TRAFFIC IMPACT REPORT

THE BRICKYARD
CASTLE ROCK, COLORADO

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EXECUTIVE SUMMARY

Confluence Companies is proposing to redevelop a property containing approximately 31.18 acres of land within the jurisdictional limits of the Town of Castle Rock, Colorado. The subject property is currently developed as the now defunct Acme Brick Company. More specifically, the subject property is bound by industrial properties with access to Topeka Way on the north, Prairie Hawk Dr. and several residential properties on the east, undeveloped land to the south, and the proposed Miller's Landing development to the west, which is currently undeveloped. At buildout, the proposed mixed-use development will be known as The Brickyard and will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Vehicular access for the proposed Brickyard development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- West Access Roadway– A two-lane roadway extending from the west property boundary to intersect with the proposed extension of the realigned Prairie Hawk Dr. through the proposed Miller's Landing development via a proposed two-lane roundabout. Prior to the construction of the roundabout, this two-lane roadway (to be known as Praxis St.) will extend west from the property boundary, then south to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- NE Site Access (Brickyard Cir. North) - A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 620 feet south of the NE property boundary of the development site.
- SE Site Access (Brickyard Cir. South) – A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 650 feet south of the proposed NE Access Roadway.
- Bowling Alley Access – A full movement access driveway intersecting the existing Prairie Hawk Dr. north of the NE Site Access will be constructed to provide direct access to the proposed bowling alley.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

Based on the analyses contained herein, recommendations for intersection improvements to accommodate the addition of the proposed Brickyard development traffic were developed, while considering the proposed Miller's Landing development, anticipated Dawson Trails development on the property south of Plum Creek Pkwy., the assumed Castle Meadows development on the property immediately to the south of the proposed Brickyard development, regional traffic volume growth, the construction of the new Crystal Valley Interchange, and planned/anticipated transportation system improvements for the study area roadways and intersections, based on the CRTMP.

The following is a summary of the recommendations to be the responsibility of the developer in order to mitigate the impact of the traffic projected to be generated by the proposed Brickyard development by the 2027 (build-out) analysis horizon:

- **Prairie Hawk Dr. (Existing Alignment)** - The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
- **Praxis St.** – A new two-lane roadway will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- **(1) Wolfensberger Rd./Prairie Hawk Dr. Intersection** – The Brickyard developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. The developer will also participate in funding the design and construction of a northbound right turn lane with a minimum of 150 feet of storage.
- **(3) Prairie Hawk Dr./Topeka Way** - The Brickyard developer will be responsible for funding and implementing the restriping of the intersection to include left turn lanes with 100' feet of storage on the northbound and southbound approaches.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The Brickyard developer will share responsibility for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane.
- **(13) Prairie Hawk Dr./Brickyard Cir (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(14) Prairie Hawk Dr./Brickyard Cir (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign

control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.

- **(15) West Site Access/Brickyard Cir. Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
- **(16) Fifer St./Brickyard Cir. (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(17) Fifer St./Brickyard Cir. (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(18) Prairie Hawk Dr./Bowling Alley Access Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

The following is a summary of the recommendations to be the responsibility of others in order to mitigate future traffic impacts caused by existing and future background traffic growth within the study area. These improvements will be needed by the 2050 (long-term) analysis horizon:

- **Prairie Hawk Dr. (Realignment)** - By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Topeka Way, the roadway section will be a 4-lane major arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy. the roadway section will be a 4-lane arterial.

- **(2) Prairie Hawk Dr./Atchison Way** – By 2050, a new 1-lane roundabout will be constructed at this intersection. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps** – By 2050, a new southbound free-flow right turn lane on the north leg of the intersection will be constructed that will include a continuous acceleration/deceleration lane on Plum Creek Pkwy. which will terminate into a free flow right turn lane onto the new Praxis St. roadway extension.
- **(8) Plum Creek Pkwy./I-25 NB Ramps** – By 2050, the intersection will be modified to include the following. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25.
- **(9) Plum Creek Pkwy./S Wilcox St. –** By 2050, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access –** By 2050, this intersection will be constructed with the realigned Prairie Hawk Dr. and Praxis St. extension to the south. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. –** By 2050, it is anticipated that the following additional improvements will be in place. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn

lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.

- **(12) Praxis St./East/West/Collector –** By 2050, it is anticipated that this intersection will be constructed to accommodate the Castle Meadows/Millers Landing development projects. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed Brickyard development on the study area intersections and roadway system. The study includes 2022 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

B. Study Area

The study area encompasses the existing roadway system in the vicinity of the project site. Figure 1 provides a site location map of the proposed project and surrounding transportation system. Figure 2 graphically illustrates the conceptual site plan and proposed access points for the proposed Brickyard development. Specifically, the following roadways and intersections are included in the study:

- Study Area Roadways
  1. Wolfensberger Rd.
  2. Plum Creek Pkwy.
  3. Existing Prairie Hawk Dr.
  4. Atchison Way
  5. Topeka Way
  6. Proposed realigned Prairie Hawk Dr./Praxis St.
  7. East/West Collector (2050 Proposed)
- Study Area Intersections
  1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
  2. Prairie Hawk Dr./Atchison Way (TWSC)
  3. Prairie Hawk Dr./Topeka Way (TWSC)
  4. Atchison Way/Topeka Way (TWSC)
  5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
  6. Plum Creek Pkwy./Auburn Dr. (TWSC)
  7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
  8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
  9. Plum Creek Pkwy./Wilcox St. (Signalized)
  10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
  11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
  12. Praxis St./East/West Collector
  13. Prairie Hawk Dr./Brickyard Cir. (North) (Proposed)
  14. Prairie Hawk Dr./Brickyard Cir. (South) (Proposed)
  15. West Site Access Roadway/Brickyard Cir. (Proposed)
  16. Fifer St./Brickyard Cir. (North) (Proposed)
  17. Fifer St./Brickyard Cir. (South) (Proposed)
  18. Prairie Hawk Dr./Bowling Alley Access (Proposed)

II. EXISTING CONDITIONS

A. Existing Traffic Volumes

Existing peak hour intersection turning movement traffic volume counts were collected for this study at the following intersections on Thursday, June 30, 2022:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)

48-hour directional traffic volume counts were collected for this study at the following locations on Wednesday, June 29, 2022, and Thursday, June 30, 2022:

- Wolfensberger Rd. west of Prairie Hawk Dr.
- Prairie Hawk Dr. south of Wolfensberger Rd.
- Atchison Way west of Prairie Hawk Dr.
- Topeka Way west of Prairie Hawk Dr.
- Plum Creek Pkwy. west of I-25
- Plum Creek Pkwy. south of Wolfensberger Rd.

A summary of the 2022 (existing) peak hour intersection turning movement and daily directional counts are illustrated in Figure 3. Detailed traffic volume count data collected for this study is provided in Appendix “A”.

B. Existing Roadway System

The existing transportation network in the vicinity of the proposed Brickyard development is graphically illustrated in Figure 1. The following narrative provides a description of the study area roadways and associated intersections:

Existing Study Area Roadways:

1. **Wolfensberger Rd.** – Within the study area Wolfensberger Rd. is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Prairie Hawk Dr. and Red Hawk Dr./Auburn Dr. the roadway section consists of two eastbound travel lanes and one westbound travel lane with a raised center median and curb and gutter along both sides of the roadway. There is a detached sidewalk along the north side of the roadway and an attached sidewalk along the south side of the roadway. The posted speed limit is 45 mph. From Red Hawk Dr./Auburn Dr. to Plum Creek Pkwy. the roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side of the roadway. The posted speed limit is 45 mph.
2. **Plum Creek Pkwy.** – Within the study area Plum Creek Pkwy. is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Wolfensberger Rd. to I-25 the roadway section consists of one travel lane in each direction and is posted at 45 mph. From Wolfensberger Rd. to Auburn Dr. the north side of the roadway has curb & gutter and detached sidewalk. The south side of the roadway has a gravel shoulder and no sidewalk. From Auburn Dr. to I-25 the north side of the roadway has a paved shoulder and no sidewalk. The south side of the roadway has curb and gutter and a detached sidewalk. From I-25 to Wilcox St. the roadway section consists of two travel lanes in each direction with a painted center median and curb and gutter and attached sidewalks on both sides of the roadway and has a posted speed limit of 30 mph.

3. **Prairie Hawk Dr. (Existing Alignment)** – Within the study area, from Wolfensberger Rd. to Atchison Way, the existing Prairie Hawk Dr. alignment is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Atchison Way south, the existing Prairie Hawk Dr. alignment is classified as a local roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side of the roadway. The posted speed limit is 30 mph.
4. **Atchison Way** – Within the study area, Prairie Hawk Dr. to Topeka Way, Atchison Way is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with curb and gutter on the west side of the roadway and a minimal gravel shoulder on the east side. There are no sidewalks on either side or the roadway. The speed limit is not posted and assumed to be 30 mph.
5. **Topeka Way** – Within the study area, Prairie Hawk Dr. to Atchison Way, Topeka Way is classified as a local roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side or the roadway. The speed limit is not posted and assumed to be 30 mph.

Existing Study Area Intersections:

1. **Wolfensberger Rd./Prairie Hawk Dr.** – The Wolfensberger Rd./Prairie Hawk Dr. intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 150 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the westbound approach, and two eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 325 feet of storage, one through lane, and one shared through/right turn lane with approximately 325 feet of storage on the eastbound approach, and two westbound departure lanes plus a southbound to westbound right turn acceleration lane. The north leg of the intersection has one left turn lane with approximately 350 feet of storage, one through lane and one right turn lane with approximately 350 feet of storage on the southbound approach and one northbound departure lane. The south leg of the intersection has one left turn lane with approximately 250 feet of storage and one shared through/right turn lane on the northbound approach and one southbound departure lane. Existing signal timing plans for this intersection were provided by the Town of Castle Rock and are included in Appendix “B”.
2. **Prairie Hawk Dr./Atchison Way** – The Prairie Hawk Dr./Atchison Way intersection is a three-legged “T” intersection operating under two-way stop control with the stop-controlled movements on the eastbound approach. The west leg of the intersection has one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one shared left turn/through lane on the northbound approach, and one southbound departure lane.
3. **Prairie Hawk Dr./Topeka Way** – The Prairie Hawk Dr./Topeka Way intersection is a four-legged intersection operating under two-way stop control with the stop-controlled movements on the northbound (Topeka Way) and southbound (private driveway) approaches. The east leg of the intersection has one shared left turn/through/right turn

lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.

4. **Atchison Way/Topeka Way** – The Atchison Way/Topeka Way intersection is a three-legged "T" intersection operating under two-way stop control with the stop-controlled movements on the southbound approach. The east leg of the intersection has one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
5. **Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.** – The Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. intersection is a two-lane roundabout operating under yield control. The east leg of the intersection has one shared left turn/through lane with approximately 250 feet of storage and one shared through/right turn lane on the westbound approach, and two eastbound departure lanes. The west leg of the intersection has one shared left turn/through lane and one shared through/right turn lane on the westbound approach, and two eastbound departure lanes. The north leg of the intersection has one shared left turn/through lane with approximately 200 feet of storage and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one shared left turn/through lane and one shared through/right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.
6. **Plum Creek Pkwy./Auburn Dr.** - The Plum Creek Pkwy./Auburn Dr. intersection is a three-legged "T" intersection operating under two-way stop control with the stop-controlled movements on the southbound approach. The east leg of the intersection has one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
7. **Plum Creek Pkwy./I-25 SB Ramps** - The Plum Creek Pkwy./I-25 SB Ramps intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the westbound approach and protected only left turn phasing on the northbound and southbound approaches. The east leg of the intersection has one left turn lane with approximately 675 feet of storage and two through lanes on the westbound approach, and three eastbound departure lanes. The west leg of the intersection has two through lanes and one shared through/right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection has two left turn lanes and one shared left turn/through/right turn lane with approximately 225 feet of storage on the southbound approach. The south leg of the intersection has one left turn lane with approximately 375 feet of storage and one right turn lane on the northbound approach, and one southbound departure lane.

8. **Plum Creek Pkwy./I-25 NB Ramps** - The Plum Creek Pkwy./I-25 NB Ramps intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the eastbound approach. The east leg of the intersection has one through lane serving as additional storage for the westbound left turn lane to get on I-25 southbound, one shared through/right turn lane and one right turn lane on the westbound approach, and three eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 650 feet of storage and three through lanes on the eastbound approach, and three westbound departure lanes. The north leg of the intersection has two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 400 feet of storage, one shared left turn/through/right turn lane, and one right turn lane with approximately 175 feet of storage on the northbound approach.
9. **Plum Creek Pkwy./Wilcox St.** - The Plum Creek Pkwy./Wilcox St. intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 225 feet of storage, two through lanes and one right turn lane on the westbound approach and two eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 325 feet of storage, two through lanes and one channelized free-flow right turn lane with approximately 600 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection has one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with approximately 200 feet of storage on the southbound approach, and one northbound departure lane. The south leg of the intersection has two left turn lanes with approximately a total of 450 feet of storage, one through lane and one right turn lane with approximately 250 feet of storage on the northbound approach, and one southbound departure lane plus an eastbound to southbound continuous right turn acceleration lane. Existing signal timing plans for this intersection were provided by the Town of Castle Rock and are included in Appendix “B”.

C. 2022 (Existing) Conditions Operational Analysis

In order to establish a base condition in which to evaluate and compare the impacts of the traffic generated by the proposed Brickyard development on the study area intersections, peak hour capacity analyses were performed for the 2022 (existing) conditions scenario. These analyses utilized the methodologies contained in the *Highway Capacity Manual 7th Edition* (HCM 7) employing *Synchro 12* software and resulted in a qualitative measure of the operational characteristics of the intersection, described by a letter designation ranging from “A” to “F” known as “Level of Service” (LOS). LOS “A” represents free-flow operating conditions, whereas LOS “F” represents excessive congestion and delay. Unsignalized intersection capacity analysis reports a LOS designation for each impeded intersection movement. Signalized intersection capacity analysis reports the overall LOS designation for the intersection as well as for each lane group and approach. LOS “D” is considered the minimum acceptable standard of operation.

The study area intersections included in the 2022 (existing) conditions analysis are as follows:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)

5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)

The results of the 2022 (existing) conditions operational analysis are summarized in Table 1, below. Figure 4 graphically illustrates the results of the existing conditions analysis and detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix "C".

As shown in Table 1, all of the existing study area intersections are shown to be operating at acceptable levels of service (LOS "D" or better), overall, as well as all impeded lane groups.

D. 2022 (Existing) Conditions Queuing Analysis

Queue lengths and associated storage requirements for auxiliary lanes (turn bays) at the existing study area intersections were computed utilizing the *Synchro 12* 95%tile reported queues. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group.

Existing storage capacity for auxiliary lane groups (left turn and right turn lanes) is reported as the cumulative capacity of all lanes in the group. Table 2 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 2, the following queue related issues are being experienced at the existing study area intersections based on the reported queues in the 2022 (existing) conditions analysis scenario:

- **(7) Plum Creek Pkwy./SB I-25 Ramps** – The SB left turn lanes queue is shown to block the shared left turn/through/right turn lane during the a.m. and p.m. peak hours. Also, the shared left turn/through/right turn lane is shown to exceed its capacity and spill back into the SB left turn lanes during the a.m. and p.m. peak hours.
- **(8) Plum Creek Pkwy./NB I-25 Ramps** – The EB through lanes queue is shown to exceed its capacity and spill back into the upstream intersection during the a.m. peak hour.
- **(9) Plum Creek Pkwy./Wilcox St.** – The EB through lanes queue is shown to block the EB left turn lane during the p.m. peak hour.

TABLE 1
2022 (EXISTING) CONDITIONS
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2022 EXISTING TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**				
a. EB L (Prot+Perm)		C	29.5	D	35.5
b. EB TR		D	39.5	D	45.0
c. WB L (Prot+Perm)		D	36.1	C	35.0
d. WB T		C	33.6	D	39.5
e. WB R		D	38.1	D	43.4
f. NB L (Prot+Perm)		B	13.6	B	10.8
g. NB TR		B	15.1	B	15.1
h. SB L (Prot+Perm)		B	11.8	B	11.5
i. SB T		B	11.2	B	10.6
j. SB R		B	11.3	B	11.4
k. INTERSECTION		**C**	**30.1**	**C**	**30.8**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**				
a. EB LR	Stop	A	9.8	B	10.7
b. NB LT		A	7.6	A	7.5
c. INTERSECTION		**A**	**1.7**	**A**	**3.9**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**				
a. EB LTR	Stop	A	7.3	A	7.4
b. WB LTR	Stop	A	0.0	A	0.0
c. NB LTR		A	9.6	B	10.3
d. SB LTR		A	8.8	A	9.0
e. INTERSECTION		**A**	**7.8**	**A**	**7.3**
4. Atchison Way & Topeka Way	**TWSC**				
a. EB LT		A	7.3	A	7.3
b. SB LR	Stop	A	8.5	A	8.6
c. INTERSECTION		**A**	**1.3**	**A**	**2.1**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**				
a. EB LT	Yield	A	4.8	A	4.4
b. EB TR	Yield	A	4.5	A	4.1
c. WB LT	Yield	A	3.6	A	4.6
d. WB TR	Yield	A	3.5	A	4.4
e. NB LT	Yield	A	4.3	A	4.4
f. NB TR	Yield	A	4.0	A	4.2
g. SB LT	Yield	A	4.3	A	4.4
h. SB TR	Yield	A	4.2	A	4.3
i. INTERSECTION		**A**	**4.2**	**A**	**4.3**
6. Plum Creek Pkwy. & Auburn Dr.	**TWSC**				
a. EB LT		A	7.6	A	8.1
b. SB LR	Stop	B	12.6	B	14.9
c. INTERSECTION		**A**	**2.5**	**A**	**1.9**

TABLE 1 (CONTINUED)
2022 (EXISTING) CONDITIONS
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2022 EXISTING TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
7. Plum Creek Pkwy. & I-25 SB Ramps	**Signal**				
a. EB TR		D	42.3	D	42.2
b. WB L (Prot+Perm)		C	32.9	C	29.6
c. WB T		C	32.3	B	13.8
d. NB L (Prot)		D	54.4	D	54.4
e. NB R		A	8.3	A	8.3
f. SB L (Prot) (Dual)		A	8.4	B	12.4
g. SB LTR		B	11.6	B	17.8
h. INTERSECTION		**C**	**22.4**	**B**	**19.4**
8. Plum Creek Pkwy. & I-25 NB Ramps	**Signal**				
a. EB L (Prot+Perm)		D	43.7	D	35.8
b. EB T		A	6.5	A	8.2
c. WB TR		D	44.4	D	36.9
d. WB R		C	34.0	D	42.5
e. NB L (Prot)		C	28.7	C	26.5
f. NB LTR		C	28.7	C	26.5
g. NB R		C	30.6	C	28.8
h. INTERSECTION		**C**	**27.9**	**C**	**24.9**
9. Plum Creek Pkwy. & S. Wilcox St.	**Signal**				
a. EB L (Prot+Perm)		C	30.6	D	46.8
b. EB T		C	23.7	D	37.4
c. EB R (Free)		A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.4	C	27.2
e. WB T		C	33.9	D	36.7
f. WB R		C	24.9	C	26.3
g. NB L (Prot+Perm) (Dual)		C	20.7	C	22.7
h. NB T		C	24.0	C	29.5
i. NB R		C	22.7	C	27.6
j. SB L (Prot+Perm)		C	24.6	C	24.9
k. SB T		C	28.3	C	31.8
l. SB R		C	31.0	D	41.8
m. INTERSECTION		**C**	**27.7**	**C**	**34.4**

TABLE 2
2022 (EXISTING) CONDITIONS
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2022 EXISTING TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.			
a. EB L (1)	325	65	46
b. EB TR (2)	1100	308	300
c. WB L (1)	150	94	77
d. WB T (2)	1850	150	277
e. WB R (1)	100	45	54
f. NB L (1)	250	6	22
g. NB TR (1)	250	45	85
h. SB L (1)	350	113	123
i. SB T (1)	875	32	33
j. SB R (1)	350	10	28
2. Prairie Hawk Dr./Atchison Way			
a. EB LR (1)	700	5	18
b. NB LT (1)	425	0	0
3. Prairie Hawk Dr./Topeka Way			
a. EB LTR (1)	200	3	5
b. WB LTR (1)	-	0	0
c. NB LTR (1)	1100	0	0
d. SB LTR (1)	430	8	5
4. Atchison Way/Topeka Way			
a. EB LT (1)	110	0	0
b. SB LR (1)	450	0	0
5. Plum Creek Pkwy./Coachline Rd./ W. Wolfensberger Rd.			
a. EB LT (1)	550	0	0
b. EB TR (1)	550	0	0
c. WB LT (1)	250	0	0
d. WB TR (1)	350	0	0
e. NB LT (1)	500	0	0
f. NB TR (1)	150	0	0
g. SB LT (1)	200	25	0
h. SB TR (1)	2450	25	0
6. Plum Creek Pkwy./Auburn Dr.			
a. EB LT (1)	800	0	0
b. SB LR (1)	275	18	18

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2022 EXISTING TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK
7. Plum Creek Pkwy./I-25 SB Ramps			
a. EB TR (3)	2700	270	273
b. WB L (1)	675	52	139
c. WB T (2)	350	65	165
d. NB L (1)	375	30	30
e. NB R (1)	750	59	52
f. SB L (2)	3300	388	1154
g. SB LTR (1)	225	236	730
8. Plum Creek Pkwy./I-25 NB Ramps			
a. EB L (1)	650	151	122
b. EB T (3)	480	644	500
c. WB TR (1)	625	605	413
d. WB R (1)	400	53	50
e. NB L (1)	400	40	48
f. NB LTR (1)	1700	41	85
g. NB R (1)	175	27	63
9. Plum Creek Pkwy./S. Wilcox St.			
a. EB L (1)	325	140	235
b. EB T (2)	1250	382	916
c. EB R (1)	600	0	0
d. WB L (1)	225	29	42
e. WB T (2)	880	604	621
f. WB R (1)	420	18	50
g. NB L (2)	450	256	305
h. NB T (1)	250	108	142
i. NB R (1)	250	15	30
j. SB L (1)	200	58	132
k. SB T (1)	200	91	121
l. SB R (1)	200	39	71

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

III. BACKGROUND TRAFFIC

A. Background Traffic Volumes

For the purposes of this study, background traffic volumes were developed incorporating the following methodology. The overall background traffic volumes used in this study are the result of combining two distinct components, “regional” and “local” traffic volumes. The “regional” background traffic volume component accounts for the larger scale traffic growth along the major roadways within the study area. The “regional” background traffic component utilizes regional travel planning models and documents in order to establish an average annual traffic volume growth rate on these roadways. The “local” background traffic volume component accounts for the influence of anticipated future development on properties within in the immediate study area that may not otherwise be captured by the “regional” component.

