time (g_c+I1), s		91.0	5.3	5.6		62.5	11.0	4.7				
Green Ext Time (p_c), s		0.0	0.0	0.2		0.0	0.0	0.2				

Intersection Summary												
HCM 6th Ctrl Delay			24.9									
HCM 6th LOS			C									

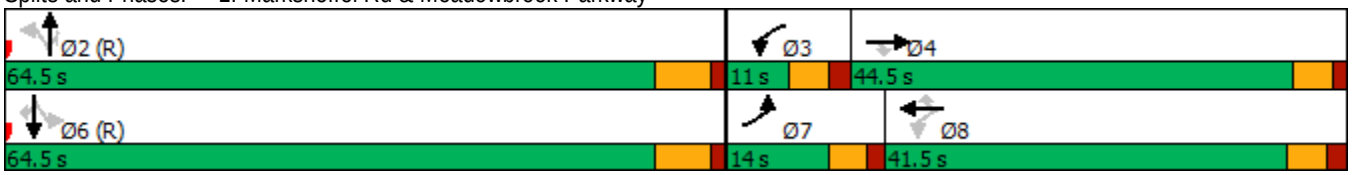
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	15	65	25	20	45	55	2520	95	55	2060	315
Future Volume (vph)	355	15	65	25	20	45	55	2520	95	55	2060	315
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	11.0	41.5	41.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	14.0	44.5	44.5	11.0	41.5	41.5	64.5	64.5	64.5	64.5	64.5	64.5
Total Split (%)	11.7%	37.1%	37.1%	9.2%	34.6%	34.6%	53.8%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.0	12.7	12.7	11.4	7.0	7.0	89.2	89.2	89.2	89.2	89.2	89.2
Actuated g/C Ratio	0.08	0.11	0.11	0.10	0.06	0.06	0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	1.49	0.08	0.29	0.18	0.20	0.28	0.94	1.03	0.09	0.95	0.86	0.28
Control Delay	276.8	50.3	11.4	44.1	57.6	7.4	94.0	49.8	4.6	127.2	16.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	276.8	50.3	11.4	44.1	57.6	7.4	94.0	49.8	4.6	127.2	16.5	2.1
LOS	F	D	B	D	E	A	F	D	A	F	B	A
Approach Delay		229.4			29.0			49.1			17.2	
Approach LOS		F			C			D			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.49	
Intersection Signal Delay: 48.9	Intersection LOS: D
Intersection Capacity Utilization 98.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Marksheffel Rd & Meadowbrook Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	15	65	25	20	45	55	2520	95	55	2060	315
Future Volume (veh/h)	355	15	65	25	20	45	55	2520	95	55	2060	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	382	16	70	27	22	48	59	2710	102	59	2215	339
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	259	176	149	167	90	76	95	2613	1165	129	2571	1147
Arrive On Green	0.08	0.09	0.09	0.02	0.05	0.05	1.00	1.00	1.00	0.74	0.74	0.74
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	124	3554	1585	94	3497	1560
Grp Volume(v), veh/h	382	16	70	27	22	48	59	2710	102	59	2215	339
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	124	1777	1585	94	1749	1560
Q Serve(g_s), s	9.0	0.9	5.0	1.7	1.4	3.6	33.3	0.0	0.0	52.9	54.9	8.8
Cycle Q Clear(g_c), s	9.0	0.9	5.0	1.7	1.4	3.6	88.2	0.0	0.0	52.9	54.9	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	176	149	167	90	76	95	2613	1165	129	2571	1147
V/C Ratio(X)	1.47	0.09	0.47	0.16	0.24	0.63	0.62	1.04	0.09	0.46	0.86	0.30
Avail Cap(c_a), veh/h	259	616	522	205	561	476	95	2613	1165	129	2571	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.20	0.20	0.20	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	49.6	51.5	52.4	55.0	56.1	34.4	0.0	0.0	11.2	11.5	5.4
Incr Delay (d2), s/veh	233.0	0.2	2.3	0.4	1.4	8.2	6.1	20.0	0.0	11.1	4.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	0.5	2.1	0.8	0.7	1.6	1.9	7.3	0.0	1.3	19.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	288.5	49.9	53.8	52.8	56.4	64.3	40.5	20.0	0.0	22.4	15.6	6.0
LnGrp LOS	F	D	D	D	E	E	D	F	A	C	B	A
Approach Vol, veh/h		468			97			2871			2613	
Approach Delay, s/veh		245.2			59.3			19.7			14.5	
Approach LOS		F			E			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	94.7	8.5	16.8	94.7	14.0	11.3
Change Period (Y+Rc), s	6.5	5.5	* 5.5	6.5	5.0	5.5
Max Green Setting (Gmax), s	58.0	5.5	* 40	58.0	9.0	36.0
Max Q Clear Time (g_c+I1), s	90.2	3.7	7.0	56.9	11.0	5.6
Green Ext Time (p_c), s	0.0	0.0	0.3	1.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	335	486	282	1107	18	1	454	54	9	707	705
Future Volume (vph)	335	486	282	1107	18	1	454	54	9	707	705
Turn Type	Prot	NA	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases			6		Free			Free			Free
Detector Phase	5	2	1	6		3	8		7	4	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	21.0	48.5	25.0	52.5		11.5	36.0		10.5	35.0	
Total Split (%)	17.5%	40.4%	20.8%	43.8%		9.6%	30.0%		8.8%	29.2%	
Yellow Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	17.7	56.4	66.7	52.7	120.0	5.1	27.6	120.0	6.2	28.8	120.0
Actuated g/C Ratio	0.15	0.47	0.56	0.44	1.00	0.04	0.23	1.00	0.05	0.24	1.00
v/c Ratio	0.75	0.33	0.52	0.76	0.01	0.01	0.59	0.04	0.10	0.90	0.48
Control Delay	51.7	38.2	14.5	33.2	0.0	71.0	50.2	0.0	51.4	53.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	38.2	14.5	33.2	0.0	71.0	50.2	0.0	51.4	53.2	1.6
LOS	D	D	B	C	A	E	D	A	D	D	A
Approach Delay		43.7		29.0			45.0			27.6	
Approach LOS		D		C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	486	0	282	1107	18	1	454	54	9	707	705
Future Volume (veh/h)	335	486	0	282	1107	18	1	454	54	9	707	705
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	349	506	0	294	1153	0	1	473	0	9	736	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	388	1474		560	1529		2	586		102	799	
Arrive On Green	0.12	0.45	0.00	0.11	0.44	0.00	0.00	0.17	0.00	0.10	0.39	0.00
Sat Flow, veh/h	3209	3300	1472	1753	3497	1560	1767	3526	1572	1725	3441	1535
Grp Volume(v), veh/h	349	506	0	294	1153	0	1	473	0	9	736	0
Grp Sat Flow(s),veh/h/ln	1605	1650	1472	1753	1749	1560	1767	1763	1572	1725	1721	1535
Q Serve(g_s), s	12.9	12.0	0.0	10.9	33.2	0.0	0.1	15.5	0.0	0.6	24.4	0.0
Cycle Q Clear(g_c), s	12.9	12.0	0.0	10.9	33.2	0.0	0.1	15.5	0.0	0.6	24.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1474		560	1529		2	586		102	799	
V/C Ratio(X)	0.90	0.34		0.53	0.75		0.41	0.81		0.09	0.92	
Avail Cap(c_a), veh/h	388	1474		635	1529		74	867		102	846	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	52.0	21.7	0.0	15.4	28.4	0.0	59.9	48.2	0.0	51.1	35.7	0.0
Incr Delay (d2), s/veh	23.2	0.6	0.0	0.8	3.5	0.0	85.9	3.6	0.0	0.3	12.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	4.8	0.0	4.4	14.4	0.0	0.1	7.1	0.0	0.3	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	22.3	0.0	16.2	31.9	0.0	145.8	51.7	0.0	51.5	48.5	0.0
LnGrp LOS	E	C		B	C		F	D		D	D	
Approach Vol, veh/h		855	A		1447	A		474	A		745	A
Approach Delay, s/veh		43.9			28.7			51.9			48.6	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	60.1	6.7	33.4	21.0	59.0	13.6	26.5
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	18.5	42.0	5.0	29.5	14.5	46.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	12.9	14.0	2.1	26.4	14.9	35.2	2.6	17.5
Green Ext Time (p_c), s	0.4	3.7	0.0	1.4	0.0	5.9	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	622	1100	7	140	525	15	12	830	178	16	554	473
Future Volume (vph)	622	1100	7	140	525	15	12	830	178	16	554	473
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free	6		Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	33.0	53.5		15.0	35.5		11.5	41.0		10.5	40.0	
Total Split (%)	27.5%	44.6%		12.5%	29.6%		9.6%	34.2%		8.8%	33.3%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	25.5	54.4	120.0	46.7	37.8	120.0	6.4	33.0	120.0	5.2	35.4	120.0
Actuated g/C Ratio	0.21	0.45	1.00	0.39	0.32	1.00	0.05	0.28	1.00	0.04	0.30	1.00
v/c Ratio	0.87	0.70	0.00	0.64	0.49	0.01	0.13	0.87	0.11	0.21	0.55	0.31
Control Delay	37.9	39.6	0.0	34.5	36.9	0.0	50.3	43.2	0.1	58.2	33.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	39.6	0.0	34.5	36.9	0.0	50.3	43.2	0.1	58.2	33.2	0.6
LOS	D	D	A	C	D	A	D	D	A	E	C	A
Approach Delay		38.8			35.6			35.7			18.8	
Approach LOS		D			D			D			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 77.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	622	1100	7	140	525	15	12	830	178	16	554	473
Future Volume (veh/h)	622	1100	7	140	525	15	12	830	178	16	554	473
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	635	1122	0	143	536	0	12	847	0	16	565	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	701	1523		267	1046		181	948		30	672	
Arrive On Green	0.20	0.43	0.00	0.07	0.30	0.00	0.10	0.27	0.00	0.03	0.38	0.00
Sat Flow, veh/h	3456	3554	1585	1767	3526	1572	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	635	1122	0	143	536	0	12	847	0	16	565	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1767	1763	1572	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	21.5	31.6	0.0	6.7	15.1	0.0	0.7	27.5	0.0	1.1	17.5	0.0
Cycle Q Clear(g_c), s	21.5	31.6	0.0	6.7	15.1	0.0	0.7	27.5	0.0	1.1	17.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	701	1523		267	1046		181	948		30	672	
V/C Ratio(X)	0.91	0.74		0.53	0.51		0.07	0.89		0.53	0.84	
Avail Cap(c_a), veh/h	763	1523		267	1046		181	1022		74	1014	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	46.7	28.6	0.0	27.6	35.0	0.0	48.7	42.4	0.0	57.5	35.5	0.0
Incr Delay (d2), s/veh	13.8	3.2	0.0	2.1	1.8	0.0	0.2	9.7	0.0	12.6	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	13.9	0.0	3.0	6.8	0.0	0.3	13.3	0.0	0.6	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	31.8	0.0	29.7	36.8	0.0	48.9	52.1	0.0	70.0	39.4	0.0
LnGrp LOS	E	C		C	D		D	D		E	D	
Approach Vol, veh/h		1757	A		679	A		859	A		581	A
Approach Delay, s/veh		42.2			35.3			52.0			40.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	57.9	18.7	28.4	30.8	42.1	8.6	38.5
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	8.5	47.0	5.0	34.5	26.5	29.0	5.0	* 35
Max Q Clear Time (g_c+I1), s	8.7	33.6	2.7	19.5	23.5	17.1	3.1	29.5
Green Ext Time (p_c), s	0.0	6.7	0.0	3.3	0.8	2.8	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	360	525	305	1190	20	5	490	60	10	760	760
Future Volume (vph)	360	525	305	1190	20	5	490	60	10	760	760
Turn Type	Prot	NA	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases			6		Free			Free			Free
Detector Phase	5	2	1	6		3	8		7	4	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	21.0	47.5	26.0	52.5		11.5	36.0		10.5	35.0	
Total Split (%)	17.5%	39.6%	21.7%	43.8%		9.6%	30.0%		8.8%	29.2%	
Yellow Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	19.5	54.8	65.2	50.2	120.0	5.1	28.6	120.0	5.8	29.4	120.0
Actuated g/C Ratio	0.16	0.46	0.54	0.42	1.00	0.04	0.24	1.00	0.05	0.24	1.00
v/c Ratio	0.73	0.37	0.59	0.85	0.01	0.07	0.61	0.04	0.12	0.95	0.52
Control Delay	48.5	38.9	16.2	39.0	0.0	68.0	48.9	0.1	52.2	57.6	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	38.9	16.2	39.0	0.0	68.0	48.9	0.1	52.2	57.6	2.0
LOS	D	D	B	D	A	E	D	A	D	E	A
Approach Delay		42.8		33.9			43.7			29.9	
Approach LOS		D		C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	525	0	305	1190	20	5	490	60	10	760	760
Future Volume (veh/h)	360	525	0	305	1190	20	5	490	60	10	760	760
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	375	547	0	318	1240	0	5	510	0	10	792	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	388	1388		532	1475		11	623		110	835	
Arrive On Green	0.12	0.42	0.00	0.12	0.42	0.00	0.01	0.18	0.00	0.11	0.41	0.00
Sat Flow, veh/h	3209	3300	1472	1753	3497	1560	1767	3526	1572	1725	3441	1535
Grp Volume(v), veh/h	375	547	0	318	1240	0	5	510	0	10	792	0
Grp Sat Flow(s),veh/h/ln	1605	1650	1472	1753	1749	1560	1767	1763	1572	1725	1721	1535
Q Serve(g_s), s	14.0	13.8	0.0	12.2	38.1	0.0	0.3	16.7	0.0	0.6	26.7	0.0
Cycle Q Clear(g_c), s	14.0	13.8	0.0	12.2	38.1	0.0	0.3	16.7	0.0	0.6	26.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1388		532	1475		11	623		110	835	
V/C Ratio(X)	0.97	0.39		0.60	0.84		0.44	0.82		0.09	0.95	
Avail Cap(c_a), veh/h	388	1388		603	1475		74	867		110	846	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	52.5	24.2	0.0	16.6	31.1	0.0	59.4	47.5	0.0	50.4	34.9	0.0
Incr Delay (d2), s/veh	37.0	0.8	0.0	1.3	6.0	0.0	24.8	4.4	0.0	0.3	16.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	5.5	0.0	5.0	17.0	0.0	0.2	7.7	0.0	0.3	11.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.5	25.0	0.0	17.9	37.0	0.0	84.2	51.9	0.0	50.7	51.4	0.0
LnGrp LOS	F	C		B	D		F	D		D	D	
Approach Vol, veh/h		922	A		1558	A		515	A		802	A
Approach Delay, s/veh		51.2			33.1			52.2			51.4	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	57.0	7.3	34.6	21.0	57.1	14.2	27.7
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	19.5	41.0	5.0	29.5	14.5	46.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	14.2	15.8	2.3	28.7	16.0	40.1	2.6	18.7
Green Ext Time (p_c), s	0.5	3.9	0.0	0.5	0.0	3.9	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

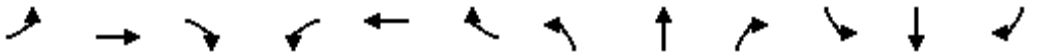
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	670	1180	10	155	565	20	15	890	195	20	595	510
Future Volume (vph)	670	1180	10	155	565	20	15	890	195	20	595	510
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free	6		Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	33.0	53.5		15.0	35.5		11.5	41.0		10.5	40.0	
Total Split (%)	27.5%	44.6%		12.5%	29.6%		9.6%	34.2%		8.8%	33.3%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	26.8	52.4	120.0	45.7	35.6	120.0	6.5	33.8	120.0	5.1	33.4	120.0
Actuated g/C Ratio	0.22	0.44	1.00	0.38	0.30	1.00	0.05	0.28	1.00	0.04	0.28	1.00
v/c Ratio	0.89	0.78	0.01	0.73	0.55	0.01	0.16	0.91	0.13	0.27	0.62	0.33
Control Delay	37.7	41.8	0.0	47.4	39.3	0.0	50.1	46.1	0.1	59.4	36.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	41.8	0.0	47.4	39.3	0.0	50.1	46.1	0.1	59.4	36.0	0.6
LOS	D	D	A	D	D	A	D	D	A	E	D	A
Approach Delay		40.1			40.0			38.0			20.4	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 35.0	Intersection LOS: D
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	670	1180	10	155	565	20	15	890	195	20	595	510
Future Volume (veh/h)	670	1180	10	155	565	20	15	890	195	20	595	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	684	1204	0	158	577	0	15	908	0	20	607	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	739	1473		238	957		186	987		36	713	
Arrive On Green	0.21	0.41	0.00	0.07	0.27	0.00	0.10	0.28	0.00	0.04	0.40	0.00
Sat Flow, veh/h	3456	3554	1585	1767	3526	1572	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	684	1204	0	158	577	0	15	908	0	20	607	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1767	1763	1572	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	23.3	36.0	0.0	7.8	17.1	0.0	0.9	29.7	0.0	1.3	18.8	0.0
Cycle Q Clear(g_c), s	23.3	36.0	0.0	7.8	17.1	0.0	0.9	29.7	0.0	1.3	18.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	739	1473		238	957		186	987		36	713	
V/C Ratio(X)	0.92	0.82		0.66	0.60		0.08	0.92		0.56	0.85	
Avail Cap(c_a), veh/h	763	1473		238	957		186	1022		74	1014	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	46.2	31.1	0.0	30.8	38.1	0.0	48.6	42.0	0.0	57.0	34.1	0.0
Incr Delay (d2), s/veh	16.8	5.1	0.0	6.8	2.8	0.0	0.2	12.8	0.0	11.9	4.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	16.2	0.0	3.7	7.8	0.0	0.4	14.7	0.0	0.7	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	36.2	0.0	37.5	40.9	0.0	48.7	54.8	0.0	68.9	38.8	0.0
LnGrp LOS	E	D		D	D		D	D		E	D	
Approach Vol, veh/h		1888	A		735	A		923	A		627	A
Approach Delay, s/veh		45.9			40.2			54.7			39.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	56.2	19.0	29.8	32.2	39.1	8.9	39.8
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	8.5	47.0	5.0	34.5	26.5	29.0	5.0	* 35
Max Q Clear Time (g_c+I1), s	9.8	38.0	2.9	20.8	25.3	19.1	3.3	31.7
Green Ext Time (p_c), s	0.0	5.4	0.0	3.5	0.4	2.7	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

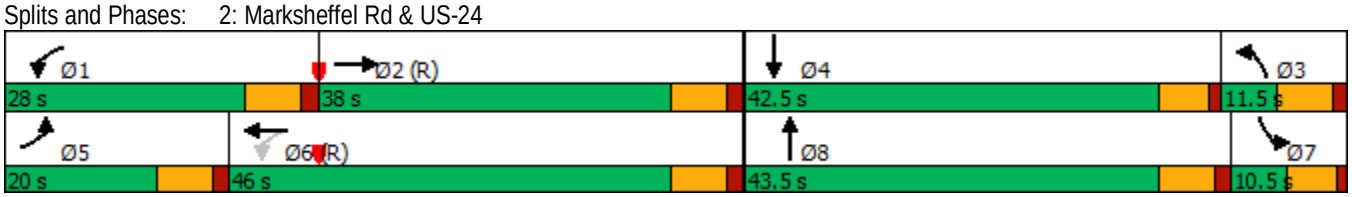
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	550	125	350	1215	20	5	755	105	10	1025	760
Future Volume (vph)	360	550	125	350	1215	20	5	755	105	10	1025	760
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free	6		Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	20.0	38.0		28.0	46.0		11.5	43.5		10.5	42.5	
Total Split (%)	16.7%	31.7%		23.3%	38.3%		9.6%	36.3%		8.8%	35.4%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	20.6	42.2	120.0	61.0	41.5	120.0	5.0	36.3	120.0	5.5	37.1	120.0
Actuated g/C Ratio	0.17	0.35	1.00	0.51	0.35	1.00	0.04	0.30	1.00	0.05	0.31	1.00
v/c Ratio	0.69	0.50	0.09	0.75	1.06	0.01	0.07	0.74	0.07	0.13	1.01	0.52
Control Delay	40.9	46.8	0.1	25.9	80.6	0.0	56.8	40.6	0.1	49.2	60.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	46.8	0.1	25.9	80.6	0.0	56.8	40.6	0.1	49.2	60.5	0.9
LOS	D	D	A	C	F	A	E	D	A	D	E	A
Approach Delay		39.1			67.5			35.7			35.2	
Approach LOS		D			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 45.8	Intersection LOS: D
Intersection Capacity Utilization 87.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	550	125	350	1215	20	5	755	105	10	1025	760
Future Volume (veh/h)	360	550	125	350	1215	20	5	755	105	10	1025	760
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	375	573	0	365	1266	0	5	786	0	10	1068	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	361	1060		481	1275		11	917		80	1061	
Arrive On Green	0.11	0.32	0.00	0.16	0.36	0.00	0.01	0.26	0.00	0.09	0.62	0.00
Sat Flow, veh/h	3209	3300	1472	1753	3497	1560	1767	3526	1572	1725	3441	1535
Grp Volume(v), veh/h	375	573	0	365	1266	0	5	786	0	10	1068	0
Grp Sat Flow(s),veh/h/ln	1605	1650	1472	1753	1749	1560	1767	1763	1572	1725	1721	1535
Q Serve(g_s), s	13.5	17.1	0.0	16.3	43.3	0.0	0.3	25.5	0.0	0.6	37.0	0.0
Cycle Q Clear(g_c), s	13.5	17.1	0.0	16.3	43.3	0.0	0.3	25.5	0.0	0.6	37.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	1060		481	1275		11	917		80	1061	
V/C Ratio(X)	1.04	0.54		0.76	0.99		0.44	0.86		0.12	1.01	
Avail Cap(c_a), veh/h	361	1060		521	1275		74	1087		80	1061	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	53.3	33.5	0.0	22.6	38.0	0.0	59.4	42.3	0.0	52.2	23.0	0.0
Incr Delay (d2), s/veh	57.7	2.0	0.0	5.9	23.7	0.0	24.8	6.1	0.0	0.5	24.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.1	0.0	7.4	22.3	0.0	0.2	11.8	0.0	0.3	13.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.0	35.5	0.0	28.6	61.6	0.0	84.2	48.4	0.0	52.6	47.1	0.0
LnGrp LOS	F	D		C	E		F	D		D	F	
Approach Vol, veh/h		948	A		1631	A		791	A		1078	A
Approach Delay, s/veh		65.3			54.2			48.6			47.1	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.2	45.0	7.3	42.5	20.0	50.2	12.1	37.7
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	21.5	31.5	5.0	37.0	13.5	39.5	5.0	* 37
Max Q Clear Time (g_c+I1), s	18.3	19.1	2.3	39.0	15.5	45.3	2.6	27.5
Green Ext Time (p_c), s	0.4	3.1	0.0	0.0	0.0	0.0	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Notes

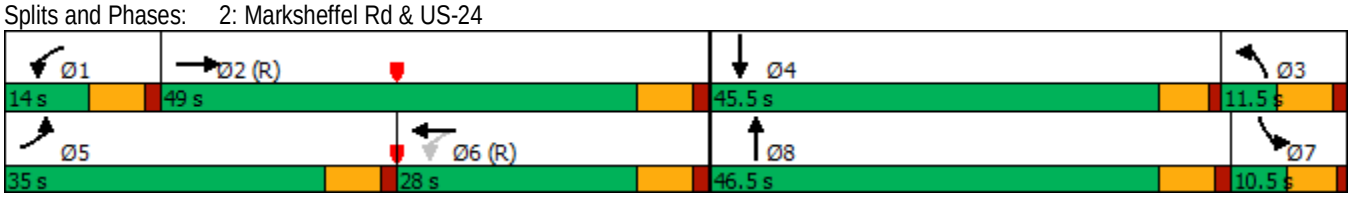
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	670	1200	125	210	585	20	15	1190	245	20	915	510
Future Volume (vph)	670	1200	125	210	585	20	15	1190	245	20	915	510
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free	6		Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	35.0	49.0		14.0	28.0		11.5	46.5		10.5	45.5	
Total Split (%)	29.2%	40.8%		11.7%	23.3%		9.6%	38.8%		8.8%	37.9%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	27.2	42.5	120.0	42.9	29.1	120.0	5.4	40.0	120.0	5.0	40.6	120.0
Actuated g/C Ratio	0.23	0.35	1.00	0.36	0.24	1.00	0.04	0.33	1.00	0.04	0.34	1.00
v/c Ratio	0.88	0.98	0.08	0.79	0.70	0.01	0.19	1.03	0.16	0.27	0.79	0.33
Control Delay	33.2	50.2	0.0	51.5	48.1	0.0	52.0	61.6	0.2	57.7	34.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	50.2	0.0	51.5	48.1	0.0	52.0	61.6	0.2	57.7	34.4	0.5
LOS	C	D	A	D	D	A	D	E	A	E	C	A
Approach Delay		41.3			47.8			51.1			22.8	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 94.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	670	1200	125	210	585	20	15	1190	245	20	915	510
Future Volume (veh/h)	670	1200	125	210	585	20	15	1190	245	20	915	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	684	1224	0	214	597	0	15	1214	0	20	934	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	752	1305		186	747		128	1185		36	1023	
Arrive On Green	0.22	0.37	0.00	0.06	0.21	0.00	0.07	0.33	0.00	0.04	0.58	0.00
Sat Flow, veh/h	3456	3554	1585	1767	3526	1572	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	684	1224	0	214	597	0	15	1214	0	20	934	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1767	1763	1572	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	23.2	39.9	0.0	7.5	19.3	0.0	0.9	40.0	0.0	1.3	28.4	0.0
Cycle Q Clear(g_c), s	23.2	39.9	0.0	7.5	19.3	0.0	0.9	40.0	0.0	1.3	28.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	752	1305		186	747		128	1185		36	1023	
V/C Ratio(X)	0.91	0.94		1.15	0.80		0.12	1.02		0.56	0.91	
Avail Cap(c_a), veh/h	821	1305		186	747		128	1185		74	1175	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	45.8	36.6	0.0	42.5	44.9	0.0	52.1	40.0	0.0	57.0	23.8	0.0
Incr Delay (d2), s/veh	13.3	13.9	0.0	112.0	8.7	0.0	0.4	32.6	0.0	10.8	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	19.5	0.0	7.8	9.3	0.0	0.4	22.5	0.0	0.7	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	50.6	0.0	154.5	53.6	0.0	52.5	72.6	0.0	67.8	32.3	0.0
LnGrp LOS	E	D		F	D		D	F		E	C	
Approach Vol, veh/h		1908	A		811	A		1229	A		954	A
Approach Delay, s/veh		53.6			80.2			72.4			33.1	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	50.6	15.1	40.3	32.6	31.9	8.9	46.5
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	7.5	42.5	5.0	40.0	28.5	21.5	5.0	* 40
Max Q Clear Time (g_c+I1), s	9.5	41.9	2.9	30.4	25.2	21.3	3.3	42.0
Green Ext Time (p_c), s	0.0	0.5	0.0	4.5	1.0	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

Notes

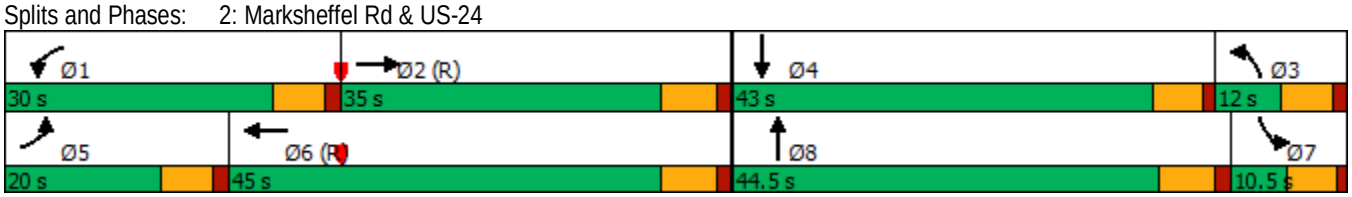
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

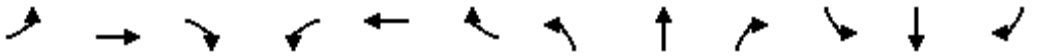
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	550	125	350	1215	20	5	755	105	10	1025	760
Future Volume (vph)	360	550	125	350	1215	20	5	755	105	10	1025	760
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	20.0	35.0		30.0	45.0		12.0	44.5		10.5	43.0	
Total Split (%)	16.7%	29.2%		25.0%	37.5%		10.0%	37.1%		8.8%	35.8%	
Yellow Time (s)	4.5	5.0		4.5	5.0		4.5	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.5		6.0	6.5		6.0	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	20.0	43.9	120.0	18.2	42.0	120.0	5.8	36.8	120.0	5.7	37.5	120.0
Actuated g/C Ratio	0.17	0.37	1.00	0.15	0.35	1.00	0.05	0.31	1.00	0.05	0.31	1.00
v/c Ratio	0.71	0.48	0.09	0.72	1.04	0.01	0.06	0.73	0.07	0.12	1.00	0.52
Control Delay	42.6	45.9	0.1	56.4	75.7	0.0	43.0	29.1	0.1	48.7	57.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	45.9	0.1	56.4	75.7	0.0	43.0	29.1	0.1	48.7	57.6	0.9
LOS	D	D	A	E	E	A	D	C	A	D	E	A
Approach Delay		39.3			70.5			25.7			33.6	
Approach LOS		D			E			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	550	125	350	1215	20	5	755	105	10	1025	760
Future Volume (veh/h)	360	550	125	350	1215	20	5	755	105	10	1025	760
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	375	573	0	365	1266	0	5	786	0	10	1068	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	374	1162		439	1275		11	922		84	1075	
Arrive On Green	0.12	0.35	0.00	0.13	0.36	0.00	0.01	0.26	0.00	0.10	0.63	0.00
Sat Flow, veh/h	3209	3300	1472	3401	3497	1560	1767	3526	1572	1725	3441	1535
Grp Volume(v), veh/h	375	573	0	365	1266	0	5	786	0	10	1068	0
Grp Sat Flow(s),veh/h/ln	1605	1650	1472	1700	1749	1560	1767	1763	1572	1725	1721	1535
Q Serve(g_s), s	14.0	16.3	0.0	12.6	43.3	0.0	0.3	25.4	0.0	0.6	36.8	0.0
Cycle Q Clear(g_c), s	14.0	16.3	0.0	12.6	43.3	0.0	0.3	25.4	0.0	0.6	36.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1162		439	1275		11	922		84	1075	
V/C Ratio(X)	1.00	0.49		0.83	0.99		0.44	0.85		0.12	0.99	
Avail Cap(c_a), veh/h	374	1162		680	1275		88	1116		84	1075	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	53.0	30.5	0.0	51.0	38.0	0.0	59.4	42.1	0.0	51.8	22.4	0.0
Incr Delay (d2), s/veh	46.9	1.5	0.0	5.2	23.7	0.0	24.8	5.6	0.0	0.4	20.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	6.7	0.0	5.7	22.3	0.0	0.2	11.7	0.0	0.3	12.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.9	32.0	0.0	56.2	61.6	0.0	84.2	47.7	0.0	52.2	43.0	0.0
LnGrp LOS	F	C		E	E		F	D		D	D	
Approach Vol, veh/h		948	A		1631	A		791	A		1078	A
Approach Delay, s/veh		58.8			60.4			47.9			43.1	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	48.7	6.8	43.0	20.0	50.2	11.9	37.9
Change Period (Y+Rc), s	6.0	6.5	6.0	5.5	6.0	6.5	6.0	* 6.5
Max Green Setting (Gmax), s	24.0	28.5	6.0	37.5	14.0	38.5	5.0	* 38
Max Q Clear Time (g_c+I1), s	14.6	18.3	2.3	38.8	16.0	45.3	2.6	27.4
Green Ext Time (p_c), s	0.9	2.8	0.0	0.0	0.0	0.0	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

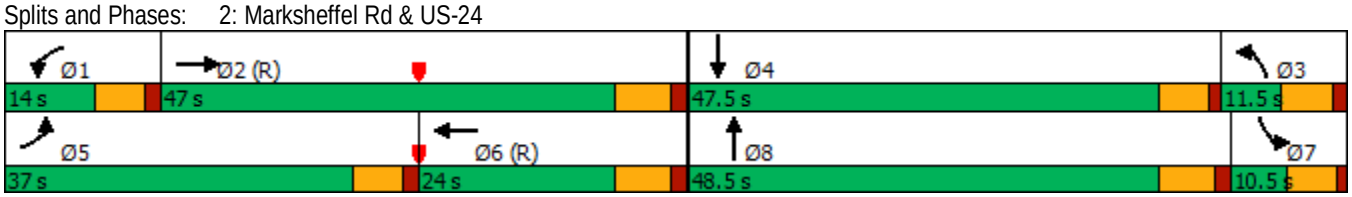
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

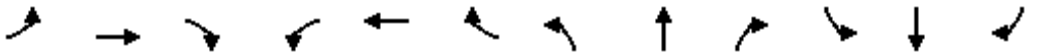
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	670	1200	125	210	585	20	15	1190	245	20	915	510
Future Volume (vph)	670	1200	125	210	585	20	15	1190	245	20	915	510
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	37.0	47.0		14.0	24.0		11.5	48.5		10.5	47.5	
Total Split (%)	30.8%	39.2%		11.7%	20.0%		9.6%	40.4%		8.8%	39.6%	
Yellow Time (s)	4.5	5.0		4.5	5.0		4.5	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.5		6.0	6.5		6.0	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	28.0	43.9	120.0	10.9	26.8	120.0	5.7	42.0	120.0	5.0	42.6	120.0
Actuated g/C Ratio	0.23	0.37	1.00	0.09	0.22	1.00	0.05	0.35	1.00	0.04	0.36	1.00
v/c Ratio	0.85	0.95	0.08	0.69	0.76	0.01	0.18	0.98	0.16	0.27	0.75	0.33
Control Delay	36.7	51.8	0.1	65.7	52.3	0.0	52.9	55.6	0.2	57.6	31.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	51.8	0.1	65.7	52.3	0.0	52.9	55.6	0.2	57.6	31.6	0.5
LOS	D	D	A	E	D	A	D	E	A	E	C	A
Approach Delay		43.5			54.5			46.2			21.0	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	670	1200	125	210	585	20	15	1190	245	20	915	510
Future Volume (veh/h)	670	1200	125	210	585	20	15	1190	245	20	915	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	684	1224	0	214	597	0	15	1214	0	20	934	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	764	1261		229	706		153	1244		36	1033	
Arrive On Green	0.22	0.35	0.00	0.07	0.20	0.00	0.09	0.35	0.00	0.04	0.59	0.00
Sat Flow, veh/h	3456	3554	1585	3428	3526	1572	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	684	1224	0	214	597	0	15	1214	0	20	934	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1572	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	23.1	40.7	0.0	7.5	19.6	0.0	0.9	40.5	0.0	1.3	28.0	0.0
Cycle Q Clear(g_c), s	23.1	40.7	0.0	7.5	19.6	0.0	0.9	40.5	0.0	1.3	28.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	764	1261		229	706		153	1244		36	1033	
V/C Ratio(X)	0.89	0.97		0.94	0.85		0.10	0.98		0.56	0.90	
Avail Cap(c_a), veh/h	893	1261		229	706		153	1244		74	1234	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	45.4	38.1	0.0	55.7	46.2	0.0	50.6	38.5	0.0	57.0	23.4	0.0
Incr Delay (d2), s/veh	10.4	19.3	0.0	42.2	11.9	0.0	0.3	19.9	0.0	10.8	7.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	20.8	0.0	4.6	9.7	0.0	0.4	20.7	0.0	0.7	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	57.4	0.0	97.9	58.1	0.0	50.9	58.4	0.0	67.8	30.6	0.0
LnGrp LOS	E	E		F	E		D	E		E	C	
Approach Vol, veh/h		1908	A		811	A		1229	A		954	A
Approach Delay, s/veh		56.8			68.6			58.3			31.4	
Approach LOS		E			E			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	49.1	16.3	40.7	32.5	30.5	8.4	48.5
Change Period (Y+Rc), s	6.0	6.5	6.0	5.5	6.0	6.5	6.0	* 6.5
Max Green Setting (Gmax), s	8.0	40.5	5.5	42.0	31.0	17.5	5.0	* 42
Max Q Clear Time (g_c+I1), s	9.5	42.7	2.9	30.0	25.1	21.6	3.3	42.5
Green Ext Time (p_c), s	0.0	0.0	0.0	5.2	1.5	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

Notes

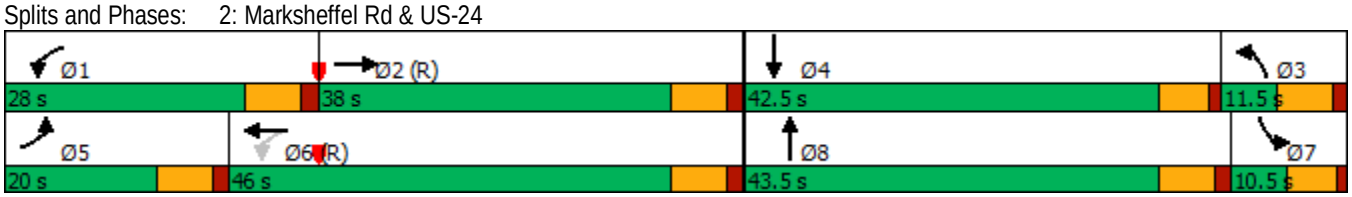
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	425	615	370	1395	25	5	755	100	15	955	890
Future Volume (vph)	425	615	370	1395	25	5	755	100	15	955	890
Turn Type	Prot	NA	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases			6		Free			Free			Free
Detector Phase	5	2	1	6		3	8		7	4	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	20.0	38.0	28.0	46.0		11.5	43.5		10.5	42.5	
Total Split (%)	16.7%	31.7%	23.3%	38.3%		9.6%	36.3%		8.8%	35.4%	
Yellow Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	20.4	38.1	60.7	39.5	120.0	5.0	36.3	120.0	5.6	39.3	120.0
Actuated g/C Ratio	0.17	0.32	0.51	0.33	1.00	0.04	0.30	1.00	0.05	0.33	1.00
v/c Ratio	0.83	0.62	0.85	1.27	0.02	0.07	0.74	0.07	0.20	0.89	0.61
Control Delay	54.1	58.0	37.8	164.5	0.0	57.2	39.7	0.1	50.2	38.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	58.0	37.8	164.5	0.0	57.2	39.7	0.1	50.2	38.4	2.7
LOS	D	E	D	F	A	E	D	A	D	D	A
Approach Delay		56.4		136.0			35.2			21.4	
Approach LOS		E		F			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 67.1	Intersection LOS: E
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	615	0	370	1395	25	5	755	100	15	955	890
Future Volume (veh/h)	425	615	0	370	1395	25	5	755	100	15	955	890
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	443	641	0	385	1453	0	5	786	0	16	995	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	361	1065		467	1299		11	917		68	1037	
Arrive On Green	0.11	0.32	0.00	0.16	0.37	0.00	0.01	0.26	0.00	0.08	0.60	0.00
Sat Flow, veh/h	3209	3300	1472	1753	3497	1560	1767	3526	1572	1725	3441	1535
Grp Volume(v), veh/h	443	641	0	385	1453	0	5	786	0	16	995	0
Grp Sat Flow(s),veh/h/ln	1605	1650	1472	1753	1749	1560	1767	1763	1572	1725	1721	1535
Q Serve(g_s), s	13.5	19.6	0.0	17.0	44.6	0.0	0.3	25.5	0.0	1.0	32.7	0.0
Cycle Q Clear(g_c), s	13.5	19.6	0.0	17.0	44.6	0.0	0.3	25.5	0.0	1.0	32.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	1065		467	1299		11	917		68	1037	
V/C Ratio(X)	1.23	0.60		0.83	1.12		0.44	0.86		0.24	0.96	
Avail Cap(c_a), veh/h	361	1065		498	1299		74	1087		72	1061	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.63	0.63	0.00
Uniform Delay (d), s/veh	53.3	34.2	0.0	23.2	37.7	0.0	59.4	42.3	0.0	53.6	23.2	0.0
Incr Delay (d2), s/veh	124.3	2.5	0.0	10.4	64.1	0.0	24.8	6.1	0.0	1.1	13.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	8.2	0.0	8.2	30.2	0.0	0.2	11.8	0.0	0.5	10.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	177.5	36.7	0.0	33.6	101.8	0.0	84.2	48.4	0.0	54.7	36.7	0.0
LnGrp LOS	F	D		C	F		F	D		D	D	
Approach Vol, veh/h		1084	A		1838	A		791	A		1011	A
Approach Delay, s/veh		94.3			87.5			48.6			37.0	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.9	45.2	7.3	41.6	20.0	51.1	11.2	37.7
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	21.5	31.5	5.0	37.0	13.5	39.5	5.0	* 37
Max Q Clear Time (g_c+I1), s	19.0	21.6	2.3	34.7	15.5	46.6	3.0	27.5
Green Ext Time (p_c), s	0.3	3.1	0.0	1.4	0.0	0.0	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	71.7
HCM 6th LOS	E

Notes

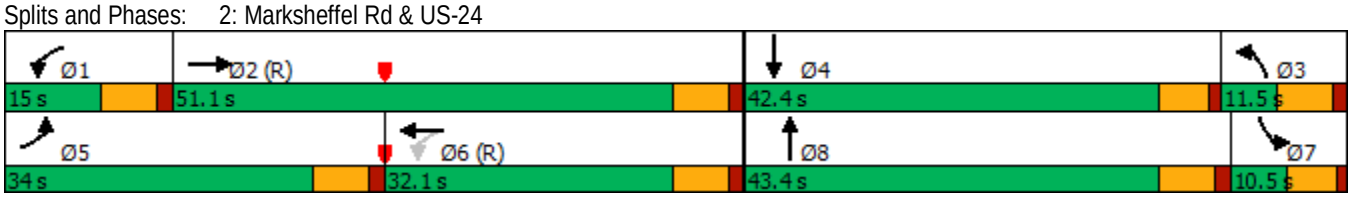
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	785	1390	10	210	665	20	20	1165	245	25	895	600
Future Volume (vph)	785	1390	10	210	665	20	20	1165	245	25	895	600
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free	6		Free			Free			Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		11.5	11.5		10.5	10.5	
Total Split (s)	34.0	51.1		15.0	32.1		11.5	43.4		10.5	42.4	
Total Split (%)	28.3%	42.6%		12.5%	26.8%		9.6%	36.2%		8.8%	35.3%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	30.7	44.6	120.0	39.3	26.6	120.0	5.4	36.9	120.0	5.0	39.6	120.0
Actuated g/C Ratio	0.26	0.37	1.00	0.33	0.22	1.00	0.04	0.31	1.00	0.04	0.33	1.00
v/c Ratio	0.91	1.08	0.01	0.83	0.87	0.01	0.25	1.09	0.16	0.36	0.79	0.39
Control Delay	43.5	90.3	0.0	56.8	58.6	0.0	51.1	84.0	0.2	60.4	35.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	90.3	0.0	56.8	58.6	0.0	51.1	84.0	0.2	60.4	35.0	0.6
LOS	D	F	A	E	E	A	D	F	A	E	C	A
Approach Delay		73.1			56.9			69.2			21.9	
Approach LOS		E			E			E			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 56.8	Intersection LOS: E
Intersection Capacity Utilization 98.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	785	1390	10	210	665	20	20	1165	245	25	895	600
Future Volume (veh/h)	785	1390	10	210	665	20	20	1165	245	25	895	600
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	801	1418	0	214	679	0	20	1189	0	26	913	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	792	1353		185	784		106	1093		43	988	
Arrive On Green	0.23	0.38	0.00	0.07	0.22	0.00	0.06	0.31	0.00	0.05	0.56	0.00
Sat Flow, veh/h	3456	3554	1585	1767	3526	1572	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	801	1418	0	214	679	0	20	1189	0	26	913	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1767	1763	1572	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	27.5	45.7	0.0	8.5	22.3	0.0	1.3	36.9	0.0	1.7	28.3	0.0
Cycle Q Clear(g_c), s	27.5	45.7	0.0	8.5	22.3	0.0	1.3	36.9	0.0	1.7	28.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	792	1353		185	784		106	1093		43	988	
V/C Ratio(X)	1.01	1.05		1.16	0.87		0.19	1.09		0.61	0.92	
Avail Cap(c_a), veh/h	792	1353		185	784		106	1093		74	1084	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	46.3	37.1	0.0	39.1	44.9	0.0	53.6	41.6	0.0	56.5	25.2	0.0
Incr Delay (d2), s/veh	34.8	38.0	0.0	114.3	12.3	0.0	0.8	54.4	0.0	10.8	10.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	26.5	0.0	7.3	11.0	0.0	0.6	24.2	0.0	0.9	9.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	75.1	0.0	153.4	57.2	0.0	54.5	96.0	0.0	67.4	35.6	0.0
LnGrp LOS	F	F		F	E		D	F		E	D	
Approach Vol, veh/h		2219	A		893	A		1209	A		939	A
Approach Delay, s/veh		77.3			80.2			95.3			36.4	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	52.2	13.7	39.1	34.0	33.2	9.4	43.4
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	8.5	44.6	5.0	36.9	27.5	25.6	5.0	* 37
Max Q Clear Time (g_c+I1), s	10.5	47.7	3.3	30.3	29.5	24.3	3.7	38.9
Green Ext Time (p_c), s	0.0	0.0	0.0	3.3	0.0	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	74.6
HCM 6th LOS	E

Notes

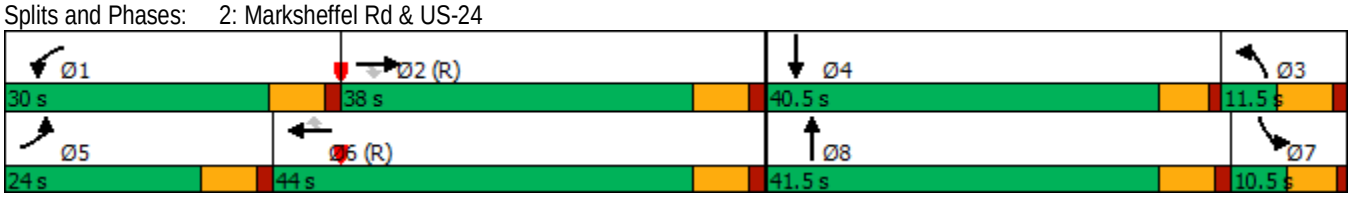
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

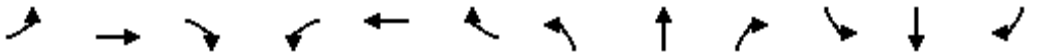
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	425	645	140	435	1425	25	5	1100	160	15	1330	890
Future Volume (vph)	425	645	140	435	1425	25	5	1100	160	15	1330	890
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	11.5	11.5		10.5	10.5	
Total Split (s)	24.0	38.0	38.0	30.0	44.0	44.0	11.5	41.5		10.5	40.5	
Total Split (%)	20.0%	31.7%	31.7%	25.0%	36.7%	36.7%	9.6%	34.6%		8.8%	33.8%	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	20.2	41.0	41.0	20.7	41.5	41.5	5.0	34.6	120.0	5.2	37.5	120.0
Actuated g/C Ratio	0.17	0.34	0.34	0.17	0.35	0.35	0.04	0.29	1.00	0.04	0.31	1.00
v/c Ratio	0.84	0.42	0.25	0.78	0.86	0.04	0.07	0.79	0.11	0.22	0.91	0.61
Control Delay	51.2	45.9	25.9	57.4	43.3	0.1	37.6	25.3	0.1	49.5	36.1	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	45.9	25.9	57.4	43.3	0.1	37.6	25.3	0.1	49.5	36.1	1.2
LOS	D	D	C	E	D	A	D	C	A	D	D	A
Approach Delay		45.5			45.9			22.2			22.3	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	645	140	435	1425	25	5	1100	160	15	1330	890
Future Volume (veh/h)	425	645	140	435	1425	25	5	1100	160	15	1330	890
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1841	1841	1841	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	443	672	0	453	1484	0	5	1146	0	16	1385	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	4	4	4	3	3	3	6	6	6
Cap, veh/h	468	1617		524	1755		11	1340		41	1435	
Arrive On Green	0.15	0.34	0.00	0.15	0.35	0.00	0.01	0.35	0.00	0.05	0.58	0.00
Sat Flow, veh/h	3209	4742	1472	3401	5025	1560	1767	5066	1572	1725	4944	1535
Grp Volume(v), veh/h	443	672	0	453	1484	0	5	1146	0	16	1385	0
Grp Sat Flow(s),veh/h/ln	1605	1581	1472	1700	1675	1560	1767	1689	1572	1725	1648	1535
Q Serve(g_s), s	16.4	13.1	0.0	15.6	32.7	0.0	0.3	25.2	0.0	1.1	32.1	0.0
Cycle Q Clear(g_c), s	16.4	13.1	0.0	15.6	32.7	0.0	0.3	25.2	0.0	1.1	32.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	1617		524	1755		11	1340		41	1435	
V/C Ratio(X)	0.95	0.42		0.86	0.85		0.44	0.86		0.39	0.97	
Avail Cap(c_a), veh/h	468	1617		666	1755		74	1477		72	1442	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.95	0.95	0.00	0.36	0.36	0.00
Uniform Delay (d), s/veh	50.8	30.4	0.0	49.5	36.1	0.0	59.3	36.8	0.0	56.3	24.6	0.0
Incr Delay (d2), s/veh	28.5	0.8	0.0	9.4	5.2	0.0	23.7	4.6	0.0	2.2	7.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	5.1	0.0	7.3	14.0	0.0	0.2	10.3	0.0	0.5	9.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.3	31.2	0.0	58.9	41.3	0.0	83.0	41.3	0.0	58.5	32.5	0.0
LnGrp LOS	E	C		E	D		F	D		E	C	
Approach Vol, veh/h		1115	A		1937	A		1151	A		1401	A
Approach Delay, s/veh		50.3			45.4			41.5			32.8	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	47.4	7.3	40.3	24.0	48.4	9.4	38.2
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	23.5	31.5	5.0	35.0	17.5	37.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	17.6	15.1	2.3	34.1	18.4	34.7	3.1	27.2
Green Ext Time (p_c), s	0.9	4.3	0.0	0.7	0.0	2.2	0.0	4.6