The background traffic models for the 2027 (build-out) and 2050 (long-term) analysis horizons for this study were developed as follows:

- 2027 (build-out) background traffic volumes - The 2027 (build-out) background traffic volumes were developed employing a two-step process. The first step of the process was to apply a “regional” background traffic growth factor to the 2022 (existing) traffic volumes to forecast the 2027 (build-out) “regional” background traffic volume component. Additionally, it was assumed that the I-25/Crystal Valley Pkwy. interchange (approximately two miles south of the I-25/Plum Creek Pkwy. interchange) will be constructed and in operation by 2027. The I-25/Crystal Valley Pkwy. interchange will serve to divert a portion of the traffic demand away from the I-25/Plum Creek Pkwy. interchange. This traffic volume was deducted after the 2027 (build-out) “regional” background traffic growth factor was applied to the 2022 (existing) traffic volumes. The following assumptions were used in developing the diverted traffic volumes:
    - It was assumed that 60% of the SB I-25/Plum Creek Pkwy. interchange ramp SB through volume will be diverted to the I-25/Crystal Valley Pkwy. interchange.
    - 30% of the SB I-25/Plum Creek Pkwy. interchange ramp SB LT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange based on the proportion of EB RT volume on the EB approach to the Plum Creek Pkwy./Wilcox intersection.
    - 30% of the NB I-25/Plum Creek Pkwy. interchange ramp NB RT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange based on the proportion of EB RT volume on the EB approach to the Plum Creek Pkwy./Wilcox intersection.
    - It was assumed that 10% of the SB I-25/Plum Creek Pkwy. interchange ramp NB RT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange.

  The second step was to develop a “local” background traffic volume model component. It was assumed that there would be no anticipated new developments in place by the 2027 (build-out) analysis horizon that would contribute to the “local” background component.

  Combining the “regional” and “local” background traffic volume components results in the 2027 (build-out) background traffic volume forecast for this study.

- 2050 (long-term) background traffic volumes – The 2050 (long-term) background traffic volumes were developed employing the same two-step process as the 2027 (build-out) background traffic volumes. The first step applied a “regional” background traffic growth factor to the 2027 (build-out) traffic volumes after they were adjusted for the presence of the

I-25/Crystal Valley Pkwy. interchange to forecast the 2050 (long-term) "regional" background traffic volume component.

The second step was to develop the "local" background traffic volume model component for the 2050 (long-term) analysis horizon. This assumes the following:

- It was assumed that the proposed Miller's Landing development and associated roadway improvements will be fully built-out by the 2050 (long-term) analysis horizon. The traffic generated by the proposed Miller's Landing development was taken directly from *Figure 8c – Year 2040 Assignment of Total Site-Generated Traffic* in the study entitled, *Miller's Landing, Traffic Impact Analysis, Castle Rock Colorado, October 31, 2016*, by LSC Transportation Consultants, Inc. (*LSC Study*).
- It was assumed that the property south of Plum Creek Pkwy. (referred to herein as the Dawson Trails property), that will be accessed via the extension of the realigned Prairie Hawk Dr. (referred to as Dawson Trails Blvd.), will be fully developed by the 2050 (long-term) analysis horizon. The trips generated by this area were developed based on *Figure 10 – 2040 Full Build Traffic Forecasts with all Base Assumption Projects* in the *Town of Castle Rock Transportation Master Plan, October 2017 (CRTMP).*
- It was assumed that the anticipated Castle Meadows development and associated roadway improvements will be in place prior to the 2050 (long-term) analysis horizon. The proposed Castle Meadows development was assumed to consist of 960 multi-family dwelling units, with approximately 30% of these dwelling units being built within the Millers Landing property. In addition, it was assumed that access will be provided via the proposed East/West Collector roadway.

Combining the "regional" and "local" background traffic volume components results in the 2050 (long-term) background traffic volume forecast for this study.

More specifically, the following describes the development of the 2027 (build-out) and 2050 (long-term) analysis horizons background traffic models.

- "Regional" Background Traffic Volumes:
  - Based on the current DRCOG 2020 and 2050 travel models for the roadways within the study area, Plum Creek Pkwy. and Wolfensberger Rd. are forecasting an average annual traffic volume growth rate (AGR) of approximately 0.61% and 1.1%, respectively. Based on this data an AGR of 1% was employed for all of the existing study area roadways. An AGR of 1% results in a 5-year (2022 to 2027) growth factor of 1.051 and a 23-year (2027 to 2050) growth factor of 1.257.
  - The appropriate AGR factors were applied to the 2022 (existing) traffic volumes in order to develop the forecast 2027 (build-out) and 2050 (long-term) "regional" background traffic volumes.
  - For the purposes of this study, it was assumed that the distribution of the regional intersection approach traffic (left turn, through, right turn) will remain static through the 2045 (long-term) analysis horizon.
  - Figure 5 graphically illustrates the forecast 2027 (build-out) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.
  - Figure 6 graphically illustrates the forecast 2050 (long-term) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.

- "Local" Background Traffic Volumes:
    - Since it is not anticipated that there would be any new developments in place by the 2027 (build-out) analysis horizon that would contribute to the "local" background component, a 2027 (build-out) analysis horizon "local" background traffic volume component was not developed.
    - A "local" background traffic component was developed for the 2050 (long-term) analysis horizon background traffic models based on the anticipated Miller's Landing development, Dawson Trails property development, and Castle Meadows multi-family development, as described above.
    - The proposed Miller's Landing development is situated immediately to the west of the proposed Brickyard development between the Industrial Tributary on the north, Plum Creek Pkwy. and the Industrial Tributary on the east , and Plum Creek Pkwy. to the south. The forecast site traffic generated by the proposed Miller's Landing development was assigned to the study area roadways and intersections utilizing the *LSC Study*, referenced above. For the 2050 (long-term) analysis horizon, the traffic generated by the anticipated full build-out of the proposed Miller's Landing development was taken directly from *Figure 8c – Year 2040 Assignment of Total Site-Generated Traffic* of the *LSC Study*.
    - The Dawson Trails property is situated to the west of I-25 south of Plum Creek Pkwy. to Tomah Rd. This property is assumed to have its primary northern access point via the extension of the realigned Prairie Hawk Dr. (referred to as Dawson Trails Blvd.) south from Plum Creek Pkwy. Other access points to the south will include the Tomah Rd./I-25 Interchange and the future I-25/Crystal Valley Pkwy. Interchange. The traffic forecast to be generated by the Dawson Trails property that would utilize the proposed Plum Creek Pkwy./Prairie Hawk Dr./Dawson Trails Blvd. intersection and the other study area roadways and intersections was developed as follows:
        - It was assumed that the Dawson Trails property will be fully developed by the 2050 (long-term analysis horizon.
        - Based on the *CRTMP, Figure 10 – 2040 Full Build Traffic Forecasts with all Base Assumption Projects*, Dawson Trails Blvd. is forecast to have an AADT of 37,200vpd between Plum Creek Pkwy. and Tomah Rd. Assuming that 25% of this traffic would access the Dawson Trails property via the proposed Plum Creek Pkwy./Prairie Hawk Dr./Dawson Trails Blvd. intersection it was projected that Dawson Trails Blvd. just south of the intersection would have an AADT of 9,300vpd. Assuming a "K" factor (proportion of AADT occurring in the peak hour) of 0.085 and a "D" factor (proportion of peak hour traffic in the peak direction) of 0.6 it was projected that Dawson Trails Blvd. just south of Plum creek Pkwy. would have an a.m. peak hour volume of 474vph northbound and 316vph southbound. During the p.m. peak hour, it was projected that Dawson Trails Blvd. just south of Plum creek Pkwy. would have a volume of 316vph northbound and 474vph southbound.
        - The projected peak hour traffic volumes on the proposed Dawson Trails Blvd. just south of Plum Creek Pkwy. was distributed to the study area roadways and intersections utilizing the same proportional distributions as the proposed Miller's Landing development site generated traffic.
    - The Castle Meadows property is situated immediately to the south of the proposed Brickyard development site, west of I-25, north of Plum Creek Pkwy., and east of the

proposed Miller's Landing development site. The traffic projected to be generated by Castle Meadows property was developed and distributed to the study area roadways and intersections as follows:

- It was assumed that the Castle Meadows property will be fully built out by the 2050 (long-term) analysis horizon as a 960-unit multi-family development, with approximately 30% of these dwelling units being built within the Millers Landing property.
- Traffic generated by the assumed Castle Meadows development was distributed to the study area roadways and intersections via the proposed East/West Collector roadway.

- Figure 7 graphically illustrates the forecast 2050 (long-term) analysis horizon "local" background traffic volumes on the study area roadways and intersections, respectively.

- 2027 (build-out) Total Background Traffic Volumes:
  - The 2027 (build-out) total background traffic volumes for this study are the sum of the 2027 (build-out) "regional" background traffic volumes plus the 2027 (build-out) "local" background traffic volumes. Figure 8 graphically illustrates the 2027 (build-out) total background traffic volumes on the study area roadways and intersections.

- 2050 (Long-Term) Total Background Traffic Volumes
  - The 2050 (long-term) total background traffic volumes for this study are the sum of the 2050 (long-term) "regional" background traffic volumes plus the 2050 (long-term) "local" background traffic volumes. Figure 9 graphically illustrates the 2050 (long-term) total background traffic volumes on the study area roadways and intersections.

B. Background Traffic Roadway System

It was assumed that the existing roadway network within the study area of the proposed Brickyard development will be modified by the 2027 (build-out) and 2050 (long-term) analysis horizons as follows:

- **Study Area Roadways:**
  - **Prairie Hawk Dr. (Realignment)**
    - 2027 (Build-Out) Analysis Horizon – A new two-lane roadway (known as Praxis St.) will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
    - 2050 (Long-Term) Analysis Horizon – By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Atchison Way, the roadway section will be a 4-lane major arterial. From Atchison Way to Topeka Way, the roadway section will be a 2-lane minor arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard

development. From Topeka Way to Plum Creek Pkwy., the roadway section will be a 4-lane arterial.

- **Plum Creek Pkwy.**
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Plum Creek Pkwy. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Plum Creek Pkwy. will be improved to a 4-lane major arterial roadway from Wolfensberger Rd. to I-25 based on the CRTMP. It is also anticipated that a continuous westbound acceleration/deceleration lane from the I-25 SB Ramp intersection to the new Praxis St. intersection will be constructed. This lane will terminate into a free right turn lane at Praxis St. There will also be a continuous 3rd eastbound travel lane from the Praxis St. intersection to Wilcox St.
- **Wolfensberger Rd.**
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, the developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet at the Prairie Hawk Dr. intersection in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. It is not anticipated that any other operational or capacity improvements will be made to Wolfensberger Rd. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Wolfensberger Rd. will be improved, within the study area, to a 4-lane major arterial roadway from Plum Creek Pkwy. to Prairie Hawk Dr. based on the CRTMP.
- **Dawson Trails Blvd.**
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is assumed that with the construction of the Crystal Valley Interchange, an access roadway south of Plum Creek Pkwy. will be constructed to provide access at the new Praxis St./Plum Creek Pkwy intersection.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Dawson Trails Blvd. will be fully in place as a 4-lane major arterial roadway extending south from the Plum Creek Pkwy./Praxis St. intersection based on the CRTMP.
- **East/West Collector**
  - 2027 (Build-Out) Analysis Horizon – It is assumed that the East/West Collector will not be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the East/West Collector will be constructed as a 2-lane collector extending east from Praxis St. along the southern boundary of the proposed Brickyard development site. There is potential that this roadway may be connected to the existing Prairie Hawk Dr. at its southern terminus to provide emergency vehicle access only. No further connection is anticipated.

- **Study Area Intersections:**
  - **(1) Wolfensberger Rd./Prairie Hawk Dr.**
    - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, the developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet at the Prairie Hawk Dr. intersection in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. No other major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway improvements. The intersection will remain under actuated/coordinated traffic signal control. The east leg of the intersection will be modified so that the westbound left turn storage length is increased to 225 feet. No other modifications will be made to the east leg. The west leg of the intersection will have one left turn lane, two through lanes, and one right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes, one through lane and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one left turn lane, two through lanes and one right turn lane on the northbound approach, and two southbound departure lanes.
  - **(2) Prairie Hawk Dr./Atchison Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be reconstructed as a 1-lane roundabout to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
  - **(3) Prairie Hawk Dr./Topeka Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.
  - **(4) Atchison Way/Topeka Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have two-way stop control on the eastbound and westbound approaches. The east leg of the intersection will have one left

turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane, and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane, one through lane and one right turn lane on the northbound approach, and two southbound departure lanes.

- **(5) Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.
- **(6) Plum Creek Pkwy./Auburn Dr.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Plum Creek Pkwy. roadway improvements. The intersection will have stop control on the southbound approach. The east leg of the intersection will have one right turn lane and two through lanes on the westbound approach, and two eastbound departure lanes. The west leg of the intersection will have one left turn lane and two through lanes on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The northbound lanes will be removed at this intersection. The east leg of the intersection will remain unchanged. The west leg of the intersection will be modified to have three through lanes and a continuous free flow right turn lane with a raised channelizing island on the eastbound approach. The north leg will be modified to have dual left turn lanes, a shared left turn/through lane and a free flow right turn lane with a raised channelizing island on the southbound approach. The south leg will be modified to have only one southbound departure lane. Due to the westbound left turn queues at this intersection exceeding the capacity under the I-25 bridge, additional queueing capacity is needed beyond the northbound ramp intersection.
- **(8) Plum Creek Pkwy./I-25 NB Ramps**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp

intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25. The north leg will be modified to have an additional northbound departure lane. The south leg will remain unchanged. Constructing these additional lanes will require widening Plum Creek Pkwy. to accommodate the additional roadway width needed.

- **(9) Plum Creek Pkwy./Wilcox St.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements. These modifications would help alleviate queueing issues and mitigate the potential operational issues for these movements in the 2050 (long-term) analysis horizon.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access**
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will constructed be as follows. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.

- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.**
  - 2027 (Build-Out) Analysis Horizon – The intersection is anticipated to be constructed by the 2027 (build-out) analysis horizon to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100’ feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250’ feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others as Dawson Trails Blvd. to provide access from the Crystal Valley interchange.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that the following modifications will be made. The intersection will remain under actuated/coordinated traffic signal control. The east leg of the intersection will have dual left turn lanes, two through lanes and one continuous free-flow right turn lane on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn acceleration lane. The west leg of the intersection will have one left turn lane, two through lanes and

one right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes, two through lanes and one right turn lane on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane. The south leg of the intersection will be modified to have one left turn lane, two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

- **(12) Prairie Hawk Dr./East/West Collector**
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will be constructed to accommodate the Castle Meadows development. The intersection will be limited to a three-quarter movement access intersection. The intersection will be a "T" intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

C. Background Traffic Operational Analysis

The following study area intersections were analyzed for the 2027 (build-out) and 2050 (long-term) total background traffic analysis horizons in order to provide a basis for comparison of their operational characteristics with and without the proposed Brickyard development:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)
10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
12. Praxis St./East/West Collector

The results of the background traffic operational analyses are summarized graphically for the 2027 (build-out) and 2050 (long-term) background traffic analysis horizons in Figures 10 and 11, respectively. A summary of the results of the intersection capacity analyses is provided in Table 3 and detailed *Synchro 12* software intersection capacity analysis reports in Appendix "C".

As shown in Table 3, all of the existing study area intersections as well as all of their individual lane groups are projected to operate at acceptable levels of service (LOS "D" or better), overall, during the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic scenarios with the exception of the following:

- (6) Plum Creek Pkwy./Auburn Dr.
  - By the 2050 (long-term) analysis horizon, the southbound shared left turn/right turn lane is projected to experience a poor level of service (LOS “E”) during the p.m. peak hour.
- (8) Plum Creek Pkwy./NB I-25 Ramps
  - By the 2050 (long-term) analysis horizon, the westbound shared through/right turn lane is projected to experience a failing level of service (LOS “F”) during the p.m. peak hour.

D. Background Traffic Queuing Analysis

Queue lengths and associated storage requirements for auxiliary lanes (turn bays) at the existing study area intersections were computed for the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic scenarios. Table 4 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 4, there are no queue related issues projected to be experienced at the study area intersections based on the reported queues in the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic analysis scenarios with the exception of the following:

- (1) Wolfensberger Rd./Prairie Hawk Dr.
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour the WB through lane group queue is projected to block the WB RT Lane group.
  - 2050 (Long-Term) Analysis Horizon – During the p.m. peak hour the WB through lane group queue is projected to continue to block the WB RT Lane group.
- (7) Plum Creek Pkwy./SB I-25 Ramps
  - 2027 (Build-Out) Analysis Horizon – During the p.m. peak hour, the SB left turn lane group queue is projected to block the shared left turn/through/right turn lane group, and the SB shared left turn/through/right turn lane group queue is projected to spill back into the SB left turn lane group.
  - 2050 (Long-Term) Analysis Horizon – During the a.m. peak hour, the WB through lane group queue is projected to spill back into the upstream intersection. During the p.m. peak hour, the SB left turn lane group queue is projected to block the shared left turn/through/right turn lane group, and the SB shared left turn/through/right turn lane group queue is projected to spill back into the SB left turn lane group. Additional queuing capacity will be needed on the east and north legs of the intersection in order to help alleviate the projected queuing issues.
- (8) Plum Creek Pkwy./NB I-25 Ramps
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour the WB shared through/right turn lane group queue is projected to spill back into the upstream intersection.
  - 2050 (Long-Term) Analysis Horizon – During the p.m. peak hour, the EB through lane group queue and WB shared through/right turn lane group queue are both projected to spill back into the upstream intersection. Additional queuing capacity will be needed on the east and west legs of the intersection in order to help alleviate the projected queuing issues.

- (9) Plum Creek Pkwy./Wilcox St.
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour, the EB through lane group queue is projected to block the EB left turn lane group and the WB through lane group queue is projected to block the WB left turn lane group.
  - 2050 (Long-Term) Analysis Horizon – During both the a.m. and p.m. peak hours the EB left turn lane queue is projected to spill back into the through lane group. During the p.m. peak hour, the EB through lane queue is projected to block the left turn lane group. During both the a.m. and p.m. peak hours the WB through lane group queue is projected to block the WB left turn lane group. During the p.m. peak hour, the NB left turn lane queue is projected to spill back into the NB through lane group and the SB left turn lane queue is projected to spill back into the SB through lane group.

TABLE 3
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**								
a. EB L (Prot+Perm)		C	28.7	C	33.9	C	25.8	C	32.3
b. EB TR		D	39.1	D	41.6	-	-	-	-
c. EB T		-	-	-	-	D	35.9	D	41.1
d. EB R		-	-	-	-	C	29.4	C	34.9
e. WB L (Prot+Perm)		C	29.4	D	35.0	C	29.2	C	32.8
f. WB T		C	31.0	D	39.3	C	26.3	C	32.0
g. WB R		C	34.4	D	43.3	C	29.3	C	34.1
h. NB L (Prot+Perm)		B	15.4	B	12.4	C	20.2	B	16.3
i. NB TR		B	17.2	B	17.5	-	-	-	-
j. NB T		-	-	-	-	C	21.7	B	19.0
k. NB R		-	-	-	-	C	28.7	C	27.0
l. SB L (Prot+Perm)		B	14.1	B	11.2	-	-	-	-
m. SB L (Prot+Perm) (Dual)		-	-	-	-	B	16.9	B	15.3
n. SB T		B	12.9	B	10.9	-	-	-	-
o. SB R		B	13.0	B	11.8	-	-	-	-
p. SB TR		-	-	-	-	B	18.6	B	18.2
q. INTERSECTION		**C**	**29.1**	**C**	**30.4**	**C**	**27.3**	**C**	**28.9**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**								
a. EB LR	Stop	A	9.9	B	10.9	-	-	-	-
b. NB LT		A	7.6	A	7.6	-	-	-	-
c. INTERSECTION		**A**	**1.7**	**A**	**4.0**	**-**	**-**	**-**	**-**
2.A. Prairie Hawk Dr. & Atchison Way	**Roundabout**								
a. EB LR	Yield	-	-	-	-	A	5.8	A	6.4
b. NB T	Free	-	-	-	-	A	4.3	A	5.6
c. SB T	Yield	-	-	-	-	A	3.7	A	3.5
d. SB R	Free	-	-	-	-	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.3**	**A**	**4.0**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**								
a. EB LTR	Stop	A	7.2	A	7.2	A	7.3	A	7.4
b. WB LTR	Stop	A	7.4	A	7.3	A	0.0	A	0.0
c. NB LTR		A	9.1	A	9.3	A	9.9	B	10.9
d. SB LTR		A	8.4	A	8.4	A	9.1	A	9.2
e. INTERSECTION		**A**	**3.5**	**A**	**5.8**	**A**	**8.2**	**A**	**7.9**

TABLE 3 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
4. Atchison Way & Topeka Way	**TWSC**								
a. EB LT		A	7.3	A	7.3	-	-	-	-
b. EB L	Stop	-	-	-	-	B	12.7	B	11.8
c. EB TR	Stop	-	-	-	-	B	12.4	B	12.1
d. WB L	Stop	-	-	-	-	B	12.7	B	13.1
e. WB TR	Stop	-	-	-	-	B	12.7	B	11.5
f. NB L		-	-	-	-	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	-	-	-	-
h. SB L		-	-	-	-	A	0.0	A	7.7
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**2.0**	**A**	**3.7**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**								
a. EB LT	Yield	A	4.9	A	4.5	A	8.9	A	6.7
b. EB TR	Yield	A	4.6	A	4.2	A	8.5	A	6.4
c. WB LT	Yield	A	3.7	A	4.8	A	5.1	A	7.2
d. WB TR	Yield	A	3.5	A	4.6	A	5.0	A	6.9
e. NB LT	Yield	A	4.4	A	4.5	A	7.7	A	7.0
f. NB TR	Yield	A	4.1	A	4.3	A	7.1	A	6.6
g. SB LT	Yield	A	4.4	A	4.5	A	6.9	A	7.1
h. SB TR	Yield	A	4.3	A	4.4	A	6.6	A	6.6
i. INTERSECTION		**A**	**4.3**	**A**	**4.5**	**A**	**7.0**	**A**	**6.8**
6. Plum Creek Pkwy. & Auburn Dr.	**TWSC**								
a. EB LT		A	7.6	A	8.2	-	-	-	-
b. EB L		-	-	-	-	A	8.5	A	9.5
c. SB LR	Stop	B	13.0	C	15.5	D	28.3	E	35.4
d. INTERSECTION		**A**	**2.5**	**A**	**1.9**	**A**	**3.1**	**A**	**2.9**
7. Plum Creek Pkwy. & I-25 SB Ramps	**Signal**								
a. EB TR		D	40.5	D	42.7	-	-	-	-
b. EB T		-	-	-	-	C	30.3	D	51.1
c. EB R (Free)		-	-	-	-	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	42.9	D	40.4	C	32.1	D	43.7
e. WB T		B	19.3	B	14.0	B	17.9	B	14.4
f. NB L (Prot)		D	54.1	D	54.1	-	-	-	-
g. NB R		A	4.3	A	7.7	-	-	-	-
h. SB L (Prot) (Dual)		A	6.3	B	10.1	C	20.1	D	40.0
i. SB LTR		A	9.3	B	14.1	-	-	-	-
j. SB LT		-	-	-	-	C	27.2	C	33.4
k. SB R (Free)		-	-	-	-	A	0.0	A	0.0
l. INTERSECTION		**C**	**22.9**	**C**	**21.0**	**C**	**24.6**	**D**	**36.0**
8. Plum Creek Pkwy. & I-25 NB Ramps	**Signal**								
a. EB L (Prot+Perm)		D	42.3	D	36.7	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	D	37.3	D	42.6
c. EB T		A	5.3	A	6.1	A	6.7	A	6.9
d. WB TR		D	40.8	C	33.7	C	33.5	F	59.7
e. WB R		C	31.7	D	38.9	D	42.6	C	27.9
f. NB L (Prot)		C	28.8	C	29.0	D	43.9	D	42.4
g. NB LTR		C	28.8	C	29.0	D	43.9	D	42.4
h. NB R		C	30.0	C	30.1	D	40.7	D	40.8
i. INTERSECTION		**C**	**27.4**	**C**	**24.4**	**C**	**30.2**	**C**	**28.6**

TABLE 3 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
9. Plum Creek Pkwy. & S. Wilcox St.	**Signal**								
a. EB L (Prot+Perm)		C	34.1	D	40.1	D	46.5	D	46.9
b. EB T		C	24.1	D	35.7	C	31.9	D	42.2
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.8	C	27.2	B	19.5	D	38.3
e. WB T		D	38.4	D	40.1	-	-	-	-
f. WB R		C	25.4	C	26.4	-	-	-	-
g. WB TR		-	-	-	-	D	37.9	D	42.3
h. NB L (Prot+Perm) (Dual)		C	23.0	C	25.4	D	38.5	D	48.4
i. NB T		C	24.1	C	31.7	D	35.1	D	39.8
j. NB R		C	22.8	C	29.6	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	C	28.9	C	31.8
l. SB L (Prot+Perm)		C	21.4	C	24.7	C	31.9	D	51.7
m. SB T		C	24.7	C	31.5	D	37.7	D	52.7
n. SB R		C	27.0	D	41.9	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	C	29.2	D	43.8
p. INTERSECTION		**C**	**29.6**	**C**	**34.7**	**C**	**28.0**	**D**	**43.3**
10. Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**								
a. EB LTR	Yield	-	-	-	-	A	4.4	A	3.8
b. WB LTR	Yield	-	-	-	-	A	3.6	A	3.4
c. NB LT	Yield	-	-	-	-	A	4.0	A	3.8
d. NB TR	Yield	-	-	-	-	A	3.8	A	3.7
e. SB LT	Yield	-	-	-	-	A	3.5	A	3.6
f. SB TR	Yield	-	-	-	-	A	3.4	A	3.5
g. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.9**	**A**	**3.7**
11. Plum Creek Pkwy. & Praxis St./Dawson Trails Blvd.	**Signal**								
a. EB L (Prot+Perm)		-	-	-	-	C	25.2	C	24.0
b. EB T		-	-	-	-	C	33.6	D	39.7
c. EB R		-	-	-	-	C	26.3	C	26.8
d. WB L (Prot+Perm) (Dual)		-	-	-	-	C	23.9	C	24.7
e. WB T		-	-	-	-	C	33.4	C	29.5
f. WB R (Free)		-	-	-	-	A	0.0	A	0.0
g. NB L (Prot+Perm)		-	-	-	-	B	14.4	B	18.3
h. NB T		-	-	-	-	C	25.3	C	26.2
i. NB R (Free)		-	-	-	-	A	0.0	A	0.0
j. SB L (Prot+Perm) (Dual)		-	-	-	-	B	14.8	B	14.9
k. SB T		-	-	-	-	C	25.4	C	22.3
l. SB R		-	-	-	-	C	27.9	C	24.6
m. INTERSECTION		**-**	**-**	**-**	**-**	**C**	**27.9**	**C**	**28.5**
12. Praxis St. & East/West Collector	**TWSC**								
a. WB R	Stop	-	-	-	-	B	13.1	B	10.2
b. SB L		-	-	-	-	A	9.2	A	8.4
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**2.0**	**A**	**1.3**

TABLE 4
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.					
a. EB L (1)	325	63	51	62	48
b. EB TR (2)	1100	319	304	-	-
c. EB T (2)	1100	-	-	367	355
d. EB R (1)	150	-	-	12	13
e. WB L (1)	225	91	88	128	151
f. WB T (2)	1850	156	310	163	344
g. WB R (1)	100	50	58	47	56
h. NB L (1)	250	7	20	16	41
i. NB TR (1)	250	49	79	-	-
j. NB T (2)	500	-	-	108	146
k. NB R (1)	150	-	-	63	74
l. SB L (1/2)	350/700	130	115	178	176
m. SB T (1)	875	36	31	-	-
n. SB R (1)	350	10	19	-	-
o. SB TR (2)	1225	-	-	133	125
2. Prairie Hawk Dr./Atchison Way (TWSC)					
a. EB LR (1)	700	5	20	-	-
b. NB LT (1)	425	0	0	-	-
2.A. Prairie Hawk Dr./Atchison Way (Roundabout)					
a. EB LR (1)	700	-	-	25	50
b. NB T (1)	425	-	-	25	25
c. SB T (1)	125	-	-	0	0
d. SB R (1)	150	-	-	0	25
3. Prairie Hawk Dr./Topeka Way					
a. EB LTR (1)	200	3	8	3	5
b. WB LTR (1)	-	0	0	0	0
c. NB LTR (1)	1100	0	0	13	8
d. SB LTR (1)	430	0	0	15	13
4. Atchison Way/Topeka Way					
a. EB LT (1)	150	0	0	-	-
b. EB L (1)	150	-	-	0	3
c. EB TR (1)	-	-	-	3	5
d. WB L (1)	150	-	-	5	13
e. WB TR (1)	-	-	-	5	5
f. NB L (1)	150	-	-	0	0
g. SB LR (1)	-	0	0	-	-
h. SB L (1)	150	-	-	0	0
5. Plum Creek Pkwy./Coachline Rd./W. Wolfensberger Rd.					
a. EB LT (1)	550	0	0	50	25
b. EB TR (1)	550	0	0	50	25
c. WB LT (1)	250	0	0	25	25
d. WB TR (1)	350	0	0	25	25
e. NB LT (1)	500	0	0	25	25
f. NB TR (1)	150	0	0	25	25
g. SB LT (1)	200	25	0	25	25
h. SB TR (1)	2450	25	25	25	25
6. Plum Creek Pkwy./Auburn Dr.					
a. EB LT (1)	800	0	0	-	-
b. EB L (1)	150	-	-	0	0
c. SB LR (1)	275	18	20	70	70

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
7. Plum Creek Pkwy./I-25 SB Ramps					
a. EB TR (3)	2700	278	339	-	-
b. EB T (3)	2700	-	-	770	1278
c. EB R (1)	-	-	-	0	0
d. WB L (1)	675	139	208	204	289
e. WB T (2)	350	181	236	409	331
f. NB L (1)	375	31	31	-	-
g. NB R (1)	750	48	58	-	-
h. SB L (2)	3300	298	502	315	886
i. SB LTR (1)	225	179	318	-	-
j. SB LT (1)	225	-	-	203	551
k. SB R (1)	-	-	-	0	0
8. Plum Creek Pkwy./I-25 NB Ramps					
a. EB L (1/2)	650/800	145	121	464	341
b. EB T (3)	480	191	311	379	576
c. WB TR (1/2)	625/820	592	696	451	1269
d. WB R (1)	400	61	73	131	325
e. NB L (1)	400	43	52	235	191
f. NB LTR (1)	1700	37	39	234	196
g. NB R (1)	175	29	32	90	86
9. Plum Creek Pkwy./S. Wilcox St.					
a. EB L (1)	325	193	269	333	454
b. EB T (2)	1250	447	1028	295	1623
c. EB R (1)	600	0	0	0	0
d. WB L (1)	225	34	45	33	80
e. WB T (2)	880	718	697	-	-
f. WB R (1)	420	39	28	-	-
g. WB TR (3)	1300	-	-	1119	1193
h. NB L (2)	450	246	314	438	570
i. NB T (1)	250	104	146	154	195
j. NB R (1)	250	15	32	15	23
k. SB L (1)	200	55	135	85	246
l. SB T (1)	200	76	110	117	171
m. SB R (1)	200	46	63	111	153
10. Prairie Hawk Dr./Praxis St./West Site Access					
a. EB LTR (1)	-	-	-	25	0
b. WB LTR (1)	-	-	-	0	0
c. NB LT (1)	-	-	-	0	0
d. NB TR (1)	-	-	-	0	0
e. SB LT (1)	-	-	-	0	0
f. SB TR (1)	-	-	-	0	0
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.					
a. EB L (1)	250	-	-	78	62
b. EB T (2)	-	-	-	426	551
c. EB R (1)	250	-	-	40	51
d. WB L (2)	600	-	-	130	177
e. WB T (2)	-	-	-	428	471
f. WB R (1)	-	-	-	0	0
g. NB L (1)	200	-	-	78	54
h. NB T (2)	-	-	-	51	70
i. NB R (1)	-	-	-	0	0
j. SB L (2)	500	-	-	194	200
k. SB T (2)	-	-	-	60	80
l. SB R (1)	100	-	-	45	53
12. Praxis St./East/West Collector					
a. WB R (1)	-	-	-	35	10
b. SB L (1)	150	-	-	25	5

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

IV. PROJECT DEVELOPMENT

A. Trip Generation

The trip generation projections for the proposed Brickyard development were forecast utilizing the publication *Trip Generation, 11th Edition*, by the Institute of Transportation Engineers (ITE). Estimates of total daily traffic volumes and a.m. and p.m. peak hour traffic volumes were calculated. Site generated vehicular trip reductions as a result of internal trip capture were considered and have been incorporated into the projections. Due to the location of the proposed development, site generated vehicular trip reductions as a result of transit use was not considered. Adjustments have also been incorporated into the assignment of the site generated vehicular trips on the study area roadways and intersections in order to account for the influence of pass-by trips.

Internal trip capture is that portion of trips generated by a mixed-use development that both begin and end within the development. The importance of internal trip capture is that those trips satisfy a portion of the total development's trip generation and they do so without using the external roadway system. The methodology presented in *Trip Generation Handbook, 3rd Edition,* by the ITE was utilized to estimate internal trip capture rates for the proposed Brickyard development. Based on the conceptual site plan for the proposed development, the projected site generated trips captured internally can be considered non-vehicular trips and therefore can be deducted from the overall site generated trip totals. Based on engineering judgement, the computed ITE internal trip capture rates were capped at a maximum of 20% to be more conservative and applicable to the nature of the proposed development and surrounding land uses. The unadjusted vehicular trip generation projections for the proposed Brickyard development are summarized in Table 5. The internal trip capture rates and resulting site generated vehicular trip reductions and adjusted vehicular trip generation projections are summarized in Table 5A. Appendix “D” provides detailed internal trip capture worksheets for the proposed Brickyard development.

Pass-by trips can be defined as an intermediate stop on the way from an origin to a primary trip destination (I.e., home to work) without route diversion. For example, a commuter whose primary trip is home to work makes an intermediate stop for vehicle fueling, fast-food, etc. and continues on their way without any route diversion. These site generated trips already exist in the background traffic volume and are only added to the sites access intersections with the external roadway network and internal roadway system. The methodology presented in *Trip Generation Handbook, 3rd Edition,* by the ITE was utilized to estimate pass-by trip rates and volumes for the proposed Brickyard development. For the purposes of this study, site generated pass-by trips were incorporated into the assignment of the site generated vehicular trips to the study area roadways and intersections utilizing the same trip distribution methodology as for the distribution of the site generated trips for each specific land use. Site generated pass-by trips for the proposed Brickyard development have been computed for the commercial/retail land use and summarized in Table 5B.

For the purposes of this study, it was assumed that the proposed Brickyard development will be fully built out by 2027 and will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

TABLE 5
THE BRICKYARD – TRIP GENERATION SUMMARY

Land Use	Intensity		ITE Code	Daily (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					Total	In	Out	Total	In	Out
Multi-family Housing (Mid-Rise) (4-10 floors)	384	DU	221	1785	157	36	121	150	92	58
Hotel	123	Rooms	310	910	54	30	24	63	32	31
Recreational Community Center	145	KSF	495	4013	277	183	94	345	162	183
Retail Plaza (<40k)	8.5	KSF	822	588	26	16	10	69	35	34
General Office Building	25	KSF	710	347	51	45	6	53	9	44
Medical-Dental Office Building	31	KSF	720	1224	84	66	18	123	37	86
High Turnover (Sit-Down) Restaurant	22.9	KSF	932	2455	219	120	99	207	126	81
Supermarket	15	KSF	850	1790	43	25	18	166	83	83
Bowling Alley	64	Lanes	437	-	95	90	5	133	86	47
Combined (Unadjusted) Total				**13,112**	**1,006**	**611**	**395**	**1,309**	**662**	**647**

TABLE 5A
THE BRICKYARD – ADJUSTED TRIP GENERATION SUMMARY

The Brickyard Mixed Use - Trip Generation (Adjusted for Internal Trip Capture)										
Land Use	Intensity		ITE Code	Daily (vpd)	A.M. Peak Hour (vph)			P.M. Peak Hour (vph)		
					Total	In	Out	Total	In	Out
Residential										
Residential - Total (Unadjusted)	384	DU	220	1785	157	36	121	150	92	58
Residential - Internal Trip Capture %*				17%		8%	20%		20%	20%
Residential - Internal Trip Capture**				303	27	3	24	30	18	12
Residential - Site Trips (Adjusted for Internal Trip Capture)				1,482	130	33	97	120	74	46
Residential - Total Adjusted Trips				**1,482**	**130**	**33**	**97**	**120**	**74**	**46**
Hotel										
Hotel - Total (Unadjusted)	123	Rooms	310	910	54	30	24	63	32	31
Hotel - Internal Trip Capture %*				16%		3%	20%		20%	20%
Hotel - Internal Trip Capture**				146	6	1	5	12	6	6
Hotel - Site Trips (Adjusted for Internal Trip Capture)				764	48	29	19	51	26	25
Hotel - Total Adjusted Trips				**764**	**48**	**29**	**19**	**51**	**26**	**25**
Recreational Community Center										
Rec Center - Total (Unadjusted)	145	KSF	495	4013	277	183	94	345	162	183
Rec - Internal Trip Capture %***				0%		0%	0%		0%	0%
Rec - Internal Trip Capture***				0	0	0	0	0	0	0
Rec Center - Site Trips (Adjusted for Internal Trip Capture)				4,013	277	183	94	345	162	183
Recreational Community Center - Total Adjusted Trips				**4,013**	**277**	**183**	**94**	**345**	**162**	**183**
Commercial/Retail										
Commercial/Retail - Total (Unadjusted)	8.5	KSF	822	588	26	16	10	69	35	34
Commercial/Retail - Internal Trip Capture %*				20%		20%	20%		20%	20%
Commercial/Retail - Internal Trip Capture**				118	5	3	2	14	7	7
Commercial/Retail - Site Trips (Adjusted for Internal Trip Capture)				470	21	13	8	55	28	27
Commercial/Retail - Total Adjusted Trips				**470**	**21**	**13**	**8**	**55**	**28**	**27**
Office										
Office - Total (Unadjusted)	56	KSF	710	1571	135	111	24	176	46	130
Office - Internal Trip Capture %*				17%		20%	20%		15%	12%
Office - Internal Trip Capture**				267	27	22	5	23	7	16
Office - Site Trips (Adjusted for Internal Trip Capture)				1,304	108	89	19	153	39	114
Office - Total Adjusted Trips				**1,304**	**108**	**89**	**19**	**153**	**39**	**114**
High Turnover (Sit-Down) Restaurant										
High Turnover (Sit-Down) Restaurant - Total (Unadjusted)	22.9	KSF	932	2455	219	120	99	207	126	81
High Turnover (Sit-Down) Restaurant - Internal Trip Capture %*				20%		20%	20%		20%	20%
High Turnover (Sit-Down) Restaurant - Internal Trip Capture**				491	44	24	20	41	25	16
High Turnover (Sit-Down) - Site Trips (Adjusted for Internal Trip Capture)				1,964	175	96	79	166	101	65
High Turnover (Sit-Down) Restaurant - Total Adjusted Trips				**1,964**	**175**	**96**	**79**	**166**	**101**	**65**
Supermarket										
Supermarket - Total (Unadjusted)	15	KSF	850	1790	43	25	18	166	83	83
Supermarket - Internal Trip Capture %*				20%		20%	20%		20%	20%
Supermarket - Internal Trip Capture**				358	9	5	4	34	17	17
Supermarket - Site Trips (Adjusted for Internal Trip Capture)				1,432	34	20	14	132	66	66
Supermarket - Total Adjusted Trips				**1,432**	**34**	**20**	**14**	**132**	**66**	**66**
Bowling Alley										
Bowling Alley - Total (Unadjusted)	64	Lanes	437	-	95	90	5	133	86	47
Bowling Alley - Internal Trip Capture %*				-		0%	0%		13%	20%
Bowling Alley - Internal Trip Capture**				-	0	0	0	20	11	9
Bowling Alley - Site Trips (Adjusted for Internal Trip Capture)				-	95	90	5	113	75	38
Bowling Alley - Total Adjusted Trips				**-**	**95**	**90**	**5**	**113**	**75**	**38**
Summary of Adjusted Site Generated Trips										
Brickyard - Total Trips (Unadjusted)				13,112	1,006	611	395	1,309	662	647
Brickyard - Total Internal Trip Capture & Multimodal Trips**				1,683	118	58	60	174	91	83
Total Adjusted Site Generated Trips				**11,429**	**888**	**553**	**335**	**1135**	**571**	**564**
% Reduction in Total Site Generated Trips				**12.8%**	**11.7%**	**9.5%**	**15.2%**	**13.3%**	**13.7%**	**12.8%**

* Internal trip capture % capped at 20%.

** Projections of daily internal trip capture utilizes the average of the a.m. and p.m. internal trip capture %.

*** ITE has no data or methodology that includes internal trip capture for a rec center as it relates to other land uses (residential, office, retail, etc.). Therefore, Internal trip capture is not included in the trip generation adjustments.

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TABLE 5B
THE BRICKYARD – SUMMARY OF PASS-BY TRIPS

Land Use	Intensity		ITE Code	Daily (vpd)	A.M. Peak Hour (vph)			P.M. Peak Hour (vph)		
					Total	In	Out	Total	In	Out
Retail Plaza (<40K) Pass-By Trips (% Based on Figure E.7 & Table E.9 - ITE Trip Generation Handbook, 3rd Edition)										
Commercial/Retail (Shopping Plaza) - Total Adjusted Trips	8.5	KSF	822	470	21	13	8	55	28	27
Commercial/Retail - Pass-By Trip %				-		0%	0%		34%	34%
Commercial/Retail - Pass-By Trips				-	0	0	0	19	10	9
Commercial/Retail - Non-Pass-By Trips				-	21	13	8	36	18	18
High Turnover (Sit-Down) Restaurant Pass-By Trips (% Based on Table E.30 - ITE Trip Generation Handbook, 3rd Edition)										
High Turnover (Sit Down) - Total Adjusted Trips	22.9	KSF	932	1964	175	96	79	166	101	65
High Turnover (Sit-Down) - Pass-By Trip %				-		0%	0%		43%	43%
High Turnover (Sit-Down) - Pass-By Trips (Rounded to nearest 5)				-	0	0	0	75	45	30
High Turnover (Sit-Down) - Non-Pass-By Trips				-	175	96	79	91	56	35

B. Trip Distribution

The distribution of the projected vehicular trips generated by the proposed Brickyard development was established based on the following:

- Current and projected future traffic patterns on the surrounding transportation system.
- Efficiency of access to principal transportation corridors such as Wolfensberger Rd., Plum Creek Pkwy., I-25, Prairie Hawk Dr., etc.
- Potential trip origins/destinations for the proposed land uses such as surrounding shopping centers, schools, and employment centers.

It was determined based on the traffic volume counts collected for this study and the observed traffic distribution patterns in the vicinity of the project site that the majority of the projected vehicular trips generated by the proposed development would utilize Plum Creek Pkwy. rather than Wolfensberger to access the project site. For this reason, the Wolfensberger interchange was not included in this analysis. Even without any improvements to Plum Creek Pkwy. or the Plum Creek Pkwy. and I-25 interchange, it would still be anticipated that the majority of the projected vehicular trips generated by the proposed development would utilize Plum Creek Pkwy. rather than Wolfensberger to access the project site as Plum Creek Pkwy. provides more direct and efficient access.

Figures 12 - 19 graphically illustrate the projected trip distribution patterns for the proposed Brickyard development residential, commercial/retail, hotel, recreation center, office space, restaurant, supermarket, and bowling alley land uses 2027 (build-out) analysis horizon, respectively. Figures 20 - 27 graphically illustrate the projected trip distribution patterns for the proposed Brickyard development residential, commercial/retail, hotel, recreation center, office space, restaurant, supermarket, and bowling alley land uses 2050 (long-term) analysis horizon, respectively.

C. Trip Assignment

The vehicular traffic volumes projected to be generated by the proposed Brickyard development, shown in Table 5A, were assigned to the study area roadways and intersections utilizing the trip distribution methodology described above. Figures 28 and 29 graphically illustrate the site generated trip assignment for the proposed Brickyard development 2027 (build-out) and 2050 (long-term) analysis horizons, respectively. Site generated pass-by trips, computed for the commercial/retail and restaurant land uses 2027 (build-out) and 2050 (long-term) analysis horizons are graphically illustrated in Figures 30 and 31, respectively.

V. TOTAL TRAFFIC

Total traffic forecasts for the 2027 (build-out) and 2050 (long-term) analysis horizons were computed by combining the associated 2027 (build-out) and 2050 (long-term) background traffic volumes with the projected site generated traffic volumes. Figures 32 & 33 graphically illustrate the total traffic projections for the study area intersections for the 2027 (build-out) and 2050 (long-term) analysis horizons, respectively.

VI. PROJECT ANALYSIS

A. Operational Analysis

In order to evaluate the impact of the proposed Brickyard development on the study area roadway system, peak hour intersection capacity analyses for the total traffic conditions were performed for the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios at each of the study area intersections listed below:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC/Roundabout)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)
10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
12. Praxis St./East/West Collector
13. Prairie Hawk Dr./Brickyard Cir. (North) (Proposed)
14. Prairie Hawk Dr./Brickyard Cir. (South) (Proposed)
15. West Site Access Roadway/Brickyard Cir. (Proposed)
16. Fifer St./Brickyard Cir. (North) (Proposed)
17. Fifer St./Brickyard Cir. (South) (Proposed)
18. Prairie Hawk Dr./Bowling Alley Access (Proposed)

The results of the total traffic operational analyses are summarized in Table 6, below. Figures 34 and 35 graphically illustrate the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios operational analyses, respectively. Detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix “C”.