Intersection Summary		
HCM 6th Ctrl Delay		42.4
HCM 6th LOS		D

Notes

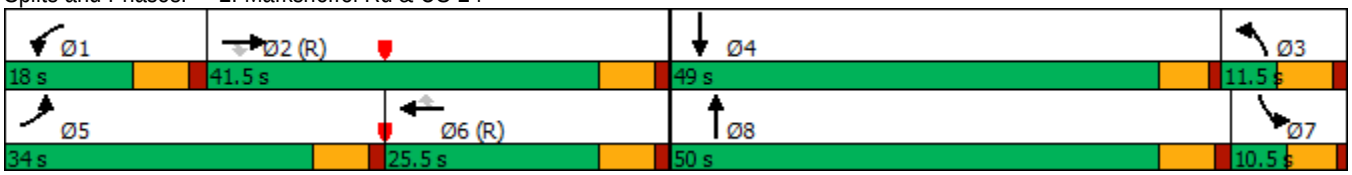
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	785	1415	205	325	690	20	20	1765	345	25	1560	600
Future Volume (vph)	785	1415	205	325	690	20	20	1765	345	25	1560	600
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	11.5	11.5		10.5	10.5	
Total Split (s)	34.0	41.5	41.5	18.0	25.5	25.5	11.5	50.0		10.5	49.0	
Total Split (%)	28.3%	34.6%	34.6%	15.0%	21.3%	21.3%	9.6%	41.7%		8.8%	40.8%	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	30.7	36.5	36.5	14.2	20.0	20.0	5.1	43.5	120.0	5.0	46.2	120.0
Actuated g/C Ratio	0.26	0.30	0.30	0.12	0.17	0.17	0.04	0.36	1.00	0.04	0.38	1.00
v/c Ratio	0.91	0.93	0.36	0.83	0.84	0.05	0.27	0.98	0.22	0.36	0.82	0.39
Control Delay	33.5	47.7	21.8	69.9	58.6	0.2	59.9	45.3	0.3	53.6	28.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	47.7	21.8	69.9	58.6	0.2	59.9	45.3	0.3	53.6	28.5	0.4
LOS	C	D	C	E	E	A	E	D	A	D	C	A
Approach Delay		40.8			61.1			38.2			21.1	
Approach LOS		D			E			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 37.3	Intersection LOS: D
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Marksheffel Rd & US-24



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	785	1415	205	325	690	20	20	1765	345	25	1560	600
Future Volume (veh/h)	785	1415	205	325	690	20	20	1765	345	25	1560	600
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	801	1444	0	332	704	0	20	1801	0	26	1592	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	3	3	3
Cap, veh/h	792	1536		329	849		96	1851		43	1729	
Arrive On Green	0.23	0.30	0.00	0.10	0.17	0.00	0.05	0.36	0.00	0.05	0.68	0.00
Sat Flow, veh/h	3456	5106	1585	3428	5066	1572	1781	5106	1585	1767	5066	1572
Grp Volume(v), veh/h	801	1444	0	332	704	0	20	1801	0	26	1592	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1714	1689	1572	1781	1702	1585	1767	1689	1572
Q Serve(g_s), s	27.5	33.1	0.0	11.5	16.1	0.0	1.3	41.7	0.0	1.7	32.2	0.0
Cycle Q Clear(g_c), s	27.5	33.1	0.0	11.5	16.1	0.0	1.3	41.7	0.0	1.7	32.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	792	1536		329	849		96	1851		43	1729	
V/C Ratio(X)	1.01	0.94		1.01	0.83		0.21	0.97		0.61	0.92	
Avail Cap(c_a), veh/h	792	1536		329	849		96	1851		74	1836	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.81	0.81	0.00	0.44	0.44	0.00
Uniform Delay (d), s/veh	46.3	40.9	0.0	54.2	48.3	0.0	54.3	37.7	0.0	56.5	17.7	0.0
Incr Delay (d2), s/veh	34.8	12.5	0.0	52.3	9.2	0.0	0.9	13.1	0.0	6.0	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	15.5	0.0	7.3	7.5	0.0	0.6	19.3	0.0	0.8	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	53.4	0.0	106.6	57.5	0.0	55.2	50.8	0.0	62.6	21.5	0.0
LnGrp LOS	F	D		F	E		E	D		E	C	
Approach Vol, veh/h		2245	A		1036	A		1821	A		1618	A
Approach Delay, s/veh		63.3			73.2			50.8			22.1	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	42.6	12.9	46.5	34.0	26.6	9.4	50.0
Change Period (Y+Rc), s	6.5	6.5	6.5	5.5	6.5	6.5	6.5	* 6.5
Max Green Setting (Gmax), s	11.5	35.0	5.0	43.5	27.5	19.0	5.0	* 44
Max Q Clear Time (g_c+I1), s	13.5	35.1	3.3	34.2	29.5	18.1	3.7	43.7
Green Ext Time (p_c), s	0.0	0.0	0.0	6.7	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	27	0	0	9	122	0	0	0	201	0	1
Future Vol, veh/h	5	27	0	0	9	122	0	0	0	201	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	6	31	0	0	10	139	0	0	0	228	0	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	532	457	1	472	457	0	1	0	0	0	0	0
Stage 1	457	457	-	0	0	-	-	-	-	-	-	-
Stage 2	75	0	-	472	457	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	458	500	1084	502	500	-	1622	-	-	-	-	-
Stage 1	583	568	-	-	-	-	-	-	-	-	-	-
Stage 2	934	-	-	573	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	500	1084	479	500	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	291	525	-	503	528	-	-	-	-	-	-	-
Stage 1	583	568	-	-	-	-	-	-	-	-	-	-
Stage 2	934	-	-	542	568	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	525	-	528	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.058	-	0.019	-	-	-	-
HCM Control Delay (s)	0	-	-	-	12.3	0	12	-	-	-	-
HCM Lane LOS	A	-	-	-	B	A	B	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	-	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	32	0	0	35	95	0	0	0	263	0	9
Future Vol, veh/h	11	32	0	0	35	95	0	0	0	263	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	6	6	6	8	8	8	2	2	2	2	2	2
Mvmt Flow	13	38	0	0	42	113	0	0	0	313	0	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	710	632	6	651	637	0	11	0	0	0	0	0
Stage 1	632	632	-	0	0	-	-	-	-	-	-	-
Stage 2	78	0	-	651	637	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.18	6.58	6.28	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.572	4.072	3.372	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	343	392	1065	373	387	-	1608	-	-	-	-	-
Stage 1	462	468	-	-	-	-	-	-	-	-	-	-
Stage 2	921	-	-	447	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	392	1065	348	387	-	1608	-	-	-	-	-
Mov Cap-2 Maneuver	239	436	-	388	438	-	-	-	-	-	-	-
Stage 1	462	468	-	-	-	-	-	-	-	-	-	-
Stage 2	921	-	-	411	462	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	-	436	-	438	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.087	-	0.095	-	-	-	-
HCM Control Delay (s)	0	-	-	-	14	0	14.1	-	-	-	-
HCM Lane LOS	A	-	-	-	B	A	B	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	-	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	30	0	0	10	135	0	0	0	220	0	5
Future Vol, veh/h	10	30	0	0	10	135	0	0	0	220	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	11	34	0	0	11	153	0	0	0	250	0	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	585	503	3	520	506	0	6	0	0	0	0	0
Stage 1	503	503	-	0	0	-	-	-	-	-	-	-
Stage 2	82	0	-	520	506	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	422	471	1081	467	469	-	1615	-	-	-	-	-
Stage 1	551	541	-	-	-	-	-	-	-	-	-	-
Stage 2	926	-	-	539	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	471	1081	443	469	-	1615	-	-	-	-	-
Mov Cap-2 Maneuver	277	501	-	470	504	-	-	-	-	-	-	-
Stage 1	551	541	-	-	-	-	-	-	-	-	-	-
Stage 2	926	-	-	505	540	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	-	501	-	504	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.068	-	0.023	-	-	-	-
HCM Control Delay (s)	0	-	-	-	12.7	0	12.3	-	-	-	-
HCM Lane LOS	A	-	-	-	B	A	B	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	-	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	35	0	0	40	105	0	0	0	285	0	10
Future Vol, veh/h	15	35	0	0	40	105	0	0	0	285	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	6	6	6	8	8	8	2	2	2	2	2	2
Mvmt Flow	18	42	0	0	48	125	0	0	0	339	0	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	771	684	6	705	690	0	12	0	0	0	0	0
Stage 1	684	684	-	0	0	-	-	-	-	-	-	-
Stage 2	87	0	-	705	690	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.18	6.58	6.28	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.572	4.072	3.372	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	312	366	1065	343	361	-	1607	-	-	-	-	-
Stage 1	432	443	-	-	-	-	-	-	-	-	-	-
Stage 2	911	-	-	418	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	366	1065	317	361	-	1607	-	-	-	-	-
Mov Cap-2 Maneuver	224	413	-	360	417	-	-	-	-	-	-	-
Stage 1	432	443	-	-	-	-	-	-	-	-	-	-
Stage 2	911	-	-	379	437	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1607	-	-	-	413	-	417	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.101	-	0.114	-	-	-	-
HCM Control Delay (s)	0	-	-	-	14.7	0	14.7	-	-	-	-
HCM Lane LOS	A	-	-	-	B	A	B	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	-	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	103.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	30	0	335	10	145	0	140	330	250	145	5
Future Vol, veh/h	10	30	0	335	10	145	0	140	330	250	145	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	11	34	0	381	11	165	0	159	375	284	165	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1171	1270	168	1100	1086	347	171	0	0	534	0	0
Stage 1	736	736	-	347	347	-	-	-	-	-	-	-
Stage 2	435	534	-	753	739	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	170	168	876	~ 190	216	696	1406	-	-	1014	-	-
Stage 1	411	425	-	669	635	-	-	-	-	-	-	-
Stage 2	600	524	-	402	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	98	121	876	~ 128	156	696	1406	-	-	1014	-	-
Mov Cap-2 Maneuver	140	177	-	~ 212	246	-	-	-	-	-	-	-
Stage 1	411	306	-	669	635	-	-	-	-	-	-	-
Stage 2	450	524	-	~ 257	305	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.8	287.6	0	6.2
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1406	-	-	140	177	212	246	696	1014	-	-
HCM Lane V/C Ratio	-	-	-	0.081	0.193	1.796	0.046	0.237	0.28	-	-
HCM Control Delay (s)	0	-	-	33	30.1	$ 415	20.3	11.8	9.9	-	-
HCM Lane LOS	A	-	-	D	D	F	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.7	26.5	0.1	0.9	1.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	98.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	35	0	255	40	135	0	95	225	305	110	10
Future Vol, veh/h	15	35	0	255	40	135	0	95	225	305	110	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	100	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	6	6	6	8	8	8	2	2	2	2	2	2
Mvmt Flow	18	42	0	304	48	161	0	113	268	363	131	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1215	1244	137	1131	1116	247	143	0	0	381	0	0
Stage 1	863	863	-	247	247	-	-	-	-	-	-	-
Stage 2	352	381	-	884	869	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.18	6.58	6.28	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.572	4.072	3.372	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	155	171	901	~ 176	202	777	1440	-	-	1177	-	-
Stage 1	344	366	-	744	691	-	-	-	-	-	-	-
Stage 2	657	606	-	332	361	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	78	118	901	~ 109	140	777	1440	-	-	1177	-	-
Mov Cap-2 Maneuver	106	167	-	~ 166	211	-	-	-	-	-	-	-
Stage 1	344	253	-	744	691	-	-	-	-	-	-	-
Stage 2	485	606	-	~ 192	250	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	37.2	268.3	0	6.8
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1440	-	-	106	167	166	211	777	1177	-	-
HCM Lane V/C Ratio	-	-	-	0.168	0.25	1.829	0.226	0.207	0.308	-	-
HCM Control Delay (s)	0	-	-	45.7	33.6	$ 442.5	27	10.8	9.4	-	-
HCM Lane LOS	A	-	-	E	D	F	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.9	22.3	0.8	0.8	1.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	45	557	534	455
Demand Flow Rate, veh/h	46	568	544	482
Vehicles Circulating, veh/h	865	173	347	400
Vehicles Exiting, veh/h	17	718	564	341
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.4	5.6	11.3	11.3
Approach LOS	A	A	B	B

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.704	0.296	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	46	400	168	544	482
Cap Entry Lane, veh/h	571	1213	1213	969	918
Entry HV Adj Factor	0.985	0.979	0.982	0.981	0.944
Flow Entry, veh/h	45	392	165	534	455
Cap Entry, veh/h	563	1188	1192	950	866
V/C Ratio	0.081	0.330	0.138	0.562	0.525
Control Delay, s/veh	7.4	6.2	4.2	11.3	11.3
LOS	A	A	A	B	B
95th %tile Queue, veh	0	1	0	4	3

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	60	513	381	506
Demand Flow Rate, veh/h	64	554	388	516
Vehicles Circulating, veh/h	832	134	434	380
Vehicles Exiting, veh/h	64	688	462	308
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.8	5.4	9.5	11.4
Approach LOS	A	A	A	B

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.686	0.314	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	64	380	174	388	516
Cap Entry Lane, veh/h	591	1257	1257	886	937
Entry HV Adj Factor	0.945	0.927	0.925	0.981	0.981
Flow Entry, veh/h	60	352	161	381	506
Cap Entry, veh/h	558	1165	1163	870	919
V/C Ratio	0.108	0.302	0.138	0.438	0.551
Control Delay, s/veh	7.8	5.9	4.3	9.5	11.4
LOS	A	A	A	A	B
95th %tile Queue, veh	0	1	0	2	3

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	51	193	0	296
Demand Flow Rate, veh/h	52	197	0	313
Vehicles Circulating, veh/h	307	11	359	17
Vehicles Exiting, veh/h	23	348	0	191
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	3.6	0.0	4.8
Approach LOS	A	A	-	A

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.086	0.914	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	52	17	180	0	313
Cap Entry Lane, veh/h	1009	1406	1406	957	1356
Entry HV Adj Factor	0.985	0.980	0.978	1.000	0.946
Flow Entry, veh/h	51	17	176	0	296
Cap Entry, veh/h	993	1378	1375	957	1282
V/C Ratio	0.052	0.012	0.128	0.000	0.231
Control Delay, s/veh	4.1	2.7	3.6	3.8	4.8
LOS	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	1

Intersection	
Intersection Delay, s/veh	5.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	72	197	0	417
Demand Flow Rate, veh/h	76	212	0	425
Vehicles Circulating, veh/h	407	19	483	58
Vehicles Exiting, veh/h	76	464	0	173
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	3.5	0.0	5.8
Approach LOS	A	A	-	A

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.274	0.726	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	76	58	154	0	425
Cap Entry Lane, veh/h	911	1396	1396	843	1301
Entry HV Adj Factor	0.944	0.926	0.929	1.000	0.981
Flow Entry, veh/h	72	54	143	0	417
Cap Entry, veh/h	860	1292	1296	843	1276
V/C Ratio	0.083	0.042	0.110	0.000	0.327
Control Delay, s/veh	5.0	3.1	3.7	4.3	5.8
LOS	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	1

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	51	625	585	512
Demand Flow Rate, veh/h	52	637	597	542
Vehicles Circulating, veh/h	964	191	395	445
Vehicles Exiting, veh/h	23	801	621	383
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.4	6.1	14.2	14.2
Approach LOS	A	A	B	B

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.699	0.301	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	52	445	192	597	542
Cap Entry Lane, veh/h	516	1194	1194	922	876
Entry HV Adj Factor	0.985	0.981	0.979	0.981	0.945
Flow Entry, veh/h	51	437	188	585	512
Cap Entry, veh/h	508	1171	1169	904	828
V/C Ratio	0.101	0.373	0.161	0.647	0.618
Control Delay, s/veh	8.4	6.8	4.5	14.2	14.2
LOS	A	A	A	B	B
95th %tile Queue, veh	0	2	1	5	4

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

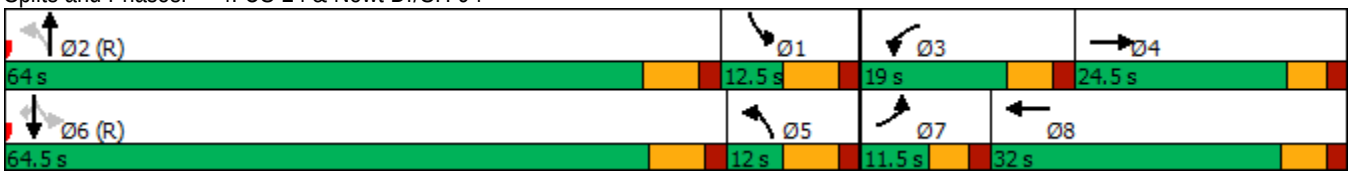
Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	72	608	476	602
Demand Flow Rate, veh/h	76	656	486	613
Vehicles Circulating, veh/h	1000	165	507	463
Vehicles Exiting, veh/h	76	828	569	358
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.8	6.3	13.7	17.6
Approach LOS	A	A	B	C

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.706	0.294	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	76	463	193	486	613
Cap Entry Lane, veh/h	498	1222	1222	823	861
Entry HV Adj Factor	0.944	0.926	0.927	0.980	0.982
Flow Entry, veh/h	72	429	179	476	602
Cap Entry, veh/h	470	1132	1133	806	845
V/C Ratio	0.153	0.379	0.158	0.591	0.712
Control Delay, s/veh	9.8	7.0	4.6	13.7	17.6
LOS	A	A	A	B	C
95th %tile Queue, veh	1	2	1	4	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	28	196	440	39	1	144	798	379	4	1735	36
Future Volume (vph)	16	28	196	440	39	1	144	798	379	4	1735	36
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		19.0	32.0		12.0	64.0		12.5	64.5	64.5
Total Split (%)	9.6%	20.4%		15.8%	26.7%		10.0%	53.3%		10.4%	53.8%	53.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.8	7.5	120.0	13.0	16.8	120.0	84.1	83.1	120.0	79.1	73.6	73.6
Actuated g/C Ratio	0.05	0.06	1.00	0.11	0.14	1.00	0.70	0.69	1.00	0.66	0.61	0.61
v/c Ratio	0.10	0.26	0.13	1.25	0.08	0.00	1.12	0.36	0.27	0.01	0.86	0.04
Control Delay	55.9	58.6	0.2	160.8	24.1	0.0	150.4	9.7	0.4	6.8	24.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	58.6	0.2	160.8	24.1	0.0	150.4	9.7	0.4	6.8	24.2	0.1
LOS	E	E	A	F	C	A	F	A	A	A	C	A
Approach Delay		10.7			149.5			22.3			23.7	
Approach LOS		B			F			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 38.2	Intersection LOS: D
Intersection Capacity Utilization 91.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	28	196	440	39	1	144	798	379	4	1735	36
Future Volume (veh/h)	16	28	196	440	39	1	144	798	379	4	1735	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	16	29	0	454	40	0	148	823	0	4	1789	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	58	72		368	470		321	1581		532	1649	
Arrive On Green	0.02	0.04	0.00	0.11	0.13	0.00	0.16	0.47	0.00	0.16	0.48	0.00
Sat Flow, veh/h	3374	1826	1547	3401	3497	1560	1668	3328	1485	1725	3441	1535
Grp Volume(v), veh/h	16	29	0	454	40	0	148	823	0	4	1789	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1700	1749	1560	1668	1664	1485	1725	1721	1535
Q Serve(g_s), s	0.6	1.9	0.0	13.0	1.2	0.0	5.1	20.7	0.0	0.0	57.5	0.0
Cycle Q Clear(g_c), s	0.6	1.9	0.0	13.0	1.2	0.0	5.1	20.7	0.0	0.0	57.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	58	72		368	470		321	1581		532	1649	
V/C Ratio(X)	0.28	0.41		1.23	0.09		0.46	0.52		0.01	1.09	
Avail Cap(c_a), veh/h	169	289		368	758		321	1581		532	1649	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.69	0.69	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.2	56.3	0.0	53.5	45.5	0.0	43.8	22.0	0.0	17.4	31.3	0.0
Incr Delay (d2), s/veh	2.5	3.6	0.0	120.1	0.1	0.0	1.0	1.2	0.0	0.0	49.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	0.0	11.7	0.5	0.0	4.0	8.2	0.0	0.1	34.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	59.9	0.0	173.6	45.5	0.0	44.8	23.2	0.0	17.4	80.4	0.0
LnGrp LOS	E	E		F	D		D	C		B	F	
Approach Vol, veh/h		45	A		494	A		971	A		1793	A
Approach Delay, s/veh		60.2			163.2			26.5			80.2	
Approach LOS		E			F			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.3	64.0	19.0	10.7	25.8	64.5	7.6	22.1
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	57.0	13.0	* 19	5.0	57.5	6.0	26.0
Max Q Clear Time (g_c+I1), s	2.0	22.7	15.0	3.9	7.1	59.5	2.6	3.2
Green Ext Time (p_c), s	0.0	6.9	0.0	0.1	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	76.6
HCM 6th LOS	E

Notes

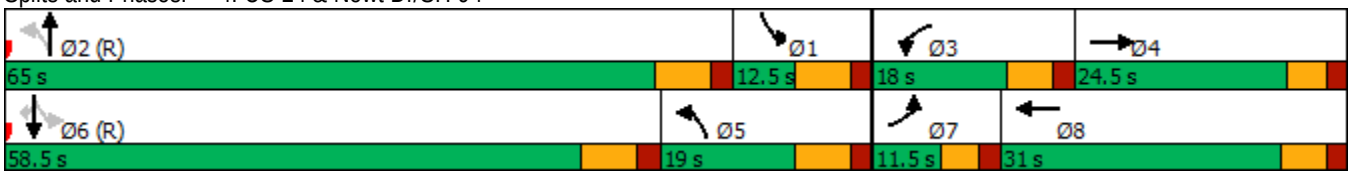
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	39	238	350	23	7	158	1688	320	4	933	36
Future Volume (vph)	28	39	238	350	23	7	158	1688	320	4	933	36
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		18.0	31.0		19.0	65.0		12.5	58.5	58.5
Total Split (%)	9.6%	20.4%		15.0%	25.8%		15.8%	54.2%		10.4%	48.8%	48.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.1	8.1	120.0	16.8	21.1	120.0	78.7	76.3	120.0	70.1	64.6	64.6
Actuated g/C Ratio	0.05	0.07	1.00	0.14	0.18	1.00	0.66	0.64	1.00	0.58	0.54	0.54
v/c Ratio	0.17	0.33	0.16	0.77	0.04	0.00	0.50	0.80	0.21	0.03	0.53	0.04
Control Delay	56.7	59.5	0.2	82.0	35.7	0.0	21.3	21.1	0.3	5.8	18.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	59.5	0.2	82.0	35.7	0.0	21.3	21.1	0.3	5.8	18.5	0.2
LOS	E	E	A	F	D	A	C	C	A	A	B	A
Approach Delay		12.9			77.7			18.1			17.8	
Approach LOS		B			E			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	39	238	350	23	7	158	1688	320	4	933	36
Future Volume (veh/h)	28	39	238	350	23	7	158	1688	320	4	933	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	29	41	0	368	24	0	166	1777	0	4	982	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	89	75		343	417		547	1704		338	1489	
Arrive On Green	0.03	0.04	0.00	0.10	0.12	0.00	0.21	0.48	0.00	0.16	0.43	0.00
Sat Flow, veh/h	3456	1870	1585	3428	3526	1572	1767	3526	1572	1739	3469	1547
Grp Volume(v), veh/h	29	41	0	368	24	0	166	1777	0	4	982	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1714	1763	1572	1767	1763	1572	1739	1735	1547
Q Serve(g_s), s	1.0	2.6	0.0	12.0	0.7	0.0	0.0	58.0	0.0	0.0	27.0	0.0
Cycle Q Clear(g_c), s	1.0	2.6	0.0	12.0	0.7	0.0	0.0	58.0	0.0	0.0	27.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	75		343	417		547	1704		338	1489	
V/C Ratio(X)	0.33	0.55		1.07	0.06		0.30	1.04		0.01	0.66	
Avail Cap(c_a), veh/h	173	296		343	734		547	1704		338	1489	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.71	0.71	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.4	56.6	0.0	54.0	47.0	0.0	29.5	31.0	0.0	42.3	27.3	0.0
Incr Delay (d2), s/veh	2.1	6.2	0.0	62.1	0.0	0.0	0.3	33.9	0.0	0.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	0.0	8.1	0.3	0.0	3.9	31.6	0.0	0.1	11.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	62.7	0.0	116.1	47.0	0.0	29.8	64.9	0.0	42.3	29.6	0.0
LnGrp LOS	E	E		F	D		C	F		D	C	
Approach Vol, veh/h		70	A		392	A		1943	A		986	A
Approach Delay, s/veh		61.4			111.8			61.9			29.6	
Approach LOS		E			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	65.0	18.0	10.8	32.7	58.5	8.6	20.2
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	58.0	12.0	* 19	12.0	51.5	6.0	25.0
Max Q Clear Time (g_c+I1), s	2.0	60.0	14.0	4.6	2.0	29.0	3.0	2.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.3	7.5	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	58.3
HCM 6th LOS	E

Notes

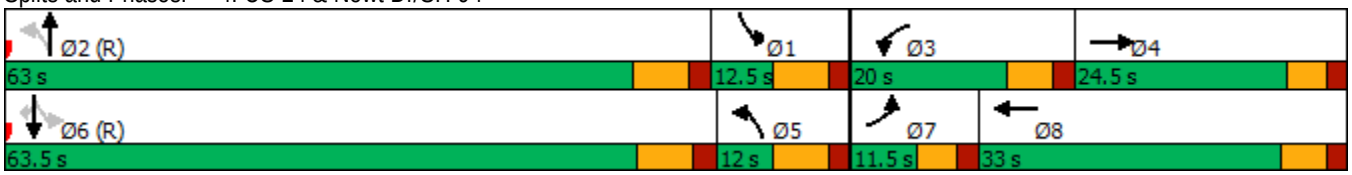
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	35	215	475	45	5	155	860	410	5	1860	40
Future Volume (vph)	20	35	215	475	45	5	155	860	410	5	1860	40
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		20.0	33.0		12.0	63.0		12.5	63.5	63.5
Total Split (%)	9.6%	20.4%		16.7%	27.5%		10.0%	52.5%		10.4%	52.9%	52.9%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.8	7.9	120.0	14.0	18.1	120.0	82.8	81.8	120.0	77.8	72.3	72.3
Actuated g/C Ratio	0.05	0.07	1.00	0.12	0.15	1.00	0.69	0.68	1.00	0.65	0.60	0.60
v/c Ratio	0.13	0.31	0.14	1.25	0.09	0.00	1.21	0.40	0.29	0.01	0.94	0.04
Control Delay	56.5	59.3	0.2	161.4	23.4	0.0	181.5	10.7	0.5	7.6	31.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	59.3	0.2	161.4	23.4	0.0	181.5	10.7	0.5	7.6	31.4	0.1
LOS	E	E	A	F	C	A	F	B	A	A	C	A
Approach Delay		12.1			148.2			26.3			30.7	
Approach LOS		B			F			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	35	215	475	45	5	155	860	410	5	1860	40
Future Volume (veh/h)	20	35	215	475	45	5	155	860	410	5	1860	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	21	36	0	490	46	0	160	887	0	5	1918	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	71	74		397	490		319	1553		501	1620	
Arrive On Green	0.02	0.04	0.00	0.12	0.14	0.00	0.16	0.47	0.00	0.16	0.47	0.00
Sat Flow, veh/h	3374	1826	1547	3401	3497	1560	1668	3328	1485	1725	3441	1535
Grp Volume(v), veh/h	21	36	0	490	46	0	160	887	0	5	1918	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1700	1749	1560	1668	1664	1485	1725	1721	1535
Q Serve(g_s), s	0.7	2.3	0.0	14.0	1.4	0.0	6.0	23.3	0.0	0.0	56.5	0.0
Cycle Q Clear(g_c), s	0.7	2.3	0.0	14.0	1.4	0.0	6.0	23.3	0.0	0.0	56.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	74		397	490		319	1553		501	1620	
V/C Ratio(X)	0.30	0.49		1.23	0.09		0.50	0.57		0.01	1.18	
Avail Cap(c_a), veh/h	169	289		397	787		319	1553		501	1620	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.68	0.68	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.9	56.4	0.0	53.0	44.9	0.0	44.2	23.3	0.0	19.5	31.7	0.0
Incr Delay (d2), s/veh	2.3	4.9	0.0	120.0	0.1	0.0	1.2	1.5	0.0	0.0	89.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.0	12.6	0.6	0.0	4.4	9.3	0.0	0.1	42.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	61.3	0.0	173.0	45.0	0.0	45.4	24.8	0.0	19.5	121.1	0.0
LnGrp LOS	E	E		F	D		D	C		B	F	
Approach Vol, veh/h		57	A		536	A		1047	A		1923	A
Approach Delay, s/veh		60.9			162.0			27.9			120.8	
Approach LOS		E			F			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	63.0	20.0	10.8	25.7	63.5	8.0	22.8
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	56.0	14.0	* 19	5.0	56.5	6.0	27.0
Max Q Clear Time (g_c+I1), s	2.0	25.3	16.0	4.3	8.0	58.5	2.7	3.4
Green Ext Time (p_c), s	0.0	7.4	0.0	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	98.8
HCM 6th LOS	F

Notes

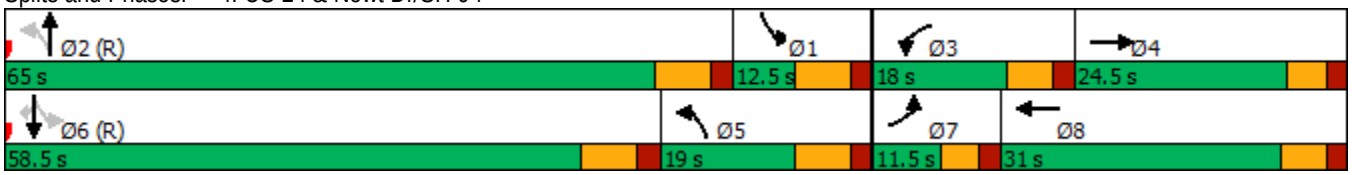
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

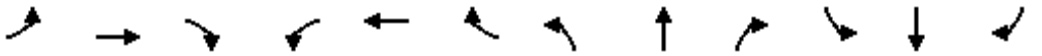
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	45	260	380	25	10	170	1810	345	5	1000	40
Future Volume (vph)	35	45	260	380	25	10	170	1810	345	5	1000	40
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		18.0	31.0		19.0	65.0		12.5	58.5	58.5
Total Split (%)	9.6%	20.4%		15.0%	25.8%		15.8%	54.2%		10.4%	48.8%	48.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.3	8.4	120.0	15.9	20.3	120.0	79.3	76.9	120.0	69.8	64.3	64.3
Actuated g/C Ratio	0.05	0.07	1.00	0.13	0.17	1.00	0.66	0.64	1.00	0.58	0.54	0.54
v/c Ratio	0.21	0.36	0.17	0.89	0.04	0.01	0.56	0.85	0.23	0.03	0.57	0.05
Control Delay	57.1	60.1	0.2	91.8	39.1	0.0	26.5	23.1	0.3	6.2	20.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	60.1	0.2	91.8	39.1	0.0	26.5	23.1	0.3	6.2	20.3	0.4
LOS	E	E	A	F	D	A	C	C	A	A	C	A
Approach Delay		14.0			86.4			19.9			19.5	
Approach LOS		B			F			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	45	260	380	25	10	170	1810	345	5	1000	40
Future Volume (veh/h)	35	45	260	380	25	10	170	1810	345	5	1000	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	37	47	0	400	26	0	179	1905	0	5	1053	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	102	77		343	409		526	1704		336	1489	
Arrive On Green	0.03	0.04	0.00	0.10	0.12	0.00	0.21	0.48	0.00	0.16	0.43	0.00
Sat Flow, veh/h	3456	1870	1585	3428	3526	1572	1767	3526	1572	1739	3469	1547
Grp Volume(v), veh/h	37	47	0	400	26	0	179	1905	0	5	1053	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1714	1763	1572	1767	1763	1572	1739	1735	1547
Q Serve(g_s), s	1.3	3.0	0.0	12.0	0.8	0.0	0.0	58.0	0.0	0.0	29.9	0.0
Cycle Q Clear(g_c), s	1.3	3.0	0.0	12.0	0.8	0.0	0.0	58.0	0.0	0.0	29.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	77		343	409		526	1704		336	1489	
V/C Ratio(X)	0.36	0.61		1.17	0.06		0.34	1.12		0.01	0.71	
Avail Cap(c_a), veh/h	173	296		343	734		526	1704		336	1489	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.68	0.68	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.1	56.6	0.0	54.0	47.2	0.0	32.1	31.0	0.0	42.5	28.1	0.0
Incr Delay (d2), s/veh	2.2	7.5	0.0	94.8	0.0	0.0	0.4	61.7	0.0	0.0	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.6	0.0	9.7	0.4	0.0	4.2	38.2	0.0	0.1	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	64.1	0.0	148.8	47.3	0.0	32.5	92.7	0.0	42.5	30.9	0.0
LnGrp LOS	E	E		F	D		C	F		D	C	
Approach Vol, veh/h		84	A		426	A		2084	A		1058	A
Approach Delay, s/veh		62.0			142.6			87.5			31.0	
Approach LOS		E			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	65.0	18.0	11.0	32.5	58.5	9.0	19.9
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	58.0	12.0	* 19	12.0	51.5	6.0	25.0
Max Q Clear Time (g_c+I1), s	2.0	60.0	14.0	5.0	2.0	31.9	3.3	2.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.3	7.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	77.0
HCM 6th LOS	E

Notes

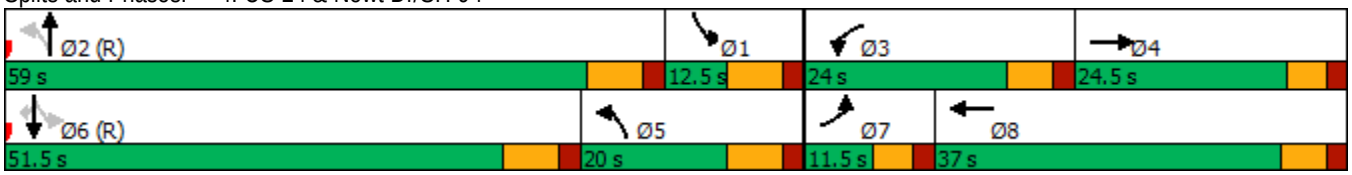
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	90	495	820	95	5	425	985	635	5	1860	65
Future Volume (vph)	45	90	495	820	95	5	425	985	635	5	1860	65
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		24.0	37.0		20.0	59.0		12.5	51.5	51.5
Total Split (%)	9.6%	20.4%		20.0%	30.8%		16.7%	49.2%		10.4%	42.9%	42.9%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	11.5	120.0	18.0	25.8	120.0	72.0	69.5	120.0	57.5	52.0	52.0
Actuated g/C Ratio	0.05	0.10	1.00	0.15	0.22	1.00	0.60	0.58	1.00	0.48	0.43	0.43
v/c Ratio	0.28	0.54	0.33	1.67	0.13	0.00	1.81	0.53	0.45	0.02	1.30	0.08
Control Delay	59.6	62.4	0.6	340.6	35.1	0.0	409.3	18.0	1.0	9.6	172.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	62.4	0.6	340.6	35.1	0.0	409.3	18.0	1.0	9.6	172.2	0.3
LOS	E	E	A	F	D	A	F	B	A	A	F	A
Approach Delay		13.6			307.2			94.0			166.0	
Approach LOS		B			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 145.5	Intersection LOS: F
Intersection Capacity Utilization 121.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	90	495	820	95	5	425	985	635	5	1860	65
Future Volume (veh/h)	45	90	495	820	95	5	425	985	635	5	1860	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	46	93	0	845	98	0	438	1015	0	5	1918	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	110	126		510	666		383	1442		352	1276	
Arrive On Green	0.03	0.07	0.00	0.05	0.06	0.00	0.19	0.43	0.00	0.13	0.37	0.00
Sat Flow, veh/h	3374	1826	1547	3401	3497	1560	1668	3328	1485	1725	3441	1535
Grp Volume(v), veh/h	46	93	0	845	98	0	438	1015	0	5	1918	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1700	1749	1560	1668	1664	1485	1725	1721	1535
Q Serve(g_s), s	1.6	6.0	0.0	18.0	3.2	0.0	23.2	29.8	0.0	0.0	44.5	0.0
Cycle Q Clear(g_c), s	1.6	6.0	0.0	18.0	3.2	0.0	23.2	29.8	0.0	0.0	44.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	126		510	666		383	1442		352	1276	
V/C Ratio(X)	0.42	0.74		1.66	0.15		1.14	0.70		0.01	1.50	
Avail Cap(c_a), veh/h	169	289		510	903		383	1442		352	1276	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.82	0.82	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.9	54.8	0.0	57.0	47.0	0.0	46.6	27.7	0.0	33.8	37.8	0.0
Incr Delay (d2), s/veh	2.5	8.2	0.0	302.5	0.1	0.0	91.0	2.9	0.0	0.0	230.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	0.0	29.7	1.4	0.0	21.0	12.3	0.0	0.1	59.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	63.1	0.0	359.5	47.1	0.0	137.6	30.6	0.0	33.8	268.3	0.0
LnGrp LOS	E	E		F	D		F	C		C	F	
Approach Vol, veh/h		139	A		943	A		1453	A		1923	A
Approach Delay, s/veh		61.9			327.1			62.9			267.7	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.7	59.0	24.0	14.3	30.2	51.5	9.4	28.8
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	52.0	18.0	* 19	13.0	44.5	6.0	31.0
Max Q Clear Time (g_c+I1), s	2.0	31.8	20.0	8.0	25.2	46.5	3.6	5.2
Green Ext Time (p_c), s	0.0	7.5	0.0	0.3	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	207.1
HCM 6th LOS	F

Notes

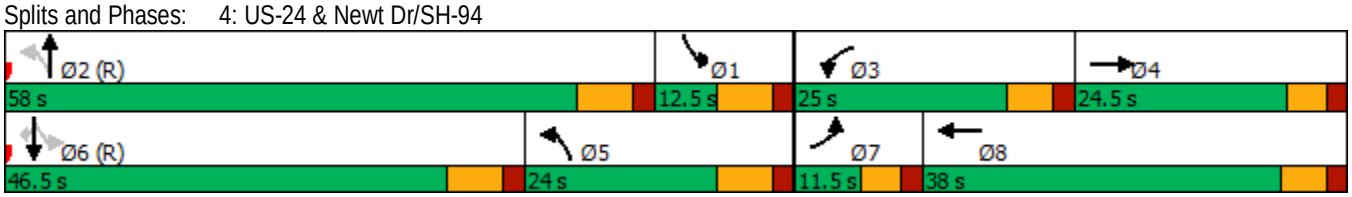
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	80	450	740	65	10	395	1925	625	5	1000	60
Future Volume (vph)	55	80	450	740	65	10	395	1925	625	5	1000	60
Turn Type	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free	2		Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		25.0	38.0		24.0	58.0		12.5	46.5	46.5
Total Split (%)	9.6%	20.4%		20.8%	31.7%		20.0%	48.3%		10.4%	38.8%	38.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	10.7	120.0	19.0	23.6	120.0	74.2	71.7	120.0	55.7	50.2	50.2
Actuated g/C Ratio	0.05	0.09	1.00	0.16	0.20	1.00	0.62	0.60	1.00	0.46	0.42	0.42
v/c Ratio	0.34	0.51	0.30	1.45	0.10	0.01	1.16	0.97	0.42	0.03	0.73	0.08
Control Delay	60.9	61.9	0.5	252.5	36.8	0.0	135.8	38.2	0.8	13.2	40.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	61.9	0.5	252.5	36.8	0.0	135.8	38.2	0.8	13.2	40.9	1.3
LOS	E	E	A	F	D	A	F	D	A	B	D	A
Approach Delay		14.5			232.2			43.4			38.6	
Approach LOS		B			F			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.45	
Intersection Signal Delay: 67.8	Intersection LOS: E
Intersection Capacity Utilization 101.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	80	450	740	65	10	395	1925	625	5	1000	60
Future Volume (veh/h)	55	80	450	740	65	10	395	1925	625	5	1000	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	58	84	0	779	68	0	416	2026	0	5	1053	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	123	117		543	668		483	1498		299	1142	
Arrive On Green	0.04	0.06	0.00	0.16	0.19	0.00	0.23	0.43	0.00	0.14	0.33	0.00
Sat Flow, veh/h	3456	1870	1585	3428	3526	1572	1767	3526	1572	1739	3469	1547
Grp Volume(v), veh/h	58	84	0	779	68	0	416	2026	0	5	1053	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1714	1763	1572	1767	1763	1572	1739	1735	1547
Q Serve(g_s), s	2.0	5.3	0.0	19.0	1.9	0.0	22.1	51.0	0.0	0.0	35.1	0.0
Cycle Q Clear(g_c), s	2.0	5.3	0.0	19.0	1.9	0.0	22.1	51.0	0.0	0.0	35.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	117		543	668		483	1498		299	1142	
V/C Ratio(X)	0.47	0.72		1.44	0.10		0.86	1.35		0.02	0.92	
Avail Cap(c_a), veh/h	173	296		543	940		483	1498		299	1142	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.73	0.73	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	55.2	0.0	50.5	40.2	0.0	41.8	34.5	0.0	44.7	38.8	0.0
Incr Delay (d2), s/veh	2.8	7.9	0.0	203.5	0.0	0.0	14.7	163.0	0.0	0.0	13.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.8	0.0	23.5	0.8	0.0	13.6	55.1	0.0	0.1	16.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	63.1	0.0	254.0	40.2	0.0	56.5	197.5	0.0	44.7	52.2	0.0
LnGrp LOS	E	E		F	D		E	F		D	D	
Approach Vol, veh/h		142	A		847	A		2442	A		1058	A
Approach Delay, s/veh		61.6			236.8			173.5			52.2	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	58.0	25.0	13.5	35.0	46.5	9.8	28.7
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	51.0	19.0	* 19	17.0	39.5	6.0	32.0
Max Q Clear Time (g_c+I1), s	2.0	53.0	21.0	7.3	24.1	37.1	4.0	3.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	1.6	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	153.3
HCM 6th LOS	F

Notes

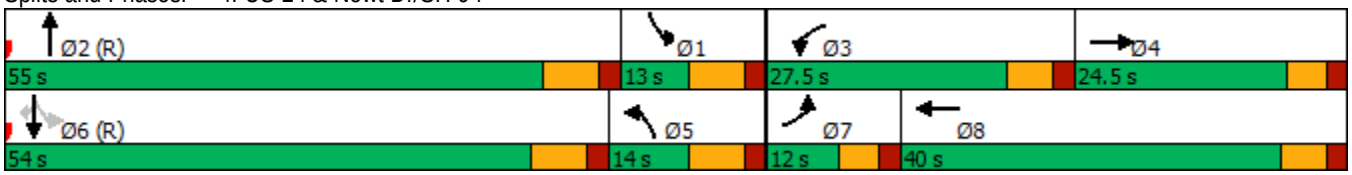
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

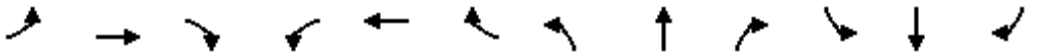
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	90	495	820	95	5	425	985	635	5	1860	65
Future Volume (vph)	45	90	495	820	95	5	425	985	635	5	1860	65
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.5	23.5		11.0	24.0		12.0	25.0		12.0	25.0	25.0
Total Split (s)	12.0	24.5		27.5	40.0		14.0	55.0		13.0	54.0	54.0
Total Split (%)	10.0%	20.4%		22.9%	33.3%		11.7%	45.8%		10.8%	45.0%	45.0%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.3	11.5	120.0	21.5	28.9	120.0	7.0	65.9	120.0	60.1	54.5	54.5
Actuated g/C Ratio	0.05	0.10	1.00	0.18	0.24	1.00	0.06	0.55	1.00	0.50	0.45	0.45
v/c Ratio	0.26	0.54	0.33	0.96	0.22	0.00	2.37	0.39	0.45	0.02	0.86	0.08
Control Delay	58.5	62.4	0.6	58.1	29.8	0.0	656.5	17.2	1.0	9.4	32.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	62.4	0.6	58.1	29.8	0.0	656.5	17.2	1.0	9.4	32.3	0.8
LOS	E	E	A	E	C	A	F	B	A	A	C	A
Approach Delay		13.5			54.9			145.0			31.2	
Approach LOS		B			D			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.37	
Intersection Signal Delay: 75.3	Intersection LOS: E
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	90	495	820	95	5	425	985	635	5	1860	65
Future Volume (veh/h)	45	90	495	820	95	5	425	985	635	5	1860	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	46	93	0	845	98	0	438	1015	0	5	1918	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	110	126		886	404		465	1913		417	1936	
Arrive On Green	0.03	0.07	0.00	0.06	0.07	0.00	0.14	0.40	0.00	0.14	0.39	0.00
Sat Flow, veh/h	3374	1826	1547	4944	1841	1560	3237	4782	1485	1725	4944	1535
Grp Volume(v), veh/h	46	93	0	845	98	0	438	1015	0	5	1918	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1648	1841	1560	1618	1594	1485	1725	1648	1535
Q Serve(g_s), s	1.6	6.0	0.0	20.5	6.0	0.0	16.1	19.4	0.0	0.0	46.3	0.0
Cycle Q Clear(g_c), s	1.6	6.0	0.0	20.5	6.0	0.0	16.1	19.4	0.0	0.0	46.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	126		886	404		465	1913		417	1936	
V/C Ratio(X)	0.42	0.74		0.95	0.24		0.94	0.53		0.01	0.99	
Avail Cap(c_a), veh/h	183	289		886	522		465	1913		417	1936	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.86	0.86	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.9	54.8	0.0	56.0	46.2	0.0	50.9	27.4	0.0	24.4	36.3	0.0
Incr Delay (d2), s/veh	2.5	8.2	0.0	18.0	0.3	0.0	27.7	1.1	0.0	0.0	18.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	0.0	10.6	2.9	0.0	8.3	7.5	0.0	0.1	21.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	63.1	0.0	74.0	46.5	0.0	78.6	28.5	0.0	24.4	54.6	0.0
LnGrp LOS	E	E		E	D		E	C		C	D	
Approach Vol, veh/h		139	A		943	A		1453	A		1923	A
Approach Delay, s/veh		61.9			71.1			43.6			54.5	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	55.0	27.5	14.3	24.2	54.0	9.4	32.3
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	6.0	48.0	21.5	* 19	7.0	47.0	6.5	34.0
Max Q Clear Time (g_c+I1), s	2.0	21.4	22.5	8.0	18.1	48.3	3.6	8.0
Green Ext Time (p_c), s	0.0	8.3	0.0	0.3	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

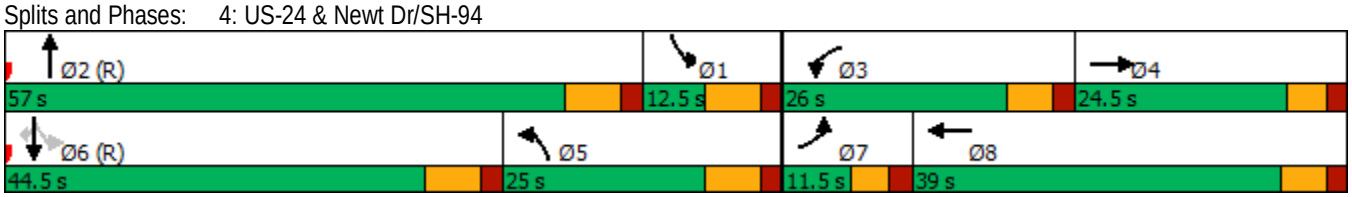
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

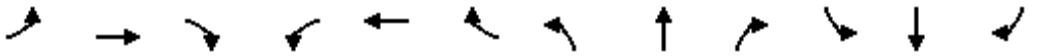
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	80	450	740	65	10	395	1925	625	5	1000	60
Future Volume (vph)	55	80	450	740	65	10	395	1925	625	5	1000	60
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		26.0	39.0		25.0	57.0		12.5	44.5	44.5
Total Split (%)	9.6%	20.4%		21.7%	32.5%		20.8%	47.5%		10.4%	37.1%	37.1%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	10.7	120.0	20.2	24.8	120.0	17.5	70.5	120.0	54.0	48.5	48.5
Actuated g/C Ratio	0.05	0.09	1.00	0.17	0.21	1.00	0.15	0.59	1.00	0.45	0.40	0.40
v/c Ratio	0.34	0.51	0.30	0.94	0.18	0.01	0.84	0.68	0.42	0.03	0.53	0.08
Control Delay	60.9	61.9	0.5	77.8	37.5	0.0	65.9	20.5	0.8	14.8	37.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	61.9	0.5	77.8	37.5	0.0	65.9	20.5	0.8	14.8	37.3	1.7
LOS	E	E	A	E	D	A	E	C	A	B	D	A
Approach Delay		14.5			73.6			22.4			35.2	
Approach LOS		B			E			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	80	450	740	65	10	395	1925	625	5	1000	60
Future Volume (veh/h)	55	80	450	740	65	10	395	1925	625	5	1000	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	58	84	0	779	68	0	416	2026	0	5	1053	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	123	117		831	367		828	2111		299	1558	
Arrive On Green	0.04	0.06	0.00	0.28	0.33	0.00	0.24	0.42	0.00	0.14	0.31	0.00
Sat Flow, veh/h	3456	1870	1585	4983	1856	1572	3428	5066	1572	1739	4985	1547
Grp Volume(v), veh/h	58	84	0	779	68	0	416	2026	0	5	1053	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1661	1856	1572	1714	1689	1572	1739	1662	1547
Q Serve(g_s), s	2.0	5.3	0.0	18.3	3.1	0.0	12.6	46.7	0.0	0.0	22.1	0.0
Cycle Q Clear(g_c), s	2.0	5.3	0.0	18.3	3.1	0.0	12.6	46.7	0.0	0.0	22.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	117		831	367		828	2111		299	1558	
V/C Ratio(X)	0.47	0.72		0.94	0.19		0.50	0.96		0.02	0.68	
Avail Cap(c_a), veh/h	173	296		831	510		828	2111		299	1558	
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.78	0.78	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	55.2	0.0	42.7	33.3	0.0	39.3	34.0	0.0	44.7	36.0	0.0
Incr Delay (d2), s/veh	2.8	7.9	0.0	15.0	0.2	0.0	0.5	12.2	0.0	0.0	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.8	0.0	7.9	1.4	0.0	5.4	21.0	0.0	0.1	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	63.1	0.0	57.7	33.5	0.0	39.8	46.2	0.0	44.7	38.3	0.0
LnGrp LOS	E	E		E	C		D	D		D	D	
Approach Vol, veh/h		142	A		847	A		2442	A		1058	A
Approach Delay, s/veh		61.6			55.7			45.1			38.4	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	57.0	26.0	13.5	36.0	44.5	9.8	29.7
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	50.0	20.0	* 19	18.0	37.5	6.0	33.0
Max Q Clear Time (g_c+I1), s	2.0	48.7	20.3	7.3	14.6	24.1	4.0	5.1
Green Ext Time (p_c), s	0.0	1.2	0.0	0.2	0.5	6.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Notes