A comparative analysis of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic scenarios operational analyses was performed to evaluate the level of impact, as measured by level of service, the proposed Brickyard development will have on the study area intersections. Based on the comparative analyses, there are no study area intersections, overall, or individual lane groups that are projected to deteriorate from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the traffic projected to be generated by the proposed Brickyard development in either the 2027 (build-out) or 2050 (long-term) analysis horizons total traffic conditions scenarios. Those intersections with poor or failing overall or individual lane group levels of service in the background traffic scenarios are projected to remain with poor to failing levels of service in the total traffic scenarios. The developer will however be making intersection

and roadway improvements and contributing to improvements so that traffic impacts from the proposed development will not exceed Town LOS and roadway standards.

Table 7 provides a side-by-side comparative summary of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic scenarios operational analyses.

TABLE 6
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1.* Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**								
a. EB L (Prot+Perm)		C	27.6	C	34.1	C	25.7	C	32.2
b. EB TR		D	38.5	D	44.8	-	-	-	-
c. EB T		-	-	-	-	D	35.8	D	41.0
d. EB R		-	-	-	-	C	30.0	D	35.7
e. WB L (Prot+Perm)		D	43.1	D	40.6	D	39.7	D	40.7
f. WB T		C	29.5	D	35.9	C	25.3	C	29.4
g. WB R		C	32.4	D	38.4	C	28.0	C	31.3
h. NB L (Prot+Perm)		B	15.6	B	12.2	C	20.9	B	18.1
i. NB T		B	17.7	B	15.5	C	23.2	C	21.6
j. NB R		B	19.2	B	18.6	D	35.2	D	35.6
k. SB L (Prot+Perm)		B	15.9	B	13.7	-	-	-	-
l. SB L (Prot+Perm) (Dual)		-	-	-	-	B	18.2	B	17.2
m. SB T		B	16.0	B	14.2	-	-	-	-
n. SB R		B	14.9	B	14.2	-	-	-	-
o. SB TR		-	-	-	-	C	20.9	C	21.0
P. INTERSECTION		**C**	**29.2**	**C**	**29.1**	**C**	**29.2**	**C**	**30.5**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**								
a. EB LR	Stop	B	13.2	C	18.7	-	-	-	-
b. NB LT		A	8.1	A	8.1	-	-	-	-
c. INTERSECTION		**A**	**1.0**	**A**	**3.3**	**-**	**-**	**-**	**-**
2.A." Prairie Hawk Dr. & Atchison Way	**Roundabout**								
a. EB LR	Yield	-	-	-	-	A	7.3	A	8.4
b. NB T	Free	-	-	-	-	A	5.4	A	8.1
c. SB T	Yield	-	-	-	-	A	4.5	A	4.4
d. SB R	Free	-	-	-	-	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**4.2**	**A**	**5.4**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**								
a. EB LTR	Stop	A	7.5	A	7.4	A	7.3	A	7.4
b. WB LTR	Stop	A	7.9	A	7.3	A	0.0	A	0.0
c. NB L		B	12.4	B	13.2	B	10.6	B	12.7
d. SB L		A	9.0	B	13.5	B	11.1	B	12.4
e. INTERSECTION		**A**	**1.3**	**B**	**12.2**	**B**	**10.2**	**B**	**11.1**
4." Atchison Way & Topeka Way	**TWSC**								
a. EB LT		A	7.3	A	7.3	-	-	-	-
b. EB L	Stop	-	-	-	-	B	13.8	B	13.0
c. EB TR	Stop	-	-	-	-	B	13.3	B	13.2
d. WB L	Stop	-	-	-	-	B	13.9	B	14.9
e. WB TR	Stop	-	-	-	-	B	13.6	B	12.3
f. NB L		-	-	-	-	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	-	-	-	-
h. SB L		-	-	-	-	A	0.0	A	7.8
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**1.9**	**A**	**3.5**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**								
a. EB LT	Yield	A	5.5	A	4.9	A	9.8	A	7.3
b. EB TR	Yield	A	5.2	A	4.6	A	9.4	A	7.0
c. WB LT	Yield	A	3.9	A	5.3	A	5.3	A	7.8
d. WB TR	Yield	A	3.8	A	5.1	A	5.2	A	7.5
e. NB LT	Yield	A	4.9	A	4.9	A	8.7	A	7.7
f. NB TR	Yield	A	4.6	A	4.8	A	7.8	A	7.2
g. SB LT	Yield	A	4.7	A	5.1	A	7.3	A	7.8
h. SB TR	Yield	A	4.6	A	4.8	A	7.0	A	7.3
i. INTERSECTION		**A**	**4.7**	**A**	**4.9**	**A**	**7.7**	**A**	**7.4**
6." Plum Creek Pkwy. & Auburn Dr.	**TWSC**								
a. EB LT		A	7.8	A	8.4	-	-	-	-
b. EB L		-	-	-	-	A	8.7	A	9.8
c. SB LR	Stop	C	15.8	C	20.0	D	34.6	E	49.9
d. INTERSECTION		**A**	**2.4**	**A**	**2.0**	**A**	**3.5**	**A**	**3.7**
7. " Plum Creek Pkwy. & I-25 SB Ramps	**Signal**								
a. EB TR		D	43.1	D	37.1	-	-	-	-
b. EB T		-	-	-	-	C	29.7	D	51.3
c. EB R (Free)		-	-	-	-	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	39.3	D	47.2	C	25.2	D	54.1
e. WB T		B	15.9	B	10.7	B	17.3	B	12.1
f. NB L (Prot)		D	54.1	D	54.1	-	-	-	-
g. NB R		A	5.3	A	8.5	-	-	-	-
h. SB L (Prot) (Dual)		A	7.9	B	12.5	C	21.3	D	37.7
i. SB LTR		B	11.9	B	18.2	-	-	-	-
j. SB LT		-	-	-	-	C	29.5	D	36.9
k. SB R (Free)		-	-	-	-	A	0.0	A	0.0
l. INTERSECTION		**C**	**23.8**	**C**	**22.3**	**C**	**23.9**	**D**	**37.6**
8." Plum Creek Pkwy. & I-25 NB Ramps	**Signal**								
a. EB L (Prot+Perm)		D	48.2	D	52.7	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	D	49.8	D	50.3
c. EB T		A	4.1	A	3.9	A	5.9	A	5.9
d. WB TR		D	48.5	D	35.1	D	51.9	F	79.8
e. WB R		D	41.4	D	45.7	D	48.1	C	27.9
f. NB L (Prot)		C	33.2	D	35.7	D	51.2	D	52.5
g. NB LTR		C	33.2	D	35.7	D	51.2	D	52.5
h. NB R		D	35.3	D	38.9	D	43.8	D	44.9
i. INTERSECTION		**C**	**32.8**	**C**	**27.3**	**D**	**37.4**	**C**	**34.0**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
9." Plum Creek Pkwy. & S. Wilcox St.	**Signal**								
a. EB L (Prot+Perm)		C	33.3	D	41.0	D	43.6	D	52.2
b. EB T		C	23.6	D	35.7	C	21.2	D	40.4
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.5	C	27.3	B	19.2	D	42.1
e. WB T		D	39.0	D	42.6	-	-	-	-
f. WB R		C	24.9	C	26.3	-	-	-	-
g. WB TR		-	-	-	-	D	37.6	D	42.6
h. NB L (Prot+Perm) (Dual)		C	24.1	C	26.9	D	39.3	D	53.6
i. NB T		C	24.1	C	32.4	D	36.1	D	40.2
j. NB R		C	23.4	C	30.2	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	C	29.7	C	32.5
l. SB L (Prot+Perm)		C	21.9	C	25.1	D	35.1	D	52.5
m. SB T		C	28.1	C	32.1	D	42.0	D	53.4
n. SB R		C	28.1	D	44.8	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	C	33.1	D	45.5
p. INTERSECTION		**C**	**29.9**	**D**	**35.9**	**C**	**28.1**	**D**	**44.1**
10.^ Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**								
a. EB LTR	Yield	-	-	-	-	A	5.9	A	6.1
b. WB LTR	Yield	-	-	-	-	A	6.5	A	8.6
c. NB LT	Yield	-	-	-	-	A	5.6	A	5.2
d. NB TR	Yield	-	-	-	-	A	6.3	A	6.2
e. SB LT	Yield	-	-	-	-	A	4.7	A	6.0
f. SB TR	Yield	-	-	-	-	A	4.5	A	5.6
g. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**5.8**	**A**	**6.7**
11.^ Plum Creek Pkwy. & Praxis St./Dawson Trails Blvd.	**Signal**								
a. EB L (Prot+Perm)		C	26.7	C	24.8	D	37.3	C	26.8
b. EB TR		C	27.5	C	23.2	-	-	-	-
c. EB T		-	-	-	-	C	30.8	D	38.5
d. EB R		-	-	-	-	C	24.7	C	26.8
e. WB L (Prot+Perm)		A	0.0	A	0.0	-	-	-	-
f. WB L (Prot+Perm) (Dual)		-	-	-	-	C	23.2	C	26.2
g. WB T		D	37.2	D	35.6	C	33.2	C	34.9
h. WB R		D	35.8	C	30.6	-	-	-	-
i. WB R (Free)		-	-	-	-	A	0.0	A	0.0
j. NB L (Perm)		A	0.0	A	0.0	-	-	-	-
k. NB L (Prot+Perm)		-	-	-	-	B	15.7	B	14.9
l. NB TR		C	20.3	B	10.3	-	-	-	-
m. NB T		-	-	-	-	C	27.5	C	27.0
n. NB R (Free)		-	-	-	-	A	0.0	A	0.0
o. SB L (Perm)		C	24.6	B	13.6	-	-	-	-
p. SB L (Prot+Perm) (Dual)		-	-	-	-	B	17.3	B	17.9
q. SB TR		C	21.3	B	11.4	-	-	-	-
r. SB T		-	-	-	-	C	27.0	C	27.3
s. SB R		-	-	-	-	C	31.8	D	35.3
t. INTERSECTION		**C**	**30.4**	**C**	**24.9**	**C**	**28.1**	**C**	**29.7**
12.^ Praxis St. & East/West Collector	**TWSC**								
a. WB R	Stop	-	-	-	-	C	18.3	B	12.5
b. SB L		-	-	-	-	B	11.1	B	10.1
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**1.9**	**A**	**0.9**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
13.^ Prairie Hawk Dr. & Brickyard Cir. (North)	**TWSC**								
a. EB L	Stop	B	10.2	B	10.9	B	10.4	B	10.7
b. EB R	Stop	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	0.0	A	0.0	A	0.0	A	0.0
d. INTERSECTION		**A**	**1.9**	**A**	**2.5**	**A**	**2.1**	**A**	**2.3**
14.^ Prairie Hawk Dr. & Brickyard Cir. (South)	**TWSC**								
a. EB L	Stop	A	9.2	A	9.4	A	8.9	A	9.0
b. EB R	Stop	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	0.0	A	0.0	A	0.0	A	0.0
d. INTERSECTION		**A**	**3.4**	**A**	**4.5**	**A**	**3.5**	**A**	**4.7**
15.^ West Site Access & Brickyard Cir.	**TWSC**								
a. EB L	Stop	B	12.8	C	20.9	B	14.3	D	34.5
b. EB R	Stop	A	9.7	A	9.7	B	10.3	A	10.2
c. NB LT		A	7.6	A	8.0	A	7.7	A	8.2
d. INTERSECTION		**A**	**8.7**	**A**	**9.8**	**A**	**9.1**	**B**	**12.6**
16. ^ Fifer St. & Brickyard Cir. (North)	**TWSC**								
a. EB LTR		A	7.4	A	7.4	A	7.3	A	7.4
b. WB LTR		A	7.3	A	7.3	A	7.3	A	7.3
c. NB LTR	Stop	A	8.5	A	8.7	A	9.4	A	9.2
d. SB LTR	Stop	B	10.2	A	9.4	A	9.1	A	8.7
e. INTERSECTION		**A**	**6.2**	**A**	**5.9**	**A**	**6.5**	**A**	**5.9**
17. ^ Fifer St. & Brickyard Cir. (South)	**TWSC**								
a. EB L		A	7.6	A	7.5	A	7.5	A	7.5
b. WB L		A	7.6	A	7.6	A	7.6	A	7.6
c. NB LTR	Stop	C	15.0	C	17.7	C	15.0	C	17.6
d. SB LTR	Stop	B	11.7	B	11.8	B	10.1	B	10.1
e. INTERSECTION		**A**	**7.1**	**A**	**9.4**	**A**	**6.5**	**A**	**8.8**
18.^ Prairie Hawk Dr. & Bowling Alley Access	**TWSC**								
a. EB LR	Stop	B	10.6	B	11.5	B	10.6	B	10.1
b. NB LT		A	0.0	A	0.0	A	0.0	A	0.0
c. INTERSECTION		**A**	**0.1**	**A**	**0.3**	**A**	**0.1**	**A**	**0.5**

*** = intersection to undergo multiple modifications. See text for details.**
" = intersection to be modified by 2050
^ = new proposed intersection

TABLE 7
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1.* Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**																
a. EB L (Prot+Perm)		C	28.7	C	33.9	C	27.6	C	34.1	C	25.8	C	32.3	C	25.7	C	32.2
b. EB TR		D	39.1	D	41.6	D	38.5	D	44.8	-	-	-	-	-	-	-	-
c. EB T		-	-	-	-	-	-	-	-	D	35.9	D	41.1	D	35.8	D	41.0
d. EB R		-	-	-	-	-	-	-	-	C	29.4	C	34.9	C	30.0	D	35.7
e. WB L (Prot+Perm)		C	29.4	D	35.0	D	43.1	D	40.6	C	29.2	C	32.8	D	39.7	D	40.7
f. WB T		C	31.0	D	39.3	C	29.5	D	35.9	C	26.3	C	32.0	C	25.3	C	29.4
g. WB R		C	34.4	D	43.3	C	32.4	D	38.4	C	29.3	C	34.1	C	28.0	C	31.3
h. NB L (Prot+Perm)		B	15.4	B	12.4	B	15.6	B	12.2	C	20.2	B	16.3	C	20.9	B	18.1
i. NB TR		B	17.2	B	17.5	-	-	-	-	-	-	-	-	-	-	-	-
j. NB T		-	-	-	-	B	17.7	B	15.5	C	21.7	B	19.0	C	23.2	C	21.6
k. NB R		-	-	-	-	B	19.2	B	18.6	C	28.7	C	27.0	D	35.2	D	35.6
l. SB L (Prot+Perm)		B	14.1	B	11.2	B	15.9	B	13.7	-	-	-	-	-	-	-	-
m. SB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	B	16.9	B	15.3	B	18.2	B	17.2
n. SB T		B	12.9	B	10.9	B	16.0	B	14.2	-	-	-	-	-	-	-	-
o. SB R		B	13.0	B	11.8	B	14.9	B	14.2	-	-	-	-	-	-	-	-
p. SB TR		-	-	-	-	-	-	-	-	B	18.6	B	18.2	C	20.9	C	21.0
q. INTERSECTION		**C**	**29.1**	**C**	**30.4**	**C**	**29.2**	**C**	**29.1**	**C**	**27.3**	**C**	**28.9**	**C**	**29.2**	**C**	**30.5**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**																
a. EB LR	Stop	A	9.9	B	10.9	B	13.2	C	18.7	-	-	-	-	-	-	-	-
b. NB LT		A	7.6	A	7.6	A	8.1	A	8.1	-	-	-	-	-	-	-	-
c. INTERSECTION		**A**	**1.7**	**A**	**4.0**	**A**	**1.0**	**A**	**3.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2.A." Prairie Hawk Dr. & Atchison Way	**Roundabout**																
a. EB LR	Yield	-	-	-	-	-	-	-	-	A	5.8	A	6.4	A	7.3	A	8.4
b. NB T	Free	-	-	-	-	-	-	-	-	A	4.3	A	5.6	A	5.4	A	8.1
c. SB T	Yield	-	-	-	-	-	-	-	-	A	3.7	A	3.5	A	4.5	A	4.4
d. SB R	Free	-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**3.3**	**A**	**4.0**	**A**	**4.2**	**A**	**5.4**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**																
a. EB LTR	Stop	A	7.2	A	7.2	A	7.5	A	7.4	A	7.3	A	7.4	A	7.3	A	7.4
b. WB LTR	Stop	A	7.4	A	7.3	A	7.9	A	7.3	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	9.1	A	9.3	B	12.4	B	13.2	A	9.9	B	10.9	B	10.6	B	12.7
d. SB L		A	8.4	A	8.4	A	9.0	B	13.5	A	9.1	A	9.2	B	11.1	B	12.4
e. INTERSECTION		**A**	**3.5**	**A**	**5.8**	**A**	**1.3**	**B**	**12.2**	**A**	**8.2**	**A**	**7.9**	**B**	**10.2**	**B**	**11.1**
4." Atchison Way & Topeka Way	**TWSC**																
a. EB LT		A	7.3	A	7.3	A	7.3	A	7.3	-	-	-	-	-	-	-	-
b. EB L	Stop	-	-	-	-	-	-	-	-	B	12.7	B	11.8	B	13.8	B	13.0
c. EB TR	Stop	-	-	-	-	-	-	-	-	B	12.4	B	12.1	B	13.3	B	13.2
d. WB L	Stop	-	-	-	-	-	-	-	-	B	12.7	B	13.1	B	13.9	B	14.9
e. WB TR	Stop	-	-	-	-	-	-	-	-	B	12.7	B	11.5	B	13.6	B	12.3
f. NB L		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	A	8.5	A	8.6	-	-	-	-	-	-	-	-
h. SB L		-	-	-	-	-	-	-	-	A	0.0	A	7.7	A	0.0	A	7.8
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**1.3**	**A**	**2.1**	**A**	**2.0**	**A**	**3.7**	**A**	**1.9**	**A**	**3.5**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**																
a. EB LT	Yield	A	4.9	A	4.5	A	5.5	A	4.9	A	8.9	A	6.7	A	9.8	A	7.3
b. EB TR	Yield	A	4.6	A	4.2	A	5.2	A	4.6	A	8.5	A	6.4	A	9.4	A	7.0
c. WB LT	Yield	A	3.7	A	4.8	A	3.9	A	5.3	A	5.1	A	7.2	A	5.3	A	7.8
d. WB TR	Yield	A	3.5	A	4.6	A	3.8	A	5.1	A	5.0	A	6.9	A	5.2	A	7.5
e. NB LT	Yield	A	4.4	A	4.5	A	4.9	A	4.9	A	7.7	A	7.0	A	8.7	A	7.7
f. NB TR	Yield	A	4.1	A	4.3	A	4.6	A	4.8	A	7.1	A	6.6	A	7.8	A	7.2
g. SB LT	Yield	A	4.4	A	4.5	A	4.7	A	5.1	A	6.9	A	7.1	A	7.3	A	7.8
h. SB TR	Yield	A	4.3	A	4.4	A	4.6	A	4.8	A	6.6	A	6.6	A	7.0	A	7.3
i. INTERSECTION		**A**	**4.3**	**A**	**4.5**	**A**	**4.7**	**A**	**4.9**	**A**	**7.0**	**A**	**6.8**	**A**	**7.7**	**A**	**7.4**
6." Plum Creek Pkwy. & Auburn Dr.	**TWSC**																
a. EB LT		A	7.6	A	8.2	A	7.8	A	8.4	-	-	-	-	-	-	-	-
b. EB L		-	-	-	-	-	-	-	-	A	8.5	A	9.5	A	8.7	A	9.8
c. SB LR	Stop	B	13	C	15.5	C	15.8	C	20.0	D	28.3	E	35.4	D	34.6	E	49.9
d. INTERSECTION		**A**	**2.5**	**A**	**1.9**	**A**	**2.4**	**A**	**2.0**	**A**	**3.1**	**A**	**2.9**	**A**	**3.5**	**A**	**3.7**

HKS HARRIS KOCHER SMITH

TABLE 7 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
7." Plum Creek Pkwy. & I-25 SB Ramps	**Signal**																
a. EB TR		D	40.5	D	42.7	D	43.1	D	37.1	-	-	-	-	-	-	-	-
b. EB T		-	-	-	-	-	-	-	-	C	30.3	D	51.1	C	29.7	D	51.3
c. EB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	42.9	D	40.4	D	39.3	D	47.2	C	32.1	D	43.7	C	25.2	D	54.1
e. WB T		B	19.3	B	14.0	B	15.9	B	10.7	B	17.9	B	14.4	B	17.3	B	12.1
f. NB L (Prot)		D	54.1	D	54.1	D	54.1	D	54.1	-	-	-	-	-	-	-	-
g. NB R		A	4.3	A	7.7	A	5.3	A	8.5	-	-	-	-	-	-	-	-
h. SB L (Prot) (Dual)		A	6.3	B	10.1	A	7.9	B	12.5	C	20.1	D	40.0	C	21.3	D	37.7
i. SB LTR		A	9.3	B	14.1	B	11.9	B	18.2	-	-	-	-	-	-	-	-
j. SB LT		-	-	-	-	-	-	-	-	C	27.2	C	33.4	C	29.5	D	36.9
k. SB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
l. INTERSECTION		**C**	**22.9**	**C**	**21.0**	**C**	**23.8**	**C**	**22.3**	**C**	**24.6**	**D**	**36.0**	**C**	**23.9**	**D**	**37.6**
8." Plum Creek Pkwy. & I-25 NB Ramps	**Signal**																
a. EB L (Prot+Perm)		D	42.3	D	36.7	D	48.2	D	52.7	-	-	-	-	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	D	37.3	D	42.6	D	49.8	D	50.3
c. EB T		A	5.3	A	6.1	A	4.1	A	3.9	A	6.7	A	6.9	A	5.9	A	5.9
d. WB TR		D	40.8	C	33.7	D	48.5	D	35.1	C	33.5	F	59.7	D	51.9	F	79.8
e. WB R		C	31.7	D	38.9	D	41.4	D	45.7	D	42.6	C	27.9	D	48.1	C	27.9
f. NB L (Prot)		C	28.8	C	29.0	C	33.2	D	35.7	D	43.9	D	42.4	D	51.2	D	52.5
g. NB LTR		C	28.8	C	29.0	C	33.2	D	35.7	D	43.9	D	42.4	D	51.2	D	52.5
h. NB R		C	30.0	C	30.1	D	35.3	D	38.9	D	40.7	D	40.8	D	43.8	D	44.9
i. INTERSECTION		**C**	**27.4**	**C**	**24.4**	**C**	**32.8**	**C**	**27.3**	**C**	**30.2**	**C**	**28.6**	**D**	**37.4**	**C**	**34.0**
9." Plum Creek Pkwy. & S. Wilcox St.	**Signal**																
a. EB L (Prot+Perm)		C	34.1	D	40.1	C	33.3	D	41.0	D	46.5	D	46.9	D	43.6	D	52.2
b. EB T		C	24.1	D	35.7	C	23.6	D	35.7	C	31.9	D	42.2	C	21.2	D	40.4
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.8	C	27.2	C	21.5	C	27.3	B	19.5	D	38.3	B	19.2	D	42.1
e. WB T		D	38.4	D	40.1	D	39.0	D	42.6	-	-	-	-	-	-	-	-
f. WB R		C	25.4	C	26.4	C	24.9	C	26.3	-	-	-	-	-	-	-	-
g. WB TR		-	-	-	-	-	-	-	-	D	37.9	D	42.3	D	37.6	D	42.6
h. NB L (Prot+Perm) (Dual)		C	23.0	C	25.4	C	24.1	C	26.9	D	38.5	D	48.4	D	39.3	D	53.6
i. NB T		C	24.1	C	31.7	C	24.1	C	32.4	D	35.1	D	39.8	D	36.1	D	40.2
j. NB R		C	22.8	C	29.6	C	23.4	C	30.2	-	-	-	-	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	-	-	-	-	C	28.9	C	31.8	C	29.7	C	32.5
l. SB L (Prot+Perm)		C	21.4	C	24.7	C	21.9	C	25.1	C	31.9	D	51.7	D	35.1	D	52.5
m. SB T		C	24.7	C	31.5	C	28.1	C	32.1	D	37.7	D	52.7	D	42.0	D	53.4
n. SB R		C	27.0	D	41.9	C	28.1	D	44.8	-	-	-	-	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	-	-	-	-	C	29.2	D	43.8	C	33.1	D	45.5
p. INTERSECTION		**C**	**29.6**	**C**	**34.7**	**C**	**29.9**	**D**	**35.9**	**C**	**28.0**	**D**	**43.3**	**C**	**28.1**	**D**	**44.1**
10.^ Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**																
a. EB LTR	Yield	-	-	-	-	-	-	-	-	A	4.4	A	3.8	A	5.9	A	6.1
b. WB LTR	Yield	-	-	-	-	-	-	-	-	A	3.6	A	3.4	A	6.5	A	8.6
c. NB LT	Yield	-	-	-	-	-	-	-	-	A	4.0	A	3.8	A	5.6	A	5.2
d. NB TR	Yield	-	-	-	-	-	-	-	-	A	3.8	A	3.7	A	6.3	A	6.2
e. SB LT	Yield	-	-	-	-	-	-	-	-	A	3.5	A	3.6	A	4.7	A	6.0
f. SB TR	Yield	-	-	-	-	-	-	-	-	A	3.4	A	3.5	A	4.5	A	5.6
g. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**3.9**	**A**	**3.7**	**A**	**5.8**	**A**	**6.7**
11.^ Plum Creek Pkwy. & Praxis St./ Dawson Trails Blvd.	**Signal**																
a. EB L (Prot+Perm)		-	-	-	-	C	26.7	C	24.8	C	25.2	C	24.0	D	37.3	C	26.8
b. EB TR		-	-	-	-	C	27.5	C	23.2	-	-	-	-	-	-	-	-
c. EB T		-	-	-	-	-	-	-	-	C	33.6	D	39.7	C	30.8	D	38.5
d. EB R		-	-	-	-	-	-	-	-	C	26.3	C	26.8	C	24.7	C	26.8
e. WB L (Prot+Perm)		-	-	-	-	A	0.0	A	0.0	-	-	-	-	-	-	-	-
f. WB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	C	23.9	C	24.7	C	23.2	C	26.2
g. WB T		-	-	-	-	D	37.2	D	35.6	C	33.4	C	29.5	C	33.2	C	34.9
h. WB R		-	-	-	-	D	35.8	C	30.6	-	-	-	-	-	-	-	-
i. WB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
j. NB L (Perm)		-	-	-	-	A	0.0	A	0.0	-	-	-	-	-	-	-	-
k. NB L (Prot+Perm)		-	-	-	-	-	-	-	-	B	14.4	B	18.3	B	15.7	B	14.9
l. NB TR		-	-	-	-	C	20.3	B	10.3	-	-	-	-	-	-	-	-
m. NB T		-	-	-	-	-	-	-	-	C	25.3	C	26.2	C	27.5	C	27.0
n. NB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
o. SB L (Perm)		-	-	-	-	C	24.6	B	13.6	-	-	-	-	-	-	-	-
p. SB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	B	14.8	B	14.9	B	17.3	B	17.9
q. SB TR		-	-	-	-	C	21.3	B	11.4	-	-	-	-	-	-	-	-
r. SB T		-	-	-	-	-	-	-	-	C	25.4	C	22.3	C	27.0	C	27.3
s. SB R		-	-	-	-	-	-	-	-	C	27.9	C	24.6	C	31.8	D	35.3
t. INTERSECTION		**-**	**-**	**-**	**-**	**C**	**30.4**	**C**	**24.9**	**C**	**27.9**	**C**	**28.5**	**C**	**28.1**	**C**	**29.7**

HKS HARRIS KOCHER SMITH

TABLE 7 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
12.^ Praxis St. & East/West Collector	**TWSC**																
a. WB R	Stop	-	-	-	-	-	-	-	-	B	13.1	B	10.2	C	18.3	B	12.5
b. SB L		-	-	-	-	-	-	-	-	A	9.2	A	8.4	B	11.1	B	10.1
c. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**2.0**	**A**	**1.3**	**A**	**1.9**	**A**	**0.9**
13.^ Prairie Hawk Dr. & Brickyard Cir. (North)	**TWSC**																
a. EB L	Stop	-	-	-	-	B	10.2	B	10.9	-	-	-	-	B	10.4	B	10.7
b. EB R	Stop	-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. NB L		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**1.9**	**A**	**2.5**	**-**	**-**	**-**	**-**	**A**	**2.1**	**A**	**2.3**
14.^ Prairie Hawk Dr. & Brickyard Cir. (South)	**TWSC**																
a. EB L	Stop	-	-	-	-	A	9.2	A	9.4	-	-	-	-	A	8.9	A	9.0
b. EB R	Stop	-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. NB L		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.4**	**A**	**4.5**	**-**	**-**	**-**	**-**	**A**	**3.5**	**A**	**4.7**
15.^ West Site Access & Brickyard Cir.	**TWSC**																
a. EB L	Stop	-	-	-	-	B	12.8	C	20.9	-	-	-	-	B	14.3	D	34.5
b. EB R	Stop	-	-	-	-	A	9.7	A	9.7	-	-	-	-	B	10.3	A	10.2
c. NB LT		-	-	-	-	A	7.6	A	8.0	-	-	-	-	A	7.7	A	8.2
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**8.7**	**A**	**9.8**	**-**	**-**	**-**	**-**	**A**	**9.1**	**B**	**12.6**
16.^ Fifer St. & Brickyard Cir. (North)	**TWSC**																
a. EB LTR		-	-	-	-	A	7.4	A	7.4	-	-	-	-	A	7.3	A	7.4
b. WB LTR		-	-	-	-	A	7.3	A	7.3	-	-	-	-	A	7.3	A	7.3
c. NB LTR	Stop	-	-	-	-	A	8.5	A	8.7	-	-	-	-	A	9.4	A	9.2
d. SB LTR	Stop	-	-	-	-	B	10.2	A	9.4	-	-	-	-	A	9.1	A	8.7
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**6.2**	**A**	**5.9**	**-**	**-**	**-**	**-**	**A**	**6.5**	**A**	**5.9**
17.^ Fifer St. & Brickyard Cir. (South)	**TWSC**																
a. EB L		-	-	-	-	A	7.6	A	7.5	-	-	-	-	A	7.5	A	7.5
b. WB L		-	-	-	-	A	7.6	A	7.6	-	-	-	-	A	7.6	A	7.6
c. NB LTR	Stop	-	-	-	-	C	15.0	C	17.7	-	-	-	-	C	15.0	C	17.6
d. SB LTR	Stop	-	-	-	-	B	11.7	B	11.8	-	-	-	-	B	10.1	B	10.1
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**7.1**	**A**	**9.4**	**-**	**-**	**-**	**-**	**A**	**6.5**	**A**	**8.8**
18.^ Prairie Hawk Dr. & Bowling Alley Access	**TWSC**																
a. EB LR	Stop	-	-	-	-	B	10.6	B	11.5	-	-	-	-	B	10.6	B	10.1
b. NB LT		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**0.1**	**A**	**0.3**	**-**	**-**	**-**	**-**	**A**	**0.1**	**A**	**0.5**

*** = intersection to undergo multiple modifications. See text for details.**
" = intersection to be modified by 2050
^ = new proposed intersection

B. Queuing Analysis

Queue lengths and associated storage requirements for through and auxiliary lanes (turn bays) at the study area intersections were computed utilizing the *Synchro 12* 95%tile reported queues for the 2027 (build-out) and 2050 (long-term) analysis horizons total traffic scenarios. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group. Table 8 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 8, the following additional queue related issues, beyond those identified in the background traffic scenarios, are projected to be experienced at the study area intersections, based on the reported queues, with the addition of the site generated traffic from the proposed Brickyard development in the 2027 (build-out) and 2050 (long-term) analysis horizons total traffic scenarios:

- **(7) Plum Creek Pkwy./I-25 SB Ramps**
  - 2050 (Long-Term) Analysis Horizon:
    - The WB through lane group queue is projected to exceed its capacity and spill back into the upstream intersection during the p.m. peak hour. The ability to increase the WB through lane group storage is limited due to the location of the I-25 NB Ramps intersection. Optimizing the traffic signal timings for actual traffic conditions will be the most effective means to mitigate this issue.

TABLE 8
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.					
a. EB L (1)	325	61	48	62	48
b. EB TR (2)	1100	334	319	-	-
c. EB T (2)	1100	-	-	367	353
d. EB R (1)	150	-	-	18	20
e. WB L (1)	225	137	148	217	223
f. WB T (2)	1850	152	304	163	334
g. WB R (1)	100	49	58	47	56
h. NB L (1)	250	20	41	25	57
i. NB T (1/2)	250/500	76	132	137	201
j. NB R (1)	150	30	61	76	132
k. SB L (1/2)	350/700	134	127	178	176
l. SB T (1)	875	109	99	-	-
m. SB R (1)	350	15	21	-	-
n. SB TR (2)	1225	-	-	200	179
2. Prairie Hawk Dr./Atchison Way (TWSC)					
a. EB LR (1)	700	8	43	-	-
b. NB LT (1)	425	0	0	-	-
2.A. Prairie Hawk Dr./Atchison Way (Roundabout)					
a. EB LR (1)	700	-	-	50	50
b. NB T (1)	425	-	-	25	50
c. SB T (1)	125	-	-	25	25
d. SB R (1)	150	-	-	25	25
3. Prairie Hawk Dr./Topeka Way					
a. EB LTR (1)	200	8	5	3	5
b. WB LTR (1)	-	0	0	0	0
c. NB L (1)	100	0	40	10	25
d. SB L (1)	100	0	50	35	43
4. Atchison Way/Topeka Way					
a. EB LT (1)	150	0	0	-	-
b. EB L (1)	150	-	-	0	3
c. EB TR (1)	-	-	-	3	8
d. WB L (1)	150	-	-	5	15
e. WB TR (1)	-	-	-	8	5
f. NB L (1)	150	-	-	0	0
g. SB LR (1)	-	0	0	-	-
h. SB L (1)	150	-	-	0	0
5. Plum Creek Pkwy./Coachline Rd./W. Wolfensberger Rd.					
a. EB LT (1)	550	25	0	50	25
b. EB TR (1)	550	25	0	50	25
c. WB LT (1)	250	0	25	25	50
d. WB TR (1)	350	0	25	25	50
e. NB LT (1)	500	0	25	25	25
f. NB TR (1)	150	0	25	25	25
g. SB LT (1)	200	25	25	25	25
h. SB TR (1)	2450	25	25	25	25
6. Plum Creek Pkwy./Auburn Dr.					
a. EB LT (1)	800	0	0	-	-
b. EB L (1)	150	-	-	0	0
c. SB LR (1)	275	25	30	83	95
7. Plum Creek Pkwy./I-25 SB Ramps					
a. EB TR (3)	2700	420	336	-	-
b. EB T (3)	2700	-	-	854	1496
c. EB R (1)	-	-	-	0	0
d. WB L (1)	675	135	235	210	347
e. WB T (2)	350	258	321	475	504
f. NB L (1)	375	31	31	-	-
g. NB R (1)	750	54	57	-	-
h. SB L (2)	3300	331	703	315	906
i. SB LTR (1)	225	172	417	-	-
j. SB LT (1)	225	-	-	203	563
k. SB R (1)	-	-	-	0	0

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
8. Plum Creek Pkwy./I-25 NB Ramps					
a. EB L (1/2)	650/800	220	246	590	508
b. EB T (3)	480	168	276	377	579
c. WB TR (1/2)	625/820	614	751	679	1350
d. WB R (1)	400	194	209	331	297
e. NB L (1)	400	86	92	286	248
f. NB LTR (1)	1700	54	47	309	254
g. NB R (1)	175	37	41	95	91
9. Plum Creek Pkwy./S. Wilcox St.					
a. EB L (1)	325	180	271	349	476
b. EB T (2)	1250	443	1039	334	1644
c. EB R (1)	600	0	0	0	0
d. WB L (1)	225	32	44	33	87
e. WB T (2)	880	747	760	-	-
f. WB R (1)	420	39	28	-	-
g. WB TR (3)	1300	-	-	1136	1218
h. NB L (2)	450	275	341	541	607
i. NB T (1)	250	111	147	154	195
j. NB R (1)	250	15	32	15	23
k. SB L (1)	200	57	137	85	248
l. SB T (1)	200	79	112	121	172
m. SB R (1)	200	49	65	125	165
10. Prairie Hawk Dr./Praxis St./West Site Access					
a. EB LTR (1)	-	-	-	25	25
b. WB LTR (1)	-	-	-	25	50
c. NB LT (1)	-	-	-	25	25
d. NB TR (1)	-	-	-	50	50
e. SB LT (1)	-	-	-	0	25
f. SB TR (1)	-	-	-	0	25
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.					
a. EB L (1)	150/200	66	59	189	137
b. EB TR (1)	-	226	197	-	-
c. EB T (2)	-	-	-	424	534
d. EB R (1)	250	-	-	50	22
e. WB L (1/2)	200/600	0	0	105	175
f. WB T (1/2)	-	174	672	444	488
g. WB R (1)	100/-	24	36	0	0
h. NB L (1)	-	0	0	80	53
i. NB TR (1)	-	22	28	-	-
j. NB T (2)	-	-	-	124	129
k. NB R (1)	150	-	-	0	0
l. SB L (1/2)	250/500	106	174	279	305
m. SB TR (1)	-	25	45	-	-
n. SB T (2)	-	-	-	96	152
o. SB R (1)	100	-	-	35	57
12. Praxis St./East/West Collector					
a. WB R (1)	-	-	-	55	15
b. SB L (1)	150	-	-	5	8
13. Prairie Hawk Dr./Brickyard Cir. (North)					
a. EB L (1)	-	8	13	5	5
b. EB R (1)	100	0	0	0	0
c. NB L (1)	100	0	0	0	0
14. Prairie Hawk Dr./Brickyard Cir. (South)					
a. EB L (1)	-	8	10	8	5
b. EB R (1)	100	0	0	0	0
c. NB L (1)	100	0	0	0	0
15. West Site Access/Brickyard Cir.					
a. EB L (1)	-	15	43	23	90
b. EB R (1)	100	28	25	38	33
c. NB LT (1)	-	10	18	10	23
16. Fifer St./Brickyard Cir. (North)					
a. EB LTR (1)	-	3	3	3	3
b. WB LTR (1)	-	3	3	3	3
c. NB LTR (1)	-	3	5	5	5
d. SB LTR (1)	-	0	3	3	3
17. Fifer St./Brickyard Cir. (South)					
a. EB L (1)	100	8	5	8	8
b. WB L (1)	100	3	3	5	5
c. NB LTR (1)	-	20	50	20	50
d. SB LTR (1)	-	20	28	13	20
18. Prairie Hawk Dr./Bowling Alley Access					
a. EB LR (1)	-	0	3	0	3
b. NB LT (1)	-	0	0	0	0

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

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C. Multimodal Assessment

The proposed Brickyard development has the potential to incorporate various multimodal and travel demand management (TDM) strategies and amenities that encourage and promote multimodal travel options. Incorporating multimodal and TDM strategies and amenities can help offset the impacts of the traffic generated by the development, as well enhance the overall safety, mobility, and environment of the surrounding transportation system. Some of the options may include:

- Enhanced Wayfinding – Enhanced route/guide signing to existing/proposed pedestrian, bicycle, transit, commercial/retail and recreational facilities.
    - The abutting Industrial Tributary Trail will connect the proposed development to the MAC and to downtown Castle Rock
- Resident Communications System – On-site resident communication system that provide residents with a conduit to share information on a variety of topics including ridesharing, car sharing, and bike sharing. The format of the system may incorporate on-site kiosks, newsletters, web site, etc.
- Electric Vehicle Charging Stations – On-site electric vehicle charging stations.
- Bicycle Amenities – On-site bicycle amenities such as long-term storage, bike racks, repair/maintenance shop, and wash areas.
- Bike, Scooter, Car Share Station(s) – Bike, scooter, and/or car sharing station(s) adjacent to or near the proposed development to encourage multimodal travel among residents.
- Improving existing and/or adding ADA compliant sidewalks and accessible routes.
- Adding crosswalk markings at strategic locations.
- Adding pavement markings and signage for on-street bicycle lanes.
- Adding a crosswalk to Prairie Hawk Dr. at one of the site accesses with RRFB's to enhance pedestrian safety.

As the development process moves forward, the Confluence development team looks forward to working collaboratively with Town staff to develop a plan that provides appropriate and beneficial on-site amenities, as well as off-site enhancements to encourage and promote multimodal options in the travel decisions made by the residents of the proposed Brickyard development.

D. Summary of Operational Analysis & Recommended Improvements

The following is a summary of analysis and recommendations for improvements to the existing and proposed study area intersections and roadways based on the proposed Brickyard development:

Study Area Roadways:

- **Prairie Hawk Dr. (Realignment)** - The following describes the geometric or operational improvements recommended for the Prairie Hawk Dr. (Realignment):
    - 2027 (Build-Out) Analysis Horizon – A new two-lane roadway (known as Praxis St.) will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.

- 2050 (Long-Term) Analysis Horizon – By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Atchison Way, the roadway section will be a 4-lane major arterial. From Atchison Way to Topeka Way, the roadway section will be a 2-lane minor arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy. the roadway section will be a 4-lane arterial.

- **Prairie Hawk Dr. (Existing Alignment)** – The following describes the geometric or operational modifications recommended for the existing Prairie Hawk Dr. alignment:
  - 2027 (Build-Out) Analysis Horizon – The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
  - 2050 (Long-Term) Analysis Horizon – There are no other geometric or operational modifications or improvements anticipated through the 2050 (long-term) analysis horizon.
- **Plum Creek Pkwy.** - There are no geometric or operational modifications recommended for Plum Creek Pkwy. within the study area as a result of the proposed Brickyard development. It is anticipated that the following improvements will be implemented on Plum Creek Pkwy. within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Plum Creek Pkwy. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Plum Creek Pkwy. will be improved to a 4-lane major arterial roadway from Wolfensberger Rd. to I-25 based on the CRTMP. It is also anticipated that a continuous westbound acceleration/deceleration lane from the I-25 SB Ramp intersection to the new Praxis St. intersection will be constructed. This lane will terminate into a free right turn lane at Praxis St. There will also be a continuous 3rd eastbound travel lane from the Praxis St./Dawson Trails intersection to Wilcox St.
- **Wolfensberger Rd.** – There are no geometric or operational modifications recommended for Wolfensberger Rd. within the study area as a result of the proposed Brickyard development. It is anticipated that the following regional improvements will be implemented on Wolfensberger Rd. within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Wolfensberger Rd. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Wolfensberger Rd. will be improved, within the study area, to a 4-lane major arterial roadway from Plum Creek Pkwy. to Prairie Hawk Dr. based on the CRTMP.
- **Dawson Trails Blvd. -** It is anticipated that the following regional improvements will be implemented on Dawson Trails Blvd. within the study area:

- 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is assumed that with the construction of the Crystal Valley Interchange, Dawson Trails Blvd. will be constructed as an access roadway south of Plum Creek Pkwy.
- 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Dawson Trails Blvd. will be fully constructed and in place as a 4-lane major arterial roadway extending south from the Plum Creek Pkwy./Praxis St. intersection based on the CRTMP.

- **East/West Collector -** It is anticipated that the following improvements will be implemented on the East/West Collector within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is assumed that the East/West Collector will not be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the East/West Collector will be constructed as a 2-lane collector extending east from Praxis St. along the southern boundary of the proposed Brickyard development site. There is potential that this roadway may be connected to the existing Prairie Hawk Dr. at its southern terminus to provide emergency vehicle access only. No further connection is anticipated.

Study Area Intersections:

- **(1) Wolfensberger Rd./Prairie Hawk Dr.** – The following summarizes the geometric and operational conditions anticipated for the Wolfensberger Rd./Prairie Hawk Dr. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is anticipated that the south leg of the intersection will be modified to include a right turn lane with approximately 150 feet of storage. The south leg of the intersection will then have one left turn lane with a minimum of 250 feet of storage, one through lane, and one right turn lane with approximately 150 feet of storage on the northbound approach, and one southbound departure lane. Additionally, the westbound left turn lane storage will be increased from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. No additional intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway improvements. The intersection will remain under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection will have one left turn lane with approximately 225 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the westbound approach, and two eastbound departure lanes. The west leg of the intersection will have one left turn lane with approximately 325 feet of storage, two through lanes, and one right turn lane with a minimum of 150 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a total of approximately 700 feet of storage, one through lane and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one left turn lane with a

minimum of 250 feet of storage, two through lanes, and one right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. Based on the queuing analysis, the available storage for the WB left turn queue will need to be increased from 150 feet to a minimum of 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(2) Prairie Hawk Dr./Atchison Way** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Atchison Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be reconstructed as a 1-lane roundabout. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane. There are no other geometric or operational modifications or improvements anticipated through the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no additional projected queue related issues

associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(3) Prairie Hawk Dr./Topeka Way** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Topeka Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is anticipated that the intersection will be restriped to include left turn lanes with 100' feet of storage on the northbound and southbound approaches. No other intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

    Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

    By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(4) Atchison Way/Topeka Way** – The following summarizes the geometric and operational conditions anticipated for the Atchison Way/Topeka Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have two-way stop control on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with a minimum of 150 feet of storage, one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane and one shared through/right turn lane on the northbound approach, and two southbound departure lanes.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(5) Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.** – The following summarizes the geometric and operational conditions anticipated for the Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(6) Plum Creek Pkwy./Auburn Dr.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Auburn Dr. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows, in order to accommodate the anticipated Plum Creek Pkwy. roadway improvements. The intersection will have stop control on the southbound approach. The east leg of the intersection will have one right turn lane and two through lanes on the westbound approach, and two

eastbound departure lanes. The west leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and two through lanes on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, it is projected that the SB shared left turn/right turn lane group will experience a poor level of service (LOS “E”) during the p.m. peak hour in both the background and total traffic scenarios. This is a typical situation when a side street intersects a busy arterial roadway under stop-controlled conditions. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario.

- **(7) Plum Creek Pkwy./I-25 SB Ramps** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./I-25 SB Ramps intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The intersection will remain under actuated/coordinated signalized control with protected/permitted left turn phasing on the westbound approach. The northbound lanes will be removed at this intersection. The east leg of the intersection will have one left turn lane with approximately 675 feet of storage and two through lanes on the westbound approach, and three eastbound departure lanes. The west leg of the intersection will be modified to have three through lanes and a continuous free flow right turn lane extending back to Dawson Trails Blvd. with a raised channelizing island on the eastbound approach. The north leg will be modified to have dual left turn lanes, one shared left turn/through lane and one free flow right turn lane with a raised channelizing island on the southbound approach. The south leg will be modified to have only one southbound departure lane.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, the WB through lane group queue is projected to exceed its capacity and spill back into the upstream intersection during the p.m. peak hour. The ability to increase the WB through lane group storage is limited due to the location of the I-25 NB Ramps intersection. Optimizing the traffic signal timings for actual traffic conditions will be the most effective means to mitigate this issue.