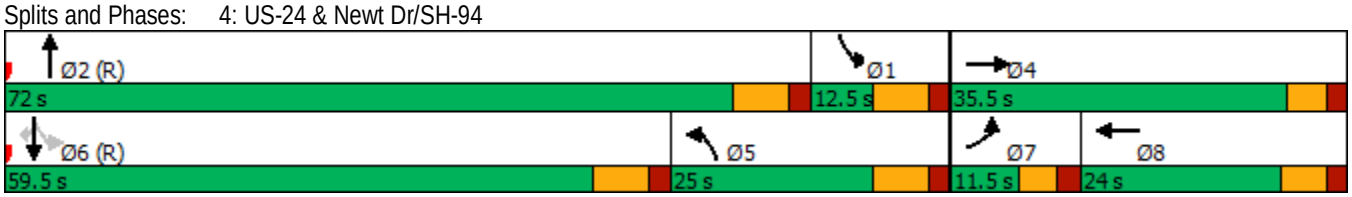
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	45	90	495	95	5	425	985	635	5	1860	65
Future Volume (vph)	45	90	495	95	5	425	985	635	5	1860	65
Turn Type	Prot	NA	Free	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2		1	6	
Permitted Phases			Free		Free			Free	6		6
Detector Phase	7	4		8		5	2		1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	35.5		24.0		25.0	72.0		12.5	59.5	59.5
Total Split (%)	9.6%	29.6%		20.0%		20.8%	60.0%		10.4%	49.6%	49.6%
Yellow Time (s)	3.5	3.5		4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead			Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes			Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	18.5	120.0	8.8	120.0	18.0	86.5	120.0	69.5	64.0	64.0
Actuated g/C Ratio	0.05	0.15	1.00	0.07	1.00	0.15	0.72	1.00	0.58	0.53	0.53
v/c Ratio	0.28	0.33	0.33	0.39	0.00	0.92	0.30	0.45	0.02	0.73	0.07
Control Delay	59.6	46.9	0.6	47.9	0.0	76.0	7.3	1.0	7.0	23.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	46.9	0.6	47.9	0.0	76.0	7.3	1.0	7.0	23.0	0.5
LOS	E	D	A	D	A	E	A	A	A	C	A
Approach Delay		11.4		45.6			19.6			22.2	
Approach LOS		B		D			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 20.1	Intersection LOS: C
Intersection Capacity Utilization 72.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	90	495	0	95	5	425	985	635	5	1860	65
Future Volume (veh/h)	45	90	495	0	95	5	425	985	635	5	1860	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	0	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	46	93	0	0	98	0	438	1015	0	5	1918	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	0	4	4	10	10	10	6	6	6
Cap, veh/h	110	230		0	166		874	2590		515	2163	
Arrive On Green	0.03	0.13	0.00	0.00	0.02	0.00	0.27	0.54	0.00	0.17	0.44	0.00
Sat Flow, veh/h	3374	1826	1547	0	3589	1560	3237	4782	1485	1725	4944	1535
Grp Volume(v), veh/h	46	93	0	0	98	0	438	1015	0	5	1918	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	0	1749	1560	1618	1594	1485	1725	1648	1535
Q Serve(g_s), s	1.6	5.6	0.0	0.0	3.3	0.0	13.7	14.8	0.0	0.0	42.8	0.0
Cycle Q Clear(g_c), s	1.6	5.6	0.0	0.0	3.3	0.0	13.7	14.8	0.0	0.0	42.8	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	230		0	166		874	2590		515	2163	
V/C Ratio(X)	0.42	0.40		0.00	0.59		0.50	0.39		0.01	0.89	
Avail Cap(c_a), veh/h	169	456		0	525		874	2590		515	2163	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.82	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.9	48.3	0.0	0.0	57.9	0.0	37.0	16.0	0.0	16.4	31.0	0.0
Incr Delay (d2), s/veh	2.5	1.1	0.0	0.0	2.8	0.0	0.5	0.4	0.0	0.0	5.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.6	0.0	0.0	1.6	0.0	5.5	5.4	0.0	0.1	17.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	49.5	0.0	0.0	60.7	0.0	37.4	16.4	0.0	16.4	36.9	0.0
LnGrp LOS	E	D		A	E		D	B		B	D	
Approach Vol, veh/h		139	A		98	A		1453	A		1923	A
Approach Delay, s/veh		52.8			60.7			22.8			36.8	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.9	72.0		21.1	39.4	59.5	9.4	11.7
Change Period (Y+Rc), s	7.0	7.0		* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	65.0		* 30	18.0	52.5	6.0	18.0
Max Q Clear Time (g_c+I1), s	2.0	16.8		7.6	15.7	44.8	3.6	5.3
Green Ext Time (p_c), s	0.0	9.4		0.4	0.4	6.5	0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay		32.4
HCM 6th LOS		C

Notes

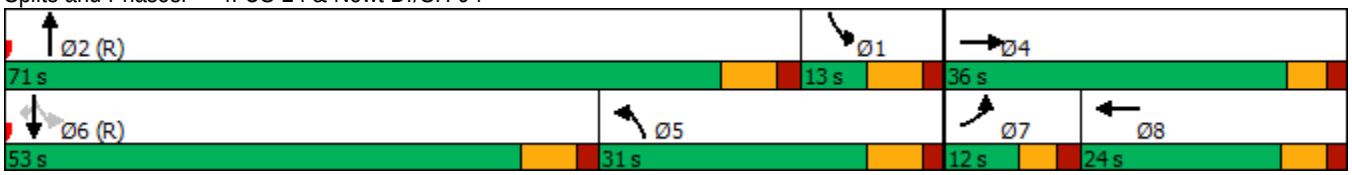
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

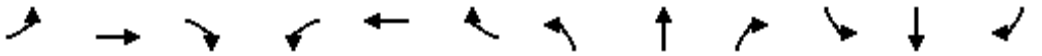
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	80	450	65	10	395	1925	625	5	1000	60
Future Volume (vph)	55	80	450	65	10	395	1925	625	5	1000	60
Turn Type	Prot	NA	Free	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2		1	6	
Permitted Phases			Free		Free			Free	6		6
Detector Phase	7	4		8		5	2		1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	12.0	36.0		24.0		31.0	71.0		13.0	53.0	53.0
Total Split (%)	10.0%	30.0%		20.0%		25.8%	59.2%		10.8%	44.2%	44.2%
Yellow Time (s)	3.5	3.5		4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead			Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes			Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.9	18.5	120.0	7.7	120.0	19.7	90.3	120.0	70.1	64.8	64.8
Actuated g/C Ratio	0.06	0.15	1.00	0.06	1.00	0.16	0.75	1.00	0.58	0.54	0.54
v/c Ratio	0.30	0.29	0.30	0.30	0.01	0.75	0.53	0.42	0.03	0.39	0.07
Control Delay	58.1	45.9	0.5	54.9	0.0	56.2	9.4	0.8	10.2	22.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	45.9	0.5	54.9	0.0	56.2	9.4	0.8	10.2	22.2	1.4
LOS	E	D	A	D	A	E	A	A	B	C	A
Approach Delay		12.1		47.3			13.9			21.0	
Approach LOS		B		D			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	80	450	0	65	10	395	1925	625	5	1000	60
Future Volume (veh/h)	55	80	450	0	65	10	395	1925	625	5	1000	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	58	84	0	0	68	0	416	2026	0	5	1053	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	3	3	3	3	3	5	5	5
Cap, veh/h	123	230		0	146		1121	2702		383	1911	
Arrive On Green	0.04	0.12	0.00	0.00	0.04	0.00	0.33	0.53	0.00	0.18	0.38	0.00
Sat Flow, veh/h	3456	1870	1585	0	3618	1572	3428	5066	1572	1739	4985	1547
Grp Volume(v), veh/h	58	84	0	0	68	0	416	2026	0	5	1053	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1763	1572	1714	1689	1572	1739	1662	1547
Q Serve(g_s), s	2.0	4.9	0.0	0.0	2.3	0.0	11.2	37.3	0.0	0.0	19.8	0.0
Cycle Q Clear(g_c), s	2.0	4.9	0.0	0.0	2.3	0.0	11.2	37.3	0.0	0.0	19.8	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	230		0	146		1121	2702		383	1911	
V/C Ratio(X)	0.47	0.37		0.00	0.47		0.37	0.75		0.01	0.55	
Avail Cap(c_a), veh/h	187	475		0	529		1121	2702		383	1911	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.73	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	48.3	0.0	0.0	56.2	0.0	30.9	21.8	0.0	34.6	28.9	0.0
Incr Delay (d2), s/veh	2.8	1.0	0.0	0.0	1.7	0.0	0.2	2.0	0.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.4	0.0	0.0	1.0	0.0	4.7	14.7	0.0	0.1	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	49.3	0.0	0.0	57.9	0.0	31.1	23.7	0.0	34.7	30.1	0.0
LnGrp LOS	E	D		A	E		C	C		C	C	
Approach Vol, veh/h		142	A		68	A		2442	A		1058	A
Approach Delay, s/veh		53.5			57.9			25.0			30.1	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.3	71.0		20.7	46.3	53.0	9.8	11.0				
Change Period (Y+Rc), s	7.0	7.0		* 6	7.0	7.0	5.5	6.0				
Max Green Setting (Gmax), s	6.0	64.0		* 31	24.0	46.0	6.5	18.0				
Max Q Clear Time (g_c+I1), s	2.0	39.3		6.9	13.2	21.8	4.0	4.3				
Green Ext Time (p_c), s	0.0	17.6		0.4	1.2	8.3	0.0	0.2				

Intersection Summary			
HCM 6th Ctrl Delay		28.1	
HCM 6th LOS		C	

Notes

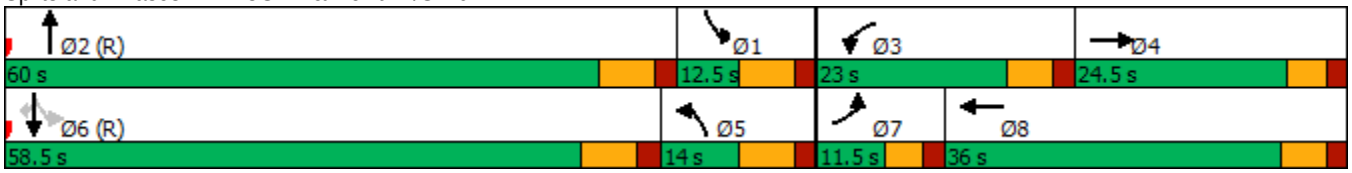
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

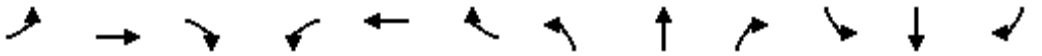
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	40	250	735	50	5	185	1010	540	10	2190	50
Future Volume (vph)	25	40	250	735	50	5	185	1010	540	10	2190	50
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		23.0	36.0		14.0	60.0		12.5	58.5	58.5
Total Split (%)	9.6%	20.4%		19.2%	30.0%		11.7%	50.0%		10.4%	48.8%	48.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	8.2	120.0	17.0	21.6	120.0	7.0	76.0	120.0	70.0	64.5	64.5
Actuated g/C Ratio	0.05	0.07	1.00	0.14	0.18	1.00	0.06	0.63	1.00	0.58	0.54	0.54
v/c Ratio	0.16	0.33	0.17	1.09	0.16	0.00	1.03	0.35	0.38	0.03	0.86	0.06
Control Delay	57.0	59.9	0.2	100.2	34.0	0.0	129.9	12.0	0.7	5.8	27.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	59.9	0.2	100.2	34.0	0.0	129.9	12.0	0.7	5.8	27.1	0.2
LOS	E	E	A	F	C	A	F	B	A	A	C	A
Approach Delay		12.3			95.4			21.1			26.4	
Approach LOS		B			F			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	40	250	735	50	5	185	1010	540	10	2190	50
Future Volume (veh/h)	25	40	250	735	50	5	185	1010	540	10	2190	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	26	41	0	758	52	0	191	1041	0	10	2258	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	81	75		700	299		555	2112		478	2122	
Arrive On Green	0.02	0.04	0.00	0.05	0.05	0.00	0.17	0.44	0.00	0.16	0.43	0.00
Sat Flow, veh/h	3374	1826	1547	4944	1841	1560	3237	4782	1485	1725	4944	1535
Grp Volume(v), veh/h	26	41	0	758	52	0	191	1041	0	10	2258	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1648	1841	1560	1618	1594	1485	1725	1648	1535
Q Serve(g_s), s	0.9	2.6	0.0	17.0	3.2	0.0	6.2	18.6	0.0	0.0	51.5	0.0
Cycle Q Clear(g_c), s	0.9	2.6	0.0	17.0	3.2	0.0	6.2	18.6	0.0	0.0	51.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	75		700	299		555	2112		478	2122	
V/C Ratio(X)	0.32	0.55		1.08	0.17		0.34	0.49		0.02	1.06	
Avail Cap(c_a), veh/h	169	289		700	460		555	2112		478	2122	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.60	0.60	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.6	56.5	0.0	57.2	49.1	0.0	43.8	23.9	0.0	19.7	34.2	0.0
Incr Delay (d2), s/veh	2.2	6.2	0.0	51.6	0.2	0.0	0.4	0.8	0.0	0.0	39.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	0.0	10.9	1.5	0.0	2.5	7.1	0.0	0.2	27.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	62.6	0.0	108.8	49.2	0.0	44.1	24.7	0.0	19.7	73.5	0.0
LnGrp LOS	E	E		F	D		D	C		B	F	
Approach Vol, veh/h		67	A		810	A		1232	A		2268	A
Approach Delay, s/veh		61.5			105.0			27.7			73.2	
Approach LOS		E			F			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	60.0	23.0	10.9	27.6	58.5	8.4	25.5
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	53.0	17.0	* 19	7.0	51.5	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.0	20.6	19.0	4.6	8.2	53.5	2.9	5.2
Green Ext Time (p_c), s	0.0	9.1	0.0	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	66.1
HCM 6th LOS	E

Notes

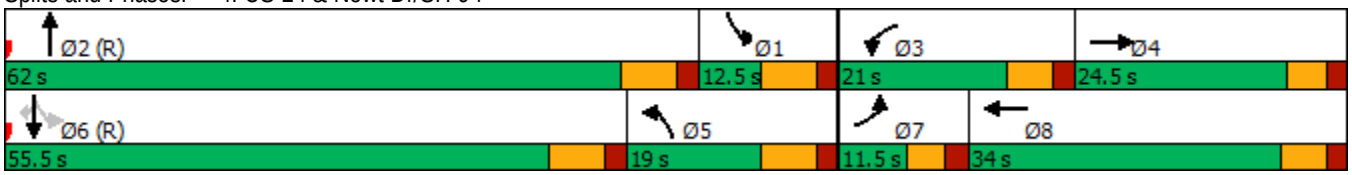
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

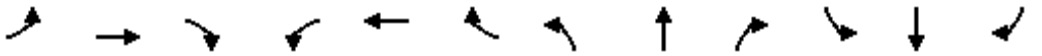
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	50	300	560	30	10	200	2130	600	10	1180	50
Future Volume (vph)	40	50	300	560	30	10	200	2130	600	10	1180	50
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		21.0	34.0		19.0	62.0		12.5	55.5	55.5
Total Split (%)	9.6%	20.4%		17.5%	28.3%		15.8%	51.7%		10.4%	46.3%	46.3%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	8.8	120.0	15.6	20.8	120.0	11.3	76.8	120.0	66.5	61.0	61.0
Actuated g/C Ratio	0.05	0.07	1.00	0.13	0.17	1.00	0.09	0.64	1.00	0.55	0.51	0.51
v/c Ratio	0.25	0.39	0.20	0.92	0.10	0.01	0.66	0.70	0.40	0.07	0.49	0.06
Control Delay	58.6	60.5	0.3	84.1	43.9	0.0	62.8	17.1	0.8	9.6	25.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	60.5	0.3	84.1	43.9	0.0	62.8	17.1	0.8	9.6	25.8	0.9
LOS	E	E	A	F	D	A	E	B	A	A	C	A
Approach Delay		14.0			80.6			16.9			24.6	
Approach LOS		B			F			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	50	300	560	30	10	200	2130	600	10	1180	50
Future Volume (veh/h)	40	50	300	560	30	10	200	2130	600	10	1180	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	42	53	0	589	32	0	211	2242	0	11	1242	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	108	84		623	265		717	2322		330	2015	
Arrive On Green	0.03	0.04	0.00	0.13	0.14	0.00	0.21	0.46	0.00	0.16	0.40	0.00
Sat Flow, veh/h	3456	1870	1585	4983	1856	1572	3428	5066	1572	1739	4985	1547
Grp Volume(v), veh/h	42	53	0	589	32	0	211	2242	0	11	1242	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1661	1856	1572	1714	1689	1572	1739	1662	1547
Q Serve(g_s), s	1.4	3.3	0.0	14.1	1.8	0.0	6.2	51.6	0.0	0.0	23.7	0.0
Cycle Q Clear(g_c), s	1.4	3.3	0.0	14.1	1.8	0.0	6.2	51.6	0.0	0.0	23.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	84		623	265		717	2322		330	2015	
V/C Ratio(X)	0.39	0.63		0.95	0.12		0.29	0.97		0.03	0.62	
Avail Cap(c_a), veh/h	173	296		623	433		717	2322		330	2015	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.47	0.47	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	56.3	0.0	52.1	44.9	0.0	40.0	31.6	0.0	42.8	28.4	0.0
Incr Delay (d2), s/veh	2.2	7.5	0.0	13.8	0.1	0.0	0.2	12.2	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.8	0.0	6.6	0.8	0.0	2.7	22.9	0.0	0.3	9.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	63.8	0.0	65.9	45.0	0.0	40.2	43.8	0.0	42.9	29.8	0.0
LnGrp LOS	E	E		E	D		D	D		D	C	
Approach Vol, veh/h		95	A		621	A		2453	A		1253	A
Approach Delay, s/veh		61.8			64.8			43.5			29.9	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.6	62.0	21.0	11.4	32.1	55.5	9.3	23.1
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	55.0	15.0	* 19	12.0	48.5	6.0	28.0
Max Q Clear Time (g_c+I1), s	2.0	53.6	16.1	5.3	8.2	25.7	3.4	3.8
Green Ext Time (p_c), s	0.0	1.3	0.0	0.1	0.2	9.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

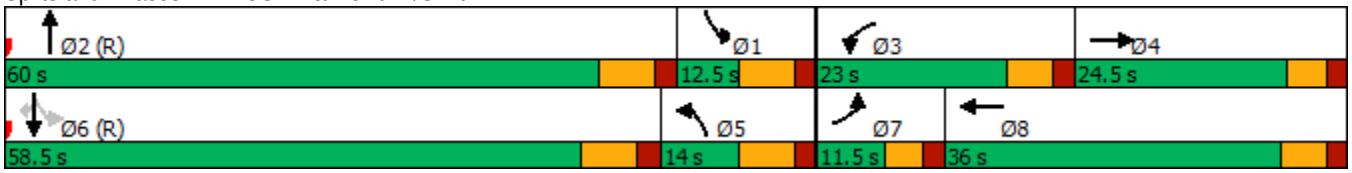
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

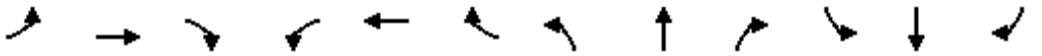
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	95	555	1155	105	5	480	1150	855	10	2190	80
Future Volume (vph)	55	95	555	1155	105	5	480	1150	855	10	2190	80
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		23.0	36.0		14.0	60.0		12.5	58.5	58.5
Total Split (%)	9.6%	20.4%		19.2%	30.0%		11.7%	50.0%		10.4%	48.8%	48.8%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	11.8	120.0	17.0	25.1	120.0	7.0	70.2	120.0	64.2	58.7	58.7
Actuated g/C Ratio	0.05	0.10	1.00	0.14	0.21	1.00	0.06	0.58	1.00	0.54	0.49	0.49
v/c Ratio	0.35	0.55	0.37	1.72	0.28	0.00	2.68	0.43	0.60	0.04	0.94	0.10
Control Delay	61.2	62.7	0.7	359.8	45.7	0.0	791.2	15.5	1.8	6.9	31.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	62.7	0.7	359.8	45.7	0.0	791.2	15.5	1.8	6.9	31.8	1.1
LOS	E	E	A	F	D	A	F	B	A	A	C	A
Approach Delay		13.8			332.4			160.7			30.6	
Approach LOS		B			F			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.68	
Intersection Signal Delay: 133.5	Intersection LOS: F
Intersection Capacity Utilization 101.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	95	555	1155	105	5	480	1150	855	10	2190	80
Future Volume (veh/h)	55	95	555	1155	105	5	480	1150	855	10	2190	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	57	98	0	1191	108	0	495	1186	0	10	2258	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	4	4	4	10	10	10	6	6	6
Cap, veh/h	120	131		700	335		456	2112		394	2122	
Arrive On Green	0.04	0.07	0.00	0.14	0.18	0.00	0.14	0.44	0.00	0.13	0.43	0.00
Sat Flow, veh/h	3374	1826	1547	4944	1841	1560	3237	4782	1485	1725	4944	1535
Grp Volume(v), veh/h	57	98	0	1191	108	0	495	1186	0	10	2258	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	1648	1841	1560	1618	1594	1485	1725	1648	1535
Q Serve(g_s), s	2.0	6.3	0.0	17.0	6.1	0.0	16.9	22.1	0.0	0.0	51.5	0.0
Cycle Q Clear(g_c), s	2.0	6.3	0.0	17.0	6.1	0.0	16.9	22.1	0.0	0.0	51.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	131		700	335		456	2112		394	2122	
V/C Ratio(X)	0.48	0.75		1.70	0.32		1.09	0.56		0.03	1.06	
Avail Cap(c_a), veh/h	169	289		700	460		456	2112		394	2122	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.84	0.84	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	54.6	0.0	51.5	42.6	0.0	51.5	24.9	0.0	24.1	34.2	0.0
Incr Delay (d2), s/veh	2.9	8.3	0.0	320.4	0.5	0.0	67.2	1.1	0.0	0.0	39.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.2	0.0	27.8	2.8	0.0	11.1	8.5	0.0	0.2	27.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	62.9	0.0	371.9	43.1	0.0	118.8	26.0	0.0	24.1	73.5	0.0
LnGrp LOS	E	E		F	D		F	C		C	F	
Approach Vol, veh/h		155	A		1299	A		1681	A		2268	A
Approach Delay, s/veh		61.7			344.6			53.3			73.3	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	60.0	23.0	14.6	23.9	58.5	9.8	27.8
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	53.0	17.0	* 19	7.0	51.5	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.0	24.1	19.0	8.3	18.9	53.5	4.0	8.1
Green Ext Time (p_c), s	0.0	10.3	0.0	0.3	0.0	0.0	0.0	0.5

Intersection Summary		
HCM 6th Ctrl Delay		131.9
HCM 6th LOS		F

Notes

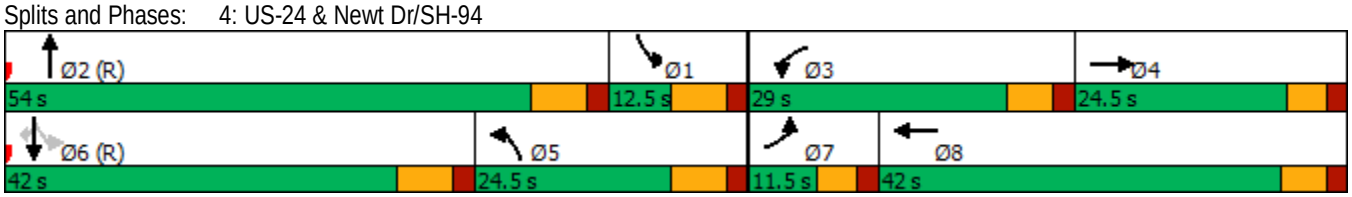
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

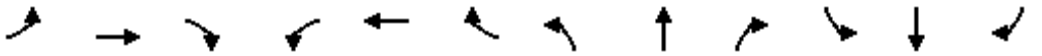
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	95	535	1160	80	10	470	2325	1165	10	1180	75
Future Volume (vph)	65	95	535	1160	80	10	470	2325	1165	10	1180	75
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free	6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		11.0	24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	24.5		29.0	42.0		24.5	54.0		12.5	42.0	42.0
Total Split (%)	9.6%	20.4%		24.2%	35.0%		20.4%	45.0%		10.4%	35.0%	35.0%
Yellow Time (s)	3.5	3.5		4.0	4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0	6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.0	11.8	120.0	23.0	31.1	120.0	17.5	64.2	120.0	47.7	42.2	42.2
Actuated g/C Ratio	0.05	0.10	1.00	0.19	0.26	1.00	0.15	0.54	1.00	0.40	0.35	0.35
v/c Ratio	0.40	0.55	0.36	1.29	0.18	0.01	1.00	0.91	0.78	0.07	0.71	0.11
Control Delay	62.5	62.2	0.6	168.2	15.2	0.0	91.9	32.1	4.0	16.2	60.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	62.2	0.6	168.2	15.2	0.0	91.9	32.1	4.0	16.2	60.1	2.9
LOS	E	E	A	F	B	A	F	C	A	B	E	A
Approach Delay		14.8			157.0			30.9			56.3	
Approach LOS		B			F			C			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 55.8	Intersection LOS: E
Intersection Capacity Utilization 94.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	95	535	1160	80	10	470	2325	1165	10	1180	75
Future Volume (veh/h)	65	95	535	1160	80	10	470	2325	1165	10	1180	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	68	100	0	1221	84	0	495	2447	0	11	1242	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	5	5	5
Cap, veh/h	129	134		955	427		783	1984		283	1454	
Arrive On Green	0.04	0.07	0.00	0.19	0.23	0.00	0.23	0.39	0.00	0.13	0.29	0.00
Sat Flow, veh/h	3456	1870	1585	4983	1856	1572	3428	5066	1572	1739	4985	1547
Grp Volume(v), veh/h	68	100	0	1221	84	0	495	2447	0	11	1242	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1661	1856	1572	1714	1689	1572	1739	1662	1547
Q Serve(g_s), s	2.3	6.3	0.0	23.0	4.4	0.0	15.6	47.0	0.0	0.0	28.2	0.0
Cycle Q Clear(g_c), s	2.3	6.3	0.0	23.0	4.4	0.0	15.6	47.0	0.0	0.0	28.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	134		955	427		783	1984		283	1454	
V/C Ratio(X)	0.53	0.75		1.28	0.20		0.63	1.23		0.04	0.85	
Avail Cap(c_a), veh/h	173	296		955	557		783	1984		283	1454	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.71	0.71	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.7	54.7	0.0	48.5	37.3	0.0	41.7	36.5	0.0	45.6	40.1	0.0
Incr Delay (d2), s/veh	3.3	8.1	0.0	131.1	0.2	0.0	1.7	109.6	0.0	0.1	6.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	21.1	2.0	0.0	6.8	39.0	0.0	0.3	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	62.7	0.0	179.6	37.4	0.0	43.4	146.1	0.0	45.6	46.7	0.0
LnGrp LOS	E	E		F	D		D	F		D	D	
Approach Vol, veh/h		168	A		1305	A		2942	A		1253	A
Approach Delay, s/veh		61.6			170.5			128.8			46.7	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	54.0	29.0	14.6	34.4	42.0	10.0	33.6
Change Period (Y+Rc), s	7.0	7.0	6.0	* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	47.0	23.0	* 19	17.5	35.0	6.0	36.0
Max Q Clear Time (g_c+I1), s	2.0	49.0	25.0	8.3	17.6	30.2	4.3	6.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.2	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	118.3
HCM 6th LOS	F

Notes

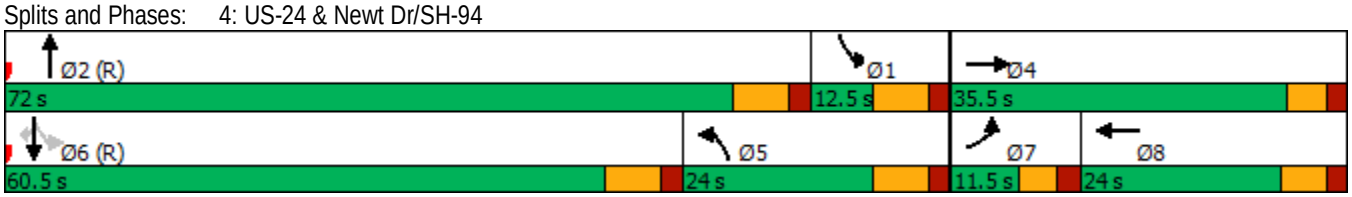
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	95	555	105	5	480	1150	855	10	2190	80
Future Volume (vph)	55	95	555	105	5	480	1150	855	10	2190	80
Turn Type	Prot	NA	Free	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2		1	6	
Permitted Phases			Free		Free			Free	6		6
Detector Phase	7	4		8		5	2		1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	35.5		24.0		24.0	72.0		12.5	60.5	60.5
Total Split (%)	9.6%	29.6%		20.0%		20.0%	60.0%		10.4%	50.4%	50.4%
Yellow Time (s)	3.5	3.5		4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead			Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes			Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.9	18.8	120.0	9.1	120.0	17.0	86.2	120.0	70.2	64.7	64.7
Actuated g/C Ratio	0.05	0.16	1.00	0.08	1.00	0.14	0.72	1.00	0.58	0.54	0.54
v/c Ratio	0.35	0.35	0.37	0.41	0.00	1.10	0.35	0.60	0.04	0.86	0.09
Control Delay	61.2	46.8	0.7	56.0	0.0	120.0	7.8	1.8	6.1	24.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	46.8	0.7	56.0	0.0	120.0	7.8	1.8	6.1	24.5	0.5
LOS	E	D	A	E	A	F	A	A	A	C	A
Approach Delay		11.7		53.6			27.4			23.6	
Approach LOS		B		D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	95	555	0	105	5	480	1150	855	10	2190	80
Future Volume (veh/h)	55	95	555	0	105	5	480	1150	855	10	2190	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	0	1841	1841	1752	1752	1752	1811	1811	1811
Adj Flow Rate, veh/h	57	98	0	0	108	0	495	1186	0	10	2258	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	0	4	4	10	10	10	6	6	6
Cap, veh/h	120	241		0	177		827	2590		470	2204	
Arrive On Green	0.04	0.13	0.00	0.00	0.02	0.00	0.26	0.54	0.00	0.16	0.45	0.00
Sat Flow, veh/h	3374	1826	1547	0	3589	1560	3237	4782	1485	1725	4944	1535
Grp Volume(v), veh/h	57	98	0	0	108	0	495	1186	0	10	2258	0
Grp Sat Flow(s),veh/h/ln	1687	1826	1547	0	1749	1560	1618	1594	1485	1725	1648	1535
Q Serve(g_s), s	2.0	5.9	0.0	0.0	3.7	0.0	16.1	18.1	0.0	0.0	53.5	0.0
Cycle Q Clear(g_c), s	2.0	5.9	0.0	0.0	3.7	0.0	16.1	18.1	0.0	0.0	53.5	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	241		0	177		827	2590		470	2204	
V/C Ratio(X)	0.48	0.41		0.00	0.61		0.60	0.46		0.02	1.02	
Avail Cap(c_a), veh/h	169	456		0	525		827	2590		470	2204	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.17	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	47.8	0.0	0.0	57.8	0.0	39.2	16.8	0.0	18.3	33.3	0.0
Incr Delay (d2), s/veh	2.9	1.1	0.0	0.0	0.6	0.0	1.2	0.6	0.0	0.0	25.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.8	0.0	0.0	1.7	0.0	6.5	6.7	0.0	0.2	25.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	48.9	0.0	0.0	58.4	0.0	40.4	17.3	0.0	18.3	58.9	0.0
LnGrp LOS	E	D		A	E		D	B		B	F	
Approach Vol, veh/h		155	A		108	A		1681	A		2268	A
Approach Delay, s/veh		52.9			58.4			24.1			58.7	
Approach LOS		D			E			C			E	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	72.0		21.8	37.7	60.5	9.8	12.1
Change Period (Y+Rc), s	7.0	7.0		* 6	7.0	7.0	5.5	6.0
Max Green Setting (Gmax), s	5.5	65.0		* 30	17.0	53.5	6.0	18.0
Max Q Clear Time (g_c+I1), s	2.0	20.1		7.9	18.1	55.5	4.0	5.7
Green Ext Time (p_c), s	0.0	11.6		0.4	0.0	0.0	0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay		44.7
HCM 6th LOS		D

Notes

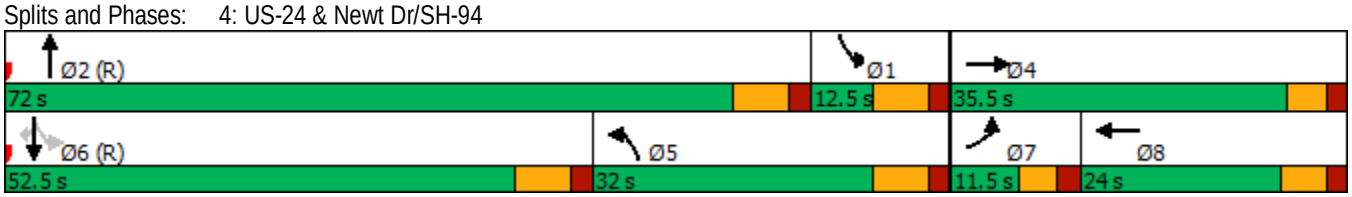
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

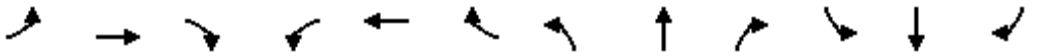
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	65	95	535	80	10	470	2325	1165	10	1180	75
Future Volume (vph)	65	95	535	80	10	470	2325	1165	10	1180	75
Turn Type	Prot	NA	Free	NA	Free	Prot	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2		1	6	
Permitted Phases			Free		Free			Free	6		6
Detector Phase	7	4		8		5	2		1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.5	24.5		24.0		12.0	25.0		12.5	25.5	25.5
Total Split (s)	11.5	35.5		24.0		32.0	72.0		12.5	52.5	52.5
Total Split (%)	9.6%	29.6%		20.0%		26.7%	60.0%		10.4%	43.8%	43.8%
Yellow Time (s)	3.5	3.5		4.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		6.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead			Lag		Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?	Yes			Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	6.6	18.7	120.0	8.4	120.0	22.0	86.3	120.0	65.3	59.8	59.8
Actuated g/C Ratio	0.06	0.16	1.00	0.07	1.00	0.18	0.72	1.00	0.54	0.50	0.50
v/c Ratio	0.36	0.34	0.36	0.34	0.01	0.80	0.68	0.78	0.08	0.50	0.09
Control Delay	60.5	47.1	0.6	57.7	0.0	56.7	11.9	4.0	11.9	27.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	47.1	0.6	57.7	0.0	56.7	11.9	4.0	11.9	27.5	1.6
LOS	E	D	A	E	A	E	B	A	B	C	A
Approach Delay		12.5		51.0			14.9			25.8	
Approach LOS		B		D			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55.9 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US-24 & Newt Dr/SH-94





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	95	535	0	80	10	470	2325	1165	10	1180	75
Future Volume (veh/h)	65	95	535	0	80	10	470	2325	1165	10	1180	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1856	1856	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	68	100	0	0	84	0	495	2447	0	11	1242	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	3	3	3	3	3	5	5	5
Cap, veh/h	129	235		0	149		1127	2744		349	1890	
Arrive On Green	0.04	0.13	0.00	0.00	0.04	0.00	0.33	0.54	0.00	0.17	0.38	0.00
Sat Flow, veh/h	3456	1870	1585	0	3618	1572	3428	5066	1572	1739	4985	1547
Grp Volume(v), veh/h	68	100	0	0	84	0	495	2447	0	11	1242	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1763	1572	1714	1689	1572	1739	1662	1547
Q Serve(g_s), s	2.3	5.9	0.0	0.0	2.8	0.0	13.6	51.4	0.0	0.0	24.7	0.0
Cycle Q Clear(g_c), s	2.3	5.9	0.0	0.0	2.8	0.0	13.6	51.4	0.0	0.0	24.7	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	235		0	149		1127	2744		349	1890	
V/C Ratio(X)	0.53	0.43		0.00	0.56		0.44	0.89		0.03	0.66	
Avail Cap(c_a), veh/h	173	468		0	529		1127	2744		349	1890	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.09	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.7	48.5	0.0	0.0	56.4	0.0	31.6	24.4	0.0	41.7	30.8	0.0
Incr Delay (d2), s/veh	3.3	1.2	0.0	0.0	0.3	0.0	0.3	4.9	0.0	0.0	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	0.0	0.0	1.3	0.0	5.7	20.8	0.0	0.3	10.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	49.7	0.0	0.0	56.7	0.0	31.9	29.3	0.0	41.8	32.6	0.0
LnGrp LOS	E	D		A	E		C	C		D	C	
Approach Vol, veh/h		168	A		84	A		2942	A		1253	A
Approach Delay, s/veh		53.9			56.7			29.7			32.7	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.9	72.0		21.1	46.4	52.5	10.0	11.1				
Change Period (Y+Rc), s	7.0	7.0		* 6	7.0	7.0	5.5	6.0				
Max Green Setting (Gmax), s	5.5	65.0		* 30	25.0	45.5	6.0	18.0				
Max Q Clear Time (g_c+I1), s	2.0	53.4		7.9	15.6	26.7	4.3	4.8				
Green Ext Time (p_c), s	0.0	10.5		0.4	1.3	8.9	0.0	0.3				

Intersection Summary			
HCM 6th Ctrl Delay		32.0	
HCM 6th LOS		C	

Notes

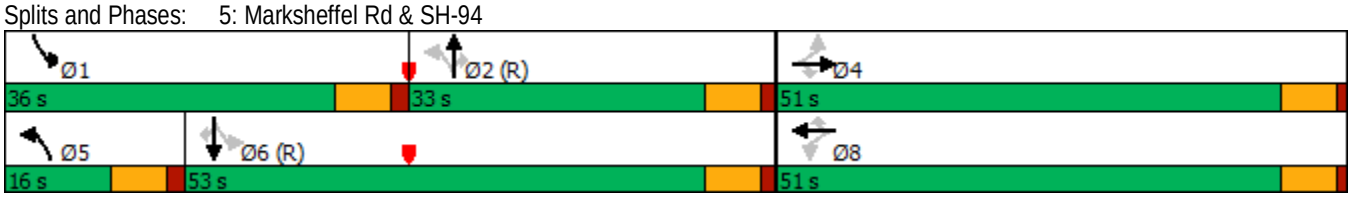
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	254	54	28	297	77	54	270	18	256	501	3
Future Volume (vph)	254	54	28	297	77	54	270	18	256	501	3
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	51.0	51.0	51.0	51.0	51.0	16.0	33.0	33.0	36.0	53.0	53.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	13.3%	27.5%	27.5%	30.0%	44.2%	44.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.8	27.8	27.8	27.8	27.8	66.7	59.6	59.6	79.3	68.6	68.6
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.56	0.50	0.50	0.66	0.57	0.57
v/c Ratio	0.68	0.13	0.20	0.78	0.18	0.12	0.17	0.02	0.39	0.27	0.00
Control Delay	46.8	0.6	37.5	55.9	0.8	10.2	19.2	0.1	5.1	5.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	0.6	37.5	55.9	0.8	10.2	19.2	0.1	5.1	5.9	0.0
LOS	D	A	D	E	A	B	B	A	A	A	A
Approach Delay	38.7			44.0			16.7			5.6	
Approach LOS	D			D			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	254	54	28	297	77	54	270	18	256	501	3
Future Volume (veh/h)	0	254	54	28	297	77	54	270	18	256	501	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1811	1811	1811	1826	1826	1826	1856	1856	1856
Adj Flow Rate, veh/h	0	276	-104	30	323	-25	59	293	20	278	545	3
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
Percent Heavy Veh, %	8	8	8	6	6	6	5	5	5	3	3	3
Cap, veh/h	60	367	311	147	373	316	564	1899	847	751	2115	943
Arrive On Green	0.00	0.41	0.00	0.21	0.21	0.00	0.04	0.55	0.55	0.09	0.60	0.60
Sat Flow, veh/h	1030	1781	1510	1174	1811	1535	1739	3469	1547	1767	3526	1572
Grp Volume(v), veh/h	0	276	-104	30	323	-25	59	293	20	278	545	3
Grp Sat Flow(s),veh/h/ln	1030	1781	1510	1174	1811	1535	1739	1735	1547	1767	1763	1572
Q Serve(g_s), s	0.0	15.8	0.0	2.9	20.7	0.0	1.8	5.0	0.7	7.8	8.8	0.1
Cycle Q Clear(g_c), s	0.0	15.8	0.0	18.8	20.7	0.0	1.8	5.0	0.7	7.8	8.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	367	311	147	373	316	564	1899	847	751	2115	943
V/C Ratio(X)	0.00	0.75	-0.33	0.20	0.87	-0.08	0.10	0.15	0.02	0.37	0.26	0.00
Avail Cap(c_a), veh/h	234	668	566	345	679	576	639	1899	847	1029	2115	943
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.7	0.0	52.8	46.0	0.0	10.8	13.4	12.5	8.9	11.4	9.6
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.7	6.1	0.0	0.1	0.2	0.1	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.0	0.9	9.9	0.0	0.7	2.0	0.3	2.9	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.7	0.0	53.5	52.2	0.0	10.9	13.6	12.5	9.3	11.7	9.6
LnGrp LOS	A	D	A	D	D	A	B	B	B	A	B	A
Approach Vol, veh/h		172			328			372			826	
Approach Delay, s/veh		57.3			56.3			13.1			10.8	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.1	72.2		30.7	10.8	78.5		30.7				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	29.5	26.5		45.0	9.5	46.5		45.0				
Max Q Clear Time (g_c+I1), s	9.8	7.0		17.8	3.8	10.8		22.7				
Green Ext Time (p_c), s	0.8	1.8		1.7	0.0	4.1		2.0				

Intersection Summary			
HCM 6th Ctrl Delay		24.8	
HCM 6th LOS		C	

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	294	94	39	356	343	76	819	23	158	573	7
Future Volume (vph)	294	94	39	356	343	76	819	23	158	573	7
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	47.0	47.0	47.0	47.0	47.0	13.0	52.0	52.0	21.0	60.0	60.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	10.8%	43.3%	43.3%	17.5%	50.0%	50.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	32.1	32.1	32.1	32.1	32.1	65.4	58.4	58.4	73.1	64.3	64.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.54	0.49	0.49	0.61	0.54	0.54
v/c Ratio	0.63	0.19	0.24	0.77	0.64	0.17	0.51	0.03	0.46	0.33	0.01
Control Delay	41.4	0.9	35.3	50.7	20.7	11.8	24.1	0.0	13.2	21.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	0.9	35.3	50.7	20.7	11.8	24.1	0.0	13.2	21.4	0.4
LOS	D	A	D	D	C	B	C	A	B	C	A
Approach Delay	31.6			35.9			22.5			19.4	
Approach LOS	C			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	294	94	39	356	343	76	819	23	158	573	7
Future Volume (veh/h)	0	294	94	39	356	343	76	819	23	158	573	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	0	313	-60	41	379	259	81	871	24	168	610	7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	4	4	4
Cap, veh/h	60	442	374	177	442	374	510	1930	861	408	1975	881
Arrive On Green	0.00	0.48	0.00	0.24	0.24	0.24	0.04	0.54	0.54	0.06	0.56	0.56
Sat Flow, veh/h	784	1856	1572	1118	1856	1572	1781	3554	1585	1753	3497	1560
Grp Volume(v), veh/h	0	313	-60	41	379	259	81	871	24	168	610	7
Grp Sat Flow(s),veh/h/ln	784	1856	1572	1118	1856	1572	1781	1777	1585	1753	1749	1560
Q Serve(g_s), s	0.0	16.0	0.0	4.1	23.5	18.0	2.4	17.8	0.8	5.0	11.0	0.2
Cycle Q Clear(g_c), s	0.0	16.0	0.0	20.1	23.5	18.0	2.4	17.8	0.8	5.0	11.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	442	374	177	442	374	510	1930	861	408	1975	881
V/C Ratio(X)	0.00	0.71	-0.16	0.23	0.86	0.69	0.16	0.45	0.03	0.41	0.31	0.01
Avail Cap(c_a), veh/h	141	634	537	293	634	537	538	1930	861	513	1975	881
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.1	0.0	49.9	43.8	41.7	11.3	16.6	12.7	12.2	13.8	11.4
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.7	8.1	2.3	0.1	0.8	0.1	0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.0	1.2	11.7	7.2	1.0	7.3	0.3	2.0	4.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.2	0.0	50.6	51.8	44.0	11.5	17.4	12.8	12.9	14.2	11.4
LnGrp LOS	A	C	A	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		253			679			976			785	
Approach Delay, s/veh		37.4			48.8			16.8			13.9	
Approach LOS		D			D			B			B	

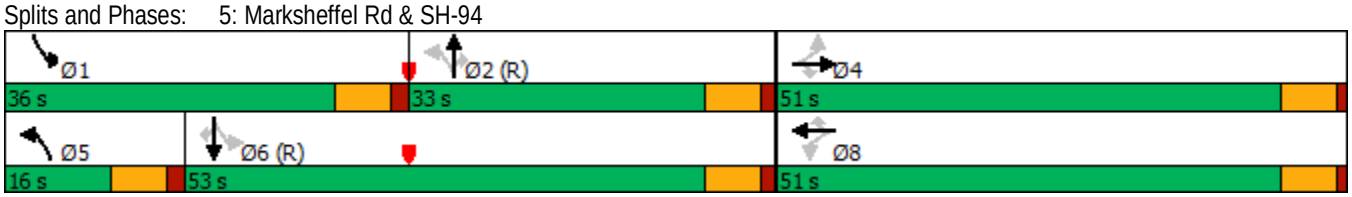
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	71.7		34.6	11.2	74.3		34.6				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	14.5	45.5		41.0	6.5	53.5		41.0				
Max Q Clear Time (g_c+I1), s	7.0	19.8		18.0	4.4	13.0		25.5				
Green Ext Time (p_c), s	0.2	6.9		1.9	0.0	4.8		3.1				

Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	275	60	35	320	85	60	290	20	275	540	5
Future Volume (vph)	275	60	35	320	85	60	290	20	275	540	5
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	51.0	51.0	51.0	51.0	51.0	16.0	33.0	33.0	36.0	53.0	53.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	13.3%	27.5%	27.5%	30.0%	44.2%	44.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.6	29.6	29.6	29.6	29.6	64.0	56.7	56.7	77.7	66.5	66.5
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25	0.53	0.47	0.47	0.65	0.55	0.55
v/c Ratio	0.69	0.14	0.25	0.79	0.19	0.14	0.19	0.03	0.43	0.30	0.01
Control Delay	45.4	0.6	37.8	54.7	1.4	11.3	21.2	0.1	5.5	6.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	0.6	37.8	54.7	1.4	11.3	21.2	0.1	5.5	6.6	0.0
LOS	D	A	D	D	A	B	C	A	A	A	A
Approach Delay	37.4			43.1			18.5			6.2	
Approach LOS	D			D			B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	275	60	35	320	85	60	290	20	275	540	5
Future Volume (veh/h)	0	275	60	35	320	85	60	290	20	275	540	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1811	1811	1811	1826	1826	1826	1856	1856	1856
Adj Flow Rate, veh/h	0	299	-98	38	348	-17	65	315	22	299	587	5
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
Percent Heavy Veh, %	8	8	8	6	6	6	5	5	5	3	3	3
Cap, veh/h	60	393	333	151	399	338	528	1817	811	725	2060	919
Arrive On Green	0.00	0.44	0.00	0.22	0.22	0.00	0.04	0.52	0.52	0.10	0.58	0.58
Sat Flow, veh/h	999	1781	1510	1144	1811	1535	1739	3469	1547	1767	3526	1572
Grp Volume(v), veh/h	0	299	-98	38	348	-17	65	315	22	299	587	5
Grp Sat Flow(s),veh/h/ln	999	1781	1510	1144	1811	1535	1739	1735	1547	1767	1763	1572
Q Serve(g_s), s	0.0	17.0	0.0	3.8	22.3	0.0	2.0	5.7	0.8	8.8	10.0	0.2
Cycle Q Clear(g_c), s	0.0	17.0	0.0	20.7	22.3	0.0	2.0	5.7	0.8	8.8	10.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	393	333	151	399	338	528	1817	811	725	2060	919
V/C Ratio(X)	0.00	0.76	-0.29	0.25	0.87	-0.05	0.12	0.17	0.03	0.41	0.28	0.01
Avail Cap(c_a), veh/h	214	668	566	327	679	576	601	1817	811	987	2060	919
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.9	0.0	52.6	45.1	0.0	12.1	15.0	13.8	9.8	12.4	10.4
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.9	6.5	0.0	0.1	0.2	0.1	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.1	0.0	1.1	10.7	0.0	0.8	2.3	0.3	3.4	4.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.9	0.0	53.5	51.6	0.0	12.2	15.2	13.9	10.2	12.8	10.4
LnGrp LOS	A	C	A	D	D	A	B	B	B	B	B	B
Approach Vol, veh/h		201			369			402			891	
Approach Delay, s/veh		50.4			54.2			14.6			11.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.2	69.4		32.5	10.9	76.6		32.5				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	29.5	26.5		45.0	9.5	46.5		45.0				
Max Q Clear Time (g_c+I1), s	10.8	7.7		19.0	4.0	12.0		24.3				
Green Ext Time (p_c), s	0.8	2.0		1.8	0.0	4.5		2.2				

Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	320	105	45	385	370	85	880	25	170	615	10
Future Volume (vph)	320	105	45	385	370	85	880	25	170	615	10
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	47.0	47.0	47.0	47.0	47.0	13.0	52.0	52.0	21.0	60.0	60.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	10.8%	43.3%	43.3%	17.5%	50.0%	50.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	33.5	33.5	33.5	33.5	33.5	63.8	56.5	56.5	70.9	60.2	60.2
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.53	0.47	0.47	0.59	0.50	0.50
v/c Ratio	0.66	0.21	0.29	0.80	0.68	0.21	0.56	0.03	0.53	0.38	0.01
Control Delay	41.3	1.6	36.5	51.4	24.1	12.6	26.2	0.1	15.2	24.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	1.6	36.5	51.4	24.1	12.6	26.2	0.1	15.2	24.2	1.5
LOS	D	A	D	D	C	B	C	A	B	C	A
Approach Delay	31.4			37.9			24.4			22.0	
Approach LOS	C			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	320	105	45	385	370	85	880	25	170	615	10
Future Volume (veh/h)	0	320	105	45	385	370	85	880	25	170	615	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	0	340	-48	48	410	288	90	936	27	181	654	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	4	4	4
Cap, veh/h	60	474	401	182	474	401	472	1849	825	376	1913	853
Arrive On Green	0.00	0.51	0.00	0.26	0.26	0.26	0.04	0.52	0.52	0.07	0.55	0.55
Sat Flow, veh/h	742	1856	1572	1079	1856	1572	1781	3554	1585	1753	3497	1560
Grp Volume(v), veh/h	0	340	-48	48	410	288	90	936	27	181	654	11
Grp Sat Flow(s),veh/h/ln	742	1856	1572	1079	1856	1572	1781	1777	1585	1753	1749	1560
Q Serve(g_s), s	0.0	17.0	0.0	5.0	25.4	20.0	2.8	20.6	1.0	5.7	12.5	0.4
Cycle Q Clear(g_c), s	0.0	17.0	0.0	21.9	25.4	20.0	2.8	20.6	1.0	5.7	12.5	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	474	401	182	474	401	472	1849	825	376	1913	853
V/C Ratio(X)	0.00	0.72	-0.12	0.26	0.87	0.72	0.19	0.51	0.03	0.48	0.34	0.01
Avail Cap(c_a), veh/h	124	634	537	276	634	537	498	1849	825	472	1913	853
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	26.0	0.0	49.3	42.7	40.7	12.7	18.8	14.1	14.0	15.2	12.4
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.8	9.5	3.0	0.2	1.0	0.1	1.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	0.0	1.4	12.8	8.1	1.1	8.6	0.4	2.3	5.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.6	0.0	50.1	52.2	43.8	12.8	19.7	14.1	15.0	15.6	12.4
LnGrp LOS	A	C	A	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		292			746			1053			846	
Approach Delay, s/veh		33.3			48.8			19.0			15.5	
Approach LOS		C			D			B			B	