- **(8) Plum Creek Pkwy./I-25 NB Ramps** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./I-25 NB Ramps intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The intersection will remain a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the eastbound approach. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to have dual left turn lanes with a total of approximately 800 feet of storage and three through lanes on the eastbound approach, and two westbound departure lanes. The north leg will be modified to have an additional northbound departure lane. The south leg will remain unchanged.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, it is projected that the westbound shared through/ right turn lane group will experience a failing level of service (LOS “F”) during both the background and total traffic scenarios in the PM peak hour. Optimizing the traffic signal timing for actual traffic conditions will be the most effective means to mitigate this issue. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(9) Plum Creek Pkwy./Wilcox St.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Wilcox St. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.

- 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
- 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements. These modifications would help alleviate queueing issues and mitigate the potential operational issues for these movements in the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(10) Prairie Hawk Dr./Praxis St./West Site Access** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Praxis St./West Site Access Roadway Intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon. In its place will be the new two-lane roadway segment referred to as Praxis St., constructed from the west site access intersection to extend west from the property boundary, then curve south at the future 2-lane roundabout location to then intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the intersection will be constructed as follows. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes. No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  By the 2050 (long-term) analysis horizon it is projected that the roundabout, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – The intersection is anticipated to be constructed by the 2027 (build-out) analysis horizon to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others, as Dawson Trails Blvd. in order to provide access from the Crystal Valley interchange.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) Analysis Horizon it is anticipated the following additional improvements will be in place. The intersection will operate under actuated/coordinated traffic signal control with protected plus permitted left turn phasing on all four approaches. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service

(LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(12) Praxis St./East/West Collector** – The following summarizes the geometric and operational conditions anticipated for the Praxis St./East/West Collector intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will be constructed to accommodate the Castle Meadows development. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane extending to Plum Creek Pkwy. on the northbound approach, and two southbound departure lanes.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(13) Prairie Hawk Dr./Brickyard Cir. (North)** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Brickyard Cir. (North) intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
    - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(14) Prairie Hawk Dr./Brickyard Cir. (South)** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Brickyard Cir. (South) intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
    - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(15) West Site Access/Brickyard Cir.** – The following summarizes the geometric and operational conditions anticipated for the West Site Access/Brickyard Cir. intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure

lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

- 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(16) Fifer St./Brickyard Cir. (North)** – The following summarizes the geometric and operational conditions anticipated for the Fifer St./Brickyard Cir. (North) intersection.
  - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn /through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
  - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(17) Fifer St./Brickyard Cir. (South)** – The following summarizes the geometric and operational conditions anticipated for the Fifer St./Brickyard Cir. (South) intersection.

- 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(18) Prairie Hawk Dr./Bowling Alley Access** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Bowling Alley Access intersection.
  - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
  - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

VII. CONCLUSIONS

Confluence Companies is proposing to redevelop a property containing approximately 31.18 acres of land within the jurisdictional limits of the Town of Castle Rock, Colorado. The subject property is currently developed as the now defunct Acme Brick Company. More specifically, the subject property is bound by industrial properties with access to Topeka Way on the north, Prairie Hawk Dr. and several residential properties on the east, undeveloped land to the south, and the proposed Miller’s Landing development to the west, which is currently undeveloped. At buildout, the proposed Brickyard development will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Vehicular access for the proposed Brickyard development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- West Access Roadway– A two-lane roadway extending from the west property boundary to intersect with the proposed extension of the realigned Prairie Hawk Dr. through the proposed Miller’s Landing development via a proposed two-lane roundabout. Prior to the construction of the roundabout, this two-lane roadway (to be known as Praxis St.) will extend west from the property boundary, then south to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- NE Site Access (Brickyard Cir. North) - A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 620 feet south of the NE property boundary of the development site.
- SE Site Access (Brickyard Cir. South) – A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 650 feet south of the proposed NE Access Roadway.
- Bowling Alley Access – A full movement access driveway intersecting the existing Prairie Hawk Dr. north of the NE Site Access will be constructed to provide direct access to the proposed bowling alley.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed Brickyard development on the study area intersections and roadway system. The study includes 2022 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

Based on the analyses contained herein, recommendations for intersection improvements to accommodate the addition of the proposed Brickyard development traffic were developed, while considering the proposed Miller's Landing development, anticipated Dawson Trails development on the property south of Plum Creek Pkwy., the assumed Castle Meadows development on the property immediately to the south of the proposed Brickyard development, regional traffic volume growth, the construction of the new Crystal Valley Interchange, and planned/anticipated transportation system improvements for the study are roadways and intersections, based on the CRTMP.

The following is a summary of the recommendations to be the responsibility of the developer in order to mitigate the impact of the traffic projected to be generated by the proposed Brickyard development by the 2027 (build-out) analysis horizon:

- **Prairie Hawk Dr. (Existing Alignment)** - The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
- **Praxis St.** – A new two-lane roadway will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- **(1) Wolfensberger Rd./Prairie Hawk Dr. Intersection** – The Brickyard developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. The developer will also participate in funding the design and construction of a northbound right turn lane with a minimum of 150 feet of storage.
- **(3) Prairie Hawk Dr./Topeka Way** - The Brickyard developer will be responsible for funding and implementing the restriping of the intersection to include left turn lanes with 100' feet of storage on the northbound and southbound approaches.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The Brickyard developer will share responsibility for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others, as Dawson Trails Blvd. in order to provide access from the Crystal Valley interchange.

- **(13) Prairie Hawk Dr./Brickyard Cir (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(14) Prairie Hawk Dr./Brickyard Cir (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(15) West Site Access/Brickyard Cir. Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
- **(16) Fifer St./Brickyard Cir. (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(17) Fifer St./Brickyard Cir. (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left

turn/through/right turn lane on the northbound approach, and one southbound departure lane.

- **(18) Prairie Hawk Dr./Bowling Alley Access Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

The following is a summary of the recommendations to be the responsibility of others in order to mitigate future traffic impacts caused by existing and future background traffic growth within the study area. These improvements will be needed by the 2050 (long-term) analysis horizon:

- **Prairie Hawk Dr. (Realignment)** - By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Topeka Way, the roadway section will be a 4-lane major arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy., the roadway section will be a 4-lane arterial.

- **(2) Prairie Hawk Dr./Atchison Way** – By 2050, a new 1-lane roundabout will be constructed at this intersection. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps** – By 2050, a new southbound free-flow right turn lane on the north leg of the intersection will be constructed that will include a continuous acceleration/deceleration lane on Plum Creek Pkwy. which will terminate into a free flow right turn lane onto the new Praxis St. roadway extension.
- **(8) Plum Creek Pkwy./I-25 NB Ramps** – By 2050, the intersection will be modified to include the following. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25.
- **(9) Plum Creek Pkwy./S Wilcox St. –** By 2050, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access –** By 2050, this intersection will be constructed with the realigned Prairie Hawk Dr. and Praxis St. extension to the south.

The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.

- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. –** By 2050, it is anticipated that the following additional improvements will be in place. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.
- **(12) Praxis St./East/West/Collector –** By 2050, it is anticipated that this intersection will be constructed to accommodate the Castle Meadows/Millers Landing development projects. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.



HARRIS KOCHER SMITH
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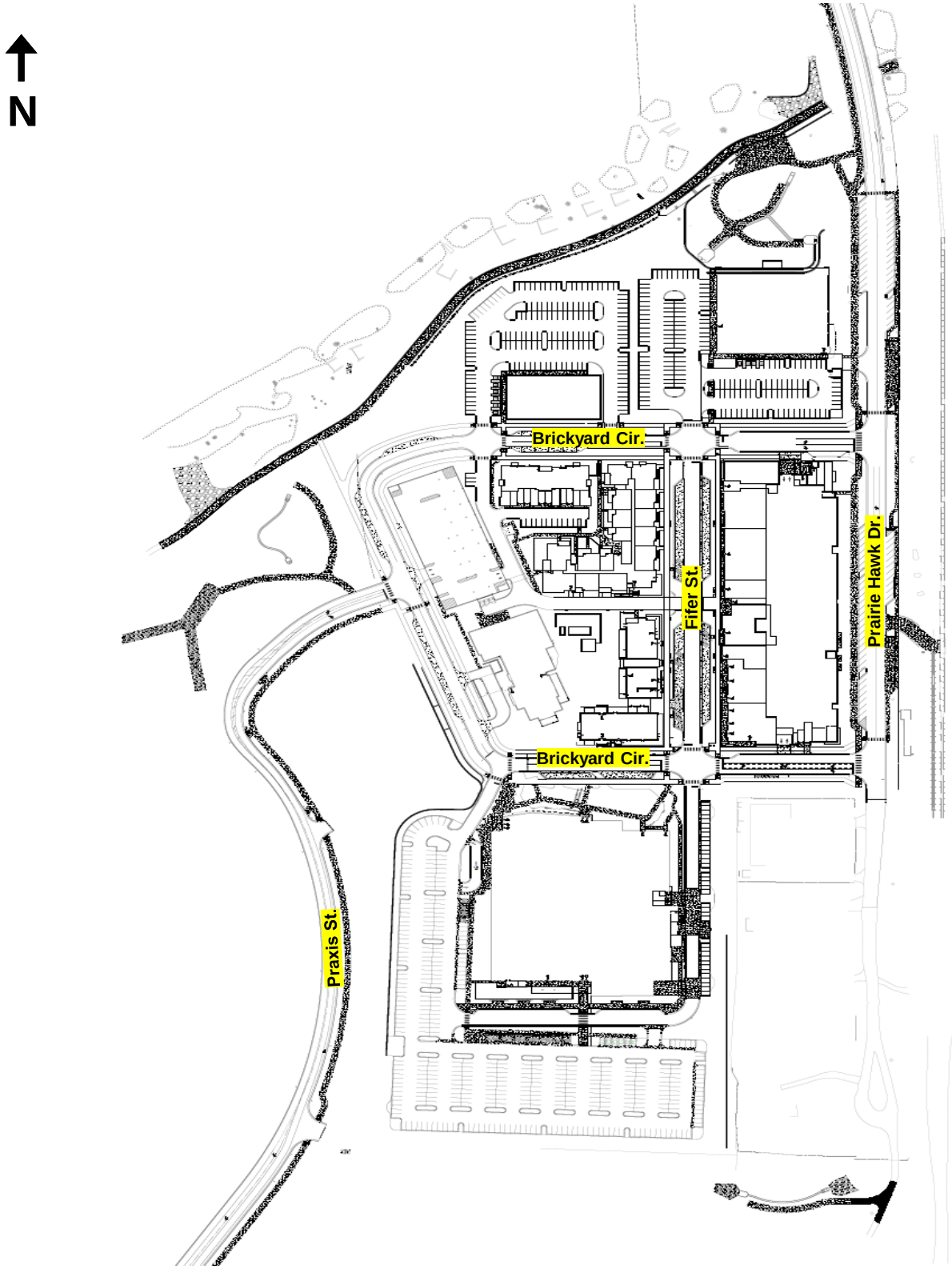
Vicinity Map

The Brickyard

Confluence Companies

HKS #200726

Figure 1



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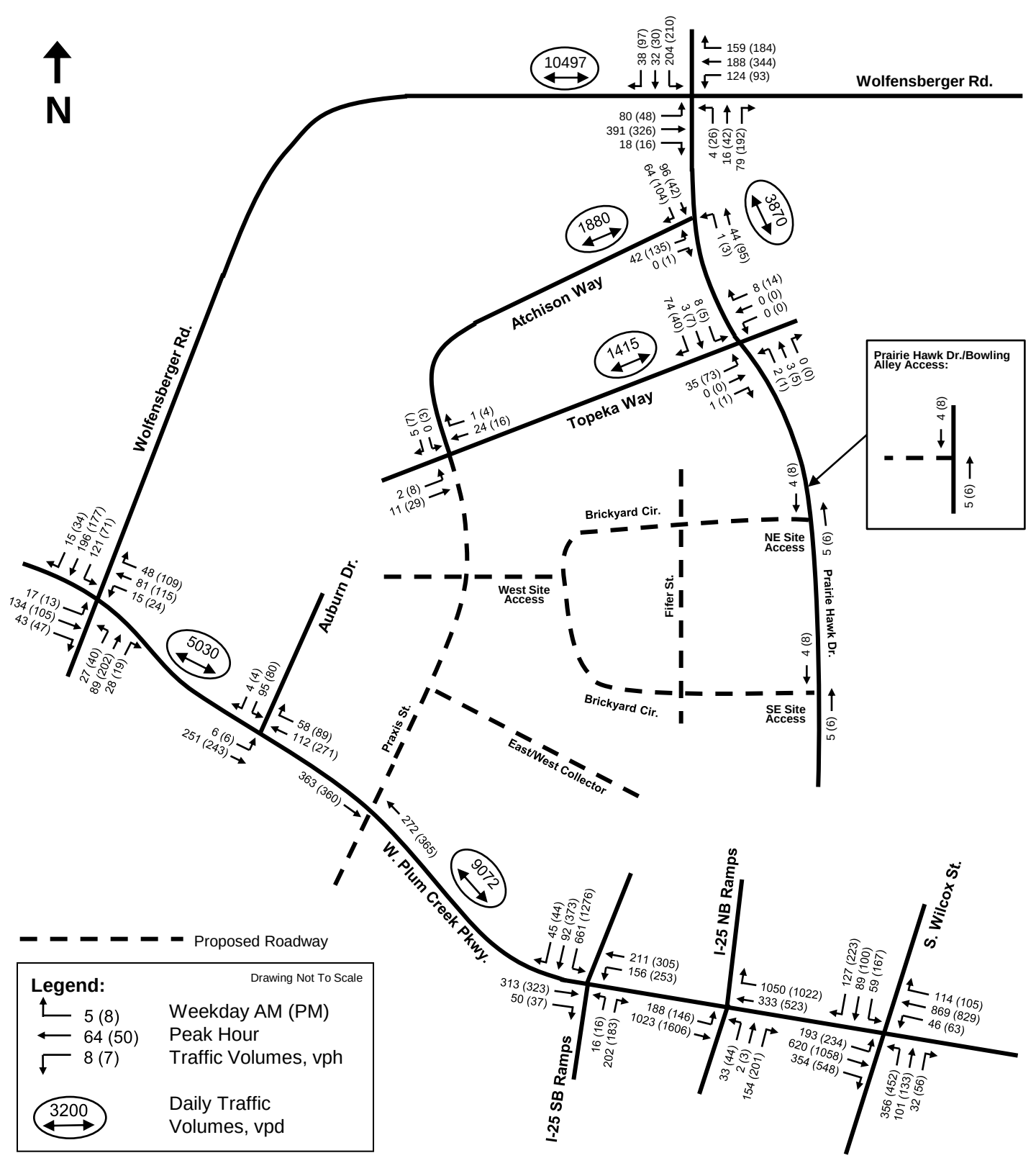
Conceptual Site Plan

The Brickyard

Confluence Companies

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Figure 2



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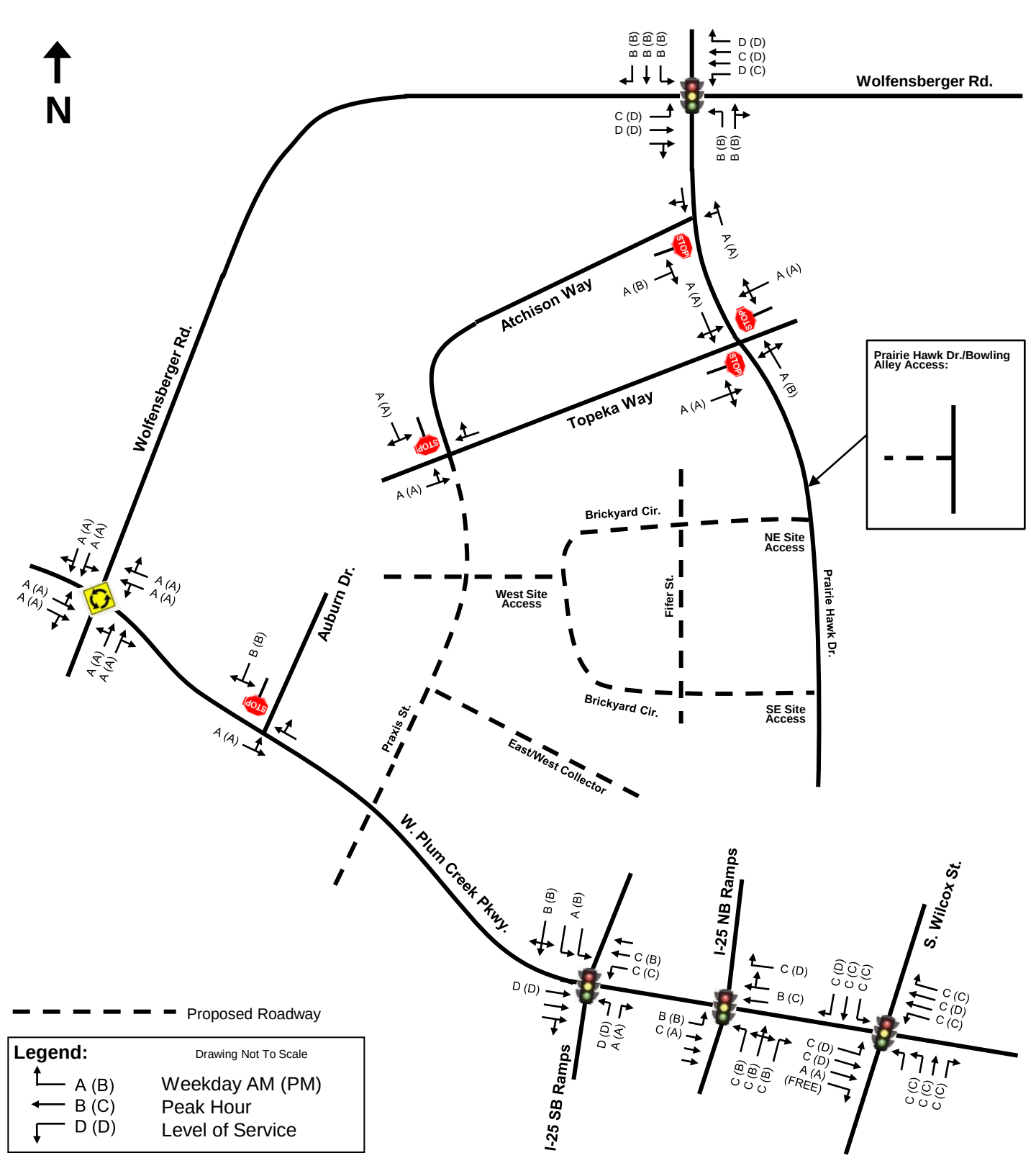
2022 (Existing) Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 3



HARRIS KOCHER SMITH
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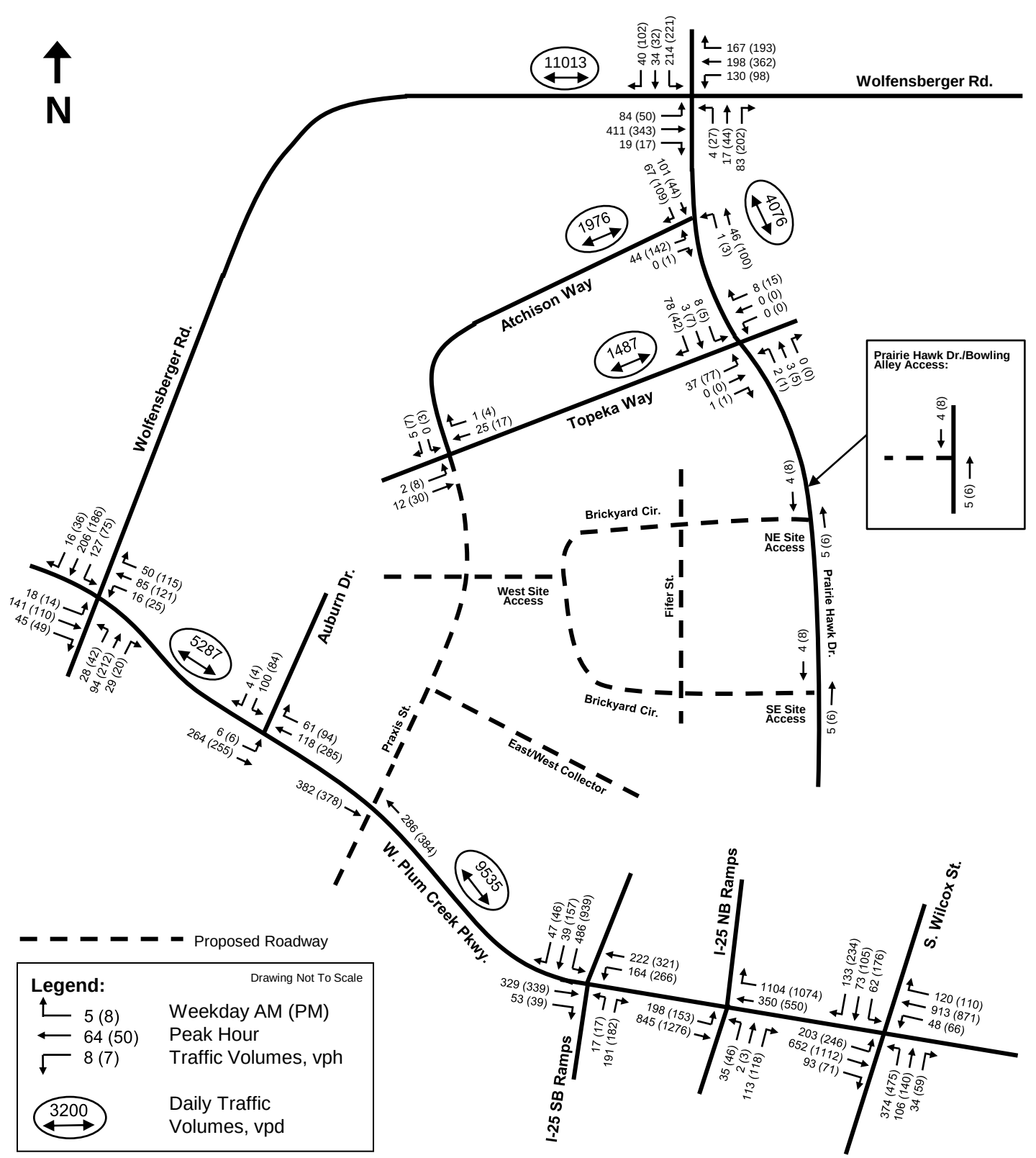
2022 (Existing) Traffic Operational Conditions