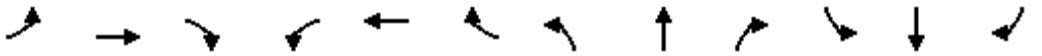
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.5	68.9		36.6	11.3	72.1		36.6				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	14.5	45.5		41.0	6.5	53.5		41.0				
Max Q Clear Time (g_c+I1), s	7.7	22.6		19.0	4.8	14.5		27.4				
Green Ext Time (p_c), s	0.3	7.2		2.0	0.0	5.2		3.3				

Intersection Summary			
HCM 6th Ctrl Delay		27.0	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	300	160	35	345	115	190	470	25	300	695	245
Future Volume (vph)	150	300	160	35	345	115	190	470	25	300	695	245
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		Free
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.5		11.5	11.5	
Total Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	16.0	33.0		36.0	53.0	
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	13.3%	27.5%		30.0%	44.2%	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.5	6.5		6.5	6.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	35.5	35.5	35.5	35.5	35.5	35.5	58.5	48.1	120.0	69.8	55.2	120.0
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.49	0.40	1.00	0.58	0.46	1.00
v/c Ratio	1.07	0.63	0.31	0.20	0.71	0.22	0.54	0.37	0.02	0.60	0.47	0.17
Control Delay	127.2	36.3	3.3	30.5	44.2	3.3	22.8	24.9	0.0	22.6	23.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.2	36.3	3.3	30.5	44.2	3.3	22.8	24.9	0.0	22.6	23.3	0.2
LOS	F	D	A	C	D	A	C	C	A	C	C	A
Approach Delay		50.0			33.8			23.4			18.6	
Approach LOS		D			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	300	160	35	345	115	190	470	25	300	695	245
Future Volume (veh/h)	150	300	160	35	345	115	190	470	25	300	695	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1811	1811	1811	1826	1826	1826	1856	1856	1856
Adj Flow Rate, veh/h	163	326	11	38	375	16	207	511	0	326	755	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
Percent Heavy Veh, %	8	8	8	6	6	6	5	5	5	3	3	3
Cap, veh/h	239	636	539	313	647	548	352	1216		551	1429	
Arrive On Green	0.60	0.60	0.60	0.36	0.36	0.36	0.16	0.70	0.00	0.09	0.27	0.00
Sat Flow, veh/h	946	1781	1510	1010	1811	1535	1739	3469	1547	1767	3526	1572
Grp Volume(v), veh/h	163	326	11	38	375	16	207	511	0	326	755	0
Grp Sat Flow(s),veh/h/ln	946	1781	1510	1010	1811	1535	1739	1735	1547	1767	1763	1572
Q Serve(g_s), s	19.9	12.8	0.4	3.5	20.1	0.8	9.5	7.5	0.0	13.2	21.9	0.0
Cycle Q Clear(g_c), s	40.0	12.8	0.4	16.3	20.1	0.8	9.5	7.5	0.0	13.2	21.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	636	539	313	647	548	352	1216		551	1429	
V/C Ratio(X)	0.68	0.51	0.02	0.12	0.58	0.03	0.59	0.42		0.59	0.53	
Avail Cap(c_a), veh/h	256	668	566	331	679	576	352	1216		748	1429	
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	0.00	0.78	0.78	0.00
Uniform Delay (d), s/veh	33.3	18.1	15.6	35.0	31.3	25.1	21.9	12.8	0.0	19.8	33.9	0.0
Incr Delay (d2), s/veh	5.9	0.6	0.0	0.2	1.1	0.0	2.5	1.1	0.0	0.8	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.4	0.1	0.9	9.0	0.3	3.7	2.6	0.0	5.9	10.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	18.7	15.7	35.2	32.4	25.1	24.5	13.9	0.0	20.6	35.0	0.0
LnGrp LOS	D	B	B	D	C	C	C	B		C	D	
Approach Vol, veh/h		500			429			718	A		1081	A
Approach Delay, s/veh		25.3			32.4			16.9			30.7	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.6	48.5		48.9	16.0	55.1		48.9				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	29.5	26.5		45.0	9.5	46.5		45.0				
Max Q Clear Time (g_c+I1), s	15.2	9.5		42.0	11.5	23.9		22.1				
Green Ext Time (p_c), s	0.8	3.2		0.9	0.0	5.5		2.6				

Intersection Summary			
HCM 6th Ctrl Delay		26.3	
HCM 6th LOS		C	

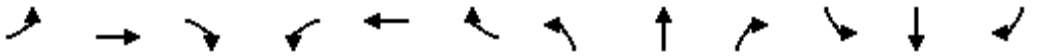
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	340	265	45	405	395	225	1100	30	200	845	255
Future Volume (vph)	140	340	265	45	405	395	225	1100	30	200	845	255
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		Free
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.5		11.5	11.5	
Total Split (s)	47.0	47.0	47.0	47.0	47.0	47.0	13.0	52.0		21.0	60.0	
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	10.8%	43.3%		17.5%	50.0%	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.5	6.5		6.5	6.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	37.6	37.6	37.6	37.6	37.6	37.6	57.8	50.1	120.0	68.1	55.7	120.0
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.48	0.42	1.00	0.57	0.46	1.00
v/c Ratio	1.08	0.63	0.45	0.25	0.75	0.69	0.78	0.79	0.02	0.80	0.56	0.17
Control Delay	133.6	36.7	9.0	32.8	45.1	25.8	32.9	28.1	0.0	50.5	14.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	133.6	36.7	9.0	32.8	45.1	25.8	32.9	28.1	0.0	50.5	14.3	0.2
LOS	F	D	A	C	D	C	C	C	A	D	B	A
Approach Delay		45.0			35.4			28.3			17.1	
Approach LOS		D			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	340	265	45	405	395	225	1100	30	200	845	255
Future Volume (veh/h)	140	340	265	45	405	395	225	1100	30	200	845	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	149	362	122	48	431	314	239	1170	0	213	899	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	4	4	4
Cap, veh/h	161	634	537	239	634	537	284	1472		328	1559	
Arrive On Green	0.45	0.45	0.45	0.34	0.34	0.34	0.11	0.83	0.00	0.03	0.15	0.00
Sat Flow, veh/h	710	1856	1572	904	1856	1572	1781	3554	1585	1753	3497	1560
Grp Volume(v), veh/h	149	362	122	48	431	314	239	1170	0	213	899	0
Grp Sat Flow(s),veh/h/ln	710	1856	1572	904	1856	1572	1781	1777	1585	1753	1749	1560
Q Serve(g_s), s	17.1	17.2	5.7	5.4	23.9	19.7	6.5	19.9	0.0	8.1	28.7	0.0
Cycle Q Clear(g_c), s	41.0	17.2	5.7	22.6	23.9	19.7	6.5	19.9	0.0	8.1	28.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	634	537	239	634	537	284	1472		328	1559	
V/C Ratio(X)	0.92	0.57	0.23	0.20	0.68	0.58	0.84	0.79		0.65	0.58	
Avail Cap(c_a), veh/h	161	634	537	239	634	537	284	1472		389	1559	
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	47.4	26.3	23.1	40.8	33.9	32.5	31.6	7.7	0.0	21.4	40.6	0.0
Incr Delay (d2), s/veh	46.4	1.1	0.2	0.4	2.9	1.6	19.7	4.5	0.0	2.5	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.2	2.1	1.2	11.2	7.7	5.6	4.1	0.0	3.8	13.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.9	27.4	23.3	41.2	36.8	34.1	51.3	12.3	0.0	24.0	42.0	0.0
LnGrp LOS	F	C	C	D	D	C	D	B		C	D	
Approach Vol, veh/h		633			793			1409	A		1112	A
Approach Delay, s/veh		42.2			36.0			18.9			38.5	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	56.2		47.0	13.0	60.0		47.0				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	14.5	45.5		41.0	6.5	53.5		41.0				
Max Q Clear Time (g_c+I1), s	10.1	21.9		43.0	8.5	30.7		25.9				
Green Ext Time (p_c), s	0.2	9.5		0.0	0.0	6.8		3.7				

Intersection Summary			
HCM 6th Ctrl Delay		31.6	
HCM 6th LOS		C	

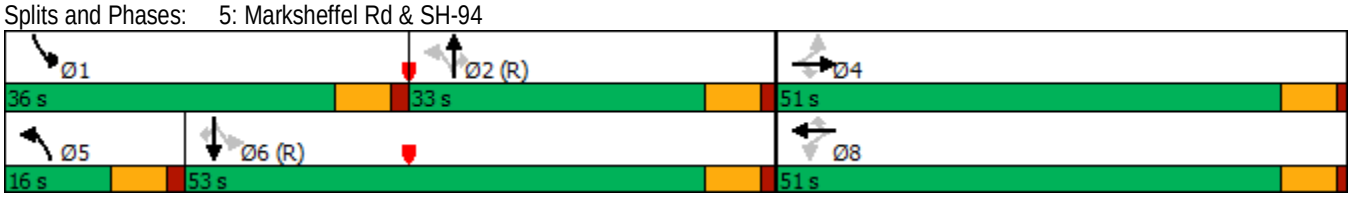
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	320	130	40	375	100	250	555	25	325	705	5
Future Volume (vph)	320	130	40	375	100	250	555	25	325	705	5
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	51.0	51.0	51.0	51.0	51.0	16.0	33.0	33.0	36.0	53.0	53.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	13.3%	27.5%	27.5%	30.0%	44.2%	44.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	33.7	33.7	33.7	33.7	33.7	61.4	45.8	45.8	70.0	51.7	51.7
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.51	0.38	0.38	0.58	0.43	0.43
v/c Ratio	0.70	0.27	0.27	0.81	0.20	0.63	0.46	0.04	0.66	0.51	0.01
Control Delay	42.9	3.8	35.5	52.5	2.3	24.5	27.6	0.4	14.3	16.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	3.8	35.5	52.5	2.3	24.5	27.6	0.4	14.3	16.4	0.0
LOS	D	A	D	D	A	C	C	A	B	B	A
Approach Delay	31.6			41.4			25.9			15.7	
Approach LOS	C			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 78.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	320	130	40	375	100	250	555	25	325	705	5
Future Volume (veh/h)	0	320	130	40	375	100	250	555	25	325	705	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1811	1811	1811	1826	1826	1826	1856	1856	1856
Adj Flow Rate, veh/h	0	348	-22	43	408	0	272	603	27	353	766	5
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
Percent Heavy Veh, %	8	8	8	6	6	6	5	5	5	3	3	3
Cap, veh/h	60	453	384	159	461	391	430	1611	719	629	1791	799
Arrive On Green	0.00	0.51	0.00	0.25	0.25	0.00	0.16	0.93	0.93	0.08	0.34	0.34
Sat Flow, veh/h	931	1781	1510	1020	1811	1535	1739	3469	1547	1767	3526	1572
Grp Volume(v), veh/h	0	348	-22	43	408	0	272	603	27	353	766	5
Grp Sat Flow(s),veh/h/ln	931	1781	1510	1020	1811	1535	1739	1735	1547	1767	1763	1572
Q Serve(g_s), s	0.0	18.9	0.0	4.8	26.0	0.0	9.5	2.3	0.2	11.8	20.1	0.3
Cycle Q Clear(g_c), s	0.0	18.9	0.0	23.7	26.0	0.0	9.5	2.3	0.2	11.8	20.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	453	384	159	461	391	430	1611	719	629	1791	799
V/C Ratio(X)	0.00	0.77	-0.06	0.27	0.89	0.00	0.63	0.37	0.04	0.56	0.43	0.01
Avail Cap(c_a), veh/h	172	668	566	282	679	576	430	1611	719	846	1791	799
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	0.00	0.94	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	0.0	26.6	0.0	51.1	43.0	0.0	16.9	2.4	2.3	13.0	26.1	19.6
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.9	9.5	0.0	3.0	0.7	0.1	0.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.4	0.0	1.3	12.8	0.0	3.9	0.8	0.1	5.1	9.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.6	0.0	52.0	52.6	0.0	19.9	3.0	2.4	13.7	26.8	19.6
LnGrp LOS	A	C	A	D	D	A	B	A	A	B	C	B
Approach Vol, veh/h		326			451			902			1124	
Approach Delay, s/veh		31.6			52.5			8.1			22.6	
Approach LOS		C			D			A			C	

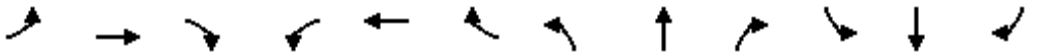
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.2	62.2		36.5	16.0	67.5		36.5				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	29.5	26.5		45.0	9.5	46.5		45.0				
Max Q Clear Time (g_c+I1), s	13.8	4.3		20.9	11.5	22.1		28.0				
Green Ext Time (p_c), s	1.0	4.3		2.1	0.0	5.8		2.5				

Intersection Summary												
HCM 6th Ctrl Delay			23.8									
HCM 6th LOS			C									

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	375	315	50	450	435	215	1170	30	200	955	10
Future Volume (vph)	375	315	50	450	435	215	1170	30	200	955	10
Turn Type	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4			8		5	2		1	6	
Permitted Phases		4	8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
Total Split (s)	47.0	47.0	47.0	47.0	47.0	13.0	52.0	52.0	21.0	60.0	60.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	10.8%	43.3%	43.3%	17.5%	50.0%	50.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	36.9	36.9	36.9	36.9	36.9	60.3	50.5	50.5	67.2	54.4	54.4
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.50	0.42	0.42	0.56	0.45	0.45
v/c Ratio	0.70	0.55	0.34	0.85	0.77	0.80	0.84	0.04	0.83	0.65	0.01
Control Delay	41.2	16.2	37.5	53.1	32.0	36.7	31.1	0.1	39.9	35.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	16.2	37.5	53.1	32.0	36.7	31.1	0.1	39.9	35.2	0.0
LOS	D	B	D	D	C	D	C	A	D	D	A
Approach Delay	29.8			42.4			31.3			35.7	
Approach LOS	C			D			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 92.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	375	315	50	450	435	215	1170	30	200	955	10
Future Volume (veh/h)	0	375	315	50	450	435	215	1170	30	200	955	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	0	399	175	53	479	357	229	1245	32	213	1016	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	4	4	4
Cap, veh/h	60	540	458	171	540	458	282	1676	747	371	1736	774
Arrive On Green	0.00	0.58	0.58	0.29	0.29	0.29	0.11	0.94	0.94	0.03	0.16	0.16
Sat Flow, veh/h	652	1856	1572	832	1856	1572	1781	3554	1585	1753	3497	1560
Grp Volume(v), veh/h	0	399	175	53	479	357	229	1245	32	213	1016	11
Grp Sat Flow(s),veh/h/ln	652	1856	1572	832	1856	1572	1781	1777	1585	1753	1749	1560
Q Serve(g_s), s	0.0	18.9	7.2	7.1	29.6	25.0	6.5	8.0	0.1	7.2	32.2	0.7
Cycle Q Clear(g_c), s	0.0	18.9	7.2	26.0	29.6	25.0	6.5	8.0	0.1	7.2	32.2	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	540	458	171	540	458	282	1676	747	371	1736	774
V/C Ratio(X)	0.00	0.74	0.38	0.31	0.89	0.78	0.81	0.74	0.04	0.57	0.59	0.01
Avail Cap(c_a), veh/h	93	634	537	213	634	537	282	1676	747	445	1736	774
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	0.0	21.7	19.3	48.1	40.6	39.0	27.3	2.0	1.8	15.1	38.7	25.6
Incr Delay (d2), s/veh	0.0	3.5	0.5	1.0	12.9	6.2	16.5	3.0	0.1	1.3	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	0.1	1.5	15.3	10.4	4.8	1.7	0.1	3.3	15.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.3	19.8	49.1	53.5	45.2	43.8	5.1	1.9	16.5	40.1	25.6
LnGrp LOS	A	C	B	D	D	D	D	A	A	B	D	C
Approach Vol, veh/h		574			889			1506			1240	
Approach Delay, s/veh		23.6			49.9			10.9			35.9	
Approach LOS		C			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	63.1		40.9	13.0	66.1		40.9				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	14.5	45.5		41.0	6.5	53.5		41.0				
Max Q Clear Time (g_c+I1), s	9.2	10.0		20.9	8.5	34.2		31.6				
Green Ext Time (p_c), s	0.3	12.3		3.0	0.0	7.4		3.3				

Intersection Summary			
HCM 6th Ctrl Delay		28.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	350	310	40	405	135	430	810	355	975	275
Future Volume (vph)	165	350	310	40	405	135	430	810	355	975	275
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	pm+pt	NA	Free
Protected Phases		4			8		5	2	1	6	
Permitted Phases	4		4	8		8			6		Free
Detector Phase	4	4	4	8	8	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	29.0	36.0	36.0	43.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	24.2%	30.0%	30.0%	35.8%	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	
Act Effct Green (s)	34.1	34.1	34.1	34.1	34.1	34.1	20.6	41.5	71.4	46.2	120.0
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.35	0.60	0.38	1.00
v/c Ratio	0.90	0.40	0.51	0.19	0.45	0.27	0.82	0.54	0.76	0.55	0.19
Control Delay	73.2	30.9	3.8	31.1	35.7	5.4	65.3	29.3	47.5	24.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.2	30.9	3.8	31.1	35.7	5.4	65.3	29.3	47.5	24.6	0.2
LOS	E	C	A	C	D	A	E	C	D	C	A
Approach Delay		29.2			28.3			41.5		25.5	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 31.3	Intersection LOS: C
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	350	310	40	405	135	430	810	30	355	975	275
Future Volume (veh/h)	165	350	310	40	405	135	430	810	30	355	975	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1811	1811	1811	1826	1826	1826	1856	1856	1856
Adj Flow Rate, veh/h	179	380	174	43	440	38	467	880	0	386	1060	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
Percent Heavy Veh, %	8	8	8	6	6	6	5	5	5	3	3	3
Cap, veh/h	257	1100	491	277	1119	499	524	1812		511	1830	
Arrive On Green	0.54	0.54	0.54	0.33	0.33	0.33	0.31	0.73	0.00	0.05	0.12	0.00
Sat Flow, veh/h	873	3385	1510	827	3441	1535	3374	5149	0	1767	5066	1572
Grp Volume(v), veh/h	179	380	174	43	440	38	467	880	0	386	1060	0
Grp Sat Flow(s),veh/h/ln	873	1692	1510	827	1721	1535	1687	1662	0	1767	1689	1572
Q Serve(g_s), s	23.3	7.6	7.8	4.9	11.9	2.1	15.8	8.9	0.0	15.4	23.8	0.0
Cycle Q Clear(g_c), s	35.2	7.6	7.8	12.4	11.9	2.1	15.8	8.9	0.0	15.4	23.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1100	491	277	1119	499	524	1812		511	1830	
V/C Ratio(X)	0.70	0.35	0.35	0.16	0.39	0.08	0.89	0.49		0.75	0.58	
Avail Cap(c_a), veh/h	279	1185	528	297	1204	537	633	1812		675	1830	
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	0.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	32.2	20.2	20.3	34.5	31.3	28.0	40.4	11.6	0.0	21.2	44.2	0.0
Incr Delay (d2), s/veh	5.2	0.1	0.3	0.3	0.2	0.1	13.1	0.9	0.0	2.8	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.8	2.6	1.0	5.0	0.8	6.5	2.7	0.0	7.5	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	20.4	20.6	34.7	31.6	28.1	53.5	12.6	0.0	24.0	45.3	0.0
LnGrp LOS	D	C	C	C	C	C	D	B		C	D	
Approach Vol, veh/h		733			521			1347	A		1446	A
Approach Delay, s/veh		24.6			31.6			26.8			39.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.9	50.1		45.0	25.1	49.9		45.0				
Change Period (Y+Rc), s	6.5	6.5		6.0	6.5	6.5		6.0				
Max Green Setting (Gmax), s	29.5	29.5		42.0	22.5	36.5		42.0				
Max Q Clear Time (g_c+I1), s	17.4	10.9		37.2	17.8	25.8		14.4				
Green Ext Time (p_c), s	1.0	6.1		1.8	0.8	5.4		3.5				

Intersection Summary		
HCM 6th Ctrl Delay		31.6
HCM 6th LOS		C

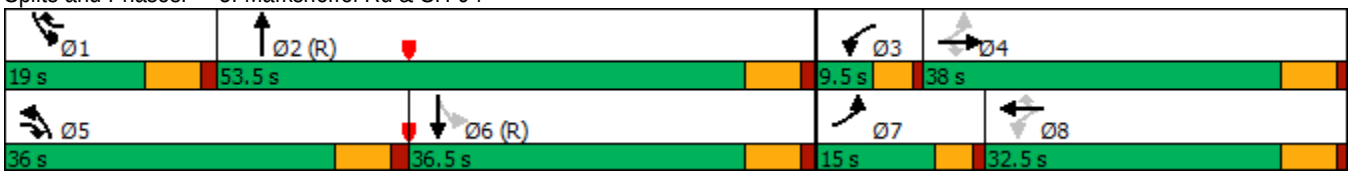
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	235	400	665	50	475	480	565	1735	230	1480	285
Future Volume (vph)	235	400	665	50	475	480	565	1735	230	1480	285
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+pt	NA	Free
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8			6		Free
Detector Phase	7	4	5	3	8	1	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	11.0	11.5	9.5	11.0	11.5	11.5	11.5	11.5	11.5	
Total Split (s)	15.0	38.0	36.0	9.5	32.5	19.0	36.0	53.5	19.0	36.5	
Total Split (%)	12.5%	31.7%	30.0%	7.9%	27.1%	15.8%	30.0%	44.6%	15.8%	30.4%	
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0	1.5	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	6.5	4.5	6.0	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	
Act Effct Green (s)	39.0	29.9	63.0	29.0	22.5	44.4	27.0	47.6	52.3	36.4	120.0
Actuated g/C Ratio	0.32	0.25	0.52	0.24	0.19	0.37	0.22	0.40	0.44	0.30	1.00
v/c Ratio	1.02	0.49	0.81	0.21	0.77	0.74	0.78	0.94	0.84	1.04	0.20
Control Delay	89.7	43.2	23.0	29.3	54.3	28.6	45.7	57.6	58.2	84.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	43.2	23.0	29.3	54.3	28.6	45.7	57.6	58.2	84.7	0.2
LOS	F	D	C	C	D	C	D	E	E	F	A
Approach Delay		41.3			40.7			54.7		69.6	
Approach LOS		D			D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 54.4	Intersection LOS: D
Intersection Capacity Utilization 93.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Marksheffel Rd & SH-94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	400	665	50	475	480	565	1735	50	230	1480	285
Future Volume (veh/h)	235	400	665	50	475	480	565	1735	50	230	1480	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	250	426	361	53	505	245	601	1846	0	245	1574	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	4	4	4
Cap, veh/h	242	809	676	214	623	441	693	2226		263	1706	
Arrive On Green	0.15	0.38	0.38	0.03	0.18	0.18	0.07	0.14	0.00	0.10	0.34	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3456	5274	0	1753	5025	1560
Grp Volume(v), veh/h	250	426	361	53	505	245	601	1846	0	245	1574	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1728	1702	0	1753	1675	1560
Q Serve(g_s), s	10.5	11.2	20.4	2.9	16.5	15.9	20.7	42.2	0.0	11.0	36.1	0.0
Cycle Q Clear(g_c), s	10.5	11.2	20.4	2.9	16.5	15.9	20.7	42.2	0.0	11.0	36.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	809	676	214	623	441	693	2226		263	1706	
V/C Ratio(X)	1.03	0.53	0.53	0.25	0.81	0.55	0.87	0.83		0.93	0.92	
Avail Cap(c_a), veh/h	242	940	735	227	779	511	850	2226		263	1706	
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	0.00	0.78	0.78	0.00
Uniform Delay (d), s/veh	39.5	32.0	20.2	38.6	47.5	36.8	54.4	47.0	0.0	28.8	38.1	0.0
Incr Delay (d2), s/veh	52.3	0.3	0.4	0.6	5.3	1.1	8.1	3.7	0.0	31.5	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.3	6.1	1.3	7.7	6.3	10.4	20.0	0.0	6.9	15.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.8	32.3	20.6	39.2	52.7	37.9	62.5	50.8	0.0	60.4	46.1	0.0
LnGrp LOS	F	C	C	D	D	D	E	D		E	D	
Approach Vol, veh/h		1037			803			2447	A		1819	A
Approach Delay, s/veh		42.6			47.3			53.7			48.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	58.8	8.6	33.5	30.6	47.2	15.0	27.2
Change Period (Y+Rc), s	6.5	6.5	4.5	6.0	6.5	6.5	4.5	6.0
Max Green Setting (Gmax), s	12.5	47.0	5.0	32.0	29.5	30.0	10.5	26.5
Max Q Clear Time (g_c+I1), s	13.0	44.2	4.9	22.4	22.7	38.1	12.5	18.5
Green Ext Time (p_c), s	0.0	2.5	0.0	3.0	1.4	0.0	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	713	0	28	543	0	84
Future Vol, veh/h	713	0	28	543	0	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	775	0	30	590	0	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	775	0	1425	775
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	650	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	*705	-	*74	*473
Stage 1	-	-	-	-	*446	-
Stage 2	-	-	-	-	*514	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*705	-	*71	*473
Mov Cap-2 Maneuver	-	-	-	-	*246	-
Stage 1	-	-	-	-	*446	-
Stage 2	-	-	-	-	*492	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	473	-	-	* 705	-
HCM Lane V/C Ratio	0.193	-	-	0.043	-
HCM Control Delay (s)	14.4	-	-	10.3	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	446	0	55	691	0	66
Future Vol, veh/h	446	0	55	691	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	485	0	60	751	0	72

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	485	0	1356	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	871	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	*1060	-	*119	*709
Stage 1	-	-	-	-	*669	-
Stage 2	-	-	-	-	*408	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*1060	-	*113	*709
Mov Cap-2 Maneuver	-	-	-	-	*270	-
Stage 1	-	-	-	-	*669	-
Stage 2	-	-	-	-	*385	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	-	-	* 1060	-
HCM Lane V/C Ratio	0.101	-	-	0.056	-
HCM Control Delay (s)	10.6	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	765	0	35	585	0	95
Future Vol, veh/h	765	0	35	585	0	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	832	0	38	636	0	103

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	832	0	1544	832
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	712	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	*627	-	*44	*421
Stage 1	-	-	-	-	*397	-
Stage 2	-	-	-	-	*481	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*627	-	*42	*421
Mov Cap-2 Maneuver	-	-	-	-	*212	-
Stage 1	-	-	-	-	*397	-
Stage 2	-	-	-	-	*452	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	421	-	-	* 627	-
HCM Lane V/C Ratio	0.245	-	-	0.061	-
HCM Control Delay (s)	16.3	-	-	11.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	480	0	60	745	0	75
Future Vol, veh/h	480	0	60	745	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	522	0	65	810	0	82

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	522	0	1462	522
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	940	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	*1021	-	*92	*683
Stage 1	-	-	-	-	*645	-
Stage 2	-	-	-	-	*378	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*1021	-	*86	*683
Mov Cap-2 Maneuver	-	-	-	-	*244	-
Stage 1	-	-	-	-	*645	-
Stage 2	-	-	-	-	*354	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	683	-	-	* 1021	-
HCM Lane V/C Ratio	0.119	-	-	0.064	-
HCM Control Delay (s)	11	-	-	8.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	815	5	55	635	5	115
Future Vol, veh/h	815	5	55	635	5	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	886	5	60	690	5	125

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	891	0	1696	886
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	810	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	*589	-	*23	*395
Stage 1	-	-	-	-	*373	-
Stage 2	-	-	-	-	*432	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*589	-	*20	*395
Mov Cap-2 Maneuver	-	-	-	-	*183	-
Stage 1	-	-	-	-	*373	-
Stage 2	-	-	-	-	*388	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	377	-	-	* 589	-
HCM Lane V/C Ratio	0.346	-	-	0.101	-
HCM Control Delay (s)	19.5	-	-	11.8	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	525	5	95	790	5	100
Future Vol, veh/h	525	5	95	790	5	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	571	5	103	859	5	109

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	576	0	1636	571
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	1065	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	*943	-	*56	*631
Stage 1	-	-	-	-	*596	-
Stage 2	-	-	-	-	*330	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*943	-	*50	*631
Mov Cap-2 Maneuver	-	-	-	-	*200	-
Stage 1	-	-	-	-	*596	-
Stage 2	-	-	-	-	*294	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	572	-	-	* 943	-
HCM Lane V/C Ratio	0.2	-	-	0.11	-
HCM Control Delay (s)	12.9	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	900	0	50	685	0	140
Future Vol, veh/h	900	0	50	685	0	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	978	0	54	745	0	152

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	978	0	1831	978
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	853	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	*473	-	*8	*318
Stage 1	-	-	-	-	*300	-
Stage 2	-	-	-	-	*413	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*473	-	*7	*318
Mov Cap-2 Maneuver	-	-	-	-	*154	-
Stage 1	-	-	-	-	*300	-
Stage 2	-	-	-	-	*366	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	26.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	-	-	* 473	-
HCM Lane V/C Ratio	0.479	-	-	0.115	-
HCM Control Delay (s)	26.3	-	-	13.6	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.5	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	565	0	105	875	0	105
Future Vol, veh/h	565	0	105	875	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	614	0	114	951	0	114

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	614	0	1793	614
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	1179	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	*904	-	*35	*605
Stage 1	-	-	-	-	*571	-
Stage 2	-	-	-	-	*291	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*904	-	*31	*605
Mov Cap-2 Maneuver	-	-	-	-	*172	-
Stage 1	-	-	-	-	*571	-
Stage 2	-	-	-	-	*254	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	605	-	-	* 904	-
HCM Lane V/C Ratio	0.189	-	-	0.126	-
HCM Control Delay (s)	12.3	-	-	9.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	960	5	85	740	5	170
Future Vol, veh/h	960	5	85	740	5	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1043	5	92	804	5	185

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1048	0	2031	1043
Stage 1	-	-	-	-	1043	-
Stage 2	-	-	-	-	988	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	*396	-	*~ 1	*266
Stage 1	-	-	-	-	*251	-
Stage 2	-	-	-	-	*356	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*396	-	*~ 1	*266
Mov Cap-2 Maneuver	-	-	-	-	*166	-
Stage 1	-	-	-	-	*251	-
Stage 2	-	-	-	-	*273	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	48.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	261	-	-	* 396	-
HCM Lane V/C Ratio	0.729	-	-	0.233	-
HCM Control Delay (s)	48.6	-	-	16.8	-
HCM Lane LOS	E	-	-	C	-
HCM 95th %tile Q(veh)	5.1	-	-	0.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	635	5	180	940	5	160
Future Vol, veh/h	635	5	180	940	5	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	150	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	690	5	196	1022	5	174

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	695	0	2104	690
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	1414	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	*827	-	*12	*553
Stage 1	-	-	-	-	*522	-
Stage 2	-	-	-	-	*223	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*827	-	*9	*553
Mov Cap-2 Maneuver	-	-	-	-	*120	-
Stage 1	-	-	-	-	*522	-
Stage 2	-	-	-	-	*170	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	-	-	* 827	-
HCM Lane V/C Ratio	0.36	-	-	0.237	-
HCM Control Delay (s)	16.2	-	-	10.7	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	42	114	8	11	2	273	472	12	8	859	119
Future Vol, veh/h	7	42	114	8	11	2	273	472	12	8	859	119
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	46	124	9	12	2	297	513	13	9	934	129

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1809	2072	467	1615	2188	257	1063	0	0	526	0	0
Stage 1	952	952	-	1107	1107	-	-	-	-	-	-	-
Stage 2	857	1120	-	508	1081	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	*86	*66	*730	*139	52	733	955	-	-	1016	-	-
Stage 1	*689	*604	-	*219	278	-	-	-	-	-	-	-
Stage 2	*312	*274	-	*689	505	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*48	*~ 45	*730	-	35	733	955	-	-	1016	-	-
Mov Cap-2 Maneuver	*48	*~ 45	-	-	35	-	-	-	-	-	-	-
Stage 1	*475	*599	-	*151	192	-	-	-	-	-	-	-
Stage 2	*201	*189	-	*524	501	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	83.6		3.8	0.1
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	955	-	-	48	45	730	-	35	733	1016	-	-
HCM Lane V/C Ratio	0.311	-	-	0.159	1.014	0.17	-	0.342	0.003	0.009	-	-
HCM Control Delay (s)	10.5	-	-	93.6	279.4	10.9	-	154	9.9	8.6	-	-
HCM Lane LOS	B	-	-	F	F	B	-	F	A	A	-	-
HCM 95th %tile Q(veh)	1.3	-	-	0.5	4.2	0.6	-	1.1	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	12.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	31	225	30	10	1	203	917	17	1	530	23
Future Vol, veh/h	8	31	225	30	10	1	203	917	17	1	530	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	33	242	32	11	1	218	986	18	1	570	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1507	2012	285	1726	2019	493	595	0	0	1004	0	0
Stage 1	572	572	-	1422	1422	-	-	-	-	-	-	-
Stage 2	935	1440	-	304	597	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	*125	*66	*864	*78	*65	519	*1291	-	-	680	-	-
Stage 1	*815	*714	-	*142	*199	-	-	-	-	-	-	-
Stage 2	*284	*195	-	*815	*714	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*92	*54	*864	*~ 25	*54	519	*1291	-	-	680	-	-
Mov Cap-2 Maneuver	*92	*54	-	*~ 25	*54	-	-	-	-	-	-	-
Stage 1	*677	*713	-	*118	*165	-	-	-	-	-	-	-
Stage 2	*220	*162	-	*559	*713	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.9	$ 395.4	1.5	0
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	* 1291	-	-	92	54	864	25	54	519	680	-	-
HCM Lane V/C Ratio	0.169	-	-	0.094	0.617	0.28	1.29	0.199	0.002	0.002	-	-
HCM Control Delay (s)	8.4	-	-	48.1	146.6	10.8	$ 510.8	87.5	12	10.3	-	-
HCM Lane LOS	A	-	-	E	F	B	F	F	B	B	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.3	2.5	1.1	4	0.7	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	19.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	50	125	10	15	5	295	510	15	10	925	130
Future Vol, veh/h	10	50	125	10	15	5	295	510	15	10	925	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	11	54	136	11	16	5	321	554	16	11	1005	141

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1954	2239	503	1748	2364	277	1146	0	0	570	0	0
Stage 1	1027	1027	-	1196	1196	-	-	-	-	-	-	-
Stage 2	927	1212	-	552	1168	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	*63	*~ 47	*704	*108	36	711	904	-	-	978	-	-
Stage 1	*665	*583	-	*193	252	-	-	-	-	-	-	-
Stage 2	*283	*247	-	*665	473	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*20	*~ 30	*704	-	23	711	904	-	-	978	-	-
Mov Cap-2 Maneuver	*20	*~ 30	-	-	23	-	-	-	-	-	-	-
Stage 1	*429	*576	-	*124	163	-	-	-	-	-	-	-
Stage 2	*163	*159	-	*480	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	205.7		4	0.1
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	904	-	-	20	30	704	-	23	711	978	-	-
HCM Lane V/C Ratio	0.355	-	-	0.543	1.812	0.193	-	0.709	0.008	0.011	-	-
HCM Control Delay (s)	11.2	-	-	$ 315.9	$ 669.8	11.3	-	$ 328.9	10.1	8.7	-	-
HCM Lane LOS	B	-	-	F	F	B	-	F	B	A	-	-
HCM 95th %tile Q(veh)	1.6	-	-	1.5	6.3	0.7	-	2.1	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	65.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	35	245	35	15	5	220	985	20	5	570	25
Future Vol, veh/h	10	35	245	35	15	5	220	985	20	5	570	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	38	263	38	16	5	237	1059	22	5	613	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1635	2178	307	1869	2183	530	640	0	0	1081	0	0
Stage 1	623	623	-	1533	1533	-	-	-	-	-	-	-
Stage 2	1012	1555	-	336	650	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	*101	*50	*838	*60	*49	491	*1253	-	-	635	-	-
Stage 1	*791	*693	-	*121	*175	-	-	-	-	-	-	-
Stage 2	*254	*171	-	*791	*693	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*58	*40	*838	*~ 6	*39	491	*1253	-	-	635	-	-
Mov Cap-2 Maneuver	*58	*40	-	*~ 6	*39	-	-	-	-	-	-	-
Stage 1	*641	*687	-	*98	*142	-	-	-	-	-	-	-
Stage 2	*181	*139	-	*508	*687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	45.8	$ 2302.9	1.5	0.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	* 1253	-	-	58	40	838	6	39	491	635	-	-
HCM Lane V/C Ratio	0.189	-	-	0.185	0.941	0.314	6.272	0.414	0.011	0.008	-	-
HCM Control Delay (s)	8.5	-	-	80.7	277.4	11.3	$ 3552.2	151.3	12.4	10.7	-	-
HCM Lane LOS	A	-	-	F	F	B	F	F	B	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.6	3.6	1.4	6.2	1.4	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	80	135	45	75	40	325	770	30	70	1095	130
Future Vol, veh/h	40	80	135	45	75	40	325	770	30	70	1095	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	43	87	147	49	82	43	353	837	33	76	1190	141

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2508	2918	595	2334	3026	419	1331	0	0	870	0	0
Stage 1	1342	1342	-	1543	1543	-	-	-	-	-	-	-
Stage 2	1166	1576	-	791	1483	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	~ 15	~ 9	*627	*~ 26	~ 7	575	827	-	-	752	-	-
Stage 1	477	442	-	*117	170	-	-	-	-	-	-	-
Stage 2	201	164	-	*592	345	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	-	~ 5	*627	-	~ 4	575	827	-	-	752	-	-
Mov Cap-2 Maneuver	-	~ 5	-	-	~ 4	-	-	-	-	-	-	-
Stage 1	273	397	-	*67	97	-	-	-	-	-	-	-
Stage 2	~ 17	94	-	*318	310	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			3.6	0.6
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	827	-	-	-	5	627	-	4	575	752	-	-
HCM Lane V/C Ratio	0.427	-	-	-	17.391	0.234	-	20.38	0.076	0.101	-	-
HCM Control Delay (s)	12.6	-	-	-	$ 8799	12.5	$ 10487.6		11.8	10.3	-	-
HCM Lane LOS	B	-	-	-	F	B	-	F	B	B	-	-
HCM 95th %tile Q(veh)	2.2	-	-	-	12.8	0.9	-	12.2	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	90	270	80	80	30	245	1265	45	90	885	25
Future Vol, veh/h	55	90	270	80	80	30	245	1265	45	90	885	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	250	300	-	200	400	-	425	425	-	425
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	59	97	290	86	86	32	263	1360	48	97	952	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2395	3080	476	2605	3059	680	979	0	0	1408	0	0
Stage 1	1146	1146	-	1886	1886	-	-	-	-	-	-	-
Stage 2	1249	1934	-	719	1173	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 20	~ 7	*708	*~ 11	~ 7	391	*1059	-	-	475	-	-
Stage 1	530	493	-	*~ 72	117	-	-	-	-	-	-	-
Stage 2	182	110	-	*668	473	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	-	~ 4	*708	-	~ 4	391	*1059	-	-	475	-	-
Mov Cap-2 Maneuver	-	~ 4	-	-	~ 4	-	-	-	-	-	-	-
Stage 1	398	392	-	*~ 54	88	-	-	-	-	-	-	-
Stage 2	~ 3	~ 83	-	*236	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1.5	1.3
HCM LOS	-	-		

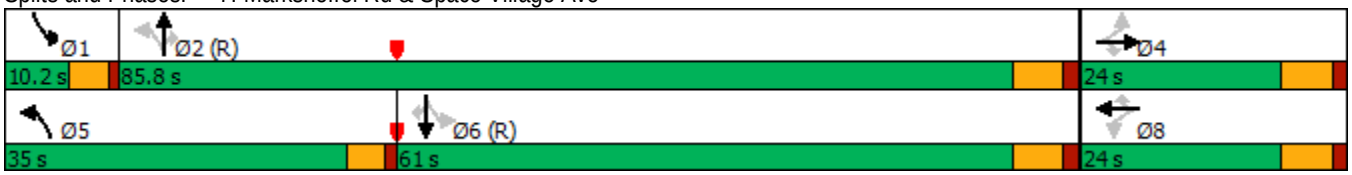
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	* 1059	-	-	-	4	708	-	4	391	475	-	-
HCM Lane V/C Ratio	0.249	-	-	-	24.194	0.41	-	21.505	0.083	0.204	-	-
HCM Control Delay (s)	9.5	-	-	$ 12208.9	13.6	$ 10995.6	15	14.5	-	-		
HCM Lane LOS	A	-	-	-	F	B	-	F	C	B	-	-
HCM 95th %tile Q(veh)	1	-	-	-	14.2	2	-	12.8	0.3	0.8	-	-

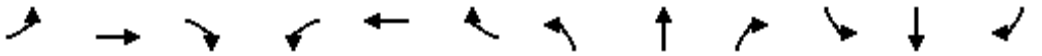
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	80	135	45	75	40	325	770	30	70	1095	130
Future Volume (vph)	40	80	135	45	75	40	325	770	30	70	1095	130
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0	24.0	9.5	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	35.0	85.8	85.8	10.2	61.0	61.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	29.2%	71.5%	71.5%	8.5%	50.8%	50.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.3	11.3	11.3	11.3	11.3	11.3	98.2	87.8	87.8	79.5	71.5	71.5
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.09	0.82	0.73	0.73	0.66	0.60	0.60
v/c Ratio	0.36	0.51	0.53	0.41	0.48	0.18	0.73	0.33	0.03	0.16	0.58	0.14
Control Delay	58.1	61.5	15.0	60.4	60.3	1.6	20.8	6.9	0.2	6.1	20.2	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	61.5	15.0	60.4	60.3	1.6	20.8	6.9	0.2	6.1	20.2	5.9
LOS	E	E	B	E	E	A	C	A	A	A	C	A
Approach Delay		36.3			45.8			10.7			18.0	
Approach LOS		D			D			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	80	135	45	75	40	325	770	30	70	1095	130
Future Volume (veh/h)	40	80	135	45	75	40	325	770	30	70	1095	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	43	87	147	49	82	43	353	837	33	76	1190	141
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
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	149	207	176	138	207	176	445	2465	1099	511	2303	1027
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.09	0.71	0.71	0.05	0.88	0.88
Sat Flow, veh/h	1236	1826	1547	1119	1826	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	43	87	147	49	82	43	353	837	33	76	1190	141
Grp Sat Flow(s),veh/h/ln	1236	1826	1547	1119	1826	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.0	5.3	11.2	5.1	5.0	3.0	7.2	11.0	0.8	1.6	8.9	1.5
Cycle Q Clear(g_c), s	9.0	5.3	11.2	10.4	5.0	3.0	7.2	11.0	0.8	1.6	8.9	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	207	176	138	207	176	445	2465	1099	511	2303	1027
V/C Ratio(X)	0.29	0.42	0.84	0.36	0.40	0.24	0.79	0.34	0.03	0.15	0.52	0.14
Avail Cap(c_a), veh/h	194	274	232	178	274	232	739	2465	1099	527	2303	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	49.5	52.1	54.4	49.4	48.5	8.2	6.6	5.1	5.6	2.9	2.5
Incr Delay (d2), s/veh	1.1	1.3	17.9	1.6	1.2	0.7	3.2	0.4	0.1	0.1	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.5	5.2	1.5	2.4	1.2	2.6	3.9	0.2	0.6	2.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	50.8	70.0	55.9	50.6	49.2	11.4	7.0	5.2	5.8	3.7	2.7
LnGrp LOS	D	D	E	E	D	D	B	A	A	A	A	A
Approach Vol, veh/h		277			174			1223			1407	
Approach Delay, s/veh		61.6			51.7			8.2			3.7	
Approach LOS		E			D			A			A	

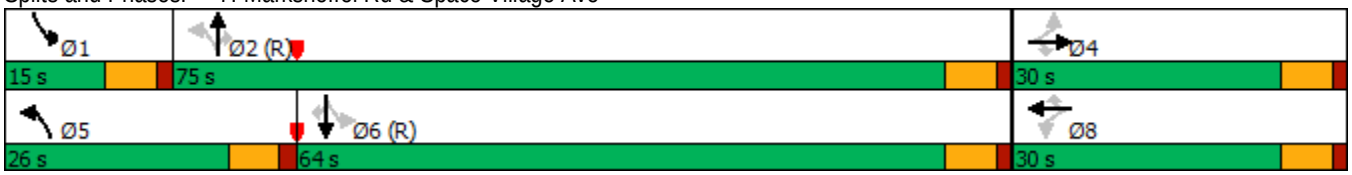
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	91.3		19.6	14.7	85.6		19.6				
Change Period (Y+Rc), s	4.5	6.0		6.0	4.5	6.0		6.0				
Max Green Setting (Gmax), s	5.7	79.8		18.0	30.5	55.0		18.0				
Max Q Clear Time (g_c+I1), s	3.6	13.0		13.2	9.2	10.9		12.4				
Green Ext Time (p_c), s	0.0	7.6		0.5	1.1	12.9		0.3				

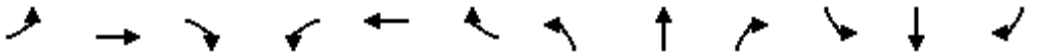
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	90	270	80	80	30	245	1265	45	90	885	25
Future Volume (vph)	55	90	270	80	80	30	245	1265	45	90	885	25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	26.0	75.0	75.0	15.0	64.0	64.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	21.7%	62.5%	62.5%	12.5%	53.3%	53.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.4	13.4	13.4	13.4	13.4	13.4	91.9	81.5	81.5	85.0	77.9	77.9
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.77	0.68	0.68	0.71	0.65	0.65
v/c Ratio	0.41	0.47	0.69	0.61	0.42	0.11	0.56	0.57	0.04	0.33	0.42	0.03
Control Delay	56.5	56.3	15.9	67.5	54.5	0.7	8.6	12.0	0.6	12.7	24.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	56.3	15.9	67.5	54.5	0.7	8.6	12.0	0.6	12.7	24.4	0.2
LOS	E	E	B	E	D	A	A	B	A	B	C	A
Approach Delay		30.0			51.5			11.1			22.8	
Approach LOS		C			D			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	90	270	80	80	30	245	1265	45	90	885	25
Future Volume (veh/h)	55	90	270	80	80	30	245	1265	45	90	885	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	59	97	193	86	86	32	263	1360	48	97	952	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	192	270	229	166	270	229	549	2342	1045	303	2225	992
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.07	0.66	0.66	0.08	1.00	1.00
Sat Flow, veh/h	1264	1856	1572	1081	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	59	97	193	86	86	32	263	1360	48	97	952	27
Grp Sat Flow(s),veh/h/ln	1264	1856	1572	1081	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.3	5.7	14.3	9.4	5.0	2.1	6.2	25.3	1.3	2.3	0.0	0.0
Cycle Q Clear(g_c), s	10.2	5.7	14.3	15.0	5.0	2.1	6.2	25.3	1.3	2.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	270	229	166	270	229	549	2342	1045	303	2225	992
V/C Ratio(X)	0.31	0.36	0.84	0.52	0.32	0.14	0.48	0.58	0.05	0.32	0.43	0.03
Avail Cap(c_a), veh/h	260	371	314	225	371	314	714	2342	1045	365	2225	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	46.2	49.9	53.0	45.9	44.7	6.2	11.0	7.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.8	13.9	2.5	0.7	0.3	0.6	1.1	0.1	0.6	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.7	6.5	2.7	2.4	0.9	2.2	9.5	0.4	0.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	47.0	63.8	55.5	46.6	45.0	6.8	12.1	7.1	9.6	0.6	0.1
LnGrp LOS	D	D	E	E	D	D	A	B	A	A	A	A
Approach Vol, veh/h		349			204			1671			1076	
Approach Delay, s/veh		57.1			50.1			11.1			1.4	
Approach LOS		E			D			B			A	

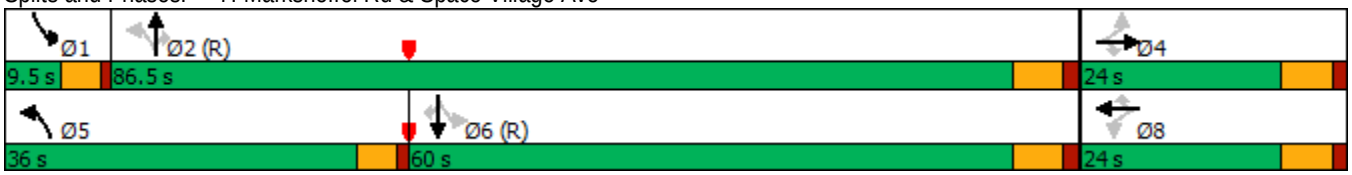
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	85.7		23.5	14.8	81.7		23.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	69.0		24.0	20.0	58.0		24.0				
Max Q Clear Time (g_c+I1), s	4.3	27.3		16.3	8.2	2.0		17.0				
Green Ext Time (p_c), s	0.1	14.9		0.8	0.6	9.0		0.5				

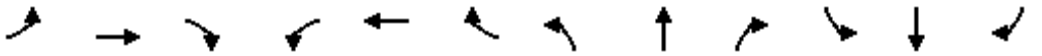
Intersection Summary			
HCM 6th Ctrl Delay		15.2	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	65	155	20	45	15	375	975	35	15	1210	150
Future Volume (vph)	10	65	155	20	45	15	375	975	35	15	1210	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0	24.0	9.5	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	86.5	86.5	9.5	60.0	60.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	30.0%	72.1%	72.1%	7.9%	50.0%	50.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.1	10.1	10.1	10.1	10.1	10.1	99.4	93.8	93.8	72.7	65.5	65.5
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.08	0.08	0.83	0.78	0.78	0.61	0.55	0.55
v/c Ratio	0.10	0.47	0.60	0.20	0.32	0.07	0.78	0.39	0.03	0.05	0.70	0.18
Control Delay	51.0	61.8	16.6	54.2	56.3	0.6	33.4	5.5	0.4	7.3	25.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	61.8	16.6	54.2	56.3	0.6	33.4	5.5	0.4	7.3	25.2	6.9
LOS	D	E	B	D	E	A	C	A	A	A	C	A
Approach Delay		30.9			45.5			12.9			23.0	
Approach LOS		C			D			B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	65	155	20	45	15	375	975	35	15	1210	150
Future Volume (veh/h)	10	65	155	20	45	15	375	975	35	15	1210	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	11	71	168	22	49	16	408	1060	38	16	1315	163
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
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	192	229	194	160	229	194	442	2497	1114	375	1971	879
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.17	0.72	0.72	0.01	0.38	0.38
Sat Flow, veh/h	1305	1826	1547	1114	1826	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	11	71	168	22	49	16	408	1060	38	16	1315	163
Grp Sat Flow(s),veh/h/ln	1305	1826	1547	1114	1826	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.9	4.2	12.8	2.2	2.9	1.1	17.2	14.8	0.8	0.5	37.8	8.4
Cycle Q Clear(g_c), s	3.8	4.2	12.8	6.4	2.9	1.1	17.2	14.8	0.8	0.5	37.8	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	229	194	160	229	194	442	2497	1114	375	1971	879
V/C Ratio(X)	0.06	0.31	0.86	0.14	0.21	0.08	0.92	0.42	0.03	0.04	0.67	0.19
Avail Cap(c_a), veh/h	224	274	232	188	274	232	605	2497	1114	417	1971	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	47.7	51.5	50.7	47.1	46.4	31.4	6.8	4.8	10.5	27.7	18.7
Incr Delay (d2), s/veh	0.1	0.8	24.1	0.4	0.5	0.2	16.3	0.5	0.1	0.0	1.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.0	6.2	0.6	1.4	0.4	13.7	5.1	0.3	0.2	17.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	48.5	75.5	51.1	47.6	46.5	47.7	7.3	4.9	10.5	29.6	19.1
LnGrp LOS	D	D	E	D	D	D	D	A	A	B	C	B
Approach Vol, veh/h		250			87			1506			1494	
Approach Delay, s/veh		66.7			48.3			18.2			28.2	
Approach LOS		E			D			B			C	

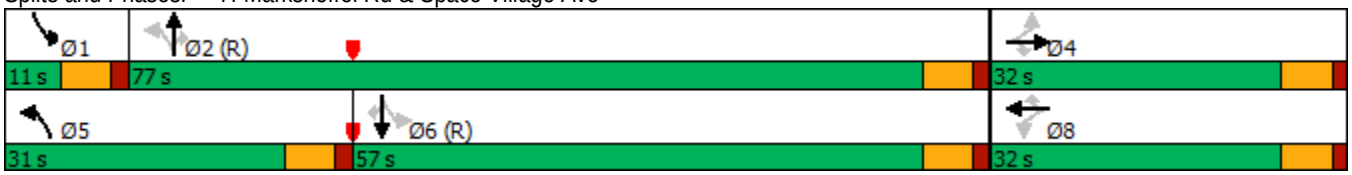
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	92.4		21.1	24.8	74.2		21.1				
Change Period (Y+Rc), s	4.5	6.0		6.0	4.5	6.0		6.0				
Max Green Setting (Gmax), s	5.0	80.5		18.0	31.5	54.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	16.8		14.8	19.2	39.8		8.4				
Green Ext Time (p_c), s	0.0	10.7		0.3	1.1	8.6		0.2				

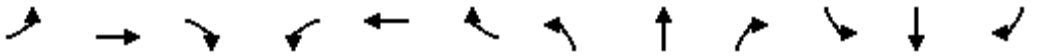
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	75	320	60	35	10	275	1400	35	15	1080	30
Future Volume (vph)	15	75	320	60	35	10	275	1400	35	15	1080	30
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	31.0	77.0	77.0	11.0	57.0	57.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	25.8%	64.2%	64.2%	9.2%	47.5%	47.5%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.7	12.7	12.7	12.7	12.7	12.7	95.3	90.5	90.5	77.7	71.9	71.9
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.79	0.75	0.75	0.65	0.60	0.60
v/c Ratio	0.11	0.42	0.77	0.47	0.20	0.04	0.65	0.57	0.03	0.06	0.55	0.03
Control Delay	46.7	54.9	19.3	60.0	48.5	0.3	14.6	9.3	0.1	10.9	39.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	54.9	19.3	60.0	48.5	0.3	14.6	9.3	0.1	10.9	39.4	0.9
LOS	D	D	B	E	D	A	B	A	A	B	D	A
Approach Delay		26.9			50.4			10.0			38.0	
Approach LOS		C			D			A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	75	320	60	35	10	275	1400	35	15	1080	30
Future Volume (veh/h)	15	75	320	60	35	10	275	1400	35	15	1080	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	16	81	247	65	38	11	296	1505	38	16	1161	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	273	326	276	204	326	276	426	2316	1033	224	2076	926
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.09	0.66	0.66	0.02	0.78	0.78
Sat Flow, veh/h	1345	1856	1572	1044	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	16	81	247	65	38	11	296	1505	38	16	1161	32
Grp Sat Flow(s),veh/h/ln	1345	1856	1572	1044	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.2	4.5	18.4	6.9	2.1	0.7	7.5	30.7	1.0	0.4	15.2	0.5
Cycle Q Clear(g_c), s	3.3	4.5	18.4	11.4	2.1	0.7	7.5	30.7	1.0	0.4	15.2	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	326	276	204	326	276	426	2316	1033	224	2076	926
V/C Ratio(X)	0.06	0.25	0.89	0.32	0.12	0.04	0.70	0.65	0.04	0.07	0.56	0.03
Avail Cap(c_a), veh/h	328	402	341	247	402	341	643	2316	1033	267	2076	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	42.6	48.4	47.5	41.6	41.0	10.3	12.3	7.2	11.5	7.0	5.4
Incr Delay (d2), s/veh	0.1	0.4	21.5	0.9	0.2	0.1	2.1	1.4	0.1	0.1	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.1	8.8	1.8	1.0	0.3	2.9	11.7	0.4	0.2	4.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	43.0	69.8	48.4	41.8	41.1	12.3	13.7	7.3	11.7	8.1	5.5
LnGrp LOS	D	D	E	D	D	D	B	B	A	B	A	A
Approach Vol, veh/h		344			114			1839			1209	
Approach Delay, s/veh		62.3			45.5			13.4			8.1	
Approach LOS		E			D			B			A	

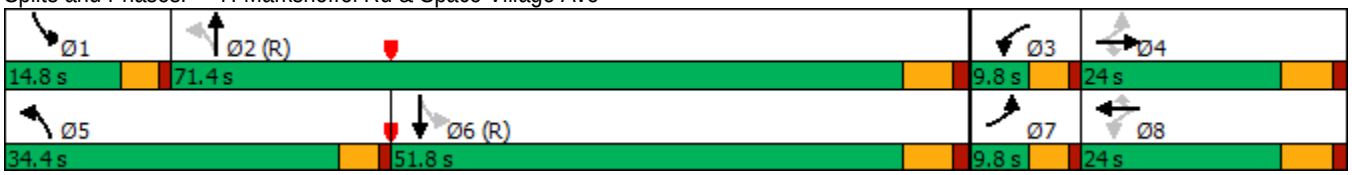
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	84.8		27.1	16.2	76.7		27.1				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	71.0		26.0	25.0	51.0		26.0				
Max Q Clear Time (g_c+I1), s	2.4	32.7		20.4	9.5	17.2		13.4				
Green Ext Time (p_c), s	0.0	16.8		0.7	0.8	11.0		0.3				

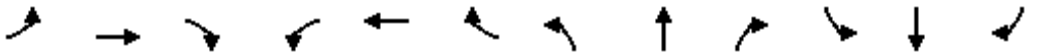
Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	50	115	180	75	135	70	425	1335	105	1520
Future Volume (vph)	50	115	180	75	135	70	425	1335	105	1520
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	9.5	24.0	9.5	24.0
Total Split (s)	9.8	24.0	24.0	9.8	24.0	24.0	34.4	71.4	14.8	51.8
Total Split (%)	8.2%	20.0%	20.0%	8.2%	20.0%	20.0%	28.7%	59.5%	12.3%	43.2%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	3.5	4.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	4.5	6.0	4.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.2	14.5	14.5	20.2	14.5	14.5	87.2	73.1	60.6	51.1
Actuated g/C Ratio	0.17	0.12	0.12	0.17	0.12	0.12	0.73	0.61	0.50	0.43
v/c Ratio	0.28	0.57	0.55	0.39	0.67	0.24	0.94	0.50	0.47	0.87
Control Delay	41.2	59.8	12.5	44.8	65.5	1.8	55.7	25.2	21.0	53.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.8	12.5	44.8	65.5	1.8	55.7	25.2	21.0	53.1
LOS	D	E	B	D	E	A	E	C	C	D
Approach Delay		32.4			44.0			32.3		51.2
Approach LOS		C			D			C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	115	180	75	135	70	425	1335	55	105	1520	150
Future Volume (veh/h)	50	115	180	75	135	70	425	1335	55	105	1520	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	54	125	98	82	147	38	462	1451	60	114	1652	163
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
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	148	168	143	166	181	153	480	3136	130	304	2144	211
Arrive On Green	0.04	0.09	0.09	0.04	0.10	0.10	0.45	1.00	1.00	0.02	0.15	0.15
Sat Flow, veh/h	1739	1826	1547	1739	1826	1547	1739	4909	203	1739	4613	454
Grp Volume(v), veh/h	54	125	98	82	147	38	462	982	529	114	1189	626
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1789	1739	1662	1744
Q Serve(g_s), s	3.3	8.0	7.4	5.1	9.5	2.7	24.3	0.0	0.0	4.0	41.2	41.3
Cycle Q Clear(g_c), s	3.3	8.0	7.4	5.1	9.5	2.7	24.3	0.0	0.0	4.0	41.2	41.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.26
Lane Grp Cap(c), veh/h	148	168	143	166	181	153	480	2123	1143	304	1545	811
V/C Ratio(X)	0.36	0.74	0.69	0.50	0.81	0.25	0.96	0.46	0.46	0.38	0.77	0.77
Avail Cap(c_a), veh/h	160	274	232	166	274	232	524	2123	1143	366	1545	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	53.1	52.8	47.3	53.0	49.9	22.7	0.0	0.0	15.6	44.6	44.7
Incr Delay (d2), s/veh	1.5	6.3	5.8	2.3	10.5	0.8	29.1	0.7	1.3	0.8	3.8	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	3.1	2.3	4.9	1.1	12.9	0.2	0.4	1.7	19.2	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	59.4	58.6	49.5	63.4	50.8	51.8	0.7	1.3	16.4	48.4	51.7
LnGrp LOS	D	E	E	D	E	D	D	A	A	B	D	D
Approach Vol, veh/h		277			267			1973			1929	
Approach Delay, s/veh		57.0			57.4			12.8			47.6	
Approach LOS		E			E			B			D	

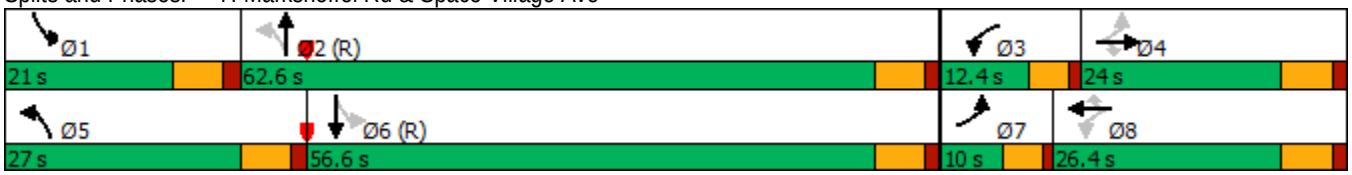
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	82.6	9.8	17.1	31.4	61.8	9.0	17.9
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	4.5	6.0	4.5	6.0
Max Green Setting (Gmax), s	10.3	65.4	5.3	18.0	29.9	45.8	5.3	18.0
Max Q Clear Time (g_c+I1), s	6.0	2.0	7.1	10.0	26.3	43.3	5.3	11.5
Green Ext Time (p_c), s	0.1	16.8	0.0	0.6	0.6	2.1	0.0	0.4

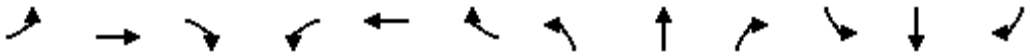
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	130	195	370	180	225	50	330	2125	250	1735
Future Volume (vph)	130	195	370	180	225	50	330	2125	250	1735
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	11.0	24.0	11.0	24.0
Total Split (s)	10.0	24.0	24.0	12.4	26.4	26.4	27.0	62.6	21.0	56.6
Total Split (%)	8.3%	20.0%	20.0%	10.3%	22.0%	22.0%	22.5%	52.2%	17.5%	47.2%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	24.0	17.0	17.0	28.8	19.4	19.4	78.4	57.3	66.8	51.6
Actuated g/C Ratio	0.20	0.14	0.14	0.24	0.16	0.16	0.65	0.48	0.56	0.43
v/c Ratio	0.78	0.81	0.93	0.92	0.81	0.15	0.96	0.99	0.95	0.88
Control Delay	68.1	73.0	48.8	83.5	69.9	0.9	51.9	63.5	55.0	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	73.0	48.8	83.5	69.9	0.9	51.9	63.5	55.0	28.9
LOS	E	E	D	F	E	A	D	E	D	C
Approach Delay		59.2			67.7			62.0		32.1
Approach LOS		E			E			E		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 51.6	Intersection LOS: D
Intersection Capacity Utilization 95.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Marksheffel Rd & Space Village Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	195	370	180	225	50	330	2125	85	250	1735	30
Future Volume (veh/h)	130	195	370	180	225	50	330	2125	85	250	1735	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	140	210	183	194	242	54	355	2285	91	269	1866	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	249	211	200	286	243	387	2443	97	290	2507	43
Arrive On Green	0.05	0.13	0.13	0.07	0.15	0.15	0.16	0.65	0.65	0.25	0.98	0.98
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	4999	198	1767	5129	88
Grp Volume(v), veh/h	140	210	183	194	242	54	355	1540	836	269	1228	670
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1689	1820	1767	1689	1840
Q Serve(g_s), s	5.5	13.3	13.7	7.9	15.2	3.6	12.2	48.7	49.6	12.8	3.6	3.6
Cycle Q Clear(g_c), s	5.5	13.3	13.7	7.9	15.2	3.6	12.2	48.7	49.6	12.8	3.6	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.05
Lane Grp Cap(c), veh/h	171	249	211	200	286	243	387	1650	889	290	1651	899
V/C Ratio(X)	0.82	0.84	0.87	0.97	0.84	0.22	0.92	0.93	0.94	0.93	0.74	0.74
Avail Cap(c_a), veh/h	171	278	236	200	315	267	478	1650	889	292	1651	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	50.7	50.9	47.8	49.3	44.4	16.1	19.3	19.4	30.2	0.7	0.7
Incr Delay (d2), s/veh	26.2	18.8	25.2	55.1	17.4	0.5	20.2	11.1	18.8	34.3	3.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	7.4	6.9	5.1	8.4	1.4	6.4	17.9	21.5	9.4	1.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.0	69.5	76.1	102.9	66.8	44.9	36.3	30.4	38.2	64.5	3.8	6.3
LnGrp LOS	E	E	E	F	E	D	D	C	D	E	A	A
Approach Vol, veh/h		533			490			2731			2167	
Approach Delay, s/veh		73.2			78.7			33.5			12.1	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	64.6	12.4	22.1	20.8	64.7	10.0	24.5
Change Period (Y+Rc), s	6.0	6.0	4.5	6.0	6.0	6.0	4.5	6.0
Max Green Setting (Gmax), s	15.0	56.6	7.9	18.0	21.0	50.6	5.5	20.4
Max Q Clear Time (g_c+I1), s	14.8	51.6	9.9	15.7	14.2	5.6	7.5	17.2
Green Ext Time (p_c), s	0.0	4.6	0.0	0.4	0.7	22.3	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	10	30	0	15	5	385	10	5	430	5
Future Vol, veh/h	5	0	10	30	0	15	5	385	10	5	430	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	5	0	11	33	0	16	5	418	11	5	467	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	922	919	470	919	916	424	472	0	0	429	0	0
Stage 1	480	480	-	434	434	-	-	-	-	-	-	-
Stage 2	442	439	-	485	482	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	251	271	594	252	272	630	1090	-	-	1130	-	-
Stage 1	567	554	-	600	581	-	-	-	-	-	-	-
Stage 2	594	578	-	563	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	269	594	246	270	630	1090	-	-	1130	-	-
Mov Cap-2 Maneuver	370	379	-	372	379	-	-	-	-	-	-	-
Stage 1	564	552	-	597	578	-	-	-	-	-	-	-
Stage 2	576	575	-	550	551	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	14.4	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1090	-	-	494	431	1130	-	-
HCM Lane V/C Ratio	0.005	-	-	0.033	0.113	0.005	-	-
HCM Control Delay (s)	8.3	-	-	12.5	14.4	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	0	10	20	0	10	10	330	30	15	550	5
Future Vol, veh/h	5	0	10	20	0	10	10	330	30	15	550	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	11	22	0	11	11	359	33	16	598	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1036	1047	601	1036	1033	376	603	0	0	392	0	0
Stage 1	633	633	-	398	398	-	-	-	-	-	-	-
Stage 2	403	414	-	638	635	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	210	228	500	210	232	670	975	-	-	1167	-	-
Stage 1	468	473	-	628	603	-	-	-	-	-	-	-
Stage 2	624	593	-	465	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	222	500	202	226	670	975	-	-	1167	-	-
Mov Cap-2 Maneuver	327	334	-	322	335	-	-	-	-	-	-	-
Stage 1	463	466	-	621	596	-	-	-	-	-	-	-
Stage 2	607	586	-	449	465	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	15.1	0.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	975	-	-	425	389	1167	-	-
HCM Lane V/C Ratio	0.011	-	-	0.038	0.084	0.014	-	-
HCM Control Delay (s)	8.7	-	-	13.8	15.1	8.1	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	0	10	30	0	15	5	675	10	5	630	5
Future Vol, veh/h	5	0	10	30	0	15	5	675	10	5	630	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	5	0	11	33	0	16	5	734	11	5	685	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1456	1453	688	1453	1450	740	690	0	0	745	0	0
Stage 1	698	698	-	750	750	-	-	-	-	-	-	-
Stage 2	758	755	-	703	700	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	108	130	446	108	131	417	905	-	-	863	-	-
Stage 1	431	442	-	403	419	-	-	-	-	-	-	-
Stage 2	399	417	-	428	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	103	128	446	104	129	417	905	-	-	863	-	-
Mov Cap-2 Maneuver	229	252	-	233	253	-	-	-	-	-	-	-
Stage 1	428	439	-	401	416	-	-	-	-	-	-	-
Stage 2	381	414	-	415	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.2	21	0.1	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	905	-	-	339	273	863	-	-
HCM Lane V/C Ratio	0.006	-	-	0.048	0.179	0.006	-	-
HCM Control Delay (s)	9	-	-	16.2	21	9.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.6	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	0	10	20	0	10	10	715	30	15	1035	5
Future Vol, veh/h	5	0	10	20	0	10	10	715	30	15	1035	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	11	22	0	11	11	777	33	16	1125	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1981	1992	1128	1981	1978	794	1130	0	0	810	0	0
Stage 1	1160	1160	-	816	816	-	-	-	-	-	-	-
Stage 2	821	832	-	1165	1162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	46	61	249	46	62	388	618	-	-	816	-	-
Stage 1	238	270	-	371	391	-	-	-	-	-	-	-
Stage 2	369	384	-	237	269	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	43	59	249	43	60	388	618	-	-	816	-	-
Mov Cap-2 Maneuver	145	166	-	140	165	-	-	-	-	-	-	-
Stage 1	234	265	-	364	384	-	-	-	-	-	-	-
Stage 2	352	377	-	222	264	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.5	29.7	0.1	0.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	618	-	-	201	178	816	-	-
HCM Lane V/C Ratio	0.018	-	-	0.081	0.183	0.02	-	-
HCM Control Delay (s)	10.9	-	-	24.5	29.7	9.5	-	-
HCM Lane LOS	B	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	90	90	50	775	1300	200
Future Vol, veh/h	90	90	50	775	1300	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	98	98	54	842	1413	217

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1942	707	1630	0	-	0
Stage 1	1413	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*~ 80	378	394	-	-	-
Stage 1	*191	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*~ 69	378	394	-	-	-
Mov Cap-2 Maneuver	*139	-	-	-	-	-
Stage 1	*165	-	-	-	-	-
Stage 2	*720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.3	0.9	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	394	-	139	378	-	-
HCM Lane V/C Ratio	0.138	-	0.704	0.259	-	-
HCM Control Delay (s)	15.6	-	76.7	17.8	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	0.5	-	4	1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	90	90	50	1365	1045	185
Future Vol, veh/h	90	90	50	1365	1045	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	3	2
Mvmt Flow	98	98	54	1484	1136	201

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1986	568	1337	0	-	0
Stage 1	1136	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 53	466	512	-	-	-
Stage 1	268	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 47	466	512	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	240	-	-	-	-	-
Stage 2	379	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	38.5	0.5	0
HCM LOS	E		

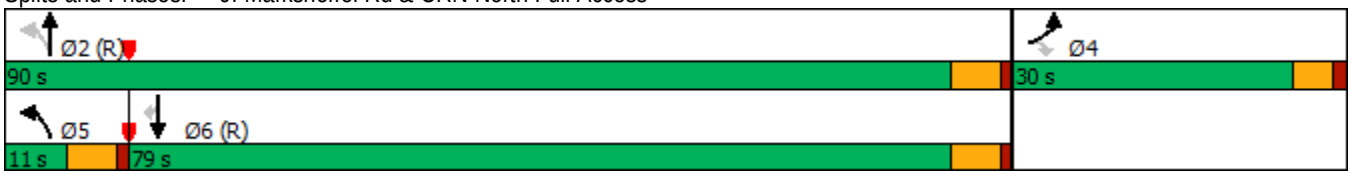
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	512	-	154	466	-	-
HCM Lane V/C Ratio	0.106	-	0.635	0.21	-	-
HCM Control Delay (s)	12.9	-	62.1	14.8	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.4	-	3.5	0.8	-	-

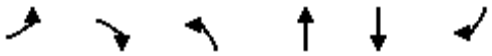
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	90	50	775	1300	200
Future Volume (vph)	90	90	50	775	1300	200
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	11.0	90.0	79.0	79.0
Total Split (%)	25.0%	25.0%	9.2%	75.0%	65.8%	65.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.0	12.0	97.5	97.5	88.0	88.0
Actuated g/C Ratio	0.10	0.10	0.81	0.81	0.73	0.73
v/c Ratio	0.55	0.40	0.18	0.30	0.56	0.18
Control Delay	62.7	14.2	6.6	5.7	25.0	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	14.2	6.6	5.7	25.0	8.9
LOS	E	B	A	A	C	A
Approach Delay	38.4			5.7	22.8	
Approach LOS	D			A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Marksheffel Rd & CRN North Full Access





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	90	50	775	1300	200
Future Volume (veh/h)	90	90	50	775	1300	200
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	98	98	54	842	1413	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	145	129	301	2884	2604	1190
Arrive On Green	0.08	0.08	0.07	1.00	0.75	0.75
Sat Flow, veh/h	1781	1585	1781	3561	3561	1585
Grp Volume(v), veh/h	98	98	54	842	1413	217
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1735	1735	1585
Q Serve(g_s), s	6.4	7.3	0.7	0.0	20.6	4.7
Cycle Q Clear(g_c), s	6.4	7.3	0.7	0.0	20.6	4.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	145	129	301	2884	2604	1190
V/C Ratio(X)	0.68	0.76	0.18	0.29	0.54	0.18
Avail Cap(c_a), veh/h	371	330	321	2884	2604	1190
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	53.6	54.0	4.8	0.0	6.3	4.3
Incr Delay (d2), s/veh	5.5	8.9	0.3	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.6	0.2	0.1	6.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.1	62.9	5.1	0.2	7.1	4.7
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	196			896	1630	
Approach Delay, s/veh	61.0			0.5	6.8	
Approach LOS	E			A	A	

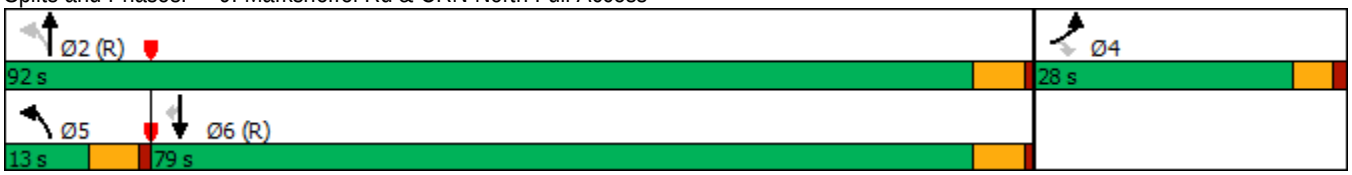
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.3		14.7	9.7	95.6
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		84.5		25.0	5.5	73.5
Max Q Clear Time (g_c+I1), s		2.0		9.3	2.7	22.6
Green Ext Time (p_c), s		7.5		0.5	0.0	18.2

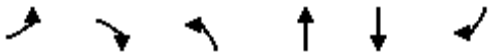
Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	90	50	1365	1045	185
Future Volume (vph)	90	90	50	1365	1045	185
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	28.0	28.0	13.0	92.0	79.0	79.0
Total Split (%)	23.3%	23.3%	10.8%	76.7%	65.8%	65.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.0	12.0	97.5	97.5	88.0	88.0
Actuated g/C Ratio	0.10	0.10	0.81	0.81	0.73	0.73
v/c Ratio	0.56	0.40	0.14	0.52	0.44	0.17
Control Delay	62.9	14.2	3.0	4.0	15.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	14.2	3.0	4.0	15.9	6.7
LOS	E	B	A	A	B	A
Approach Delay	38.5			3.9	14.5	
Approach LOS	D			A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Marksheffel Rd & CRN North Full Access





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	90	50	1365	1045	185
Future Volume (veh/h)	90	90	50	1365	1045	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	98	98	54	1484	1136	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	144	128	381	2932	2648	1190
Arrive On Green	0.08	0.08	0.07	1.00	0.75	0.75
Sat Flow, veh/h	1781	1585	1781	3618	3618	1585
Grp Volume(v), veh/h	98	98	54	1484	1136	201
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1763	1763	1585
Q Serve(g_s), s	6.4	7.3	0.7	0.0	14.2	4.3
Cycle Q Clear(g_c), s	6.4	7.3	0.7	0.0	14.2	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	144	128	381	2932	2648	1190
V/C Ratio(X)	0.68	0.76	0.14	0.51	0.43	0.17
Avail Cap(c_a), veh/h	341	304	430	2932	2648	1190
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	53.6	54.0	3.5	0.0	5.5	4.3
Incr Delay (d2), s/veh	5.5	9.0	0.1	0.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.6	0.2	0.2	4.7	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.1	63.1	3.7	0.5	6.0	4.6
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	196			1538	1337	
Approach Delay, s/veh	61.1			0.6	5.8	
Approach LOS	E			A	A	

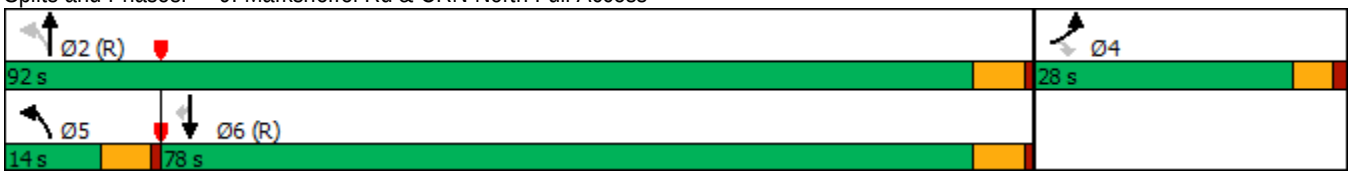
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.3		14.7	9.7	95.6
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		86.5		23.0	7.5	73.5
Max Q Clear Time (g_c+I1), s		2.0		9.3	2.7	16.2
Green Ext Time (p_c), s		19.6		0.5	0.0	12.9

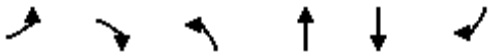
Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	100	55	1160	1675	220
Future Volume (vph)	100	100	55	1160	1675	220
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	28.0	28.0	14.0	92.0	78.0	78.0
Total Split (%)	23.3%	23.3%	11.7%	76.7%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.7	12.7	96.8	96.8	87.1	87.1
Actuated g/C Ratio	0.11	0.11	0.81	0.81	0.73	0.73
v/c Ratio	0.58	0.41	0.27	0.32	0.51	0.20
Control Delay	63.0	13.4	12.2	4.6	24.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	13.4	12.2	4.6	24.6	9.0
LOS	E	B	B	A	C	A
Approach Delay	38.2			5.0	22.8	
Approach LOS	D			A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Marksheffel Rd & CRN North Full Access





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	100	55	1160	1675	220
Future Volume (veh/h)	100	100	55	1160	1675	220
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	109	109	60	1261	1821	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	157	140	275	4109	3701	1177
Arrive On Green	0.09	0.09	0.07	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	5149	5149	1585
Grp Volume(v), veh/h	109	109	60	1261	1821	239
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1662	1662	1585
Q Serve(g_s), s	7.1	8.1	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	8.1	0.9	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	157	140	275	4109	3701	1177
V/C Ratio(X)	0.69	0.78	0.22	0.31	0.49	0.20
Avail Cap(c_a), veh/h	341	304	337	4109	3701	1177
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	0.45	0.45
Uniform Delay (d), s/veh	53.1	53.6	2.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	5.4	9.0	0.4	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.3	0.3	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.5	62.6	2.9	0.2	0.2	0.2
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	218			1321	2060	
Approach Delay, s/veh	60.6			0.3	0.2	
Approach LOS	E			A	A	

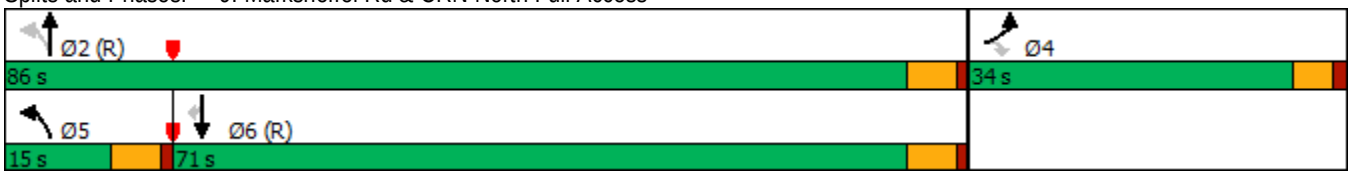
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.4		15.6	9.8	94.6
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		86.5		23.0	8.5	72.5
Max Q Clear Time (g_c+I1), s		2.0		10.1	2.9	2.0
Green Ext Time (p_c), s		13.6		0.5	0.0	29.1

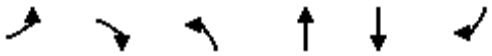
Intersection Summary	
HCM 6th Ctrl Delay	3.9
HCM 6th LOS	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	100	80	2025	1760	310
Future Volume (vph)	100	100	80	2025	1760	310
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	34.0	34.0	15.0	86.0	71.0	71.0
Total Split (%)	28.3%	28.3%	12.5%	71.7%	59.2%	59.2%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.7	12.7	96.8	96.8	83.9	83.9
Actuated g/C Ratio	0.11	0.11	0.81	0.81	0.70	0.70
v/c Ratio	0.58	0.41	0.40	0.54	0.54	0.28
Control Delay	63.0	13.4	15.8	4.1	22.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	13.4	15.8	4.1	22.0	8.1
LOS	E	B	B	A	C	A
Approach Delay	38.2			4.5	19.9	
Approach LOS	D			A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Marksheffel Rd & CRN North Full Access





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	100	80	2025	1760	310
Future Volume (veh/h)	100	100	80	2025	1760	310
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	109	109	87	2201	1913	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	158	141	254	4172	3741	1170
Arrive On Green	0.09	0.09	0.08	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	5233	5233	1585
Grp Volume(v), veh/h	109	109	87	2201	1913	337
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1689	1689	1585
Q Serve(g_s), s	7.1	8.1	1.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	8.1	1.3	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	158	141	254	4172	3741	1170
V/C Ratio(X)	0.69	0.77	0.34	0.53	0.51	0.29
Avail Cap(c_a), veh/h	430	383	325	4172	3741	1170
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	0.54	0.54
Uniform Delay (d), s/veh	53.1	53.5	2.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	5.2	8.7	0.7	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.3	0.4	0.2	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.3	62.2	3.2	0.4	0.3	0.3
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	218			2288	2250	
Approach Delay, s/veh	60.3			0.5	0.3	
Approach LOS	E			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.3		15.7	10.2	94.1
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		80.5		29.0	9.5	65.5
Max Q Clear Time (g_c+I1), s		2.0		10.1	3.3	2.0
Green Ext Time (p_c), s		39.6		0.6	0.1	31.7

Intersection Summary		
HCM 6th Ctrl Delay		3.1
HCM 6th LOS		A

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	200	150	755	1290	100
Future Vol, veh/h	70	200	150	755	1290	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	76	217	163	821	1402	109

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2139	701	1511	0	-	0
Stage 1	1402	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*~ 52	381	439	-	-	-
Stage 1	*193	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*~ 33	381	439	-	-	-
Mov Cap-2 Maneuver	*101	-	-	-	-	-
Stage 1	*121	-	-	-	-	-
Stage 2	*720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.6	3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	439	-	101	381	-	-
HCM Lane V/C Ratio	0.371	-	0.753	0.571	-	-
HCM Control Delay (s)	18	-	108.3	26.3	-	-
HCM Lane LOS	C	-	F	D	-	-
HCM 95th %tile Q(veh)	1.7	-	4	3.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	200	140	1345	1040	95
Future Vol, veh/h	70	200	140	1345	1040	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	3	2
Mvmt Flow	76	217	152	1462	1130	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2165	565	1233	0	-	0
Stage 1	1130	-	-	-	-	-
Stage 2	1035	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 40	468	561	-	-	-
Stage 1	270	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 29	468	561	-	-	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	197	-	-	-	-	-
Stage 2	303	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.4	1.3	0
HCM LOS	D		

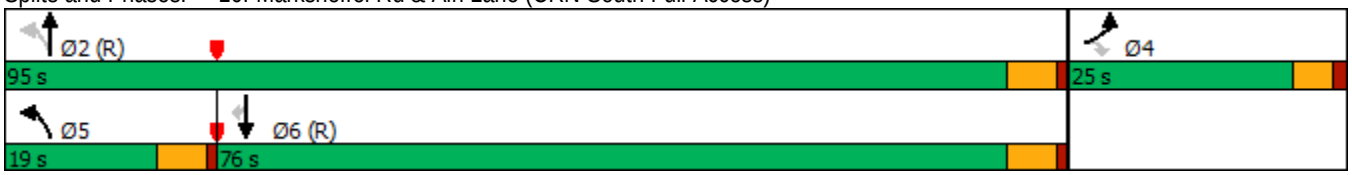
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	561	-	122	468	-	-
HCM Lane V/C Ratio	0.271	-	0.624	0.465	-	-
HCM Control Delay (s)	13.8	-	74.1	19.2	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.1	-	3.2	2.4	-	-

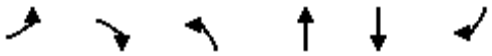
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	200	150	755	1290	100
Future Volume (vph)	70	200	150	755	1290	100
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	25.0	25.0	19.0	95.0	76.0	76.0
Total Split (%)	20.8%	20.8%	15.8%	79.2%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	10.5	10.5	99.0	99.0	85.1	85.1
Actuated g/C Ratio	0.09	0.09	0.82	0.82	0.71	0.71
v/c Ratio	0.49	0.65	0.51	0.29	0.58	0.09
Control Delay	62.2	17.1	16.0	2.7	4.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	17.1	16.0	2.7	4.7	0.7
LOS	E	B	B	A	A	A
Approach Delay	28.8			4.9	4.4	
Approach LOS	C			A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	200	150	755	1290	100
Future Volume (veh/h)	70	200	150	755	1290	100
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	76	217	163	821	1402	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	272	242	375	2636	2313	1057
Arrive On Green	0.15	0.15	0.09	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	3561	3561	1585
Grp Volume(v), veh/h	76	217	163	821	1402	109
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1735	1735	1585
Q Serve(g_s), s	4.5	16.1	3.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	16.1	3.4	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	272	242	375	2636	2313	1057
V/C Ratio(X)	0.28	0.90	0.43	0.31	0.61	0.10
Avail Cap(c_a), veh/h	297	264	491	2636	2313	1057
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	0.76	0.76
Uniform Delay (d), s/veh	45.0	49.9	4.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	28.8	0.7	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.3	1.1	0.1	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.6	78.7	5.3	0.3	0.9	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	293			984	1511	
Approach Delay, s/veh	70.1			1.1	0.9	
Approach LOS	E			A	A	

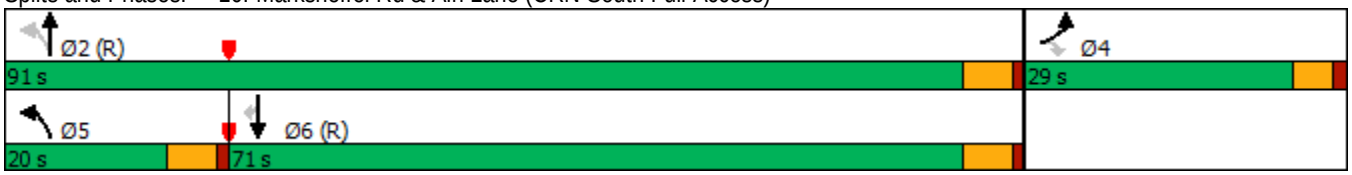
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.7		23.3	11.2	85.5
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		89.5		20.0	13.5	70.5
Max Q Clear Time (g_c+I1), s		2.0		18.1	5.4	2.0
Green Ext Time (p_c), s		7.3		0.2	0.3	18.1

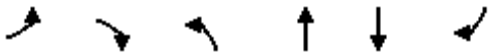
Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	200	140	1345	1040	95
Future Volume (vph)	70	200	140	1345	1040	95
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	29.0	29.0	20.0	91.0	71.0	71.0
Total Split (%)	24.2%	24.2%	16.7%	75.8%	59.2%	59.2%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	10.5	10.5	99.0	99.0	85.9	85.9
Actuated g/C Ratio	0.09	0.09	0.82	0.82	0.72	0.72
v/c Ratio	0.49	0.65	0.38	0.51	0.45	0.09
Control Delay	62.2	15.9	6.9	10.6	5.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	15.9	6.9	10.6	5.7	1.5
LOS	E	B	A	B	A	A
Approach Delay	27.9			10.3	5.4	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	200	140	1345	1040	95
Future Volume (veh/h)	70	200	140	1345	1040	95
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	76	217	152	1462	1130	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	276	245	440	2671	2355	1059
Arrive On Green	0.15	0.15	0.04	0.76	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	3618	3618	1585
Grp Volume(v), veh/h	76	217	152	1462	1130	103
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1763	1763	1585
Q Serve(g_s), s	4.5	16.1	3.0	20.6	0.0	0.0
Cycle Q Clear(g_c), s	4.5	16.1	3.0	20.6	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	276	245	440	2671	2355	1059
V/C Ratio(X)	0.28	0.88	0.35	0.55	0.48	0.10
Avail Cap(c_a), veh/h	356	317	577	2671	2355	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.51	0.51	0.86	0.86
Uniform Delay (d), s/veh	44.8	49.7	4.9	6.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	20.4	0.2	0.4	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	14.7	1.0	6.6	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.3	70.1	5.1	6.4	0.6	0.2
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	293			1614	1233	
Approach Delay, s/veh	63.6			6.3	0.6	
Approach LOS	E			A	A	

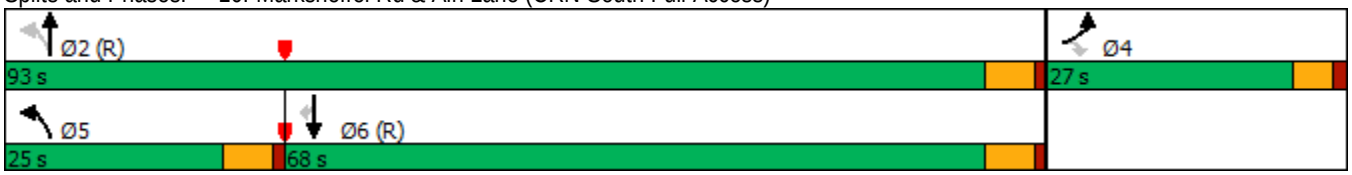
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.4		23.6	10.8	85.7
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		85.5		24.0	14.5	65.5
Max Q Clear Time (g_c+I1), s		22.6		18.1	5.0	2.0
Green Ext Time (p_c), s		18.3		0.5	0.3	12.2

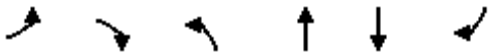
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	75	225	165	1145	1665	110
Future Volume (vph)	75	225	165	1145	1665	110
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	27.0	27.0	25.0	93.0	68.0	68.0
Total Split (%)	22.5%	22.5%	20.8%	77.5%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	10.9	10.9	98.6	98.6	81.1	81.1
Actuated g/C Ratio	0.09	0.09	0.82	0.82	0.68	0.68
v/c Ratio	0.51	0.67	0.61	0.31	0.54	0.11
Control Delay	62.4	15.7	22.1	7.6	3.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	15.7	22.1	7.6	3.1	0.5
LOS	E	B	C	A	A	A
Approach Delay	27.4			9.4	2.9	
Approach LOS	C			A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 7.6	Intersection LOS: A
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	225	165	1145	1665	110
Future Volume (veh/h)	75	225	165	1145	1665	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	82	245	179	1245	1810	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	303	270	301	3700	3214	1022
Arrive On Green	0.17	0.17	0.05	0.74	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	5149	5149	1585
Grp Volume(v), veh/h	82	245	179	1245	1810	120
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1662	1662	1585
Q Serve(g_s), s	4.8	18.2	3.8	10.3	0.0	0.0
Cycle Q Clear(g_c), s	4.8	18.2	3.8	10.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	303	270	301	3700	3214	1022
V/C Ratio(X)	0.27	0.91	0.59	0.34	0.56	0.12
Avail Cap(c_a), veh/h	327	291	498	3700	3214	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.81	0.81	0.80	0.80
Uniform Delay (d), s/veh	43.3	48.9	5.6	5.3	0.0	0.0
Incr Delay (d2), s/veh	0.5	29.2	1.5	0.2	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	17.1	1.4	3.2	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.8	78.1	7.1	5.5	0.6	0.2
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	327			1424	1930	
Approach Delay, s/veh	69.5			5.7	0.6	
Approach LOS	E			A	A	

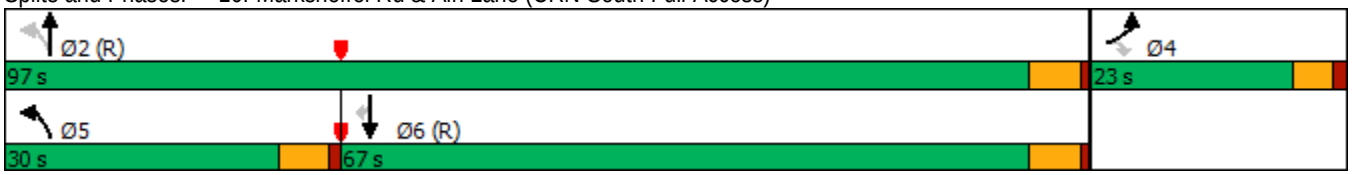
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.6		25.4	11.7	82.9
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		87.5		22.0	19.5	62.5
Max Q Clear Time (g_c+I1), s		12.3		20.2	5.8	2.0
Green Ext Time (p_c), s		13.2		0.2	0.4	26.0

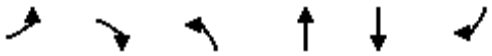
Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	75	225	235	2030	1705	155
Future Volume (vph)	75	225	235	2030	1705	155
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	23.0	23.0	30.0	97.0	67.0	67.0
Total Split (%)	19.2%	19.2%	25.0%	80.8%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	10.9	10.9	98.6	98.6	76.1	76.1
Actuated g/C Ratio	0.09	0.09	0.82	0.82	0.63	0.63
v/c Ratio	0.51	0.67	0.74	0.53	0.58	0.16
Control Delay	62.5	15.7	35.3	1.4	7.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	15.7	35.3	1.4	7.7	1.7
LOS	E	B	D	A	A	A
Approach Delay	27.4			4.9	7.2	
Approach LOS	C			A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	225	235	2030	1705	155
Future Volume (veh/h)	75	225	235	2030	1705	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	82	245	255	2207	1853	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	267	238	318	3863	3285	1028
Arrive On Green	0.15	0.15	0.09	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	5233	5233	1585
Grp Volume(v), veh/h	82	245	255	2207	1853	168
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1689	1689	1585
Q Serve(g_s), s	4.9	18.0	5.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.9	18.0	5.5	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	267	238	318	3863	3285	1028
V/C Ratio(X)	0.31	1.03	0.80	0.57	0.56	0.16
Avail Cap(c_a), veh/h	267	238	560	3863	3285	1028
HCM Platoon Ratio	1.00	1.00	1.33	1.33	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.21	0.21	0.77	0.77
Uniform Delay (d), s/veh	45.4	51.0	9.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	66.5	1.0	0.1	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	19.0	1.8	0.0	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.1	117.5	10.9	0.1	0.5	0.3
LnGrp LOS	D	F	B	A	A	A
Approach Vol, veh/h	327			2462	2021	
Approach Delay, s/veh	99.6			1.2	0.5	
Approach LOS	F			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		23.0	13.7	83.3
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		91.5		18.0	24.5	61.5
Max Q Clear Time (g_c+I1), s		2.0		20.0	7.5	2.0
Green Ext Time (p_c), s		42.1		0.0	0.7	27.3

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	35	0	800	45	0	1285	35
Future Vol, veh/h	0	0	5	0	0	35	0	800	45	0	1285	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	2	5	2	2	5	2
Mvmt Flow	0	0	5	0	0	38	0	870	49	0	1397	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	718	-	-	460	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.4	-	-	3.4	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*541	0	0	527	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1					-	-		-	-
Mov Cap-1 Maneuver	-	-	*541	-	-	527	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	12.4	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	541	527	-	-
HCM Lane V/C Ratio	-	-	0.01	0.072	-	-
HCM Control Delay (s)	-	-	11.7	12.4	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	0	0	55	0	1300	40	0	980	10
Future Vol, veh/h	0	0	15	0	0	55	0	1300	40	0	980	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	2	3	2	2	3	2
Mvmt Flow	0	0	16	0	0	60	0	1413	43	0	1065	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	538	-	-	728	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.4	-	-	3.4	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*668	0	0	348	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1					-	-		-	-
Mov Cap-1 Maneuver	-	-	*668	-	-	348	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	17.5	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	668	348	-	-
HCM Lane V/C Ratio	-	-	0.024	0.172	-	-
HCM Control Delay (s)	-	-	10.5	17.5	-	-
HCM Lane LOS	-	-	B	C	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	45	0	1390	60	0	1770	55
Future Vol, veh/h	0	0	10	0	0	45	0	1390	60	0	1770	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	2	5	2	2	5	2
Mvmt Flow	0	0	11	0	0	49	0	1511	65	0	1924	60

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	992	-	-	788	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.3	-	-	7.3	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	4	-	-	4	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*482	0	0	*590	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*482	-	-	*590	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	11.7	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	482	590	-	-
HCM Lane V/C Ratio	-	-	0.023	0.083	-	-
HCM Control Delay (s)	-	-	12.6	11.7	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	0	0	205	0	2150	150	0	1985	15
Future Vol, veh/h	0	0	25	0	0	205	0	2150	150	0	1985	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	2	3	2	2	3	2
Mvmt Flow	0	0	27	0	0	223	0	2337	163	0	2158	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1087	-	-	1250	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.3	-	-	7.3	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	4	-	-	4	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*439	0	0	*395	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*439	-	-	*395	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	25.3	0	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	439	395	-	-
HCM Lane V/C Ratio	-	-	0.062	0.564	-	-
HCM Control Delay (s)	-	-	13.7	25.3	-	-
HCM Lane LOS	-	-	B	D	-	-
HCM 95th %tile Q(veh)	-	-	0.2	3.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	235	505	20	10	10
Future Vol, veh/h	25	235	505	20	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	1	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	10	5	5	10	10	10
Mvmt Flow	27	255	549	22	11	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	571	0	-	0	869	560
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	4.2	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.29	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	963	-	-	-	312	513
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	727	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	963	-	-	-	303	513
Mov Cap-2 Maneuver	-	-	-	-	415	-
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	727	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	963	-	-	-	415	513
HCM Lane V/C Ratio	0.028	-	-	-	0.026	0.021
HCM Control Delay (s)	8.8	-	-	-	13.9	12.2
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	380	335	5	30	30
Future Vol, veh/h	5	380	335	5	30	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	1	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	10	3	3	10	10	10
Mvmt Flow	5	413	364	5	33	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	369	0	-	0	790	367
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	423	-
Critical Hdwy	4.2	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.29	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	1147	-	-	-	348	661
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	644	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1147	-	-	-	347	661
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	644	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1147	-	-	-	460	661
HCM Lane V/C Ratio	0.005	-	-	-	0.071	0.049
HCM Control Delay (s)	8.2	-	-	-	13.4	10.7
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	325	675	30	15	15
Future Vol, veh/h	35	325	675	30	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	1	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	10	5	5	10	10	10
Mvmt Flow	38	353	734	33	16	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	767	0	-	0	1180	751
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	429	-
Critical Hdwy	4.2	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.29	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	*729	-	-	-	*157	*492
Stage 1	-	-	-	-	*465	-
Stage 2	-	-	-	-	*640	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*729	-	-	-	*149	*492
Mov Cap-2 Maneuver	-	-	-	-	*303	-
Stage 1	-	-	-	-	*441	-
Stage 2	-	-	-	-	*640	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 729	-	-	-	303	492
HCM Lane V/C Ratio	0.052	-	-	-	0.054	0.033
HCM Control Delay (s)	10.2	-	-	-	17.6	12.6
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	640	575	10	50	50
Future Vol, veh/h	10	640	575	10	50	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	1	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	10	3	3	10	10	10
Mvmt Flow	11	696	625	11	54	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	636	0	-	0	1349	631
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	718	-
Critical Hdwy	4.2	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.29	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	*880	-	-	-	*106	*594
Stage 1	-	-	-	-	*561	-
Stage 2	-	-	-	-	*469	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*880	-	-	-	*105	*594
Mov Cap-2 Maneuver	-	-	-	-	*279	-
Stage 1	-	-	-	-	*554	-
Stage 2	-	-	-	-	*469	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 880	-	-	-	279	594
HCM Lane V/C Ratio	0.012	-	-	-	0.195	0.091
HCM Control Delay (s)	9.1	-	-	-	21	11.7
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	3.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	190	124	21	43
Demand Flow Rate, veh/h	197	130	21	44
Vehicles Circulating, veh/h	10	82	191	141
Vehicles Exiting, veh/h	175	130	16	71
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.9	3.8	3.3	3.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	197	130	21	44
Cap Entry Lane, veh/h	1366	1269	1136	1195
Entry HV Adj Factor	0.966	0.956	1.000	0.977
Flow Entry, veh/h	190	124	21	43
Cap Entry, veh/h	1319	1213	1136	1168
V/C Ratio	0.144	0.102	0.018	0.037
Control Delay, s/veh	3.9	3.8	3.3	3.4
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