The Brickyard

Confluence Companies

HKS #200726

Figure 4



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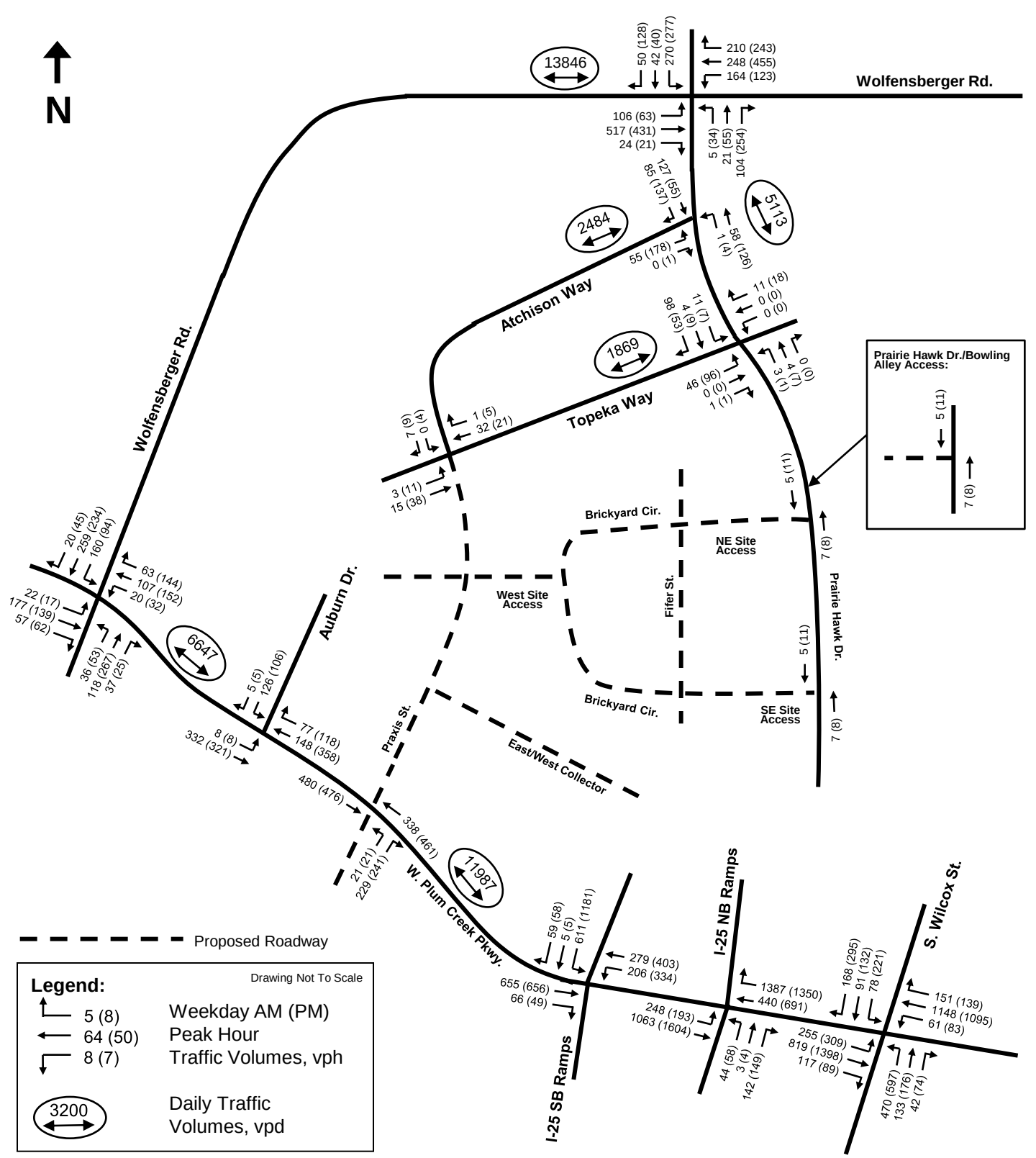
2027 (Build-Out) Analysis Horizon
Regional Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 5



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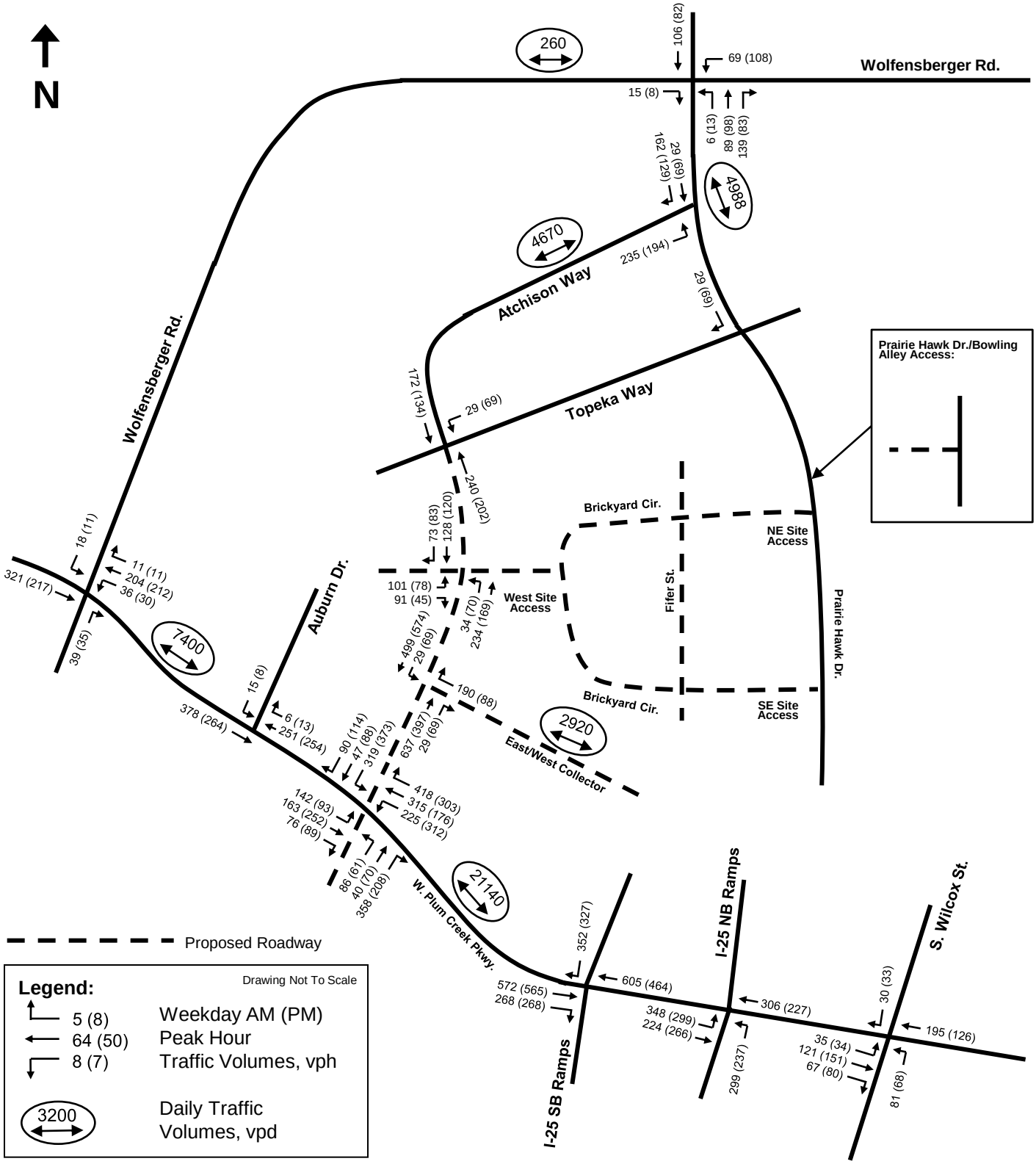
2050 (Long-Term) Analysis Horizon
Regional Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 6



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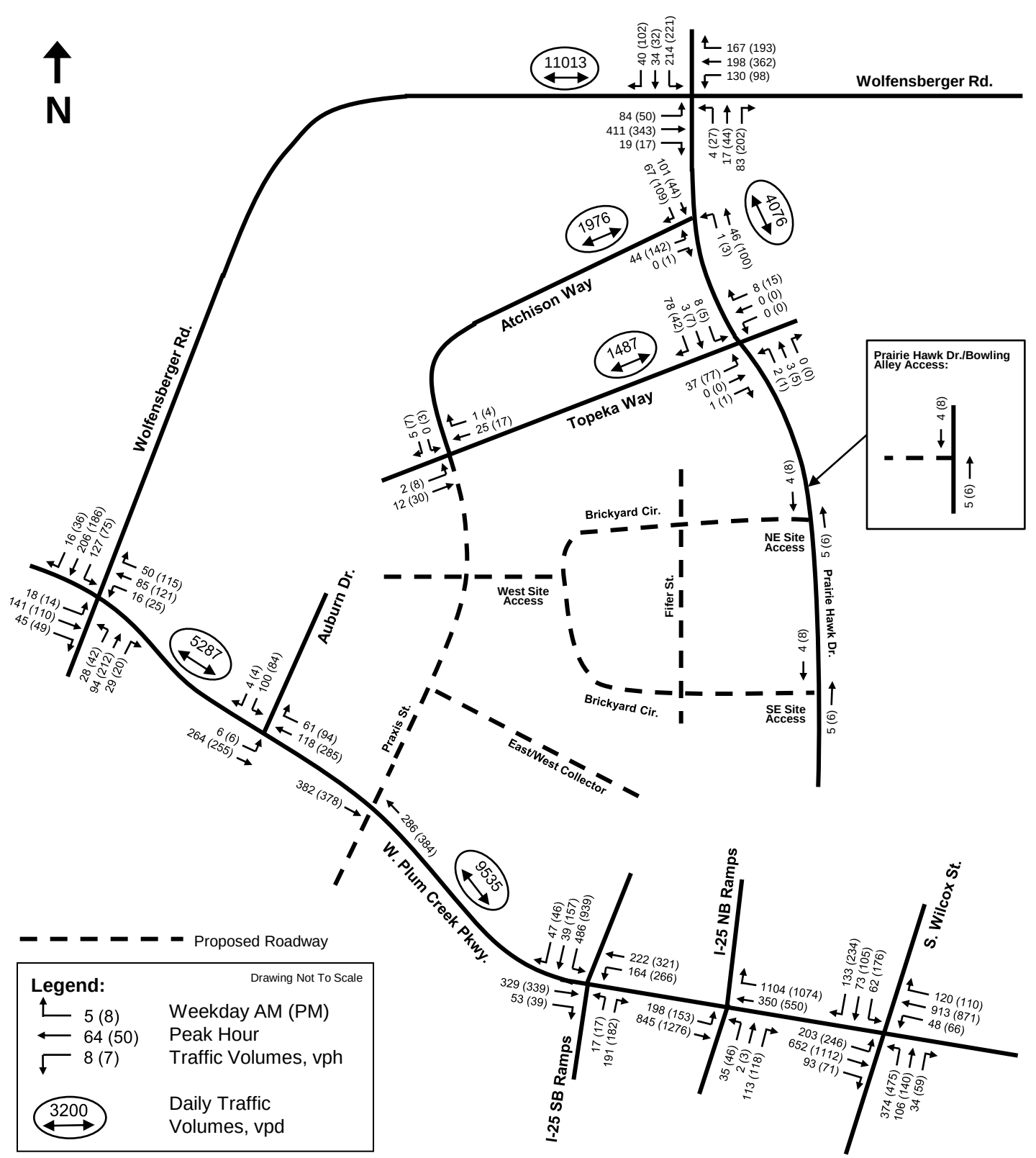
2050 (Long-Term) Analysis Horizon
Local Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 7



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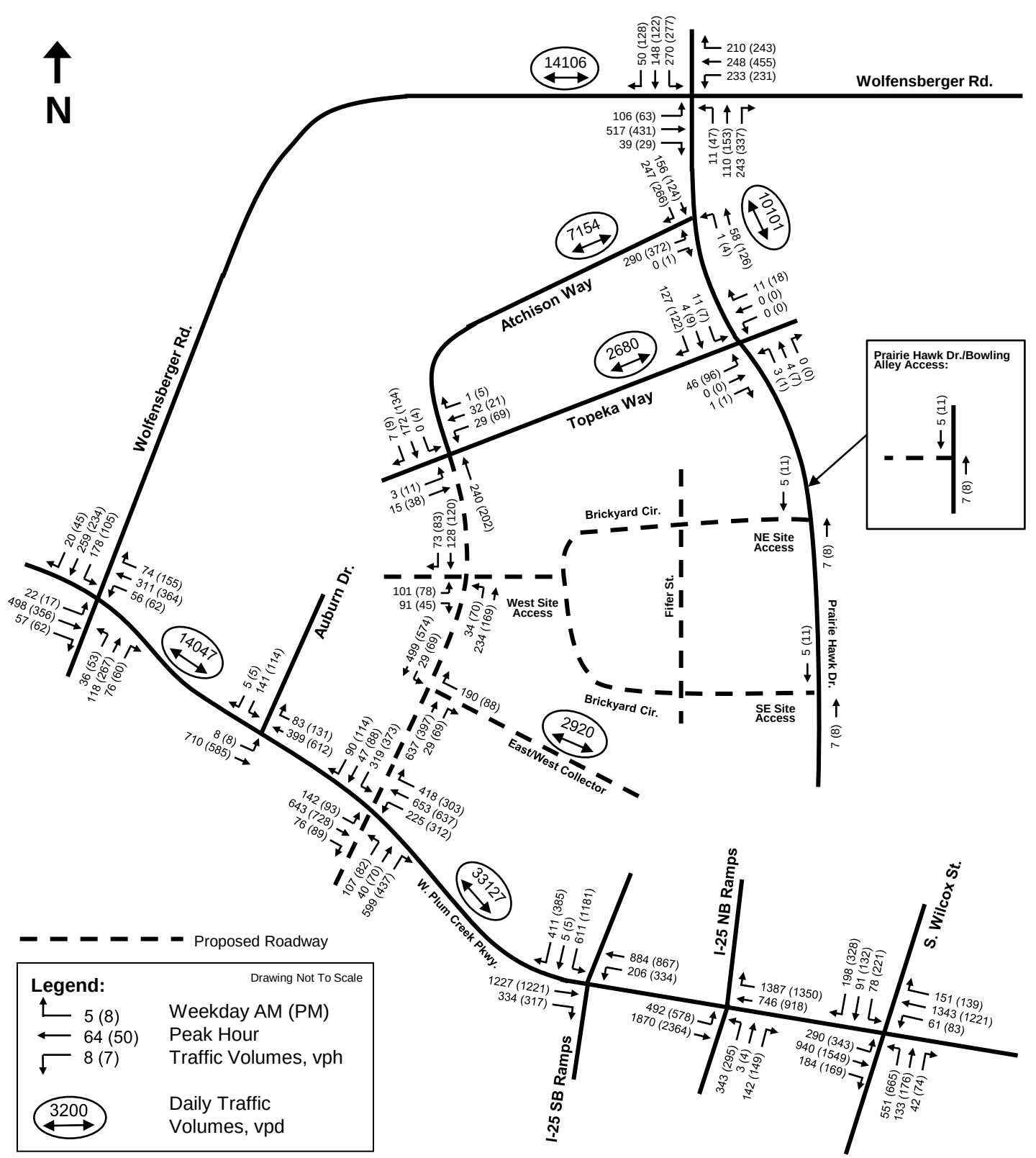
2027 (Build-Out) Analysis Horizon
Total Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 8



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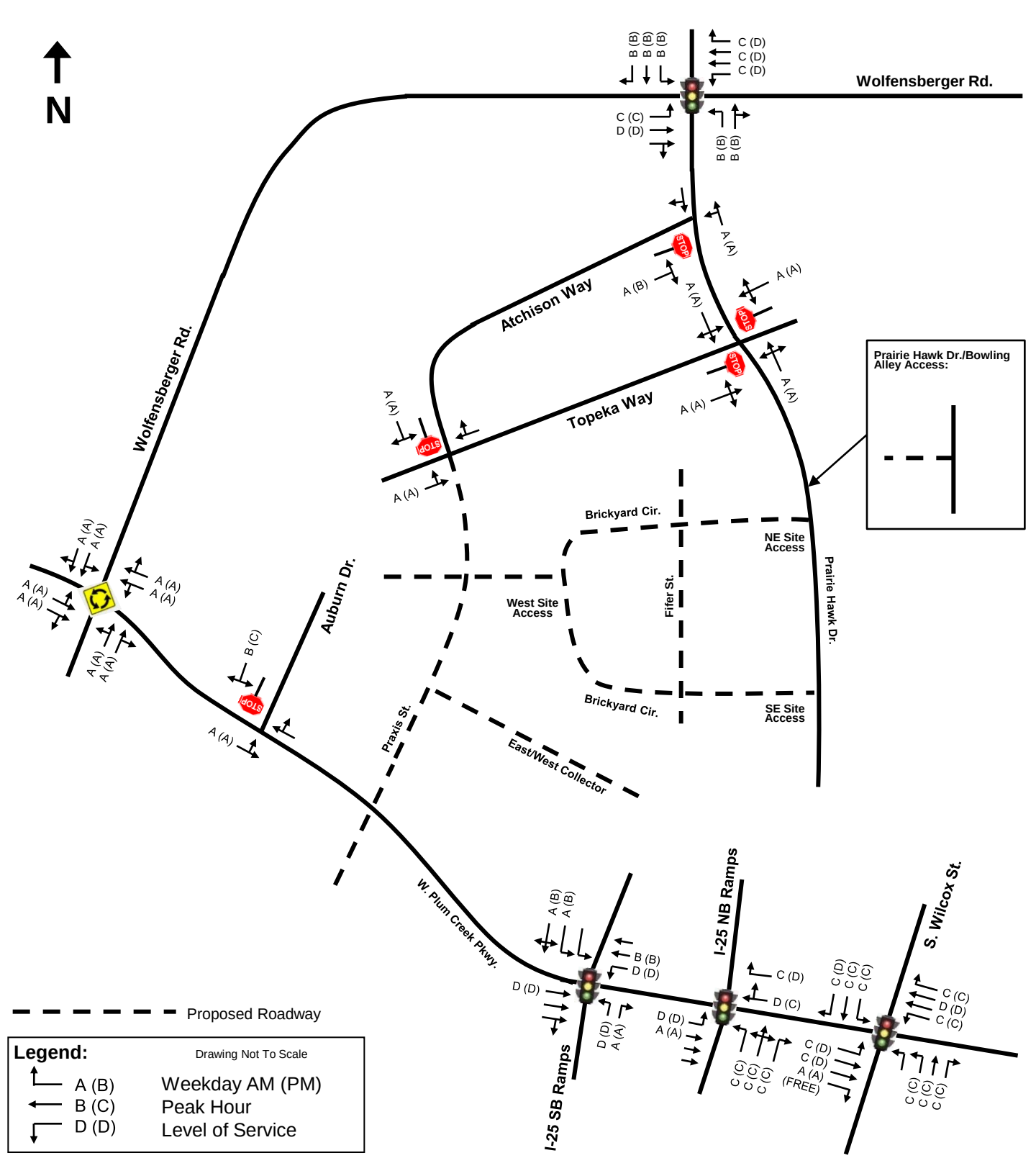
2050 (Long-Term) Analysis Horizon
Total Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 9

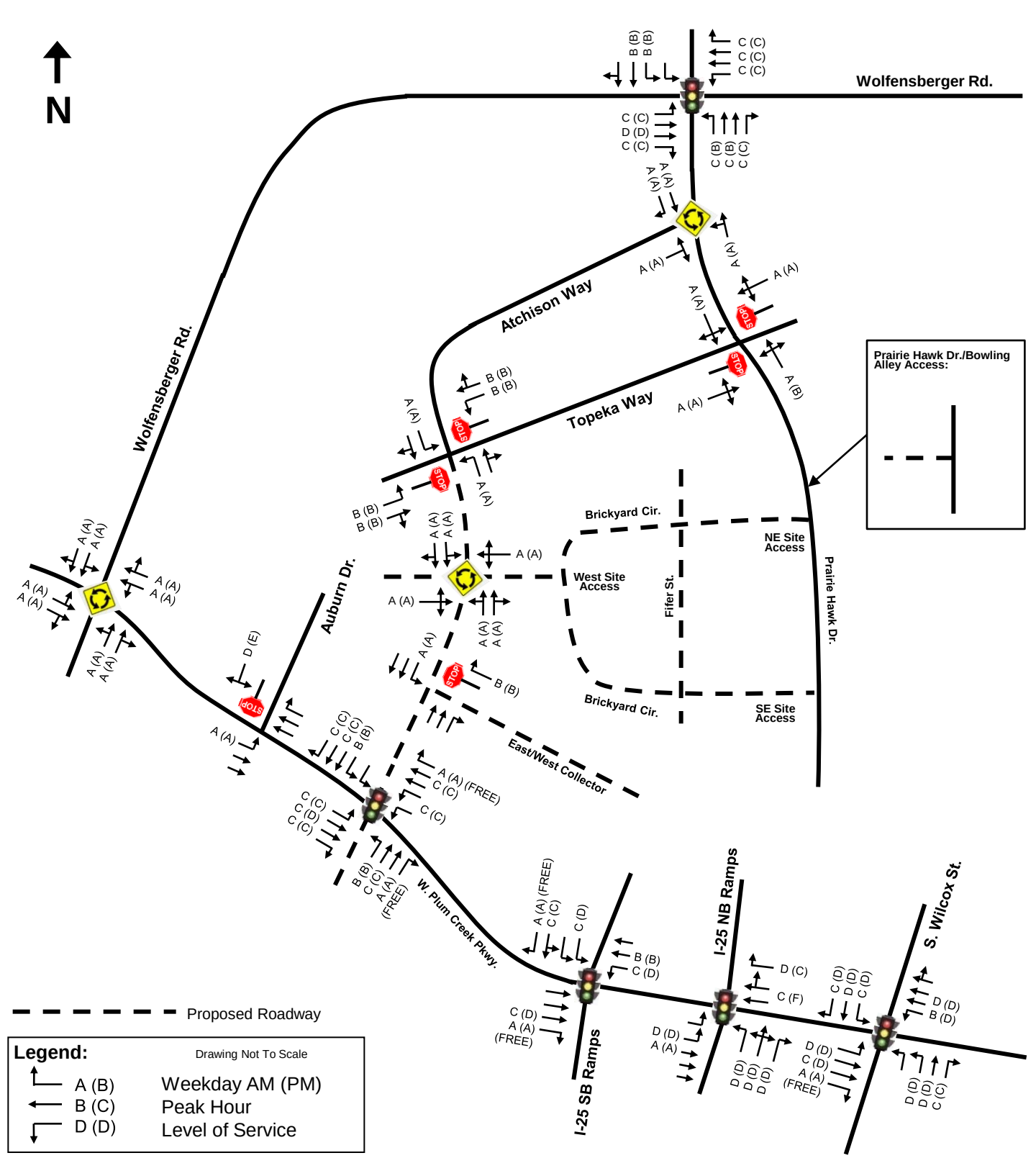


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2027 (Build-Out) Analysis Horizon
Background Traffic Operational Conditions