Intersection	
Intersection Delay, s/veh	4.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	245	124	27	65
Demand Flow Rate, veh/h	252	127	27	66
Vehicles Circulating, veh/h	10	83	229	144
Vehicles Exiting, veh/h	200	173	33	66
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	3.7	3.5	3.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	252	127	27	66
Cap Entry Lane, veh/h	1366	1268	1092	1191
Entry HV Adj Factor	0.973	0.973	1.000	0.985
Flow Entry, veh/h	245	124	27	65
Cap Entry, veh/h	1329	1234	1092	1173
V/C Ratio	0.185	0.100	0.025	0.055
Control Delay, s/veh	4.2	3.7	3.5	3.5
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

Intersection	
Intersection Delay, s/veh	4.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	294	207	76	54
Demand Flow Rate, veh/h	306	216	77	55
Vehicles Circulating, veh/h	16	150	277	266
Vehicles Exiting, veh/h	305	204	45	100
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.7	4.8	4.2	3.9
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	306	216	77	55
Cap Entry Lane, veh/h	1358	1184	1040	1052
Entry HV Adj Factor	0.962	0.957	0.987	0.982
Flow Entry, veh/h	294	207	76	54
Cap Entry, veh/h	1306	1133	1027	1033
V/C Ratio	0.225	0.182	0.074	0.052
Control Delay, s/veh	4.7	4.8	4.2	3.9
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	0

Intersection	
Intersection Delay, s/veh	6.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	581	240	92	228
Demand Flow Rate, veh/h	596	246	94	232
Vehicles Circulating, veh/h	27	311	507	302
Vehicles Exiting, veh/h	507	290	116	255
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.1	6.1	5.6	5.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	596	246	94	232
Cap Entry Lane, veh/h	1342	1005	823	1014
Entry HV Adj Factor	0.975	0.976	0.979	0.983
Flow Entry, veh/h	581	240	92	228
Cap Entry, veh/h	1309	981	805	997
V/C Ratio	0.444	0.245	0.114	0.229
Control Delay, s/veh	7.1	6.1	5.6	5.8
LOS	A	A	A	A
95th %tile Queue, veh	2	1	0	1

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	119	59	16	82
Demand Flow Rate, veh/h	124	61	16	83
Vehicles Circulating, veh/h	16	33	130	67
Vehicles Exiting, veh/h	134	113	10	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.5	3.2	3.1	3.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	124	61	16	83
Cap Entry Lane, veh/h	1358	1334	1209	1289
Entry HV Adj Factor	0.963	0.960	1.000	0.988
Flow Entry, veh/h	119	59	16	82
Cap Entry, veh/h	1307	1281	1209	1273
V/C Ratio	0.091	0.046	0.013	0.064
Control Delay, s/veh	3.5	3.2	3.1	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Intersection Delay, s/veh	3.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	164	92	16	48
Demand Flow Rate, veh/h	167	94	16	49
Vehicles Circulating, veh/h	10	83	161	94
Vehicles Exiting, veh/h	133	94	16	83
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	3.5	3.2	3.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	167	94	16	49
Cap Entry Lane, veh/h	1366	1268	1171	1254
Entry HV Adj Factor	0.979	0.976	1.000	0.980
Flow Entry, veh/h	164	92	16	48
Cap Entry, veh/h	1338	1237	1171	1228
V/C Ratio	0.122	0.074	0.014	0.039
Control Delay, s/veh	3.7	3.5	3.2	3.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Intersection Delay, s/veh	3.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	190	87	43	125
Demand Flow Rate, veh/h	198	91	44	127
Vehicles Circulating, veh/h	27	67	198	114
Vehicles Exiting, veh/h	214	175	27	44
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	3.5	3.6	3.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	198	91	44	127
Cap Entry Lane, veh/h	1342	1289	1128	1228
Entry HV Adj Factor	0.961	0.961	0.977	0.984
Flow Entry, veh/h	190	87	43	125
Cap Entry, veh/h	1289	1238	1102	1209
V/C Ratio	0.148	0.071	0.039	0.103
Control Delay, s/veh	4.0	3.5	3.6	3.8
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	277	190	49	59
Demand Flow Rate, veh/h	284	195	50	60
Vehicles Circulating, veh/h	27	139	250	213
Vehicles Exiting, veh/h	246	161	61	121
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.5	4.5	3.8	3.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	284	195	50	60
Cap Entry Lane, veh/h	1342	1197	1069	1110
Entry HV Adj Factor	0.975	0.977	0.980	0.983
Flow Entry, veh/h	277	190	49	59
Cap Entry, veh/h	1309	1169	1048	1092
V/C Ratio	0.212	0.163	0.047	0.054
Control Delay, s/veh	4.5	4.5	3.8	3.8
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	0

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1100	5	0	1265
Future Vol, veh/h	0	20	1100	5	0	1265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	22	1196	5	0	1375

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	601	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	443	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	443	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	443	-
HCM Lane V/C Ratio	-	-	0.049	-
HCM Control Delay (s)	-	-	13.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1525	5	0	1225
Future Vol, veh/h	0	20	1525	5	0	1225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	22	1658	5	0	1332

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	832	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	312	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	312	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	312	-
HCM Lane V/C Ratio	-	-	0.07	-
HCM Control Delay (s)	-	-	17.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	70	1745	10	0	1765
Future Vol, veh/h	0	70	1745	10	0	1765
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	76	1897	11	0	1918

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	954	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*514	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*514	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	514	-
HCM Lane V/C Ratio	-	-	0.148	-
HCM Control Delay (s)	-	-	13.2	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	85	2455	20	0	2275
Future Vol, veh/h	0	85	2455	20	0	2275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	92	2668	22	0	2473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1345	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*337	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*337	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	337	-
HCM Lane V/C Ratio	-	-	0.274	-
HCM Control Delay (s)	-	-	19.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	30	1070	10	35	1235
Future Vol, veh/h	0	30	1070	10	35	1235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	33	1163	11	38	1342

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	587	0	0	1174	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	453	-	-	591	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	453	-	-	591	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	453	591	-
HCM Lane V/C Ratio	-	-	0.072	0.064	-
HCM Control Delay (s)	-	-	13.6	11.5	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	1495	10	70	1155
Future Vol, veh/h	0	35	1495	10	70	1155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	38	1625	11	76	1255

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	818	0	0	1636	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	319	-	-	392	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	319	-	-	392	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	319	392	-
HCM Lane V/C Ratio	-	-	0.119	0.194	-
HCM Control Delay (s)	-	-	17.8	16.4	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.4	0.7	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	105	1650	25	105	1660
Future Vol, veh/h	0	105	1650	25	105	1660
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	114	1793	27	114	1804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	910	0	0	1820	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	*536	-	-	*673	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	-	-	1	-
Mov Cap-1 Maneuver	-	*536	-	-	*673	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	536	* 673	-
HCM Lane V/C Ratio	-	-	0.213	0.17	-
HCM Control Delay (s)	-	-	13.5	11.4	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	135	2335	30	275	2010
Future Vol, veh/h	0	135	2335	30	275	2010
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	147	2538	33	299	2185

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1286	0	0	2571	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	*359	-	-	*452	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	-	-	1	-
Mov Cap-1 Maneuver	-	*359	-	-	*452	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.8	0	3.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	359	* 452	-
HCM Lane V/C Ratio	-	-	0.409	0.661	-
HCM Control Delay (s)	-	-	21.8	27.2	-
HCM Lane LOS	-	-	C	D	-
HCM 95th %tile Q(veh)	-	-	1.9	4.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	40	1035	10	0	1235
Future Vol, veh/h	0	40	1035	10	0	1235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	43	1125	11	0	1342

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	568	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	466	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	466	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	466	-
HCM Lane V/C Ratio	-	-	0.093	-
HCM Control Delay (s)	-	-	13.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	45	1460	15	0	1155
Future Vol, veh/h	0	45	1460	15	0	1155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	49	1587	16	0	1255

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	802	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	327	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	327	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	327	-
HCM Lane V/C Ratio	-	-	0.15	-
HCM Control Delay (s)	-	-	17.9	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	140	1525	25	0	1660
Future Vol, veh/h	0	140	1525	25	0	1660
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	152	1658	27	0	1804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	843	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*558	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*558	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	558	-
HCM Lane V/C Ratio	-	-	0.273	-
HCM Control Delay (s)	-	-	13.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	175	2200	50	0	2010
Future Vol, veh/h	0	175	2200	50	0	2010
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	190	2391	54	0	2185

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1223	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*403	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*403	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	403	-
HCM Lane V/C Ratio	-	-	0.472	-
HCM Control Delay (s)	-	-	21.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	2.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	30	1015	10	40	1200
Future Vol, veh/h	30	30	1015	10	40	1200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	33	33	1103	11	43	1304

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1847	557	0	0	1114	0
Stage 1	1109	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	66	474	-	-	623	-
Stage 1	277	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	61	474	-	-	623	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	404	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	258	623	-
HCM Lane V/C Ratio	-	-	0.253	0.07	-
HCM Control Delay (s)	-	-	23.6	11.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	35	1440	15	80	1075
Future Vol, veh/h	35	35	1440	15	80	1075
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	38	38	1565	16	87	1168

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2331	791	0	0	1581	0
Stage 1	1573	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 31	332	-	-	412	-
Stage 1	156	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 24	332	-	-	412	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	156	-	-	-	-	-
Stage 2	334	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.9	0	1.1
HCM LOS	E		

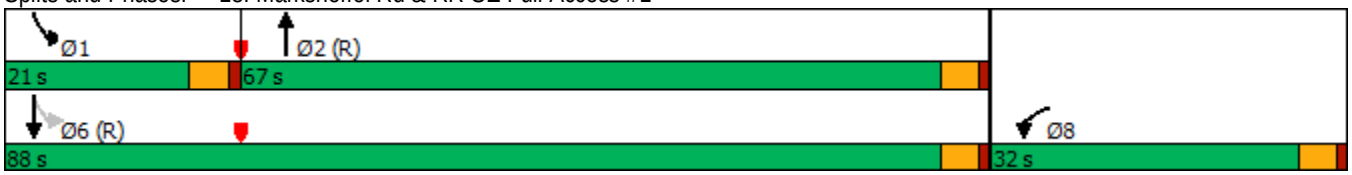
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	161	412	-
HCM Lane V/C Ratio	-	-	0.473	0.211	-
HCM Control Delay (s)	-	-	45.9	16.1	-
HCM Lane LOS	-	-	E	C	-
HCM 95th %tile Q(veh)	-	-	2.2	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	95	1450	120	1550
Future Volume (vph)	95	1450	120	1550
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	32.0	67.0	21.0	88.0
Total Split (%)	26.7%	55.8%	17.5%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	17.3	80.8	93.7	93.7
Actuated g/C Ratio	0.14	0.67	0.78	0.78
v/c Ratio	0.74	0.48	0.48	0.44
Control Delay	55.2	10.4	16.2	16.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	55.2	10.4	16.2	16.1
LOS	E	B	B	B
Approach Delay	55.2	10.4		16.1
Approach LOS	E	B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Marksheffel Rd & RR-SE Full Access #1



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	95	95	1450	25	120	1550
Future Volume (veh/h)	95	95	1450	25	120	1550
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1826	1826	1870	1826
Adj Flow Rate, veh/h	103	103	1576	27	130	1685
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	5	5	2	5
Cap, veh/h	118	118	3560	61	357	3907
Arrive On Green	0.14	0.14	1.00	1.00	0.08	1.00
Sat Flow, veh/h	835	835	5211	86	1781	5149
Grp Volume(v), veh/h	207	0	1038	565	130	1685
Grp Sat Flow(s),veh/h/ln	1678	0	1662	1810	1781	1662
Q Serve(g_s), s	14.5	0.0	0.0	0.0	2.3	0.0
Cycle Q Clear(g_c), s	14.5	0.0	0.0	0.0	2.3	0.0
Prop In Lane	0.50	0.50		0.05	1.00	
Lane Grp Cap(c), veh/h	237	0	2344	1277	357	3907
V/C Ratio(X)	0.87	0.00	0.44	0.44	0.36	0.43
Avail Cap(c_a), veh/h	385	0	2344	1277	528	3907
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	0.0	0.0	0.0	3.5	0.0
Incr Delay (d2), s/veh	12.0	0.0	0.6	1.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	0.2	0.4	0.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	62.5	0.0	0.6	1.1	4.1	0.3
LnGrp LOS	E	A	A	A	A	A
Approach Vol, veh/h	207		1603			1815
Approach Delay, s/veh	62.5		0.8			0.6
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	89.1			98.6	21.4
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	16.5	62.5			83.5	27.5
Max Q Clear Time (g_c+I1), s	4.3	2.0			2.0	16.5
Green Ext Time (p_c), s	0.2	18.4			23.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

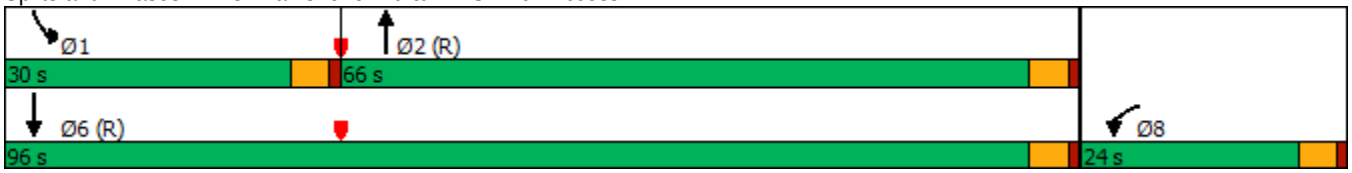
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	120	2130	305	1710
Future Volume (vph)	120	2130	305	1710
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	24.0	66.0	30.0	96.0
Total Split (%)	20.0%	55.0%	25.0%	80.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	18.6	63.3	24.6	92.4
Actuated g/C Ratio	0.16	0.53	0.20	0.77
v/c Ratio	0.89	0.89	0.91	0.48
Control Delay	73.5	32.5	50.5	14.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	73.5	32.5	50.5	14.1
LOS	E	C	D	B
Approach Delay	73.5	32.5		19.6
Approach LOS	E	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 28.9	Intersection LOS: C
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 18: Marksheffel Rd & RR-SE Full Access #1



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	120	120	2130	50	305	1710
Future Volume (veh/h)	120	120	2130	50	305	1710
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1856	1856	1870	1856
Adj Flow Rate, veh/h	130	130	2315	54	332	1859
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	2	3
Cap, veh/h	136	136	2668	62	358	3863
Arrive On Green	0.16	0.16	1.00	1.00	0.20	0.76
Sat Flow, veh/h	836	836	5260	118	1781	5233
Grp Volume(v), veh/h	261	0	1533	836	332	1859
Grp Sat Flow(s),veh/h/ln	1678	0	1689	1834	1781	1689
Q Serve(g_s), s	18.5	0.0	0.0	0.0	22.0	16.5
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	22.0	16.5
Prop In Lane	0.50	0.50		0.06	1.00	
Lane Grp Cap(c), veh/h	273	0	1769	961	358	3863
V/C Ratio(X)	0.96	0.00	0.87	0.87	0.93	0.48
Avail Cap(c_a), veh/h	273	0	1769	961	379	3863
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	0.0	0.0	0.0	47.1	5.3
Incr Delay (d2), s/veh	42.7	0.0	6.0	10.6	27.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.0	1.5	2.8	12.4	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	92.6	0.0	6.0	10.6	74.8	5.8
LnGrp LOS	F	A	A	B	E	A
Approach Vol, veh/h	261		2369			2191
Approach Delay, s/veh	92.6		7.6			16.2
Approach LOS	F		A			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	28.6	67.4			96.0	24.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	25.5	61.5			91.5	19.5
Max Q Clear Time (g_c+I1), s	24.0	2.0			18.5	20.5
Green Ext Time (p_c), s	0.2	36.7			27.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1005	10	0	1225
Future Vol, veh/h	0	20	1005	10	0	1225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	22	1092	11	0	1332

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	552	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	477	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	477	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	477	-
HCM Lane V/C Ratio	-	-	0.046	-
HCM Control Delay (s)	-	-	12.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1430	15	0	1105
Future Vol, veh/h	0	20	1430	15	0	1105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	22	1554	16	0	1201

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	785	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	336	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	336	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	336	-
HCM Lane V/C Ratio	-	-	0.065	-
HCM Control Delay (s)	-	-	16.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	70	1405	25	0	1640
Future Vol, veh/h	0	70	1405	25	0	1640
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	76	1527	27	0	1783

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	777	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*580	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*580	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	580	-
HCM Lane V/C Ratio	-	-	0.131	-
HCM Control Delay (s)	-	-	12.1	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	85	2095	50	0	1825
Future Vol, veh/h	0	85	2095	50	0	1825
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	92	2277	54	0	1984

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1166	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*425	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*425	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	425	-
HCM Lane V/C Ratio	-	-	0.217	-
HCM Control Delay (s)	-	-	15.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	975	5	40	1190
Future Vol, veh/h	0	35	975	5	40	1190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	38	1060	5	43	1293

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	533	0	0	1065	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	491	-	-	650	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	491	-	-	650	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	491	650	-
HCM Lane V/C Ratio	-	-	0.077	0.067	-
HCM Control Delay (s)	-	-	12.9	10.9	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	45	1405	10	80	1025
Future Vol, veh/h	0	45	1405	10	80	1025
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	49	1527	11	87	1114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	769	0	0	1538	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	344	-	-	428	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	344	-	-	428	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	344	428	-
HCM Lane V/C Ratio	-	-	0.142	0.203	-
HCM Control Delay (s)	-	-	17.2	15.5	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.5	0.8	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	130	1300	15	120	1530
Future Vol, veh/h	0	130	1300	15	120	1530
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	5
Mvmt Flow	0	141	1413	16	130	1663

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	715	0	0	1429	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	*624	-	-	*784	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	-	-	1	-
Mov Cap-1 Maneuver	-	*624	-	-	*784	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	624	* 784	-
HCM Lane V/C Ratio	-	-	0.226	0.166	-
HCM Control Delay (s)	-	-	12.5	10.5	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	165	1985	35	305	1525
Future Vol, veh/h	0	165	1985	35	305	1525
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	179	2158	38	332	1658

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1098	0	0	2196	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	*447	-	-	*563	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	-	-	1	-
Mov Cap-1 Maneuver	-	*447	-	-	*563	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	3.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	447	* 563	-
HCM Lane V/C Ratio	-	-	0.401	0.589	-
HCM Control Delay (s)	-	-	18.3	20.1	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	1.9	3.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	401.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	540	10	125	10	25	45	160	395	5	30	490	680
Future Vol, veh/h	540	10	125	10	25	45	160	395	5	30	490	680
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	150	-	-	150	-	150
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	2	5	2
Mvmt Flow	587	11	136	11	27	49	174	429	5	33	533	739

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1417	1381	533	1822	2118	432	1272	0	0	434	0	0
Stage 1	599	599	-	780	780	-	-	-	-	-	-	-
Stage 2	818	782	-	1042	1338	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 115	144	547	60	50	624	546	-	-	1126	-	-
Stage 1	~ 488	490	-	388	406	-	-	-	-	-	-	-
Stage 2	~ 370	405	-	277	222	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 34	95	547	32	33	624	546	-	-	1126	-	-
Mov Cap-2 Maneuver	~ 119	184	-	21	38	-	-	-	-	-	-	-
Stage 1	~ 332	476	-	264	276	-	-	-	-	-	-	-
Stage 2	~ 209	276	-	197	216	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay,$	1476.8	142.4	4.2	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	546	-	-	119	477	21	96	1126	-	-
HCM Lane V/C Ratio	0.319	-	-	4.932	0.308	0.518	0.793	0.029	-	-
HCM Control Delay (s)	14.6	-	-	$ 1842	15.9	295.3	120.5	8.3	-	-
HCM Lane LOS	B	-	-	F	C	F	F	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	62	1.3	1.5	4.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1063.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	805	25	185	10	30	55	130	560	5	70	400	565
Future Vol, veh/h	805	25	185	10	30	55	130	560	5	70	400	565
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	150	-	-	150	-	150
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	875	27	201	11	33	60	141	609	5	76	435	614

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1527	1483	435	1902	2095	612	1049	0	0	614	0	0
Stage 1	587	587	-	894	894	-	-	-	-	-	-	-
Stage 2	940	896	-	1008	1201	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 96	125	621	52	52	493	663	-	-	965	-	-
Stage 1	~ 496	497	-	336	360	-	-	-	-	-	-	-
Stage 2	~ 316	359	-	290	258	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 46	91	621	24	38	493	663	-	-	965	-	-
Mov Cap-2 Maneuver	~ 96	164	-	26	78	-	-	-	-	-	-	-
Stage 1	~ 390	458	-	264	283	-	-	-	-	-	-	-
Stage 2	~ 193	283	-	170	238	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay,$	2966.9	66.5	2.2	0.6
HCM LOS	F	F		

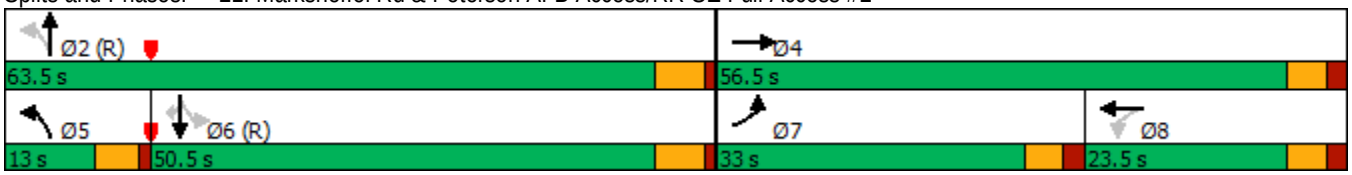
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	663	-	-	96	466	26	171	965	-	-
HCM Lane V/C Ratio	0.213	-	-	9.115	0.49	0.418	0.54	0.079	-	-
HCM Control Delay (s)	11.9	-	-	$ 3735.7	19.9	220.4	48.4	9.1	-	-
HCM Lane LOS	B	-	-	F	C	F	E	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	100.6	2.6	1.3	2.8	0.3	-	-

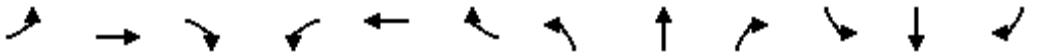
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	540	10	10	25	160	395	30	490	680
Future Volume (vph)	540	10	10	25	160	395	30	490	680
Turn Type	Prot	NA	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4		8	5	2		6	
Permitted Phases			8		2		6		6
Detector Phase	7	4	8	8	5	2	6	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	23.5	23.5	23.5	10.5	23.5	23.5	23.5	23.5
Total Split (s)	33.0	56.5	23.5	23.5	13.0	63.5	50.5	50.5	50.5
Total Split (%)	27.5%	47.1%	19.6%	19.6%	10.8%	52.9%	42.1%	42.1%	42.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.0	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.7	35.9	7.9	7.9	73.6	73.1	57.3	57.3	57.3
Actuated g/C Ratio	0.21	0.30	0.07	0.07	0.61	0.61	0.48	0.48	0.48
v/c Ratio	0.83	0.26	0.14	0.49	0.34	0.21	0.07	0.32	0.65
Control Delay	56.4	6.4	54.8	33.7	13.6	12.1	22.4	22.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	6.4	54.8	33.7	13.6	12.1	22.4	22.2	4.9
LOS	E	A	D	C	B	B	C	C	A
Approach Delay		46.4		36.4		12.5		12.4	
Approach LOS		D		D		B		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	540	10	125	10	25	45	160	395	5	30	490	680
Future Volume (veh/h)	540	10	125	10	25	45	160	395	5	30	490	680
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1826	1870	1826	1870
Adj Flow Rate, veh/h	587	11	136	11	27	49	174	429	5	33	533	739
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	5	2	5	2
Cap, veh/h	663	36	446	138	38	68	350	2133	25	541	1748	799
Arrive On Green	0.19	0.30	0.30	0.06	0.06	0.06	0.06	0.61	0.61	0.50	0.50	0.50
Sat Flow, veh/h	3456	120	1483	1241	595	1080	1781	3512	41	954	3469	1585
Grp Volume(v), veh/h	587	0	147	11	0	76	174	212	222	33	533	739
Grp Sat Flow(s),veh/h/ln	1728	0	1603	1241	0	1676	1781	1735	1819	954	1735	1585
Q Serve(g_s), s	19.8	0.0	8.5	1.0	0.0	5.3	5.4	6.6	6.6	2.1	10.8	52.0
Cycle Q Clear(g_c), s	19.8	0.0	8.5	1.0	0.0	5.3	5.4	6.6	6.6	2.1	10.8	52.0
Prop In Lane	1.00		0.93	1.00		0.64	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	663	0	482	138	0	106	350	1054	1105	541	1748	799
V/C Ratio(X)	0.88	0.00	0.30	0.08	0.00	0.72	0.50	0.20	0.20	0.06	0.30	0.93
Avail Cap(c_a), veh/h	792	0	681	246	0	251	359	1054	1105	541	1748	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	0.0	32.3	53.1	0.0	55.2	12.7	10.5	10.5	15.3	17.5	27.7
Incr Delay (d2), s/veh	10.3	0.0	0.4	0.2	0.0	8.8	1.1	0.4	0.4	0.2	0.5	18.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	0.0	3.4	0.3	0.0	2.5	2.2	2.6	2.7	0.5	4.4	22.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	0.0	32.6	53.4	0.0	63.9	13.8	11.0	10.9	15.5	17.9	45.8
LnGrp LOS	E	A	C	D	A	E	B	B	B	B	B	D
Approach Vol, veh/h		734			87			608			1305	
Approach Delay, s/veh		52.5			62.6			11.8			33.7	
Approach LOS		D			E			B			C	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		78.4		41.6	12.4	66.0	28.5	13.1				
Change Period (Y+Rc), s		5.5		5.5	5.0	5.5	5.5	5.5				
Max Green Setting (Gmax), s		58.0		51.0	8.0	45.0	27.5	18.0				
Max Q Clear Time (g_c+I1), s		8.6		10.5	7.4	54.0	21.8	7.3				
Green Ext Time (p_c), s		2.8		1.0	0.0	0.0	1.2	0.2				

Intersection Summary												
HCM 6th Ctrl Delay			34.8									
HCM 6th LOS			C									

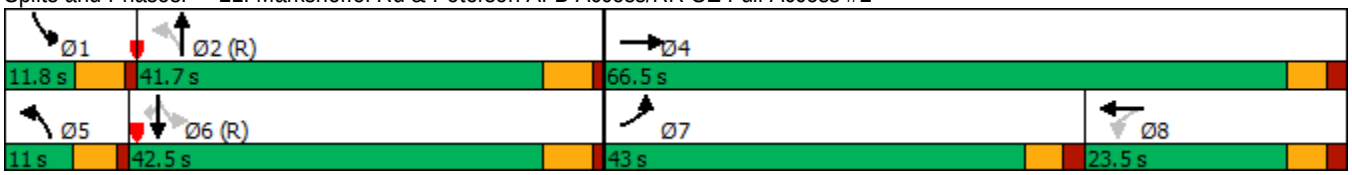
21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2

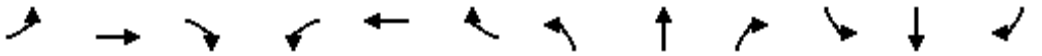
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	805	25	10	30	130	560	70	400	565
Future Volume (vph)	805	25	10	30	130	560	70	400	565
Turn Type	Prot	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2	1	6	
Permitted Phases			8		2		6		6
Detector Phase	7	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	23.5	23.5	23.5	10.5	23.5	10.5	23.5	23.5
Total Split (s)	43.0	66.5	23.5	23.5	11.0	41.7	11.8	42.5	42.5
Total Split (%)	35.8%	55.4%	19.6%	19.6%	9.2%	34.8%	9.8%	35.4%	35.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.0	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	34.7	48.6	8.4	8.4	58.0	48.9	53.6	45.3	45.3
Actuated g/C Ratio	0.29	0.40	0.07	0.07	0.48	0.41	0.45	0.38	0.38
v/c Ratio	0.88	0.29	0.14	0.54	0.31	0.43	0.21	0.33	0.63
Control Delay	51.7	4.9	54.3	33.9	19.3	29.1	19.0	29.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	4.9	54.3	33.9	19.3	29.1	19.0	29.0	5.7
LOS	D	A	D	C	B	C	B	C	A
Approach Delay		42.0		36.1		27.3		15.6	
Approach LOS		D		D		C		B	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	805	25	185	10	30	55	130	560	5	70	400	565
Future Volume (veh/h)	805	25	185	10	30	55	130	560	5	70	400	565
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1870
Adj Flow Rate, veh/h	875	27	201	11	33	60	141	609	5	76	435	614
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	2
Cap, veh/h	961	76	565	145	44	79	331	1529	13	378	1478	665
Arrive On Green	0.28	0.40	0.40	0.07	0.07	0.07	0.05	0.43	0.43	0.04	0.42	0.42
Sat Flow, veh/h	3456	191	1423	1153	595	1081	1781	3584	29	1781	3526	1585
Grp Volume(v), veh/h	875	0	228	11	0	93	141	300	314	76	435	614
Grp Sat Flow(s),veh/h/ln	1728	0	1614	1153	0	1676	1781	1763	1850	1781	1763	1585
Q Serve(g_s), s	29.4	0.0	11.9	1.1	0.0	6.5	5.5	14.1	14.1	2.9	9.8	44.1
Cycle Q Clear(g_c), s	29.4	0.0	11.9	1.1	0.0	6.5	5.5	14.1	14.1	2.9	9.8	44.1
Prop In Lane	1.00		0.88	1.00		0.65	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	961	0	641	145	0	123	331	752	790	378	1478	665
V/C Ratio(X)	0.91	0.00	0.36	0.08	0.00	0.76	0.43	0.40	0.40	0.20	0.29	0.92
Avail Cap(c_a), veh/h	1080	0	821	233	0	251	331	752	790	404	1478	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	0.0	25.4	52.0	0.0	54.5	18.9	23.7	23.8	19.2	23.1	33.0
Incr Delay (d2), s/veh	10.6	0.0	0.3	0.2	0.0	9.0	0.9	1.6	1.5	0.3	0.5	20.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	0.0	4.6	0.3	0.0	3.1	2.3	6.2	6.5	1.2	4.2	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	0.0	25.7	52.2	0.0	63.5	19.8	25.3	25.3	19.5	23.6	53.6
LnGrp LOS	D	A	C	D	A	E	B	C	C	B	C	D
Approach Vol, veh/h		1103			104			755			1125	
Approach Delay, s/veh		47.0			62.3			24.3			39.7	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	56.7		53.2	11.0	55.8	38.9	14.3				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.0	5.5	5.5	5.5				
Max Green Setting (Gmax), s	6.3	36.2		61.0	6.0	37.0	37.5	18.0				
Max Q Clear Time (g_c+I1), s	4.9	16.1		13.9	7.5	46.1	31.4	8.5				
Green Ext Time (p_c), s	0.0	3.7		1.6	0.0	0.0	2.0	0.3				

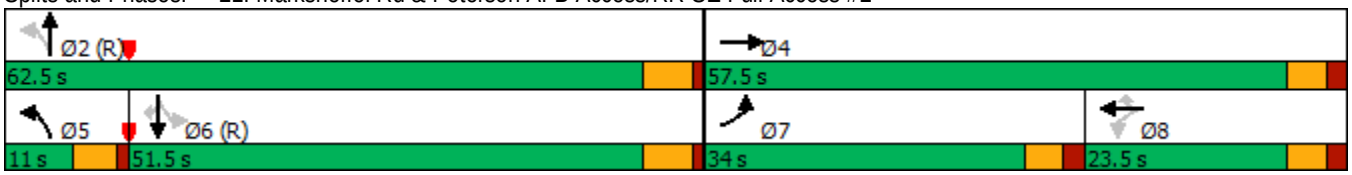
Intersection Summary												
HCM 6th Ctrl Delay			39.3									
HCM 6th LOS			D									

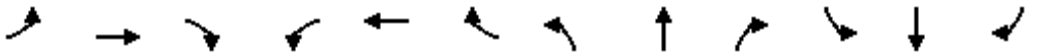
21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	680	30	35	85	155	190	475	100	585	850
Future Volume (vph)	680	30	35	85	155	190	475	100	585	850
Turn Type	Prot	NA	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4		8		5	2		6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	8	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	23.5	23.5	23.5	23.5	10.5	23.5	23.5	23.5	23.5
Total Split (s)	34.0	57.5	23.5	23.5	23.5	11.0	62.5	51.5	51.5	51.5
Total Split (%)	28.3%	47.9%	19.6%	19.6%	19.6%	9.2%	52.1%	42.9%	42.9%	42.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.0	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag	Lag	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	27.9	44.8	11.4	11.4	11.4	64.7	64.2	49.0	49.0	49.0
Actuated g/C Ratio	0.23	0.37	0.10	0.10	0.10	0.54	0.54	0.41	0.41	0.41
v/c Ratio	0.93	0.27	0.34	0.52	0.56	0.52	0.29	0.32	0.45	0.83
Control Delay	63.4	6.6	57.5	61.4	14.5	21.3	16.4	13.9	12.7	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	6.6	57.5	61.4	14.5	21.3	16.4	13.9	12.7	20.5
LOS	E	A	E	E	B	C	B	B	B	C
Approach Delay		51.7		34.5			17.8		17.1	
Approach LOS		D		C			B		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 81.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	680	30	145	35	85	155	190	475	10	100	585	850
Future Volume (veh/h)	680	30	145	35	85	155	190	475	10	100	585	850
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1826	1870	1826	1870
Adj Flow Rate, veh/h	739	33	158	38	92	86	207	516	11	109	636	598
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	5	2	5	2
Cap, veh/h	795	99	472	149	139	118	318	1937	41	468	1617	739
Arrive On Green	0.23	0.35	0.35	0.07	0.07	0.07	0.05	0.56	0.56	0.62	0.62	0.62
Sat Flow, veh/h	3456	281	1347	1192	1870	1585	1781	3473	74	876	3469	1585
Grp Volume(v), veh/h	739	0	191	38	92	86	207	258	269	109	636	598
Grp Sat Flow(s),veh/h/ln	1728	0	1628	1192	1870	1585	1781	1735	1813	876	1735	1585
Q Serve(g_s), s	25.1	0.0	10.4	3.7	5.7	6.4	6.0	9.3	9.3	6.8	11.1	34.5
Cycle Q Clear(g_c), s	25.1	0.0	10.4	3.7	5.7	6.4	6.0	9.3	9.3	6.8	11.1	34.5
Prop In Lane	1.00		0.83	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	795	0	571	149	139	118	318	968	1011	468	1617	739
V/C Ratio(X)	0.93	0.00	0.33	0.26	0.66	0.73	0.65	0.27	0.27	0.23	0.39	0.81
Avail Cap(c_a), veh/h	821	0	705	239	281	238	318	968	1011	468	1617	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	28.7	53.1	54.0	54.3	18.6	13.8	13.8	13.5	14.3	18.7
Incr Delay (d2), s/veh	16.5	0.0	0.3	0.9	5.2	8.2	4.7	0.7	0.6	1.2	0.7	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	0.0	4.1	1.1	2.9	2.8	3.4	3.8	3.9	1.4	4.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	0.0	29.0	54.0	59.3	62.6	23.2	14.5	14.4	14.6	15.0	28.1
LnGrp LOS	E	A	C	D	E	E	C	B	B	B	B	C
Approach Vol, veh/h		930			216			734			1343	
Approach Delay, s/veh		55.0			59.6			16.9			20.8	
Approach LOS		E			E			B			C	

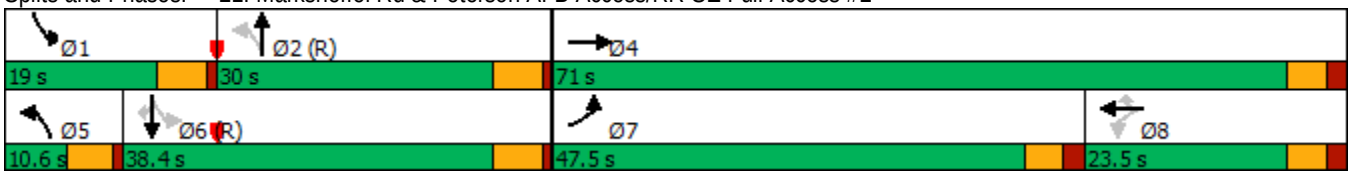
Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		72.4		47.6	11.0	61.4	33.1	14.4				
Change Period (Y+Rc), s		5.5		5.5	5.0	5.5	5.5	5.5				
Max Green Setting (Gmax), s		57.0		52.0	6.0	46.0	28.5	18.0				
Max Q Clear Time (g_c+I1), s		11.3		12.4	8.0	36.5	27.1	8.4				
Green Ext Time (p_c), s		3.6		1.3	0.0	5.0	0.5	0.6				

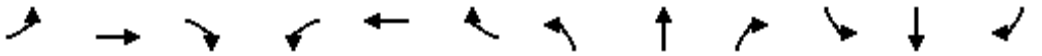
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1095	85	45	110	200	150	730	255	500	780
Future Volume (vph)	1095	85	45	110	200	150	730	255	500	780
Turn Type	Prot	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	8	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	23.5	23.5	23.5	23.5	10.5	23.5	10.5	23.5	23.5
Total Split (s)	47.5	71.0	23.5	23.5	23.5	10.6	30.0	19.0	38.4	38.4
Total Split (%)	39.6%	59.2%	19.6%	19.6%	19.6%	8.8%	25.0%	15.8%	32.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.0	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.0	60.7	13.2	13.2	13.2	33.7	24.5	48.3	34.6	34.6
Actuated g/C Ratio	0.35	0.51	0.11	0.11	0.11	0.28	0.20	0.40	0.29	0.29
v/c Ratio	0.99	0.36	0.43	0.59	0.67	0.55	1.14	0.84	0.54	0.81
Control Delay	63.0	8.7	60.0	61.6	24.0	36.1	122.9	69.4	41.9	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	8.7	60.0	61.6	24.0	36.1	122.9	69.4	41.9	22.4
LOS	E	A	E	E	C	D	F	E	D	C
Approach Delay		51.2		40.2			108.5		36.6	
Approach LOS		D		D			F		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 57.2	Intersection LOS: E
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 21: Marksheffel Rd & Peterson AFB Access/RR-SE Full Access #2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1095	85	220	45	110	200	150	730	20	255	500	780
Future Volume (veh/h)	1095	85	220	45	110	200	150	730	20	255	500	780
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1870
Adj Flow Rate, veh/h	1190	92	239	49	120	108	163	793	22	277	543	413
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	2
Cap, veh/h	1209	223	580	154	167	142	255	928	26	294	1180	531
Arrive On Green	0.35	0.49	0.49	0.09	0.09	0.09	0.05	0.26	0.26	0.04	0.11	0.11
Sat Flow, veh/h	3456	460	1195	1049	1870	1585	1781	3504	97	1781	3526	1585
Grp Volume(v), veh/h	1190	0	331	49	120	108	163	399	416	277	543	413
Grp Sat Flow(s),veh/h/ln	1728	0	1655	1049	1870	1585	1781	1763	1838	1781	1763	1585
Q Serve(g_s), s	41.0	0.0	15.4	5.4	7.5	8.0	5.6	25.8	25.8	12.9	17.3	30.4
Cycle Q Clear(g_c), s	41.0	0.0	15.4	5.4	7.5	8.0	5.6	25.8	25.8	12.9	17.3	30.4
Prop In Lane	1.00		0.72	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	1209	0	803	154	167	142	255	467	487	294	1180	531
V/C Ratio(X)	0.98	0.00	0.41	0.32	0.72	0.76	0.64	0.85	0.85	0.94	0.46	0.78
Avail Cap(c_a), veh/h	1209	0	903	217	281	238	255	467	487	294	1180	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	0.0	19.9	52.2	53.2	53.4	35.4	41.9	41.9	33.0	43.2	49.0
Incr Delay (d2), s/veh	22.0	0.0	0.3	1.2	5.7	8.2	5.3	17.8	17.2	37.5	1.3	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	0.0	6.0	1.5	3.8	3.5	2.0	13.5	14.0	9.2	8.4	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	0.0	20.2	53.4	58.8	61.6	40.7	59.7	59.1	70.5	44.5	59.8
LnGrp LOS	E	A	C	D	E	E	D	E	E	E	D	E
Approach Vol, veh/h		1521			277			978			1233	
Approach Delay, s/veh		51.8			58.9			56.3			55.5	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	37.3		63.7	10.6	45.7	47.5	16.2
Change Period (Y+Rc), s	5.5	5.5		5.5	5.0	5.5	5.5	5.5
Max Green Setting (Gmax), s	13.5	24.5		65.5	5.6	32.9	42.0	18.0
Max Q Clear Time (g_c+I1), s	14.9	27.8		17.4	7.6	32.4	43.0	10.0
Green Ext Time (p_c), s	0.0	0.0		2.5	0.0	0.3	0.0	0.7

Intersection Summary			
HCM 6th Ctrl Delay		54.5	
HCM 6th LOS		D	

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	45	2	150	50	50	2	2	90	45	2	2
Future Vol, veh/h	2	45	2	150	50	50	2	2	90	45	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	49	2	163	54	54	2	2	98	49	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	51	0	0	463	488	50	511	462	81
Stage 1	-	-	-	-	-	-	54	54	-	407	407	-
Stage 2	-	-	-	-	-	-	409	434	-	104	55	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1555	-	-	509	480	1018	473	497	979
Stage 1	-	-	-	-	-	-	958	850	-	621	597	-
Stage 2	-	-	-	-	-	-	619	581	-	902	849	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1555	-	-	465	429	1018	392	444	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	490	459	-	468	465	-
Stage 1	-	-	-	-	-	-	957	849	-	620	534	-
Stage 2	-	-	-	-	-	-	551	520	-	812	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4.6	9.1	13.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	490	992	1483	-	-	1555	-	-	468	631
HCM Lane V/C Ratio	0.004	0.101	0.001	-	-	0.105	-	-	0.105	0.007
HCM Control Delay (s)	12.4	9	7.4	-	-	7.6	-	-	13.6	10.7
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.4	-	-	0.3	0

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	45	2	140	50	50	2	2	90	45	2	2
Future Vol, veh/h	2	45	2	140	50	50	2	2	90	45	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	49	2	152	54	54	2	2	98	49	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	51	0	0	441	466	50	489	440	81
Stage 1	-	-	-	-	-	-	54	54	-	385	385	-
Stage 2	-	-	-	-	-	-	387	412	-	104	55	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1555	-	-	527	494	1018	489	511	979
Stage 1	-	-	-	-	-	-	958	850	-	638	611	-
Stage 2	-	-	-	-	-	-	637	594	-	902	849	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1555	-	-	484	445	1018	407	460	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	508	473	-	481	480	-
Stage 1	-	-	-	-	-	-	957	849	-	637	551	-
Stage 2	-	-	-	-	-	-	571	536	-	812	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4.4	9.1	13.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	508	993	1483	-	-	1555	-	-	481	644
HCM Lane V/C Ratio	0.004	0.101	0.001	-	-	0.098	-	-	0.102	0.007
HCM Control Delay (s)	12.1	9	7.4	-	-	7.6	-	-	13.3	10.6
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.3	-	-	0.3	0

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	50	2	165	55	55	2	2	100	50	2	2
Future Vol, veh/h	2	50	2	165	55	55	2	2	100	50	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	54	2	179	60	60	2	2	109	54	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	56	0	0	509	537	55	563	508	90
Stage 1	-	-	-	-	-	-	59	59	-	448	448	-
Stage 2	-	-	-	-	-	-	450	478	-	115	60	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1468	-	-	1549	-	-	475	450	1012	437	468	968
Stage 1	-	-	-	-	-	-	953	846	-	590	573	-
Stage 2	-	-	-	-	-	-	589	556	-	890	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1549	-	-	430	397	1012	354	413	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	460	433	-	435	439	-
Stage 1	-	-	-	-	-	-	952	845	-	589	507	-
Stage 2	-	-	-	-	-	-	518	492	-	791	844	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4.6	9.2	14.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	460	986	1468	-	-	1549	-	-	435	604
HCM Lane V/C Ratio	0.005	0.112	0.001	-	-	0.116	-	-	0.125	0.007
HCM Control Delay (s)	12.9	9.1	7.5	-	-	7.6	-	-	14.5	11
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.4	-	-	0.4	0

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	50	2	235	80	80	2	2	100	50	2	2
Future Vol, veh/h	2	50	2	235	80	80	2	2	100	50	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	54	2	255	87	87	2	2	109	54	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	174	0	0	56	0	0	702	743	55	756	701	131
Stage 1	-	-	-	-	-	-	59	59	-	641	641	-
Stage 2	-	-	-	-	-	-	643	684	-	115	60	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1403	-	-	1549	-	-	353	343	1012	325	363	919
Stage 1	-	-	-	-	-	-	953	846	-	463	469	-
Stage 2	-	-	-	-	-	-	462	449	-	890	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1403	-	-	1549	-	-	306	286	1012	252	303	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	330	-	341	339	-
Stage 1	-	-	-	-	-	-	952	845	-	463	392	-
Stage 2	-	-	-	-	-	-	383	375	-	791	844	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4.6	9.3	17.1
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	341	973	1403	-	-	1549	-	-	341	495
HCM Lane V/C Ratio	0.006	0.114	0.002	-	-	0.165	-	-	0.159	0.009
HCM Control Delay (s)	15.6	9.2	7.6	-	-	7.8	-	-	17.5	12.3
HCM Lane LOS	C	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.6	-	-	0.6	0

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	5	45	2	5	25	25	50	2	25	70	50
Future Vol, veh/h	25	5	45	2	5	25	25	50	2	25	70	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	5	49	2	5	27	27	54	2	27	76	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	282	267	103	293	293	55	130	0	0	56	0	0
Stage 1	157	157	-	109	109	-	-	-	-	-	-	-
Stage 2	125	110	-	184	184	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	670	639	952	659	618	1012	1455	-	-	1549	-	-
Stage 1	845	768	-	896	805	-	-	-	-	-	-	-
Stage 2	879	804	-	818	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	630	616	952	604	596	1012	1455	-	-	1549	-	-
Mov Cap-2 Maneuver	661	627	-	630	608	-	-	-	-	-	-	-
Stage 1	829	755	-	879	790	-	-	-	-	-	-	-
Stage 2	834	789	-	757	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.2	2.4	1.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	806	886	1549	-	-
HCM Lane V/C Ratio	0.019	-	-	0.101	0.039	0.018	-	-
HCM Control Delay (s)	7.5	-	-	10	9.2	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	25	5	45	2	5	25	25	45	2	25	70	50
Future Vol, veh/h	25	5	45	2	5	25	25	45	2	25	70	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	5	49	2	5	27	27	49	2	27	76	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	277	262	103	288	288	50	130	0	0	51	0	0
Stage 1	157	157	-	104	104	-	-	-	-	-	-	-
Stage 2	120	105	-	184	184	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	675	643	952	664	622	1018	1455	-	-	1555	-	-
Stage 1	845	768	-	902	809	-	-	-	-	-	-	-
Stage 2	884	808	-	818	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	620	952	609	600	1018	1455	-	-	1555	-	-
Mov Cap-2 Maneuver	664	630	-	633	611	-	-	-	-	-	-	-
Stage 1	829	755	-	885	794	-	-	-	-	-	-	-
Stage 2	839	793	-	757	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.2	2.6	1.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	808	891	1555	-	-
HCM Lane V/C Ratio	0.019	-	-	0.101	0.039	0.017	-	-
HCM Control Delay (s)	7.5	-	-	10	9.2	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	5	50	2	5	25	30	55	2	30	80	55
Future Vol, veh/h	25	5	50	2	5	25	30	55	2	30	80	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	5	54	2	5	27	33	60	2	33	87	60

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	326	311	117	340	340	61	147	0	0	62	0	0
Stage 1	183	183	-	127	127	-	-	-	-	-	-	-
Stage 2	143	128	-	213	213	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	627	604	935	614	582	1004	1435	-	-	1541	-	-
Stage 1	819	748	-	877	791	-	-	-	-	-	-	-
Stage 2	860	790	-	789	726	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	586	577	935	555	556	1004	1435	-	-	1541	-	-
Mov Cap-2 Maneuver	628	599	-	591	579	-	-	-	-	-	-	-
Stage 1	800	732	-	857	773	-	-	-	-	-	-	-
Stage 2	812	772	-	722	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.3	2.6	1.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	787	867	1541	-	-
HCM Lane V/C Ratio	0.023	-	-	0.11	0.04	0.021	-	-
HCM Control Delay (s)	7.6	-	-	10.1	9.3	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	5	50	2	10	25	40	65	2	40	90	80
Future Vol, veh/h	25	5	50	2	10	25	40	65	2	40	90	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	5	54	2	11	27	43	71	2	43	98	87

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	405	387	142	415	429	72	185	0	0	73	0	0
Stage 1	228	228	-	158	158	-	-	-	-	-	-	-
Stage 2	177	159	-	257	271	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	556	547	906	548	518	990	1390	-	-	1527	-	-
Stage 1	775	715	-	844	767	-	-	-	-	-	-	-
Stage 2	825	766	-	748	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	509	515	906	489	488	990	1390	-	-	1527	-	-
Mov Cap-2 Maneuver	568	553	-	539	526	-	-	-	-	-	-	-
Stage 1	751	695	-	818	743	-	-	-	-	-	-	-
Stage 2	766	742	-	678	666	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	9.9	2.9	1.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	739	771	1527	-	-
HCM Lane V/C Ratio	0.031	-	-	0.118	0.052	0.028	-	-
HCM Control Delay (s)	7.7	-	-	10.5	9.9	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	45	50	100	110	2
Future Vol, veh/h	2	45	50	100	110	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	49	54	109	120	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	163	0	-	0	162	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1416	-	-	-	829	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1416	-	-	-	828	945
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	915	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1416	-	-	-	805	945
HCM Lane V/C Ratio	0.002	-	-	-	0.149	0.002
HCM Control Delay (s)	7.5	-	-	-	10.3	8.8
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	45	50	95	110	2
Future Vol, veh/h	2	45	50	95	110	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	49	54	103	120	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	157	0	-	0	159	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1423	-	-	-	832	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1423	-	-	-	831	948
Mov Cap-2 Maneuver	-	-	-	-	807	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1423	-	-	-	807	948
HCM Lane V/C Ratio	0.002	-	-	-	0.148	0.002
HCM Control Delay (s)	7.5	-	-	-	10.2	8.8
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	50	55	110	125	2
Future Vol, veh/h	2	50	55	110	125	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	54	60	120	136	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	180	0	-	0	178	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	58	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1396	-	-	-	812	931
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1396	-	-	-	811	931
Mov Cap-2 Maneuver	-	-	-	-	793	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1396	-	-	-	793	931
HCM Lane V/C Ratio	0.002	-	-	-	0.171	0.002
HCM Control Delay (s)	7.6	-	-	-	10.5	8.9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	50	80	155	125	2
Future Vol, veh/h	2	50	80	155	125	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	54	87	168	136	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	255	0	-	0	229	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	58	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1310	-	-	-	759	873
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1310	-	-	-	757	873
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1310	-	-	-	753	873
HCM Lane V/C Ratio	0.002	-	-	-	0.18	0.002
HCM Control Delay (s)	7.8	-	-	-	10.8	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	155	150	100	110	5
Future Vol, veh/h	5	155	150	100	110	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	168	163	109	120	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	272	0	-	0	396	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1291	-	-	-	609	822
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1291	-	-	-	607	822
Mov Cap-2 Maneuver	-	-	-	-	657	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1291	-	-	-	663
HCM Lane V/C Ratio	0.004	-	-	-	0.189
HCM Control Delay (s)	7.8	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	155	140	95	110	5
Future Vol, veh/h	5	155	140	95	110	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	168	152	103	120	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	255	0	-	0	382	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1310	-	-	-	620	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1310	-	-	-	618	837
Mov Cap-2 Maneuver	-	-	-	-	665	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1310	-	-	-	671
HCM Lane V/C Ratio	0.004	-	-	-	0.186
HCM Control Delay (s)	7.8	-	-	-	11.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	175	165	110	125	5
Future Vol, veh/h	5	175	165	110	125	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	190	179	120	136	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	299	0	-	0	439	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1262	-	-	-	575	800
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1262	-	-	-	573	800
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	834	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1262	-	-	-	638
HCM Lane V/C Ratio	0.004	-	-	-	0.221
HCM Control Delay (s)	7.9	-	-	-	12.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	175	235	155	125	5
Future Vol, veh/h	5	175	235	155	125	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	190	255	168	136	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	423	0	-	0	539	339
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1136	-	-	-	503	703
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1136	-	-	-	501	703
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	834	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1136	-	-	-	582
HCM Lane V/C Ratio	0.005	-	-	-	0.243
HCM Control Delay (s)	8.2	-	-	-	13.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	90	50	860	1300	200
Future Vol, veh/h	0	90	50	860	1300	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	0	98	54	935	1413	217

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	707	1630	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	378	394	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	378	394	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	394	-	378	-	-
HCM Lane V/C Ratio	0.138	-	0.259	-	-
HCM Control Delay (s)	15.6	-	17.8	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.5	-	1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	90	50	1450	1045	185
Future Vol, veh/h	0	90	50	1450	1045	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	3	2
Mvmt Flow	0	98	54	1576	1136	201

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	568	1337	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	466	512	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	466	512	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	512	-	466	-	-
HCM Lane V/C Ratio	0.106	-	0.21	-	-
HCM Control Delay (s)	12.9	-	14.8	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.8	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	100	55	1260	1675	220
Future Vol, veh/h	0	100	55	1260	1675	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	0	109	60	1370	1821	239

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	911	2060	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	*514	556	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	1	-	-	-
Mov Cap-1 Maneuver	-	*514	556	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	556	-	514	-	-
HCM Lane V/C Ratio	0.108	-	0.211	-	-
HCM Control Delay (s)	12.3	-	13.9	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	100	80	2125	1760	310
Future Vol, veh/h	0	100	80	2125	1760	310
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	300	-	-	250
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	3	2
Mvmt Flow	0	109	87	2310	1913	337

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	957	2250	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	*492	449	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		1	1	-	-	-
Mov Cap-1 Maneuver	-	*492	449	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.5	0
HCM LOS	B		

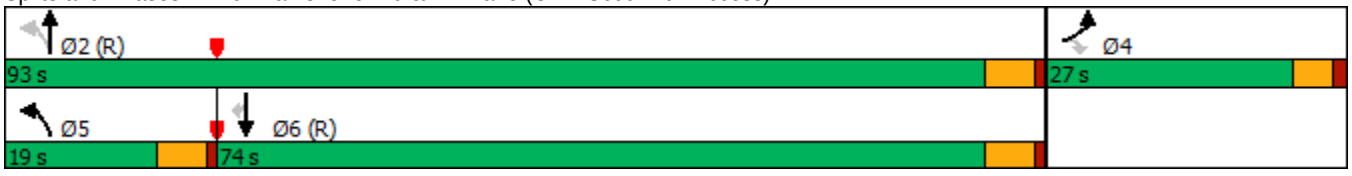
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	449	-	492	-	-
HCM Lane V/C Ratio	0.194	-	0.221	-	-
HCM Control Delay (s)	14.9	-	14.4	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.7	-	0.8	-	-

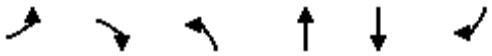
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	155	200	150	755	1290	100
Future Volume (vph)	155	200	150	755	1290	100
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	27.0	27.0	19.0	93.0	74.0	74.0
Total Split (%)	22.5%	22.5%	15.8%	77.5%	61.7%	61.7%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	16.5	16.5	93.0	93.0	78.4	78.4
Actuated g/C Ratio	0.14	0.14	0.78	0.78	0.65	0.65
v/c Ratio	0.69	0.54	0.55	0.31	0.62	0.10
Control Delay	63.6	11.5	20.8	4.5	19.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	11.5	20.8	4.5	19.1	3.8
LOS	E	B	C	A	B	A
Approach Delay	34.2			7.2	18.0	
Approach LOS	C			A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	155	200	150	755	1290	100
Future Volume (veh/h)	155	200	150	755	1290	100
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	168	217	163	821	1402	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	276	245	296	2628	2305	1053
Arrive On Green	0.15	0.15	0.09	1.00	0.66	0.66
Sat Flow, veh/h	1781	1585	1781	3561	3561	1585
Grp Volume(v), veh/h	168	217	163	821	1402	109
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1735	1735	1585
Q Serve(g_s), s	10.6	16.1	3.5	0.0	27.3	3.0
Cycle Q Clear(g_c), s	10.6	16.1	3.5	0.0	27.3	3.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	276	245	296	2628	2305	1053
V/C Ratio(X)	0.61	0.88	0.55	0.31	0.61	0.10
Avail Cap(c_a), veh/h	327	291	412	2628	2305	1053
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	47.3	49.7	10.8	0.0	11.3	7.3
Incr Delay (d2), s/veh	2.4	23.3	1.4	0.3	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	14.9	1.6	0.1	10.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.7	72.9	12.2	0.3	12.5	7.5
LnGrp LOS	D	E	B	A	B	A
Approach Vol, veh/h	385			984	1511	
Approach Delay, s/veh	62.8			2.2	12.2	
Approach LOS	E			A	B	

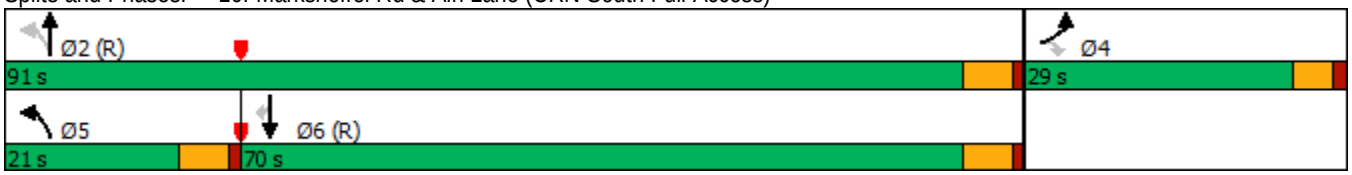
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.4		23.6	11.2	85.2
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		87.5		22.0	13.5	68.5
Max Q Clear Time (g_c+I1), s		2.0		18.1	5.5	29.3
Green Ext Time (p_c), s		7.3		0.5	0.3	15.7

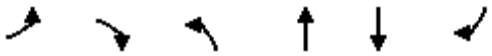
Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	155	200	140	1345	1040	95
Future Volume (vph)	155	200	140	1345	1040	95
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	29.0	29.0	21.0	91.0	70.0	70.0
Total Split (%)	24.2%	24.2%	17.5%	75.8%	58.3%	58.3%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	16.6	16.6	92.9	92.9	79.2	79.2
Actuated g/C Ratio	0.14	0.14	0.77	0.77	0.66	0.66
v/c Ratio	0.69	0.53	0.41	0.54	0.49	0.10
Control Delay	63.1	10.7	10.8	15.3	19.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	10.7	10.8	15.3	19.5	5.7
LOS	E	B	B	B	B	A
Approach Delay	33.6			14.9	18.4	
Approach LOS	C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	155	200	140	1345	1040	95
Future Volume (veh/h)	155	200	140	1345	1040	95
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	168	217	152	1462	1130	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	278	247	369	2667	2350	1056
Arrive On Green	0.16	0.16	0.04	0.76	0.67	0.67
Sat Flow, veh/h	1781	1585	1781	3618	3618	1585
Grp Volume(v), veh/h	168	217	152	1462	1130	103
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1763	1763	1585
Q Serve(g_s), s	10.5	16.1	3.1	20.7	18.9	2.8
Cycle Q Clear(g_c), s	10.5	16.1	3.1	20.7	18.9	2.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	278	247	369	2667	2350	1056
V/C Ratio(X)	0.60	0.88	0.41	0.55	0.48	0.10
Avail Cap(c_a), veh/h	356	317	520	2667	2350	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.51	1.00	1.00
Uniform Delay (d), s/veh	47.2	49.5	7.6	6.1	9.8	7.1
Incr Delay (d2), s/veh	2.1	19.4	0.4	0.4	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	14.7	1.1	6.7	7.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.3	68.9	8.0	6.5	10.5	7.3
LnGrp LOS	D	E	A	A	B	A
Approach Vol, veh/h	385			1614	1233	
Approach Delay, s/veh	60.3			6.6	10.3	
Approach LOS	E			A	B	

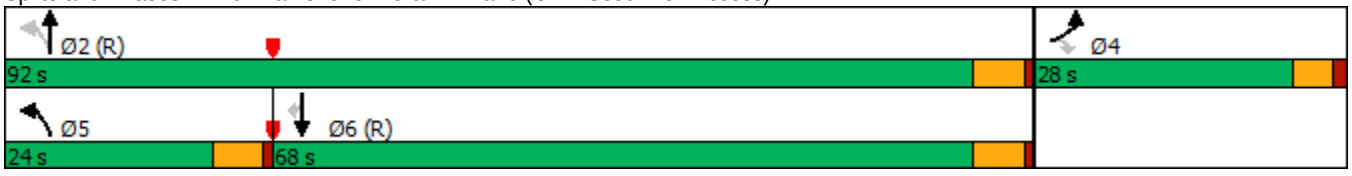
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.3		23.7	10.8	85.5
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		85.5		24.0	15.5	64.5
Max Q Clear Time (g_c+I1), s		22.7		18.1	5.1	20.9
Green Ext Time (p_c), s		18.3		0.7	0.3	11.6

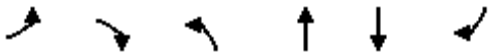
Intersection Summary		
HCM 6th Ctrl Delay		14.4
HCM 6th LOS		B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	175	225	165	1145	1665	110
Future Volume (vph)	175	225	165	1145	1665	110
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	28.0	28.0	24.0	92.0	68.0	68.0
Total Split (%)	23.3%	23.3%	20.0%	76.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.8	17.8	91.7	91.7	73.9	73.9
Actuated g/C Ratio	0.15	0.15	0.76	0.76	0.62	0.62
v/c Ratio	0.73	0.55	0.65	0.33	0.60	0.12
Control Delay	64.3	10.3	29.0	10.9	14.4	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	10.3	29.0	10.9	14.4	4.1
LOS	E	B	C	B	B	A
Approach Delay	33.9			13.2	13.7	
Approach LOS	C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	175	225	165	1145	1665	110
Future Volume (veh/h)	175	225	165	1145	1665	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1870
Adj Flow Rate, veh/h	190	245	179	1245	1810	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	5	2
Cap, veh/h	306	272	225	3692	3208	1020
Arrive On Green	0.17	0.17	0.03	0.50	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	5149	5149	1585
Grp Volume(v), veh/h	190	245	179	1245	1810	120
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1662	1662	1585
Q Serve(g_s), s	11.9	18.2	3.8	18.1	39.0	7.3
Cycle Q Clear(g_c), s	11.9	18.2	3.8	18.1	39.0	7.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	306	272	225	3692	3208	1020
V/C Ratio(X)	0.62	0.90	0.80	0.34	0.56	0.12
Avail Cap(c_a), veh/h	341	304	408	3692	3208	1020
HCM Platoon Ratio	1.00	1.00	0.67	0.67	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.81	0.81	1.00	1.00
Uniform Delay (d), s/veh	46.1	48.7	24.4	12.4	32.2	19.7
Incr Delay (d2), s/veh	2.9	26.1	5.2	0.2	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	16.9	3.8	7.5	17.6	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.9	74.8	29.6	12.6	32.9	20.0
LnGrp LOS	D	E	C	B	C	B
Approach Vol, veh/h	435			1424	1930	
Approach Delay, s/veh	63.5			14.7	32.1	
Approach LOS	E			B	C	

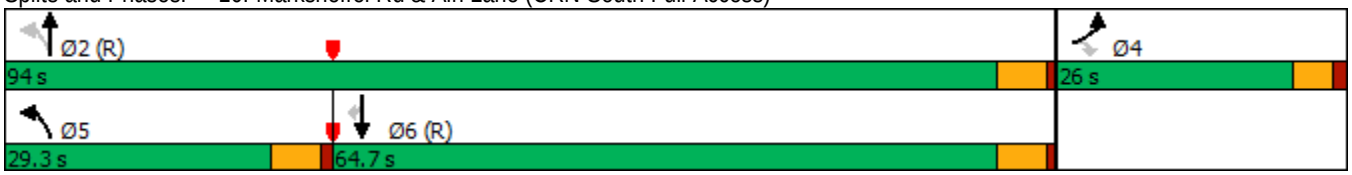
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.4		25.6	11.7	82.7
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		86.5		23.0	18.5	62.5
Max Q Clear Time (g_c+I1), s		20.1		20.2	5.8	41.0
Green Ext Time (p_c), s		13.1		0.4	0.4	14.7

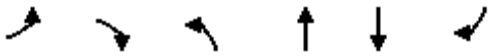
Intersection Summary		
HCM 6th Ctrl Delay		29.2
HCM 6th LOS		C

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	175	225	235	2030	1705	155
Future Volume (vph)	175	225	235	2030	1705	155
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	10.5	23.5	23.5	23.5
Total Split (s)	26.0	26.0	29.3	94.0	64.7	64.7
Total Split (%)	21.7%	21.7%	24.4%	78.3%	53.9%	53.9%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.4	17.4	92.1	92.1	69.7	69.7
Actuated g/C Ratio	0.14	0.14	0.77	0.77	0.58	0.58
v/c Ratio	0.74	0.56	0.78	0.57	0.63	0.17
Control Delay	66.4	10.6	46.2	3.2	23.7	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	10.6	46.2	3.2	23.7	8.1
LOS	E	B	D	A	C	A
Approach Delay	35.0			7.7	22.4	
Approach LOS	D			A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Marksheffel Rd & Airl Lane (CRN South Full Access)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	175	225	235	2030	1705	155
Future Volume (veh/h)	175	225	235	2030	1705	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	190	245	255	2207	1853	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	2
Cap, veh/h	302	269	288	3763	3043	952
Arrive On Green	0.17	0.17	0.10	0.74	0.20	0.20
Sat Flow, veh/h	1781	1585	1781	5233	5233	1585
Grp Volume(v), veh/h	190	245	255	2207	1853	168
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1689	1689	1585
Q Serve(g_s), s	11.9	18.2	9.0	23.8	40.0	10.6
Cycle Q Clear(g_c), s	11.9	18.2	9.0	23.8	40.0	10.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	302	269	288	3763	3043	952
V/C Ratio(X)	0.63	0.91	0.89	0.59	0.61	0.18
Avail Cap(c_a), veh/h	312	277	470	3763	3043	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.29	0.29	1.00	1.00
Uniform Delay (d), s/veh	46.3	48.9	31.8	7.0	35.3	23.4
Incr Delay (d2), s/veh	3.8	31.4	3.7	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	17.3	7.8	7.5	18.4	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.1	80.3	35.5	7.2	36.2	23.9
LnGrp LOS	D	F	D	A	D	C
Approach Vol, veh/h	435			2462	2021	
Approach Delay, s/veh	67.1			10.2	35.2	
Approach LOS	E			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.6		25.4	17.1	77.6
Change Period (Y+Rc), s		5.5		5.0	5.5	5.5
Max Green Setting (Gmax), s		88.5		21.0	23.8	59.2
Max Q Clear Time (g_c+I1), s		25.8		20.2	11.0	42.0
Green Ext Time (p_c), s		35.7		0.1	0.6	12.7

Intersection Summary		
HCM 6th Ctrl Delay		25.5
HCM 6th LOS		C

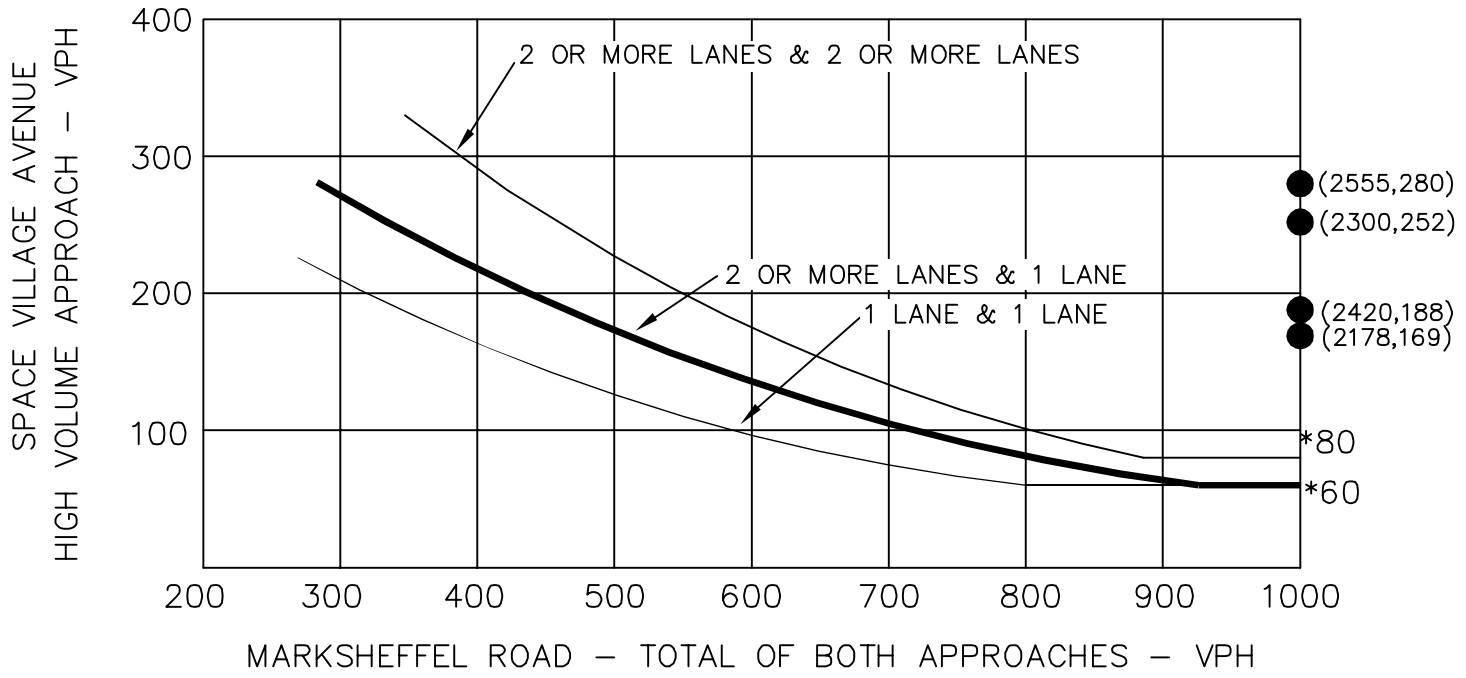
APPENDIX E

Signal Warrant Analysis

Signal Clearance Intervals

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



SPACE VILLAGE AVENUE AND
MARKSHEFFEL ROAD
SIGNAL WARRANT ANALYSIS
FOUR HOUR VOLUME WARRANT

* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

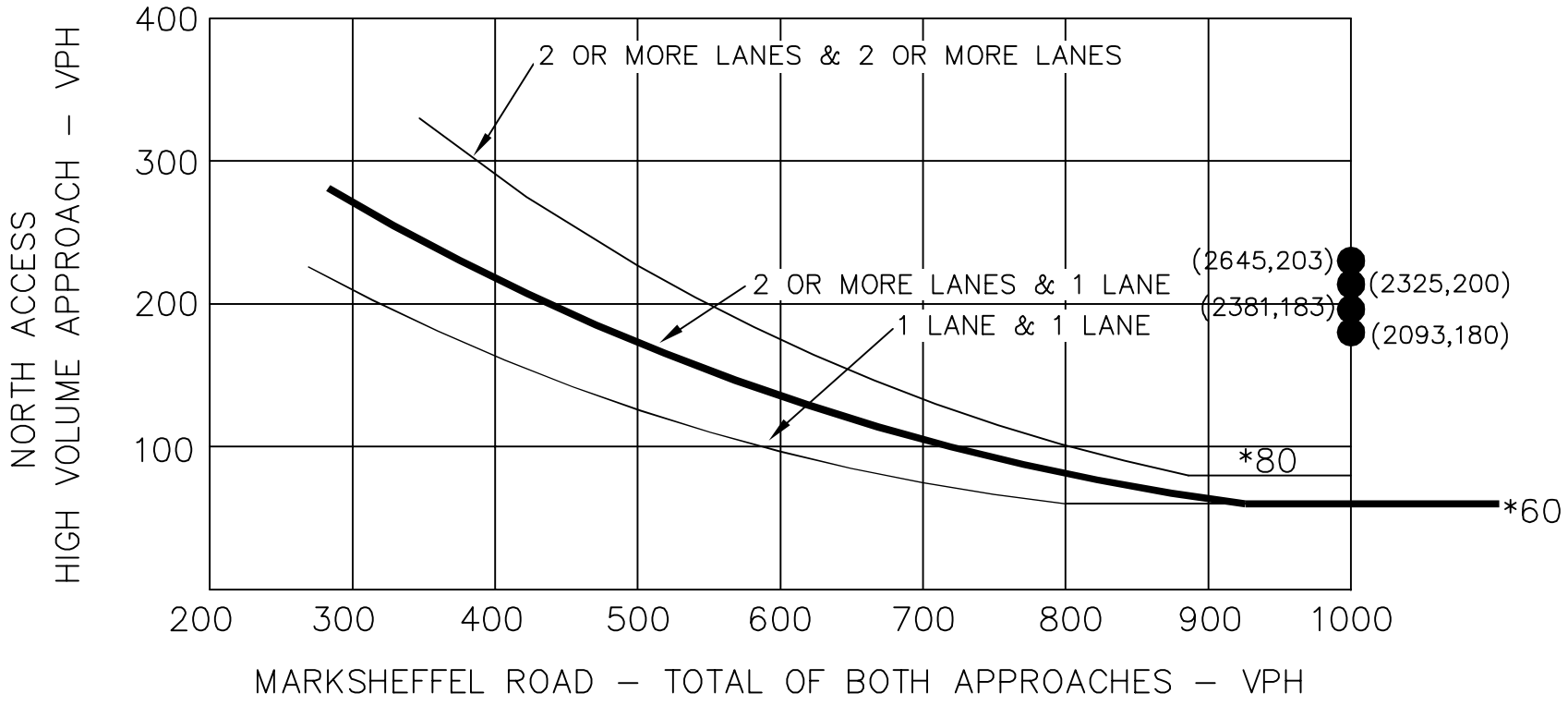
● 2026 TOTAL TRAFFIC DATA POINT WITH PROJECT

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



MARKSHEFFEL ROAD
NORTH ACCESS
SIGNAL WARRANT ANALYSIS
FOUR HOUR VOLUME WARRANT

* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

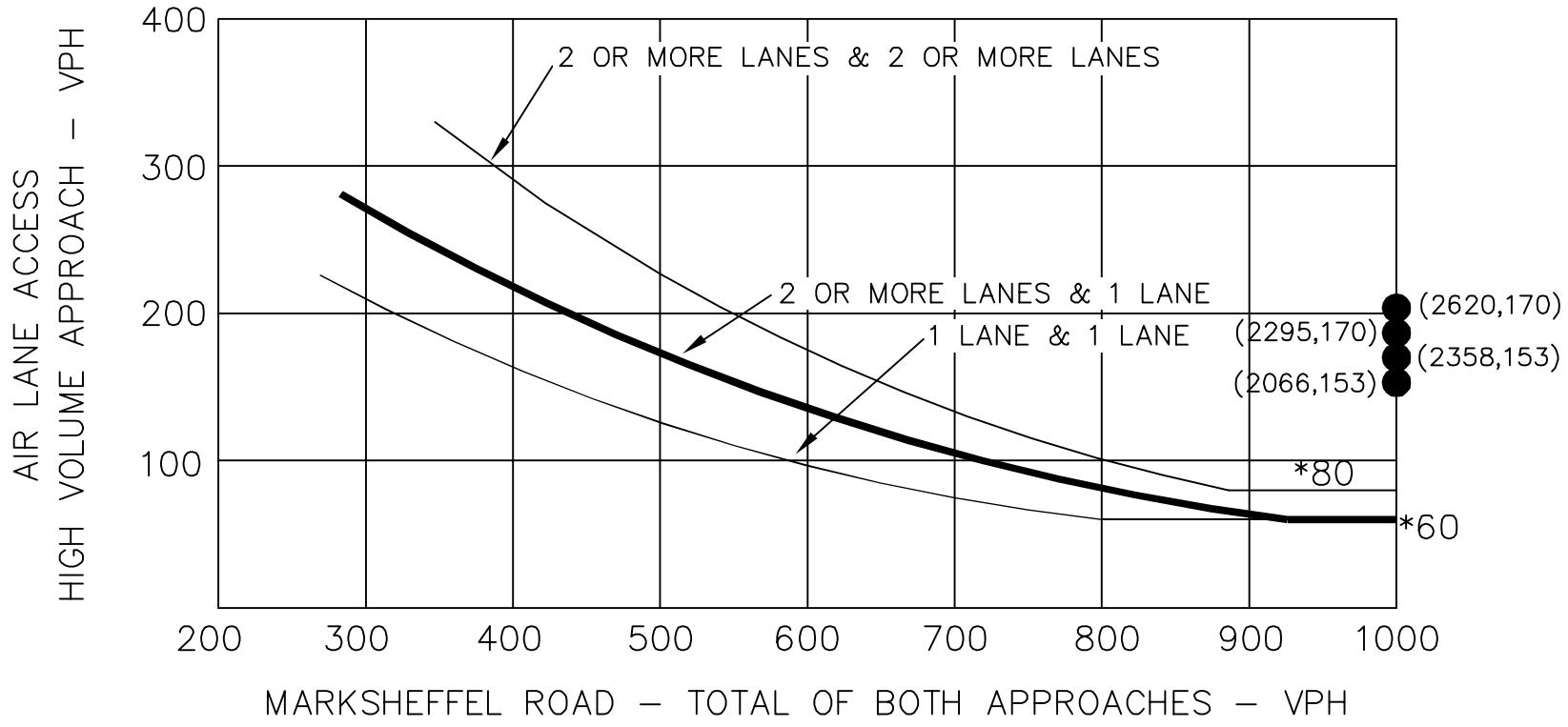
● 2026 TOTAL TRAFFIC DATA POINT WITH PROJECT

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



MARKSHEFFEL ROAD
AND AIR LANE ACCESS
SIGNAL WARRANT ANALYSIS
FOUR HOUR VOLUME WARRANT

* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

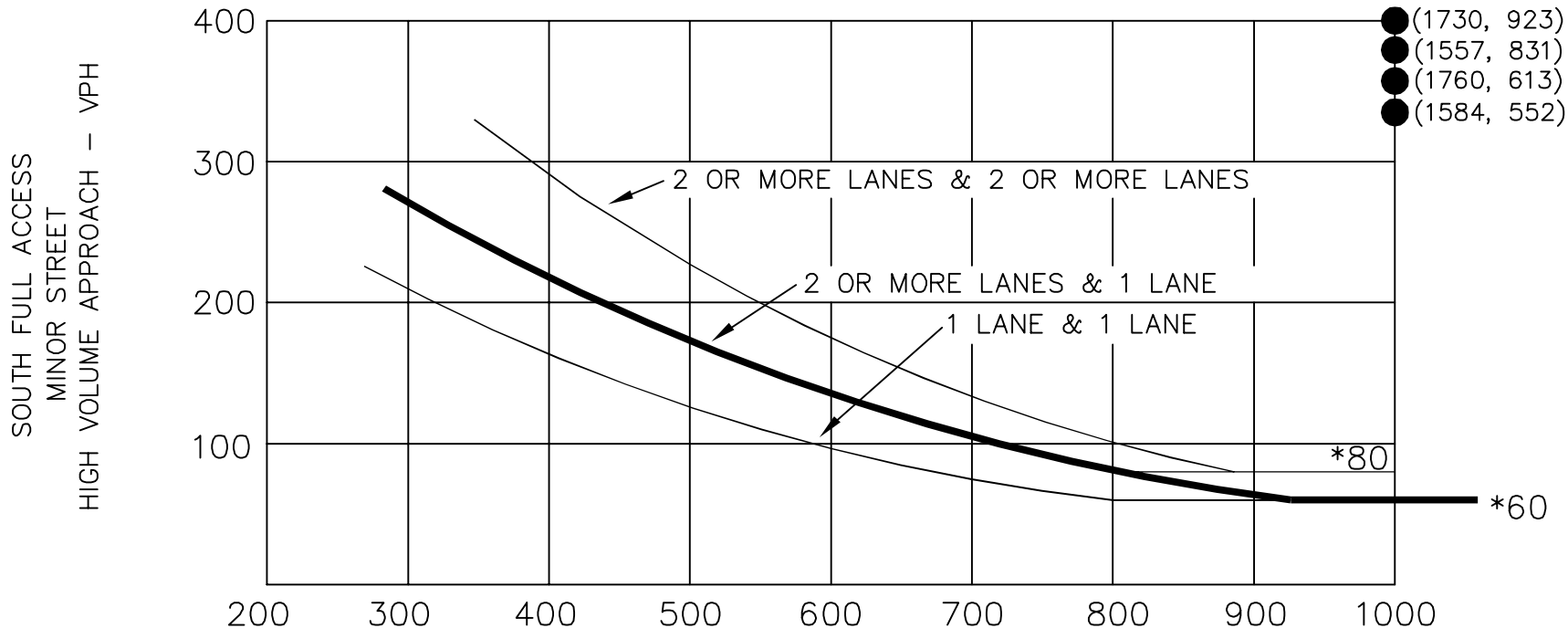
● 2026 TOTAL TRAFFIC DATA POINT WITH PROJECT

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

MARKSHEFFEL RD SOUTH FULL ACCESS
CROSSROADS–MEADOWBROOK
FOUR HOUR VOLUME WARRANT

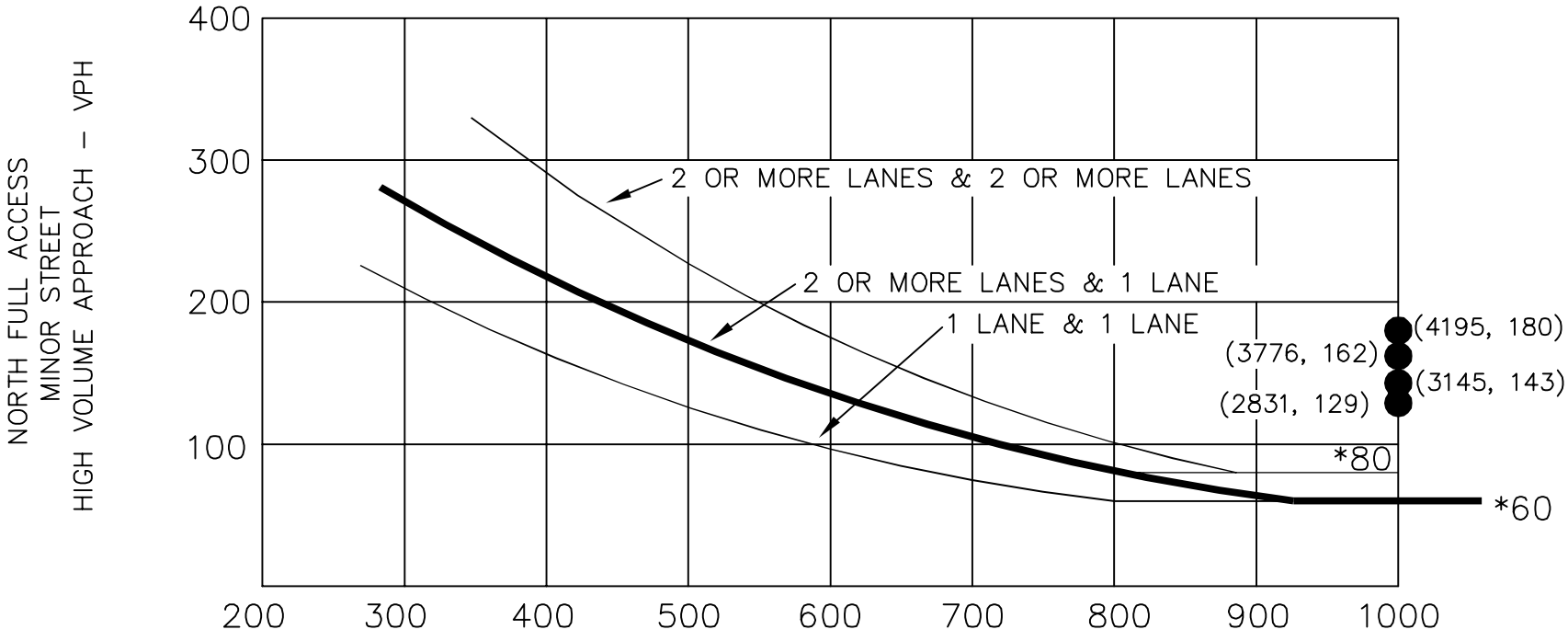
● 2026 Peak Hour Traffic Volume Projections

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

MARKSHEFFEL RD NORTH FULL ACCESS
CROSSROADS–MEADOWBROOK
FOUR HOUR VOLUME WARRANT

● 2040 Peak Hour Traffic Volume Projections

Source: Manual of Uniform Traffic Control Devices 2009

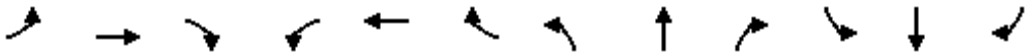
Kimley»Horn

Crossroads-Meadowbrook-Reagan Ranch Signal Clearance Calculations

Signal Clearance Intervals					Input Parameters	
Approach	Intersection	Yellow Time	All Red Time	Total	Speed Limit (mph)	Intersection Width (feet)
EB	Meadowbrook Pkwy and Marksheffel Rd (#1)	3.573	1.458	5.030	35	55
WB		2.838	2.503	5.341	25	72
NB		5.043	1.484	6.527	55	100
SB		5.043	1.484	6.527	55	100
EB	US-24 and Marksheffel Rd (#2)	4.675	1.265	5.940	50	73
WB		5.043	1.707	6.749	55	118
NB		5.778	1.528	7.305	65	126
SB		5.778	1.706	7.483	65	143
EB	SH-94 and US-24 (#4)	2.838	3.020	5.858	25	91
WB		3.940	2.245	6.185	40	112
NB		5.043	1.868	6.910	55	131
SB		5.778	2.009	7.787	65	172
EB	SH-94 and Marksheffel Rd (#5)	5.043	1.237	6.279	55	80
WB		5.043	1.237	6.279	55	80
NB		5.043	1.459	6.502	55	98
SB		4.675	1.578	6.253	50	96

APPENDIX F

Queueing Analysis Worksheets



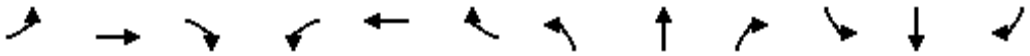
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	281	10	42	42	26	31	31	1135	21	10	1828	349
v/c Ratio	1.33	0.07	0.22	0.28	0.23	0.18	0.28	0.45	0.02	0.03	0.72	0.29
Control Delay	218.3	51.2	3.9	46.9	58.1	2.3	23.8	16.8	1.8	5.2	10.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	218.3	51.2	3.9	46.9	58.1	2.3	23.8	16.8	1.8	5.2	10.9	1.4
Queue Length 50th (ft)	~145	7	0	28	20	0	17	359	0	2	376	5
Queue Length 95th (ft)	#235	25	6	60	49	0	m23	441	m0	7	498	31
Internal Link Dist (ft)		823			893			1023			636	
Turn Bay Length (ft)	200		150	250		200	425			350		350
Base Capacity (vph)	212	554	526	152	558	532	110	2529	1149	302	2553	1223
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.33	0.02	0.08	0.28	0.05	0.06	0.28	0.45	0.02	0.03	0.72	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	317	16	59	27	16	43	54	1973	86	48	1441	290
v/c Ratio	1.23	0.08	0.25	0.19	0.16	0.26	0.26	0.75	0.07	0.59	0.56	0.24
Control Delay	179.8	50.8	7.8	44.7	56.9	5.5	11.8	19.3	4.0	43.2	8.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	50.8	7.8	44.7	56.9	5.5	11.8	19.3	4.0	43.2	8.1	1.1
Queue Length 50th (ft)	~156	12	0	18	12	0	21	587	9	16	238	0
Queue Length 95th (ft)	#249	34	24	44	35	7	m16	m605	m11	#96	308	23
Internal Link Dist (ft)		823			893			1023			636	
Turn Bay Length (ft)	200		150	250		200	425			350		350
Base Capacity (vph)	257	613	576	145	558	532	206	2641	1200	82	2591	1232
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.03	0.10	0.19	0.03	0.08	0.26	0.75	0.07	0.59	0.56	0.24

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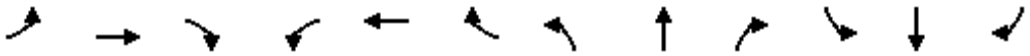

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	313	10	47	52	26	36	36	1557	26	16	2276	396
v/c Ratio	1.32	0.06	0.23	0.34	0.23	0.21	0.60	0.62	0.02	0.10	0.90	0.33
Control Delay	211.4	50.0	5.2	48.3	58.1	2.7	62.7	29.0	3.5	6.9	19.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	211.4	50.0	5.2	48.3	58.1	2.7	62.7	29.0	3.5	6.9	19.7	2.4
Queue Length 50th (ft)	~160	7	0	35	20	0	24	557	1	3	680	22
Queue Length 95th (ft)	#254	24	11	70	49	0	m33	630	m1	12	#965	55
Internal Link Dist (ft)		823			893			1023			636	
Turn Bay Length (ft)	200		150	250		200	425			350		350
Base Capacity (vph)	238	568	538	152	558	532	60	2501	1137	167	2525	1204
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.32	0.02	0.09	0.34	0.05	0.07	0.60	0.62	0.02	0.10	0.90	0.33

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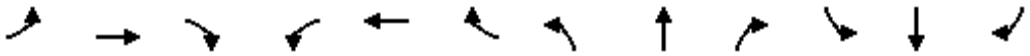

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	382	16	70	27	22	48	59	2710	102	59	2215	339
v/c Ratio	1.49	0.08	0.29	0.18	0.20	0.28	0.94	1.03	0.09	0.95	0.86	0.28
Control Delay	276.8	50.3	11.4	44.1	57.6	7.4	94.0	49.8	4.6	127.2	16.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	276.8	50.3	11.4	44.1	57.6	7.4	94.0	49.8	4.6	127.2	16.5	2.1
Queue Length 50th (ft)	~210	12	0	18	17	0	36	~957	12	37	600	17
Queue Length 95th (ft)	#310	34	36	44	44	13	m#57	m#1287	m15	#92	796	47
Internal Link Dist (ft)		823			893			1023			636	
Turn Bay Length (ft)	200		150	250		200	425			350		350
Base Capacity (vph)	257	613	576	149	558	532	63	2631	1195	62	2580	1219
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.49	0.03	0.12	0.18	0.04	0.09	0.94	1.03	0.09	0.95	0.86	0.28

Intersection Summary

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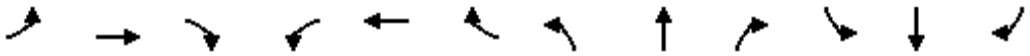

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	375	573	130	365	1266	21	5	786	109	10	1068	792
v/c Ratio	0.71	0.48	0.09	0.72	1.04	0.01	0.06	0.73	0.07	0.12	1.00	0.52
Control Delay	42.6	45.9	0.1	56.4	75.7	0.0	43.0	29.1	0.1	48.7	57.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	45.9	0.1	56.4	75.7	0.0	43.0	29.1	0.1	48.7	57.6	0.9
Queue Length 50th (ft)	141	239	0	140	~550	0	4	278	0	8	~438	0
Queue Length 95th (ft)	#260	311	0	184	#738	0	m13	124	0	m11	#585	0
Internal Link Dist (ft)		1511			2597			1201			1023	
Turn Bay Length (ft)	1000		575	1000		700	300		375	375		
Base Capacity (vph)	526	1189	1455	673	1216	1553	87	1109	1568	80	1065	1524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.48	0.09	0.54	1.04	0.01	0.06	0.71	0.07	0.13	1.00	0.52

Intersection Summary

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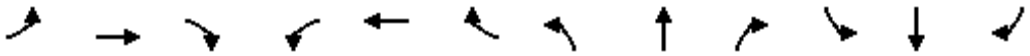

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	684	1224	128	214	597	20	15	1214	250	20	934	520
v/c Ratio	0.85	0.95	0.08	0.69	0.76	0.01	0.18	0.98	0.16	0.27	0.75	0.33
Control Delay	36.7	51.8	0.1	65.7	52.3	0.0	52.9	55.6	0.2	57.6	31.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	51.8	0.1	65.7	52.3	0.0	52.9	55.6	0.2	57.6	31.6	0.5
Queue Length 50th (ft)	261	536	0	81	220	0	10	375	0	16	333	0
Queue Length 95th (ft)	355	#690	m0	#164	#406	0	m21	#627	0	m29	418	0
Internal Link Dist (ft)		1511			2597			1201			1023	
Turn Bay Length (ft)	1000		575	1000		700	300		375	375		
Base Capacity (vph)	886	1293	1583	309	782	1568	84	1238	1583	73	1243	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.95	0.08	0.69	0.76	0.01	0.18	0.98	0.16	0.27	0.75	0.33

Intersection Summary

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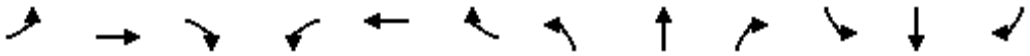

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	443	672	146	453	1484	26	5	1146	167	16	1385	927
v/c Ratio	0.84	0.42	0.25	0.78	0.86	0.04	0.07	0.79	0.11	0.22	0.91	0.61
Control Delay	51.2	45.9	25.9	57.4	43.3	0.1	37.6	25.3	0.1	49.5	36.1	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	45.9	25.9	57.4	43.3	0.1	37.6	25.3	0.1	49.5	36.1	1.2
Queue Length 50th (ft)	167	189	39	173	389	0	4	319	0	12	352	0
Queue Length 95th (ft)	#284	248	126	227	#512	0	m12	111	0	m14	m#482	m0
Internal Link Dist (ft)		1511			2597			1917			1023	
Turn Bay Length (ft)	1000		575	1000		700	300		375	375		
Base Capacity (vph)	530	1597	589	659	1726	629	73	1468	1568	74	1529	1524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.42	0.25	0.69	0.86	0.04	0.07	0.78	0.11	0.22	0.91	0.61

Intersection Summary

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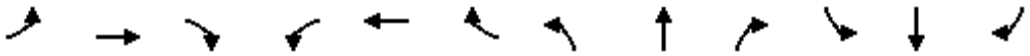

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	801	1444	209	332	704	20	20	1801	352	26	1592	612
v/c Ratio	0.91	0.93	0.36	0.83	0.84	0.05	0.27	0.98	0.22	0.36	0.82	0.39
Control Delay	33.5	47.7	21.8	69.9	58.6	0.2	59.9	45.3	0.3	53.6	28.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	47.7	21.8	69.9	58.6	0.2	59.9	45.3	0.3	53.6	28.5	0.4
Queue Length 50th (ft)	~339	440	104	~140	197	0	16	523	0	20	259	0
Queue Length 95th (ft)	m#423	m#519	m139	#235	#265	0	m29	#599	0	m24	447	m0
Internal Link Dist (ft)		1511			2597			1917			1023	
Turn Bay Length (ft)	1000		575	1000		700	300		375	375		
Base Capacity (vph)	876	1546	579	402	841	428	75	1843	1583	73	1938	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.93	0.36	0.83	0.84	0.05	0.27	0.98	0.22	0.36	0.82	0.39

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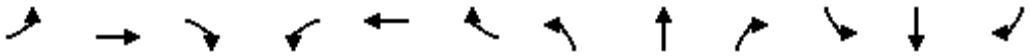


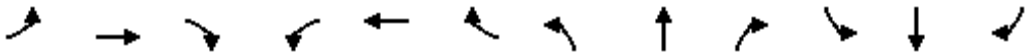
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	93	510	845	98	5	438	1015	655	5	1918	67
v/c Ratio	0.26	0.54	0.33	0.96	0.12	0.00	2.37	0.39	0.45	0.02	0.86	0.08
Control Delay	58.5	62.4	0.6	60.1	29.2	0.0	656.5	17.2	1.0	12.4	36.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	62.4	0.6	60.1	29.2	0.0	656.5	17.2	1.0	12.4	36.4	1.1
Queue Length 50th (ft)	18	70	0	207	29	0	~286	149	0	1	366	0
Queue Length 95th (ft)	38	121	0	#314	48	m0	#391	249	0	m2	m387	m2
Internal Link Dist (ft)		543			2360			1172			881	
Turn Bay Length (ft)	375			475		475	900		600	800		800
Base Capacity (vph)	180	286	1538	876	984	1553	185	2589	1468	264	2222	798
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.33	0.33	0.96	0.10	0.00	2.37	0.39	0.45	0.02	0.86	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

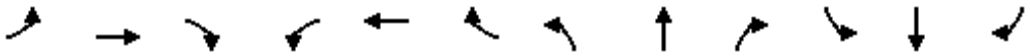
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	58	84	474	779	68	11	416	2026	658	5	1053	63
v/c Ratio	0.34	0.51	0.30	0.94	0.09	0.01	0.84	0.68	0.42	0.03	0.53	0.08
Control Delay	60.9	61.9	0.5	75.6	34.4	0.0	65.9	20.5	0.8	14.2	39.4	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	61.9	0.5	75.6	34.4	0.0	65.9	20.5	0.8	14.2	39.4	1.4
Queue Length 50th (ft)	22	63	0	209	18	0	162	372	0	1	191	0
Queue Length 95th (ft)	45	112	0	#290	m30	m0	#236	589	0	m3	329	m7
Internal Link Dist (ft)		543			2360			1172			881	
Turn Bay Length (ft)	375			475		475	900		600	800		800
Base Capacity (vph)	171	294	1583	831	963	1568	510	2958	1568	149	1998	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.29	0.30	0.94	0.07	0.01	0.82	0.68	0.42	0.03	0.53	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



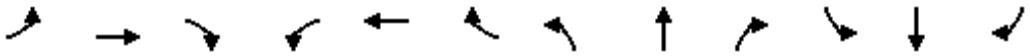
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	57	98	572	1191	108	5	495	1186	881	10	2258	82
v/c Ratio	0.35	0.55	0.37	1.72	0.15	0.00	2.68	0.43	0.60	0.04	0.94	0.10
Control Delay	61.2	62.7	0.7	360.2	44.2	0.0	791.2	15.5	1.8	6.9	31.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	62.7	0.7	360.2	44.2	0.0	791.2	15.5	1.8	6.9	31.8	1.1
Queue Length 50th (ft)	22	74	0	~493	42	0	~334	166	0	2	346	1
Queue Length 95th (ft)	45	126	0	#587	m64	m0	#442	279	0	m2	#741	m4
Internal Link Dist (ft)		543			2360			1172			881	
Turn Bay Length (ft)	375			475		475	900		600	800		800
Base Capacity (vph)	166	286	1538	693	867	1553	185	2758	1468	234	2393	845
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.34	0.37	1.72	0.12	0.00	2.68	0.43	0.60	0.04	0.94	0.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



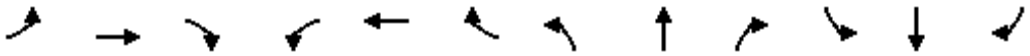
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	68	100	563	1221	84	11	495	2447	1226	11	1242	79
v/c Ratio	0.40	0.55	0.36	1.29	0.09	0.01	1.00	0.91	0.78	0.07	0.71	0.11
Control Delay	62.5	62.2	0.6	180.0	20.0	0.0	91.9	32.1	4.0	16.2	60.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	62.2	0.6	180.0	20.0	0.0	91.9	32.1	4.0	16.2	60.1	2.9
Queue Length 50th (ft)	26	75	0	~440	21	0	200	572	0	4	360	3
Queue Length 95th (ft)	51	128	0	m#517	m23	m0	#313	#920	0	m7	409	m13
Internal Link Dist (ft)		543			2360			1172			881	
Turn Bay Length (ft)	375			475		475	900		600	800		800
Base Capacity (vph)	171	294	1583	947	1051	1568	495	2695	1568	150	1739	709
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.34	0.36	1.29	0.08	0.01	1.00	0.91	0.78	0.07	0.71	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	326	174	38	375	125	207	511	27	326	755	266
v/c Ratio	1.07	0.63	0.31	0.20	0.71	0.22	0.54	0.37	0.02	0.60	0.47	0.17
Control Delay	127.2	36.3	3.3	30.5	44.2	3.3	22.8	24.9	0.0	22.6	23.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.2	36.3	3.3	30.5	44.2	3.3	22.8	24.9	0.0	22.6	23.3	0.2
Queue Length 50th (ft)	~136	182	0	22	253	0	41	151	0	103	162	0
Queue Length 95th (ft)	#250	237	29	47	327	26	#127	246	0	210	275	0
Internal Link Dist (ft)		2360			2852			463			968	
Turn Bay Length (ft)	300		250	225		250	375		400	400		400
Base Capacity (vph)	192	659	669	243	672	665	390	1378	1538	663	1611	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.49	0.26	0.16	0.56	0.19	0.53	0.37	0.02	0.49	0.47	0.17

Intersection Summary

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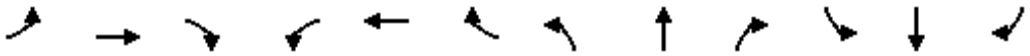
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	149	362	282	48	431	420	239	1170	32	213	899	271
v/c Ratio	1.08	0.63	0.45	0.25	0.75	0.69	0.78	0.79	0.02	0.80	0.56	0.17
Control Delay	133.6	36.7	9.0	32.8	45.1	25.8	32.9	28.1	0.0	50.5	14.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	133.6	36.7	9.0	32.8	45.1	25.8	32.9	28.1	0.0	50.5	14.3	0.2
Queue Length 50th (ft)	116	237	28	26	285	158	51	442	0	101	191	0
Queue Length 95th (ft)	#256	339	90	60	404	275	#157	538	m0	#207	210	0
Internal Link Dist (ft)		2360			2852			463			968	
Turn Bay Length (ft)	300		250	225		250	375		400	400		400
Base Capacity (vph)	151	630	666	208	630	652	306	1477	1583	283	1611	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.57	0.42	0.23	0.68	0.64	0.78	0.79	0.02	0.75	0.56	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	380	337	43	440	147	467	913	386	1060	299
v/c Ratio	0.90	0.40	0.51	0.19	0.45	0.27	0.82	0.54	0.76	0.55	0.19
Control Delay	73.2	30.9	3.8	31.1	35.7	5.4	65.3	29.3	47.5	24.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.2	30.9	3.8	31.1	35.7	5.4	65.3	29.3	47.5	24.6	0.2
Queue Length 50th (ft)	112	107	0	24	142	0	139	258	206	131	0
Queue Length 95th (ft)	#239	137	38	52	178	42	188	319	314	226	0
Internal Link Dist (ft)		2360			2852			463		968	
Turn Bay Length (ft)	300		250	225		250	375		400		400
Base Capacity (vph)	245	1170	742	284	1192	630	625	1700	562	1939	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.32	0.45	0.15	0.37	0.23	0.75	0.54	0.69	0.55	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

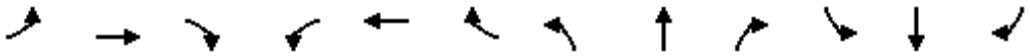
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	250	426	707	53	505	511	601	1899	245	1574	303
v/c Ratio	1.02	0.49	0.81	0.21	0.77	0.74	0.78	0.94	0.84	1.04	0.20
Control Delay	89.7	43.2	23.0	29.3	54.3	28.6	45.7	57.6	58.2	84.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	43.2	23.0	29.3	54.3	28.6	45.7	57.6	58.2	84.7	0.2
Queue Length 50th (ft)	~157	154	327	28	195	229	249	489	166	~499	0
Queue Length 95th (ft)	m#227	m197	439	56	248	371	m260	m500	#338	#643	0
Internal Link Dist (ft)		2360			2852			463		968	
Turn Bay Length (ft)	300		250	225		250	375		400		400
Base Capacity (vph)	246	935	904	256	774	689	849	2010	292	1514	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.46	0.78	0.21	0.65	0.74	0.71	0.94	0.84	1.04	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

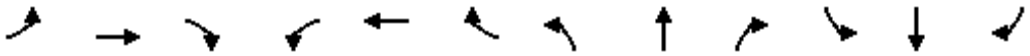
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	87	147	49	82	43	353	837	33	76	1190	141
v/c Ratio	0.36	0.51	0.53	0.41	0.48	0.18	0.73	0.33	0.03	0.16	0.58	0.14
Control Delay	58.1	61.5	15.0	60.4	60.3	1.6	20.8	6.9	0.2	6.1	20.2	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	61.5	15.0	60.4	60.3	1.6	20.8	6.9	0.2	6.1	20.2	5.9
Queue Length 50th (ft)	32	65	0	36	61	0	90	113	0	10	240	8
Queue Length 95th (ft)	67	114	60	75	110	0	199	173	2	33	381	41
Internal Link Dist (ft)		805			708			537			546	
Turn Bay Length (ft)	225		250	300		200	400		425	425		425
Base Capacity (vph)	191	271	355	190	271	323	602	2514	1143	464	2049	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.32	0.41	0.26	0.30	0.13	0.59	0.33	0.03	0.16	0.58	0.14

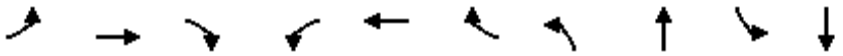
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	97	290	86	86	32	263	1360	48	97	952	27
v/c Ratio	0.41	0.47	0.69	0.61	0.42	0.11	0.56	0.57	0.04	0.33	0.42	0.03
Control Delay	56.5	56.3	15.9	67.5	54.5	0.7	8.6	12.0	0.6	12.7	24.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	56.3	15.9	67.5	54.5	0.7	8.6	12.0	0.6	12.7	24.4	0.2
Queue Length 50th (ft)	43	72	10	65	63	0	42	262	0	44	302	0
Queue Length 95th (ft)	83	121	93	114	110	0	82	394	5	75	396	m0
Internal Link Dist (ft)		805			708			537			546	
Turn Bay Length (ft)	225		250	300		200	400		425	425		425
Base Capacity (vph)	258	369	534	255	369	422	578	2380	1091	321	2276	1066
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.26	0.54	0.34	0.23	0.08	0.46	0.57	0.04	0.30	0.42	0.03

Intersection Summary

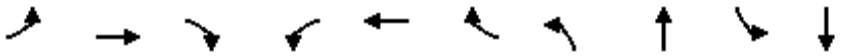
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	125	196	82	147	76	462	1511	114	1815
v/c Ratio	0.28	0.57	0.55	0.39	0.67	0.24	0.94	0.50	0.47	0.87
Control Delay	41.2	59.8	12.5	44.8	65.5	1.8	55.7	25.2	21.0	53.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.8	12.5	44.8	65.5	1.8	55.7	25.2	21.0	53.1
Queue Length 50th (ft)	34	92	0	52	110	0	313	296	54	534
Queue Length 95th (ft)	68	153	67	95	176	0	#523	474	104	#626
Internal Link Dist (ft)		805			708			537		546
Turn Bay Length (ft)	225		250	300		200	400		425	
Base Capacity (vph)	190	271	397	208	271	358	507	2995	274	2085
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.46	0.49	0.39	0.54	0.21	0.91	0.50	0.42	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



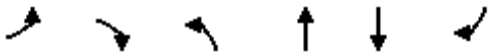
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	210	398	194	242	54	355	2376	269	1898
v/c Ratio	0.78	0.81	0.93	0.92	0.81	0.15	0.96	0.99	0.95	0.88
Control Delay	68.1	73.0	48.8	83.5	69.9	0.9	51.9	63.5	55.0	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	73.0	48.8	83.5	69.9	0.9	51.9	63.5	55.0	28.9
Queue Length 50th (ft)	87	158	126	124	181	0	224	~723	176	300
Queue Length 95th (ft)	#178	#272	#314	#204	#302	0	m#308	#819	m175	m296
Internal Link Dist (ft)		805			708			537		546
Turn Bay Length (ft)	225		250	300		200	400		425	
Base Capacity (vph)	179	276	440	212	313	368	369	2395	284	2158
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.76	0.90	0.92	0.77	0.15	0.96	0.99	0.95	0.88

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

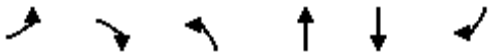
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	98	98	54	842	1413	217
v/c Ratio	0.55	0.40	0.18	0.30	0.56	0.18
Control Delay	62.7	14.2	6.6	5.7	25.0	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	14.2	6.6	5.7	25.0	8.9
Queue Length 50th (ft)	74	0	5	44	493	65
Queue Length 95th (ft)	125	50	35	205	m523	m83
Internal Link Dist (ft)	495			910	636	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	368	407	293	2793	2520	1218
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.24	0.18	0.30	0.56	0.18

Intersection Summary

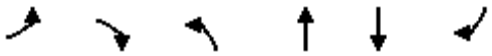
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	98	98	54	1484	1136	201
v/c Ratio	0.56	0.40	0.14	0.52	0.44	0.17
Control Delay	62.9	14.2	3.0	4.0	15.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	14.2	3.0	4.0	15.9	6.7
Queue Length 50th (ft)	74	0	7	130	281	25
Queue Length 95th (ft)	126	50	m13	130	372	m67
Internal Link Dist (ft)	495			910	636	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	339	382	398	2849	2570	1214
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.26	0.14	0.52	0.44	0.17

Intersection Summary

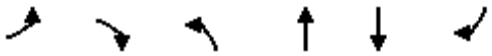
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	109	109	60	1261	1821	239
v/c Ratio	0.58	0.41	0.27	0.32	0.51	0.20
Control Delay	63.0	13.4	12.2	4.6	24.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	13.4	12.2	4.6	24.6	9.0
Queue Length 50th (ft)	82	0	18	158	491	70
Queue Length 95th (ft)	137	52	28	87	521	m96
Internal Link Dist (ft)	495			910	1917	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	339	391	248	3984	3587	1215
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.28	0.24	0.32	0.51	0.20

Intersection Summary

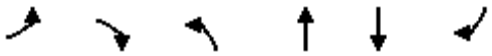
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	109	109	87	2201	1913	337
v/c Ratio	0.58	0.41	0.40	0.54	0.54	0.28
Control Delay	63.0	13.4	15.8	4.1	22.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	13.4	15.8	4.1	22.0	8.1
Queue Length 50th (ft)	82	0	16	107	426	57
Queue Length 95th (ft)	137	52	57	147	495	m120
Internal Link Dist (ft)	495			910	1917	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	427	465	247	4062	3522	1208
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.23	0.35	0.54	0.54	0.28

Intersection Summary

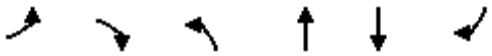
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	76	217	163	821	1402	109
v/c Ratio	0.49	0.65	0.51	0.29	0.58	0.09
Control Delay	62.2	17.1	16.0	2.7	4.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	17.1	16.0	2.7	4.7	0.7
Queue Length 50th (ft)	57	4	27	35	105	0
Queue Length 95th (ft)	105	78	m106	112	184	3
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	295	440	385	2835	2436	1153
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.49	0.42	0.29	0.58	0.09

Intersection Summary

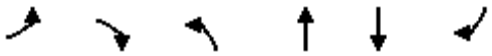
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	76	217	152	1462	1130	103
v/c Ratio	0.49	0.65	0.38	0.51	0.45	0.09
Control Delay	62.2	15.9	6.9	10.6	5.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	15.9	6.9	10.6	5.7	1.5
Queue Length 50th (ft)	57	0	42	360	135	3
Queue Length 95th (ft)	105	73	m62	m475	157	6
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	354	490	482	2891	2510	1162
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.44	0.32	0.51	0.45	0.09

Intersection Summary

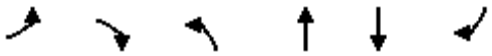
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	82	245	179	1245	1810	120
v/c Ratio	0.51	0.67	0.61	0.31	0.54	0.11
Control Delay	62.4	15.7	22.1	7.6	3.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	15.7	22.1	7.6	3.1	0.5
Queue Length 50th (ft)	62	0	86	112	26	0
Queue Length 95th (ft)	111	77	m149	267	134	2
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	324	490	393	4059	3336	1108
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.50	0.46	0.31	0.54	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	82	245	255	2207	1853	168
v/c Ratio	0.51	0.67	0.74	0.53	0.58	0.16
Control Delay	62.5	15.7	35.3	1.4	7.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	15.7	35.3	1.4	7.7	1.7
Queue Length 50th (ft)	62	0	137	53	143	5
Queue Length 95th (ft)	111	77	m152	m71	183	9
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	265	445	449	4138	3192	1064
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.55	0.57	0.53	0.58	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	1603	130	1685
v/c Ratio	0.74	0.48	0.48	0.44
Control Delay	55.2	10.4	16.2	16.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	55.2	10.4	16.2	16.1
Queue Length 50th (ft)	126	302	61	393
Queue Length 95th (ft)	197	360	m99	450
Internal Link Dist (ft)	297	530		470
Turn Bay Length (ft)			150	
Base Capacity (vph)	418	3320	378	3855
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.48	0.34	0.44

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	260	2369	332	1859
v/c Ratio	0.89	0.89	0.91	0.48
Control Delay	73.5	32.5	50.5	14.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	73.5	32.5	50.5	14.1
Queue Length 50th (ft)	172	486	266	396
Queue Length 95th (ft)	#319	m479	m#304	448
Internal Link Dist (ft)	297	530		470
Turn Bay Length (ft)			150	
Base Capacity (vph)	305	2649	376	3877
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.85	0.89	0.88	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

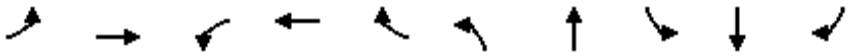
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	587	147	11	76	174	434	33	533	739
v/c Ratio	0.83	0.26	0.14	0.49	0.34	0.21	0.07	0.32	0.65
Control Delay	56.4	6.4	54.8	33.7	13.6	12.1	22.4	22.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	6.4	54.8	33.7	13.6	12.1	22.4	22.2	4.9
Queue Length 50th (ft)	224	6	8	20	58	78	14	136	0
Queue Length 95th (ft)	284	48	27	68	106	121	40	208	90
Internal Link Dist (ft)		273		317		401		520	
Turn Bay Length (ft)	175		150		150		150		150
Base Capacity (vph)	786	759	185	293	521	2090	444	1642	1142
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.19	0.06	0.26	0.33	0.21	0.07	0.32	0.65

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	875	228	11	93	141	614	76	435	614
v/c Ratio	0.88	0.29	0.14	0.54	0.31	0.43	0.21	0.33	0.63
Control Delay	51.7	4.9	54.3	33.9	19.3	29.1	19.0	29.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	4.9	54.3	33.9	19.3	29.1	19.0	29.0	5.7
Queue Length 50th (ft)	326	12	8	25	58	185	30	127	0
Queue Length 95th (ft)	402	56	27	77	107	271	64	187	93
Internal Link Dist (ft)		273		317		401		520	
Turn Bay Length (ft)	175		150		150		150		150
Base Capacity (vph)	1072	920	172	303	459	1426	367	1323	979
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.25	0.06	0.31	0.31	0.43	0.21	0.33	0.63

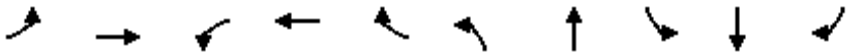
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	739	191	38	92	168	207	527	109	636	924
v/c Ratio	0.93	0.27	0.34	0.52	0.56	0.52	0.29	0.32	0.45	0.83
Control Delay	63.4	6.6	57.5	61.4	14.5	21.3	16.4	13.9	12.7	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	6.6	57.5	61.4	14.5	21.3	16.4	13.9	12.7	20.5
Queue Length 50th (ft)	288	16	28	69	0	81	113	24	73	228
Queue Length 95th (ft)	#397	60	62	119	64	139	165	61	137	321
Internal Link Dist (ft)		273		317			401		520	
Turn Bay Length (ft)	175		150			150		150		
Base Capacity (vph)	815	796	178	279	380	396	1835	346	1403	1113
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.24	0.21	0.33	0.44	0.52	0.29	0.32	0.45	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



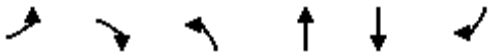
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1190	331	49	120	217	163	815	277	543	848
v/c Ratio	0.99	0.36	0.43	0.59	0.67	0.55	1.14	0.84	0.54	0.81
Control Delay	63.0	8.7	60.0	61.6	24.0	36.1	122.9	69.4	41.9	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	8.7	60.0	61.6	24.0	36.1	122.9	69.4	41.9	22.4
Queue Length 50th (ft)	469	65	36	90	36	81	~388	192	161	293
Queue Length 95th (ft)	#623	116	75	147	114	142	#518	m#360	m214	m369
Internal Link Dist (ft)		273		317			401		520	
Turn Bay Length (ft)	175		150			150		150		
Base Capacity (vph)	1201	985	156	279	380	299	714	331	1009	1044
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.34	0.31	0.43	0.57	0.55	1.14	0.84	0.54	0.81

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

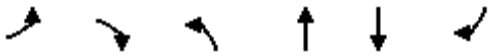
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	168	217	163	821	1402	109
v/c Ratio	0.69	0.54	0.55	0.31	0.62	0.10
Control Delay	63.6	11.5	20.8	4.5	19.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	11.5	20.8	4.5	19.1	3.8
Queue Length 50th (ft)	126	3	41	52	534	12
Queue Length 95th (ft)	192	70	m120	157	m560	m33
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	324	464	354	2664	2246	1071
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.47	0.46	0.31	0.62	0.10

Intersection Summary

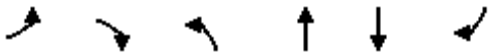
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	168	217	152	1462	1130	103
v/c Ratio	0.69	0.53	0.41	0.54	0.49	0.10
Control Delay	63.1	10.7	10.8	15.3	19.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	10.7	10.8	15.3	19.5	5.7
Queue Length 50th (ft)	126	0	59	442	403	23
Queue Length 95th (ft)	191	66	m89	m561	521	m41
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	354	490	459	2712	2312	1079
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.44	0.33	0.54	0.49	0.10

Intersection Summary

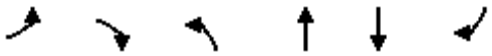
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	190	245	179	1245	1810	120
v/c Ratio	0.73	0.55	0.65	0.33	0.60	0.12
Control Delay	64.3	10.3	29.0	10.9	14.4	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	10.3	29.0	10.9	14.4	4.1
Queue Length 50th (ft)	142	0	92	122	420	15
Queue Length 95th (ft)	213	70	m164	288	508	m42
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	339	501	359	3776	3041	1020
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.49	0.50	0.33	0.60	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	190	245	255	2207	1853	168
v/c Ratio	0.74	0.56	0.78	0.57	0.63	0.17
Control Delay	66.4	10.6	46.2	3.2	23.7	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	10.6	46.2	3.2	23.7	8.1
Queue Length 50th (ft)	142	0	153	115	427	39
Queue Length 95th (ft)	218	71	m171	m115	564	m79
Internal Link Dist (ft)	358			968	910	
Turn Bay Length (ft)	200		300			250
Base Capacity (vph)	309	479	421	3866	2923	986
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.51	0.61	0.57	0.63	0.17

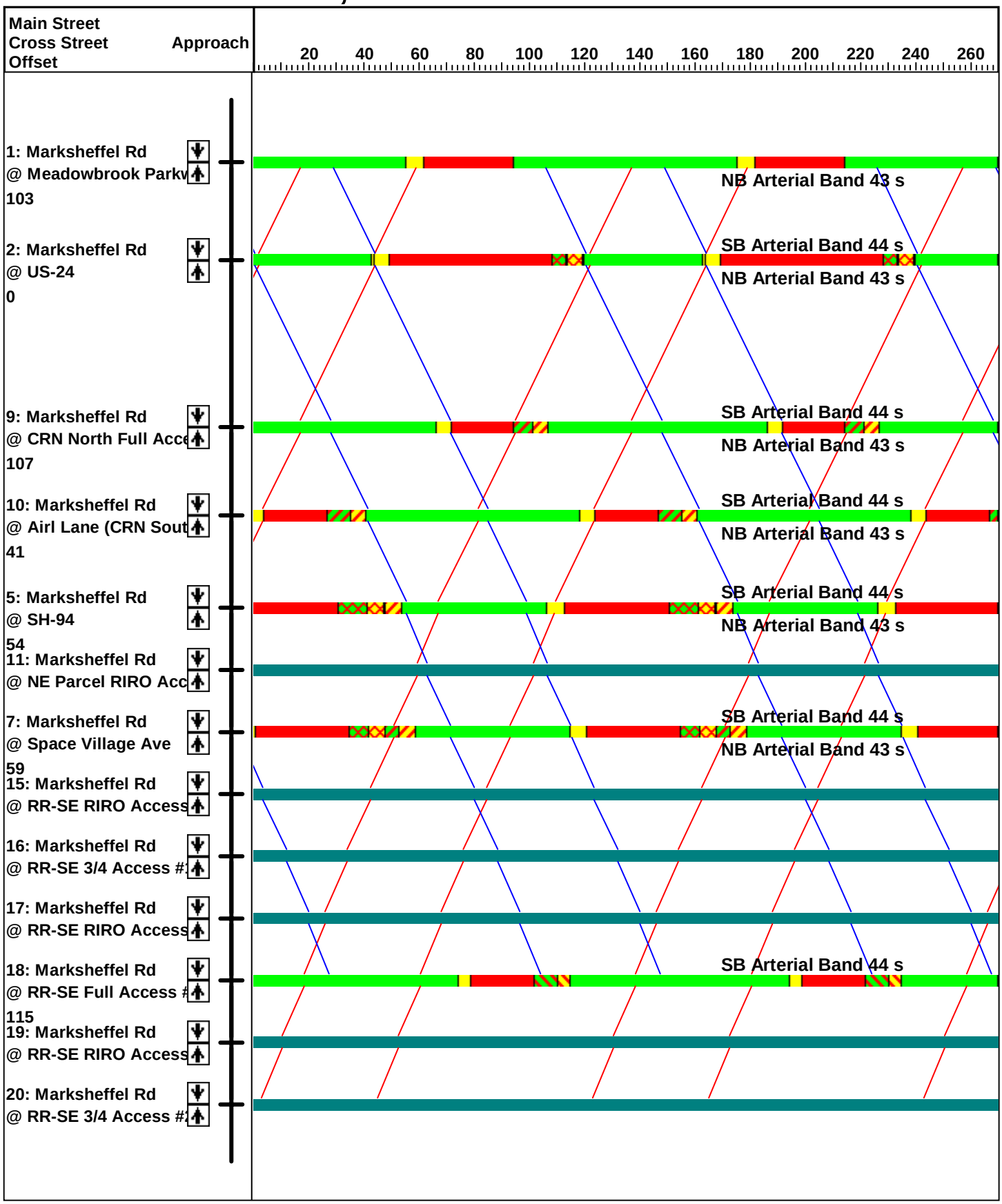
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

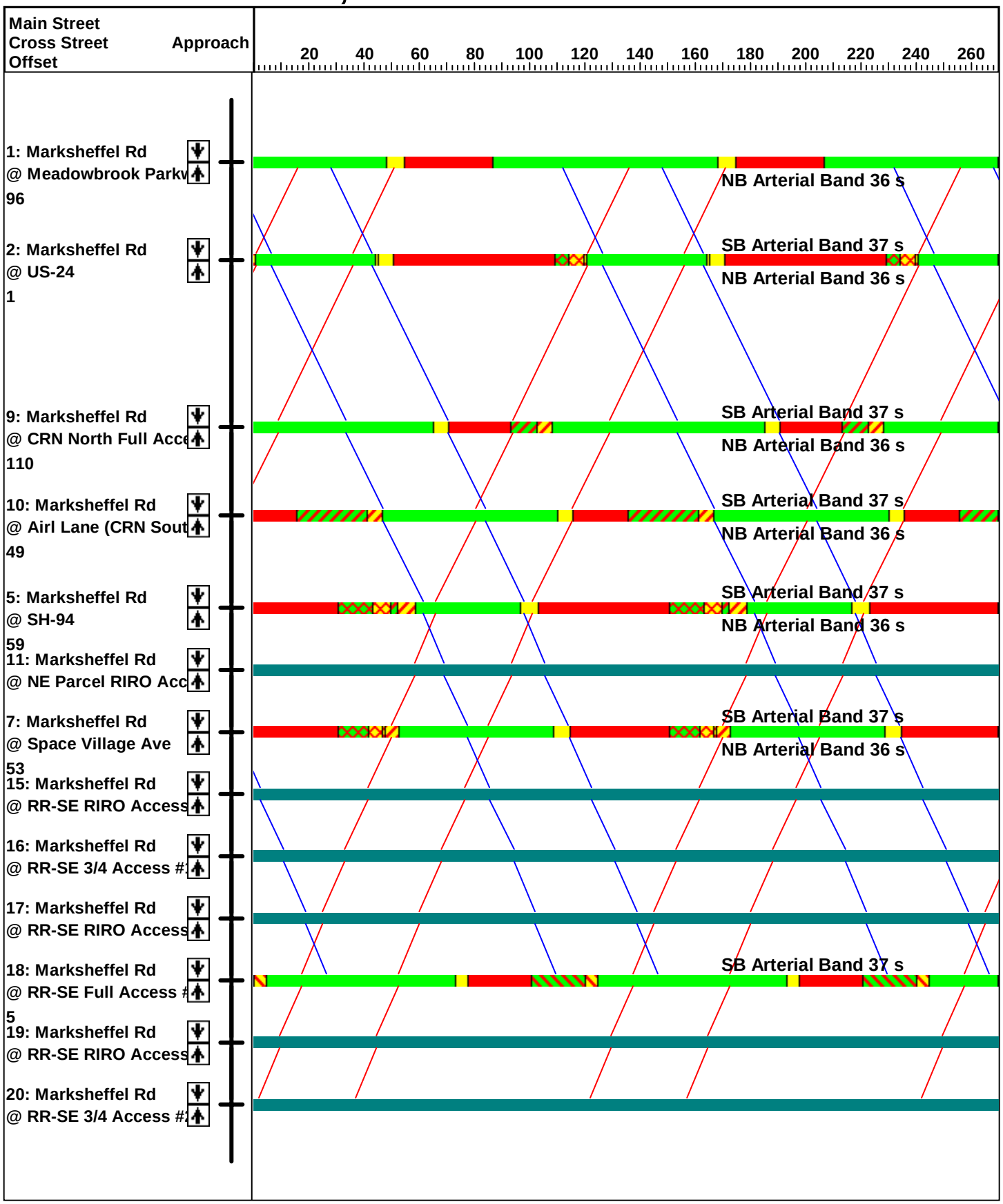
APPENDIX G

Time-Space Diagrams

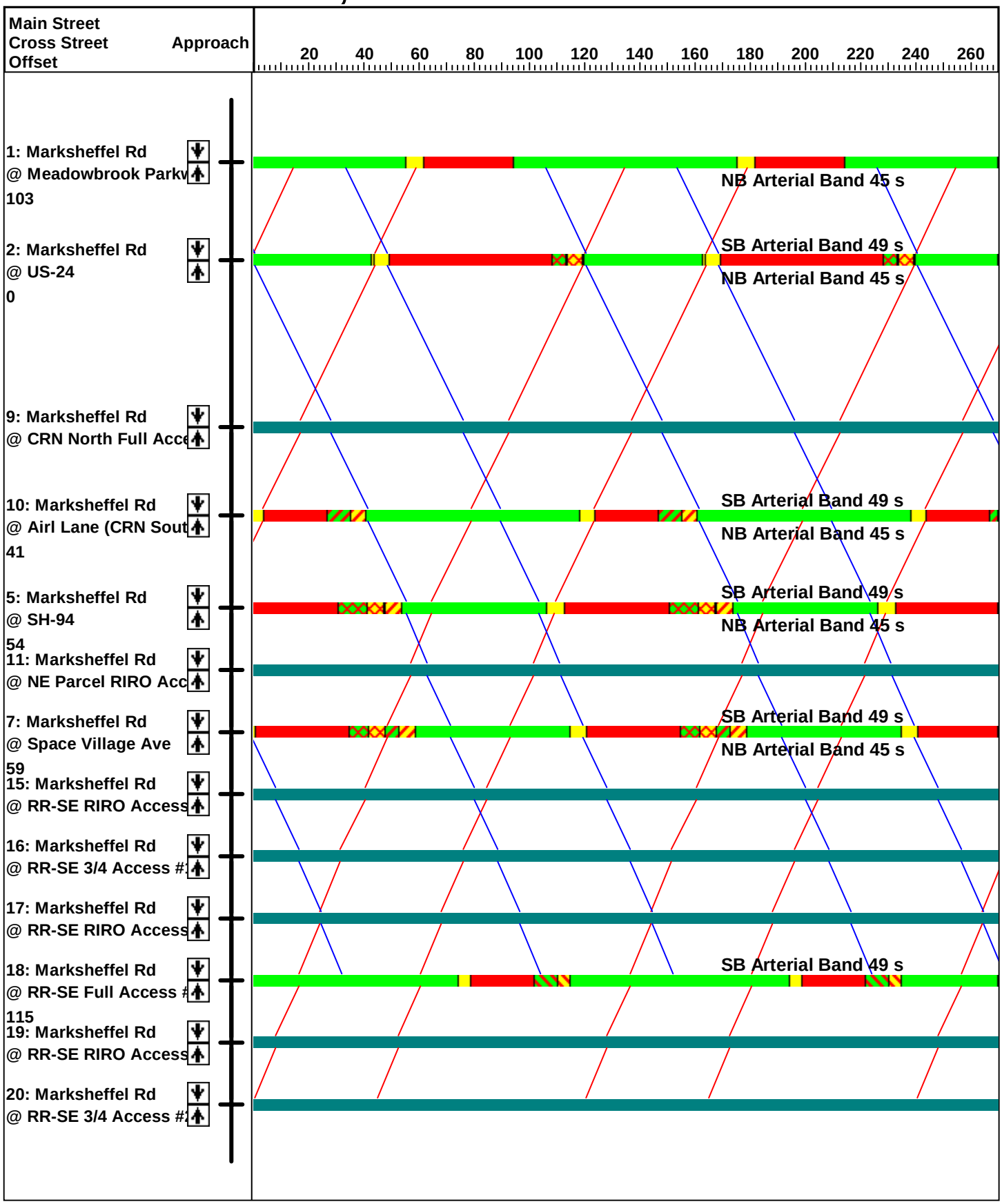
Time-Space Diagram 2040 Total AM_Signal_Int 9 Signal.syn
Arterial Bandwidths, 90th Percentile Green Times



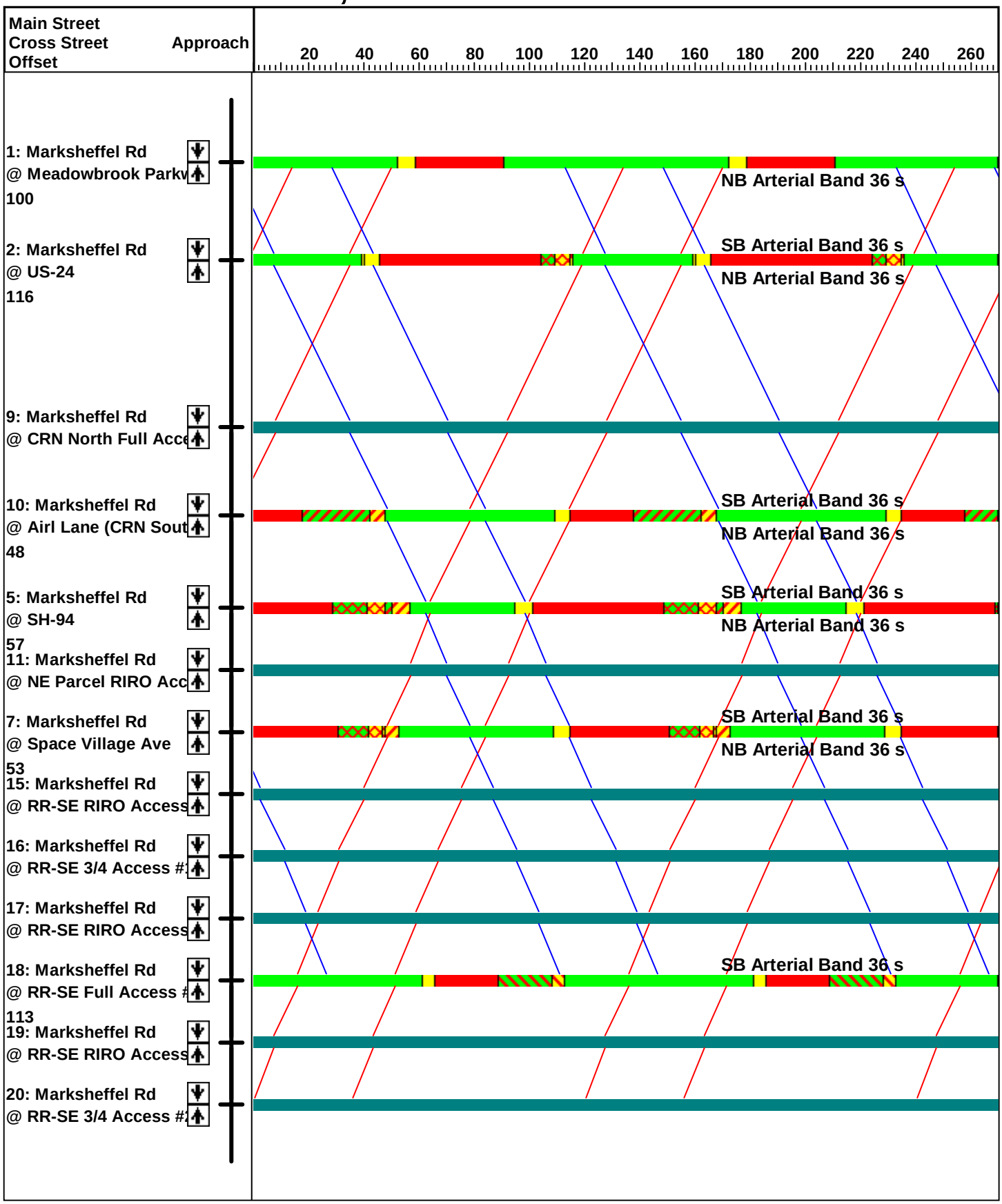
Time-Space Diagram 2040 Total PM_Signal_Int 9 Signal.syn
Arterial Bandwidths, 90th Percentile Green Times



Time-Space Diagram 2040 Total AM_Signal_Int 9 TWSC.syn
Arterial Bandwidths, 90th Percentile Green Times



Time-Space Diagram 2040 Total PM_Signal_Int 9 TWSC.syn
Arterial Bandwidths, 90th Percentile Green Times



APPENDIX H

Conceptual Site Plans

Thomas+Thomas
planning, urban design + landscape architecture, Inc.
702 North Tejon
Colorado Springs, Colorado 80903
(719) 578-0777

Meadowbrook Park
SINGLE FAMILY CONCEPT A
59 UNITS
Colorado Springs, CO

STAMP:

REV #	REVISIONS	DATE
1		
2		
3		
4		
5		
6		

DESIGNED	STB	09.06.19
DRAWN	STB	09.06.19
CHECKED	JH	09.06.19
PROJECT NUMBER:		3532.04
SCALE:		AS NOTED

CONCEPT

P1 OF

Clubhouse / Leasing
- Pool/Primary Amenity

Primary Entry
- Gated Entry

56-Plex Building
- 4 Stories
- Elevator Served
- Attached Garages

Dog Run

MEADOWBROOK PARKWAY

MEADOWBROOK PARKWAY

Commercial Parcel 2.0 Ac

RETAIL 13,240 SF 53 P.S.REQ.

LOT 4 80,503 SF 1.848 AC

RESTAURANT 10,200 SF 102 P.S.REQ

LOT 3 82,049 SF 1.884 AC

LOT 2 117,423 SF 2.696 AC

LOT 5 44,783 SF 1.028 AC

LOT 6 38,285 SF 0.879 AC

LOT 7 58,239 SF 1.337 AC

LOT 8 62,190 SF 1.428 AC

LOT 9 61,505 SF 1.412 AC

DRIVE THUR 4,529 SF 46 P.S.REQ.

COFFEE 2,400 SF 24 P.S.REQ.

DRIVE THUR 4,190 SF 42 P.S.REQ.

DRIVE THUR 2,900 SF 29 P.S.REQ.

DRIVE THUR 2,700 SF 27 P.S.REQ.

RETAIL 9,702 SF 33 P.S.REQ.

HIGHWAY 24

Auto Court

Auto Court

Auto Court

Auto Court

5 — 56

4 — 56

1 — 56

3 — 56

2 — 56

Secondary Entry

TRACT A 164,448 SF 3.775 AC

BURIED FIBER OPTIC W/ AREA MARKER

Residential Site Summary:

Total Project Acreage	±11.35	Ac
Number of Units	280	Du
Density	24.7	Du/Ac
Parking	2.0	Sp/Du

Concept Plan 2 - 4 Stories

CROSSROADS APARTMENTS

COLORADO SPRINGS, CO

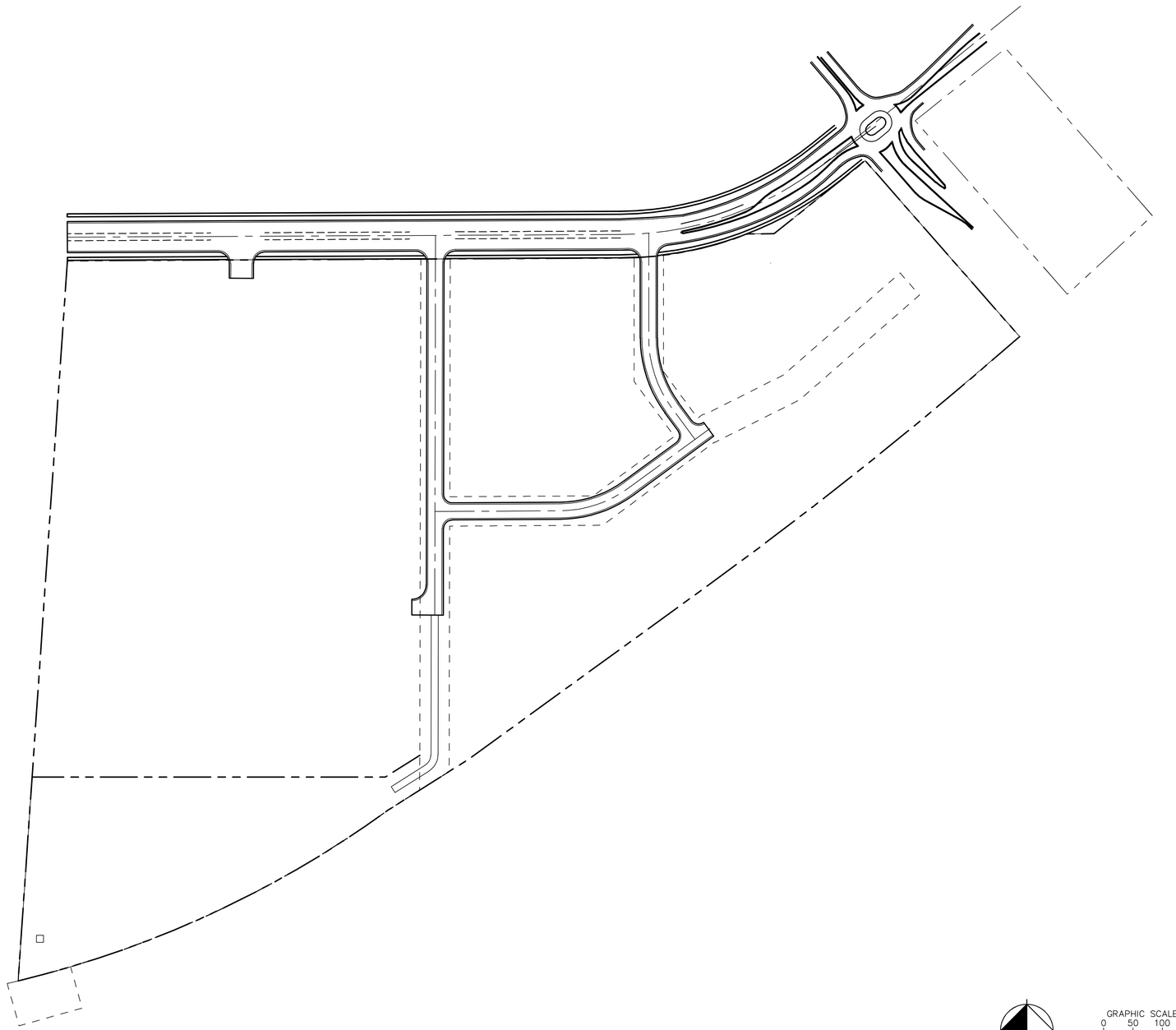
4.22.2020

NORTH

#220041

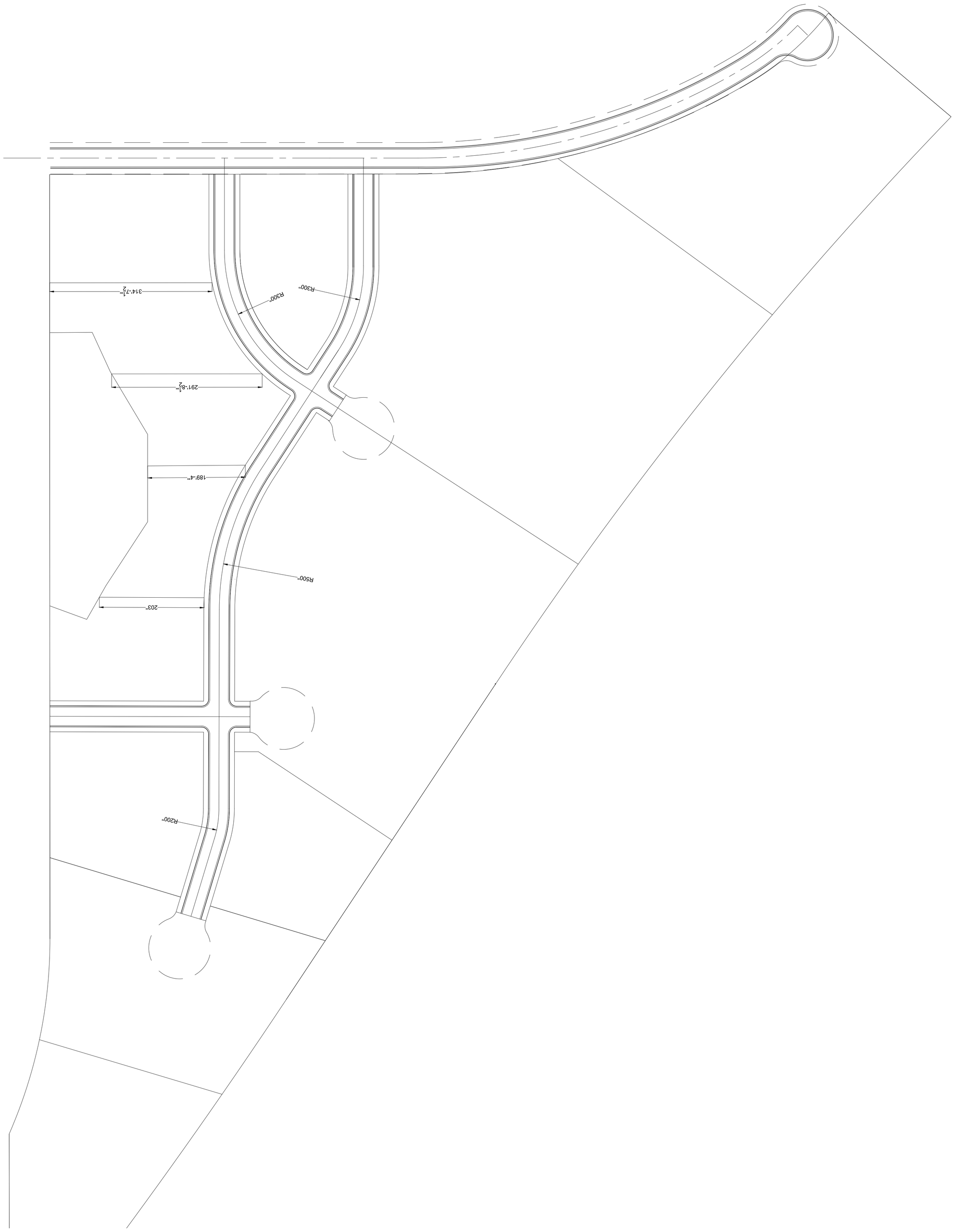
0 60 120

KEPHART
community ■ planning ■ architecture

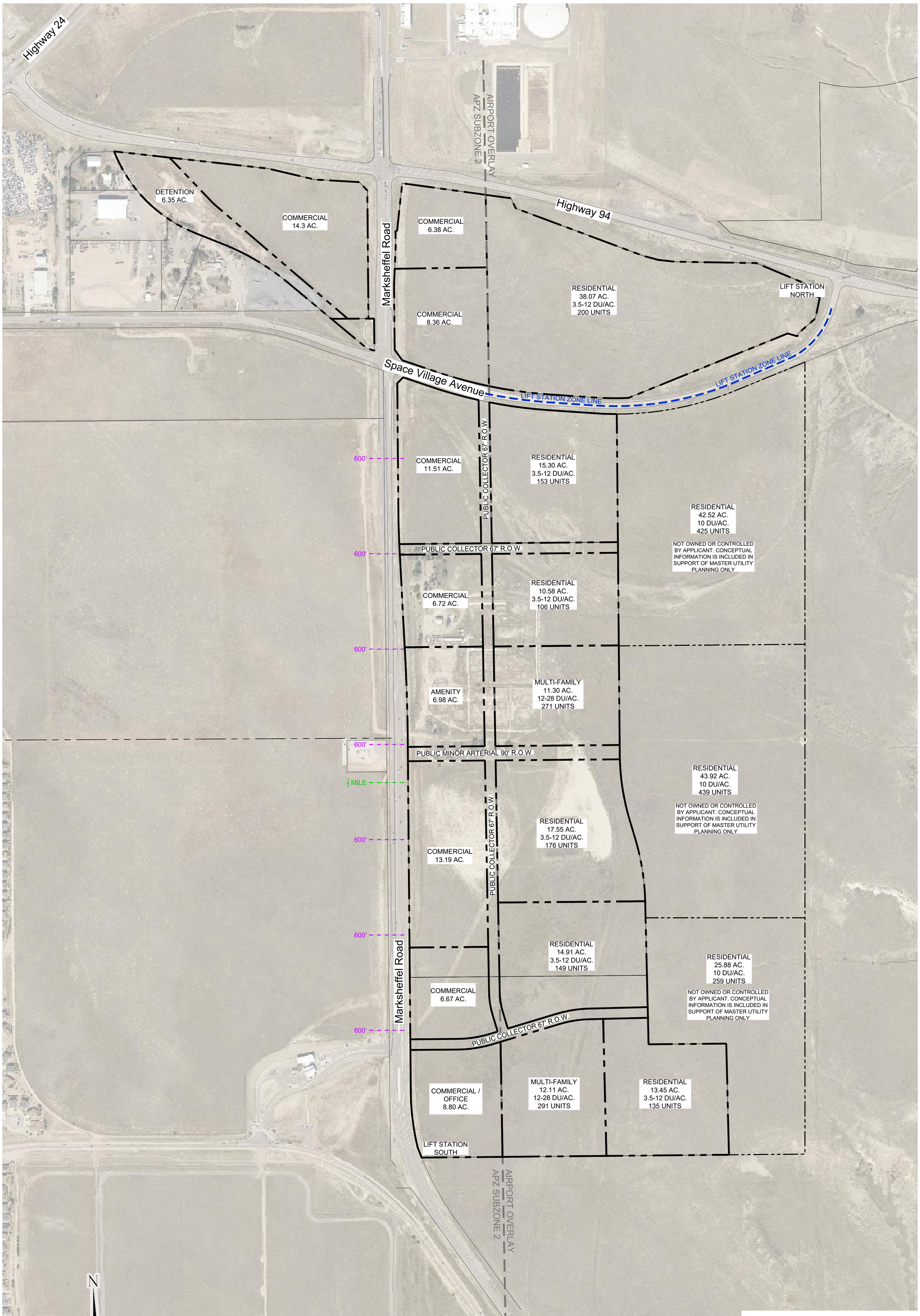


NORTH

GRAPHIC SCALE IN FEET
0 50 100 200



CIVIL CONSULTANTS, INC.
212 N. WAHSATCH AVE., STE. 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485



REAGAN RANCH

JULY 2020

Matrix
Excellence by Design
2435 Research Parkway, Suite 300
Colorado Springs, CO 80920
Contact: Jason Alwine
Phone (719) 575-0100
Fax (719) 575-0208

Reagan Ranch

OVERALL SITE PLAN

TIS V_2 engr comments.pdf Markup Summary

dsdlaforce (11)

Subject: Image
Page Label: 31
Author: dsdlaforce
Date: 4/15/2021 1:30:16 PM
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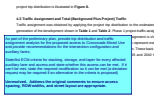

Subject: Text Box
Page Label: 31
Author: dsdlaforce
Date: 4/15/2021 1:40:26 PM
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As part of the preliminary plan, provide trip distribution and traffic assignment analysis for the proposed access to Crossroads Mixed Use and provide recommendations for the intersection configuration and auxiliary lanes.

State/list ECM criteria for stacking, storage, and taper for every affected auxiliary lane and access and state whether this access can be met. If it can't be met, state the required modification so it can be met (a deviation request may be required if an alternative to the criteria is proposed)

Unresolved. Address the original comments to ensure access spacing, ROW widths, and street layout are appropriate.

Subject: Text Box
Page Label: 53
Author: dsdlaforce
Date: 4/15/2021 2:09:31 PM
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Update sight distance criteria for County owned/maintained road based on EPC Engineering Criteria Manual. See example below.

Subject: Callout
Page Label: 53
Author: dsdlaforce
Date: 4/15/2021 2:09:37 PM
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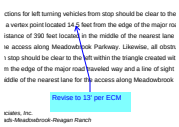
Update. Meadowbrook Parkway is a non-residential collector which has a design speed of 40 mph. Per ECM Chapter 2 Section 2.3.6 Table 2-21 intersection sight distance is 445 ft.



Subject: Callout
Page Label: 53
Author: dsdlaforce
Date: 4/15/2021 2:10:39 PM
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Revise to 13' per ECM

Subject: Text Box
Page Label: 2
Author: dsdlaforce
Date: 4/15/2021 5:14:17 PM
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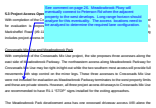
This Master TIS must also include site specific recommendations since this is provided as the supporting TIS for the preliminary plan applications for Crossroads Mix Use (SP2011), Meadowbrook Park (PUDSP208), and Crossroads North (SP207). Please look at the review comment to the TIS under each PCD File No. The redline comments to the TIS were specifically focused for the given project. This revised TIS appears to have only addressed review comments provided under the SP207 submittal. See SP2011 and PUDSP208 review 1 comments for additional TIS comments.

1. Provide recommendations for the internal private road classification/cross section in Crossroads Mixed Use. The trip generation estimate is 11,554 ADT while the preliminary plan showed an urban local road cross section (design ADT of 3,000) for the internal private road. Unresolved. It seems the private road should be designed to a non-residential collector cross-section.

2. Provide roundabout analysis. Current policy is to design per the Wisconsin DOT roundabout design criteria.
- Autoturn analysis of the intersection. Per ECM Table 2-7 design vehicle is WB-50.
- Table of critical design parameters.
- Rodel model report.
- Fastest path analysis/exhibit.
- Entry angle exhibit.

Unresolved. Address the original comments tomake sure the roundabout shown in the preliminary layout is appropriate.



Subject: Callout
Page Label: 46
Author: dsdlaforce
Date: 4/15/2021 5:17:51 PM
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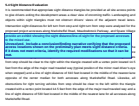
Space:

See comment on page 26. Meadowbrook Pkwy will eventually connect to Peterson Rd when the adjacent property to the west develops. Long range horizon should analyze for this eventuality. The access locations need to be analyzed to determine the required lane configuration.



Subject: Text Box
Page Label: 53
Author: dsdlaforce
Date: 4/15/2021 5:19:19 PM
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provide an exhibit showing the sight distance/line-of-sight for the proposed accesses to the mixed use.
Unresolved. Include a conclusion/finding narrative verifying that the proposed access locations shown on the preliminary plan meets sight distance criteria. If it does not meet criteria, identify the required modifications so that it can be met.

Subject: Callout
Page Label: 70
Author: dsdlaforce
Date: 4/15/2021 5:19:47 PM
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See comment on page 26. Provide analysis and recommended lane configuration for the three access to Meadowbrook Pkwy.

Subject: Text Box
Page Label: 1
Author: dsdlaforce
Date: 4/15/2021 7:30:35 AM
Status:
Color:
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Add PCD File No. P208 and SP2011

Unresolved.

Subject: Cloud+
Page Label: 10
Author: dsdlaforce
Date: 4/15/2021 8:09:44 AM
Status:
Color:
Layer:
Space:

Update either the preliminary plan or the TIS analysis for consistency.
The preliminary plan is showing full movement at the northeastern access.