The Brickyard
Confluence Companies
HKS #200726

Figure 10

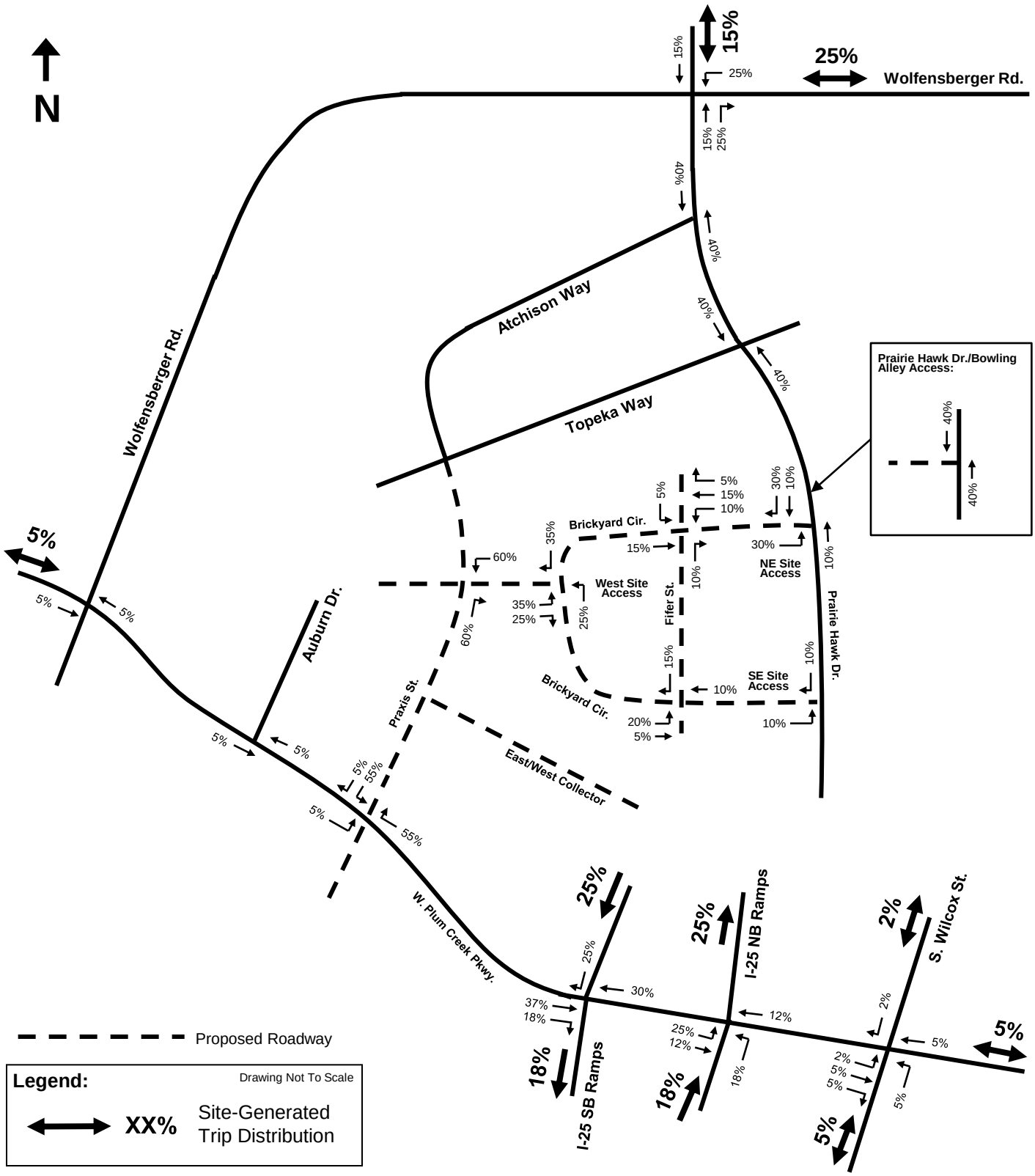


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2050 (Long-Term) Analysis Horizon
Background Traffic Operational Conditions

The Brickyard
Confluence Companies
HKS #200726

Figure 11

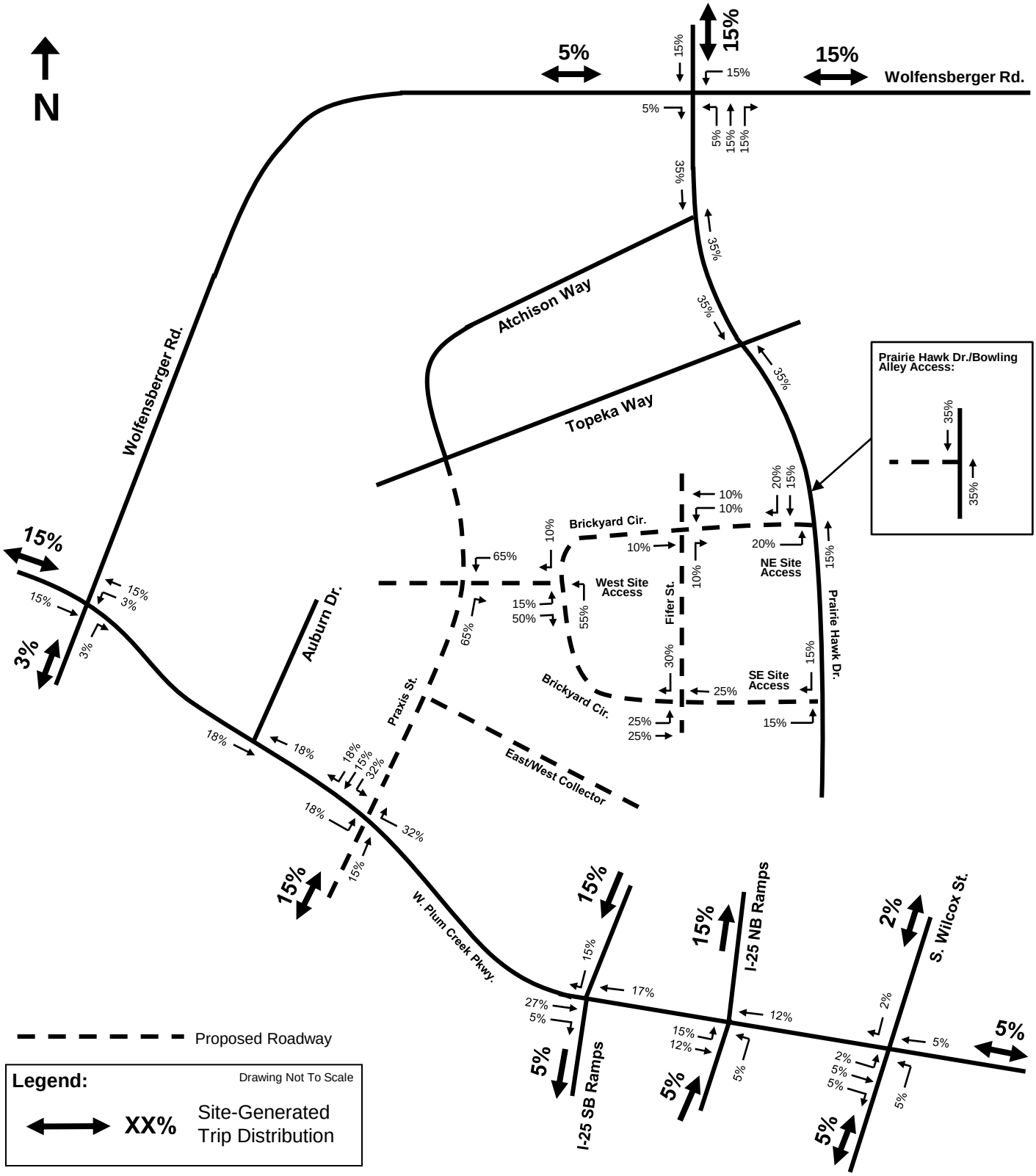


HARRIS KOCHER SMITH
DENVER • DALLAS/FORT WORTH

The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Residential Land Use

Figure 12

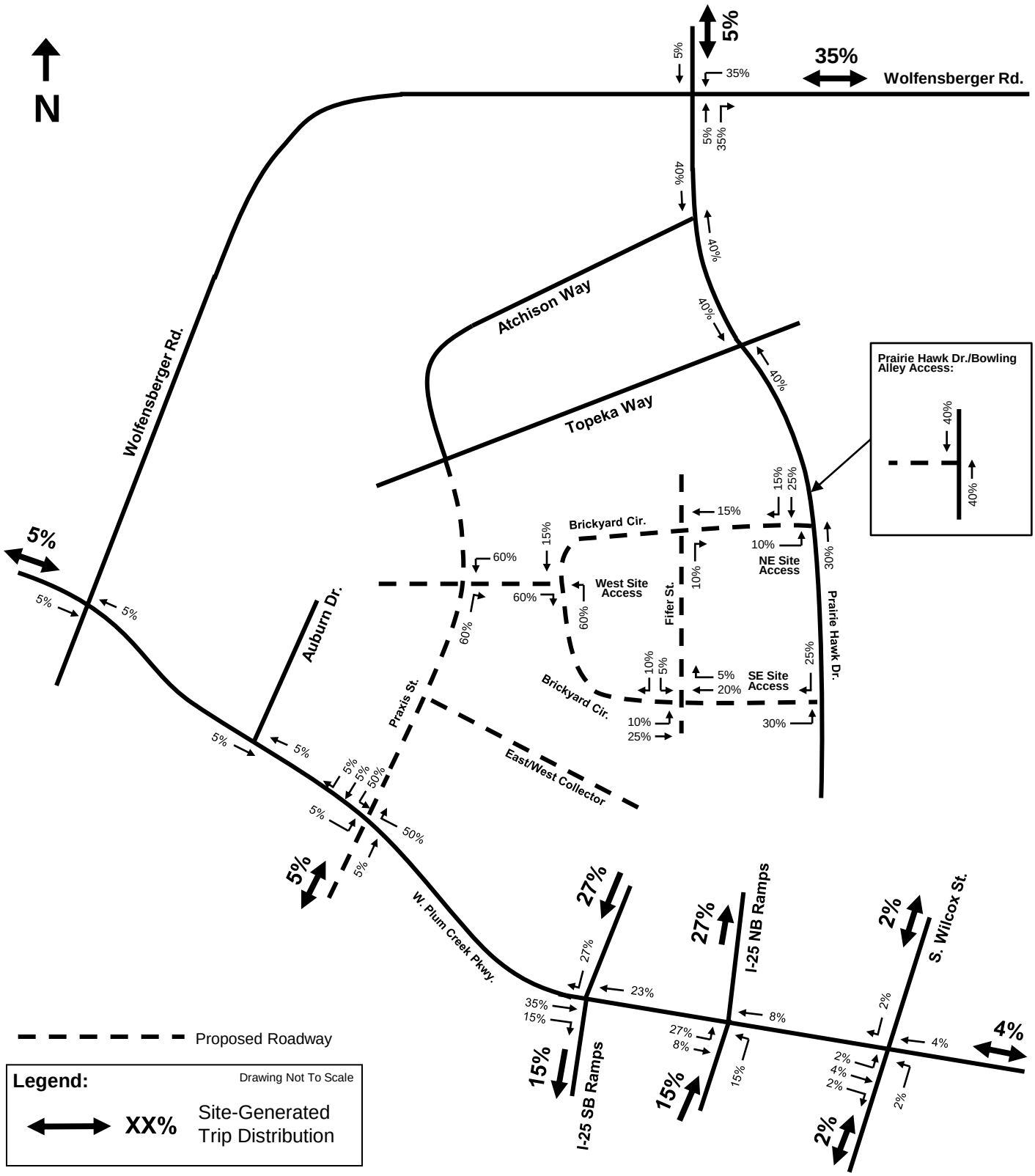


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Commercial/Retail Land Use

Figure 13

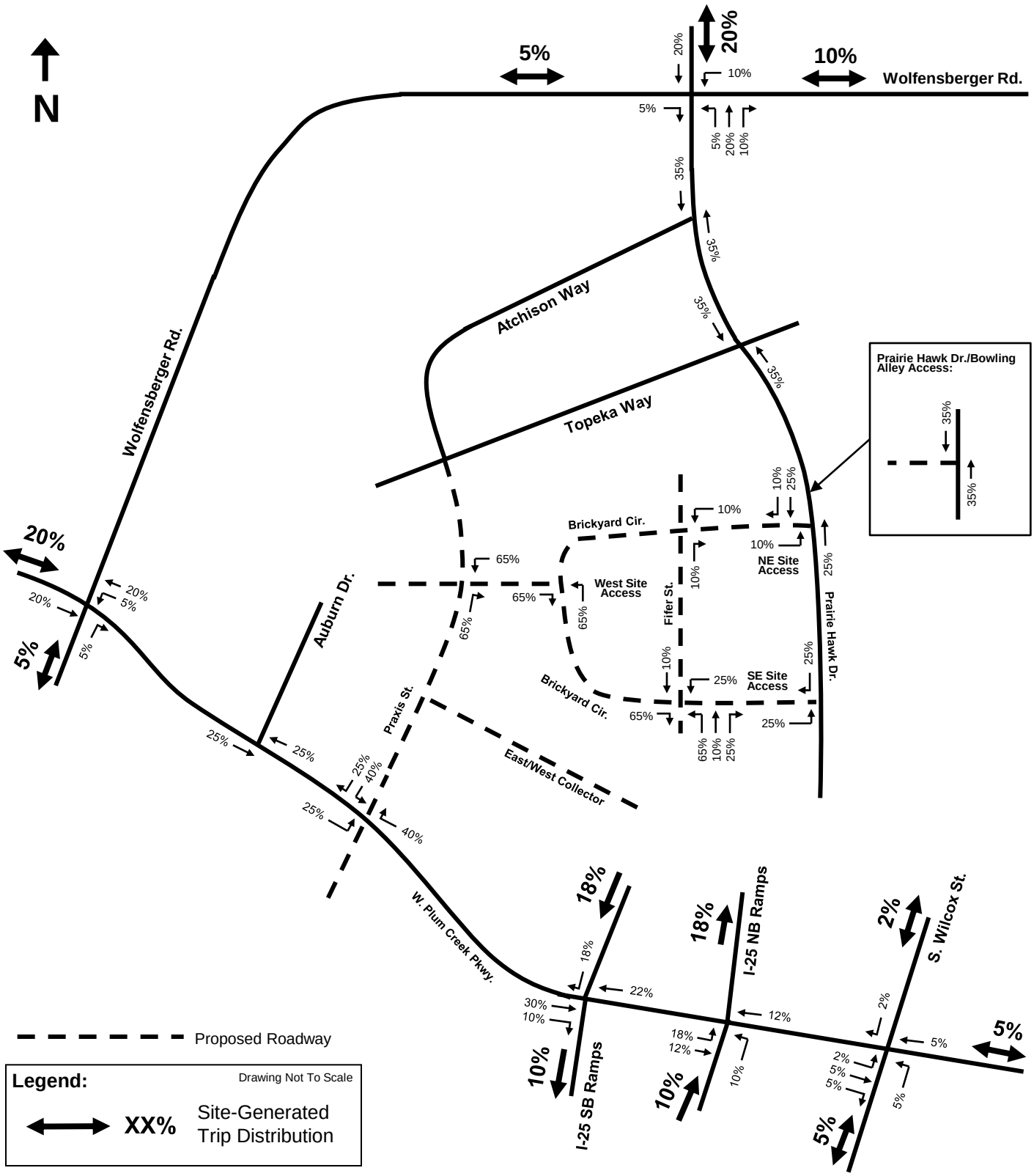


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Hotel Land Use

Figure 14

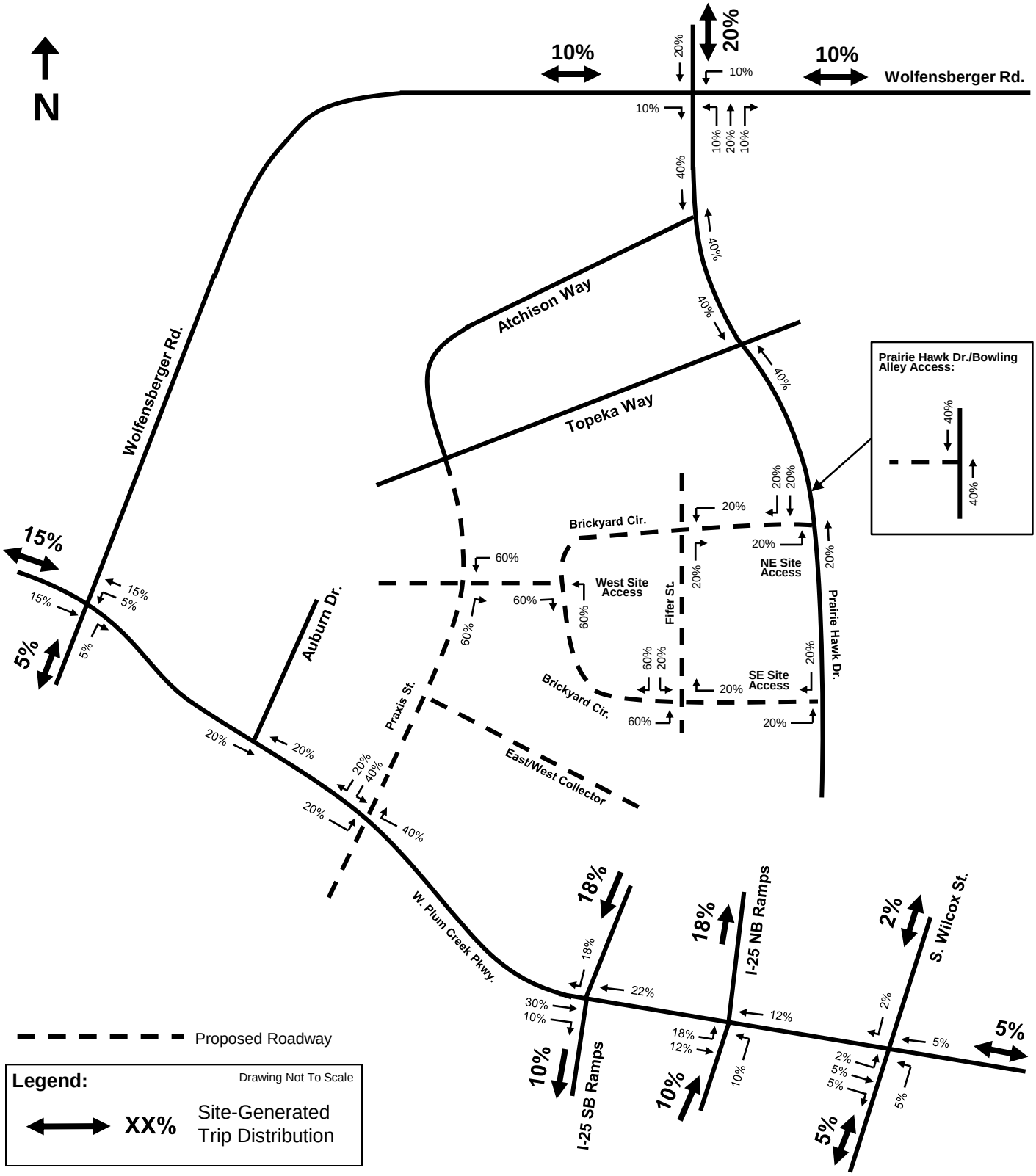


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Rec Center Land Use

Figure 15

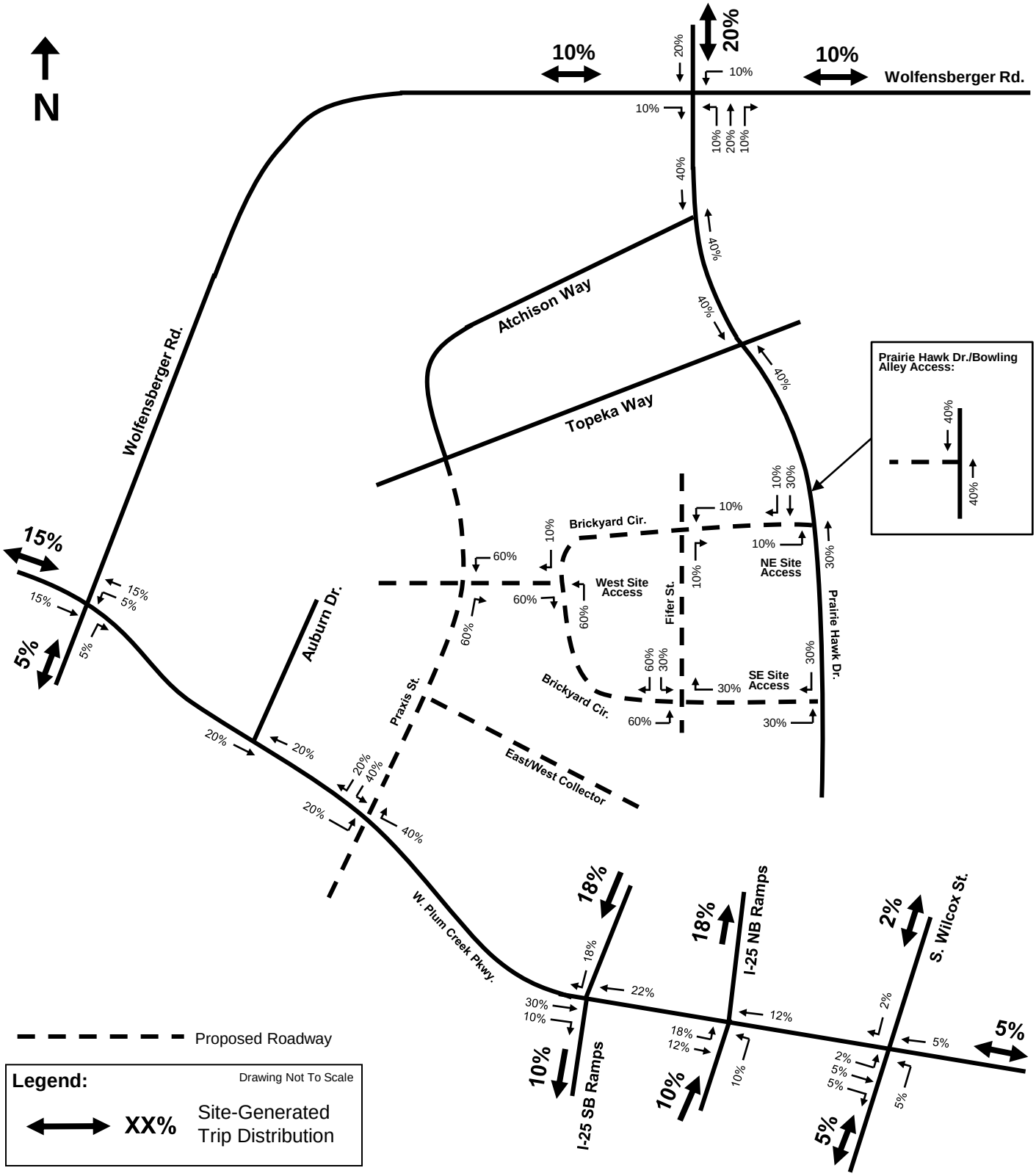


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: General Office Land Use

Figure 16

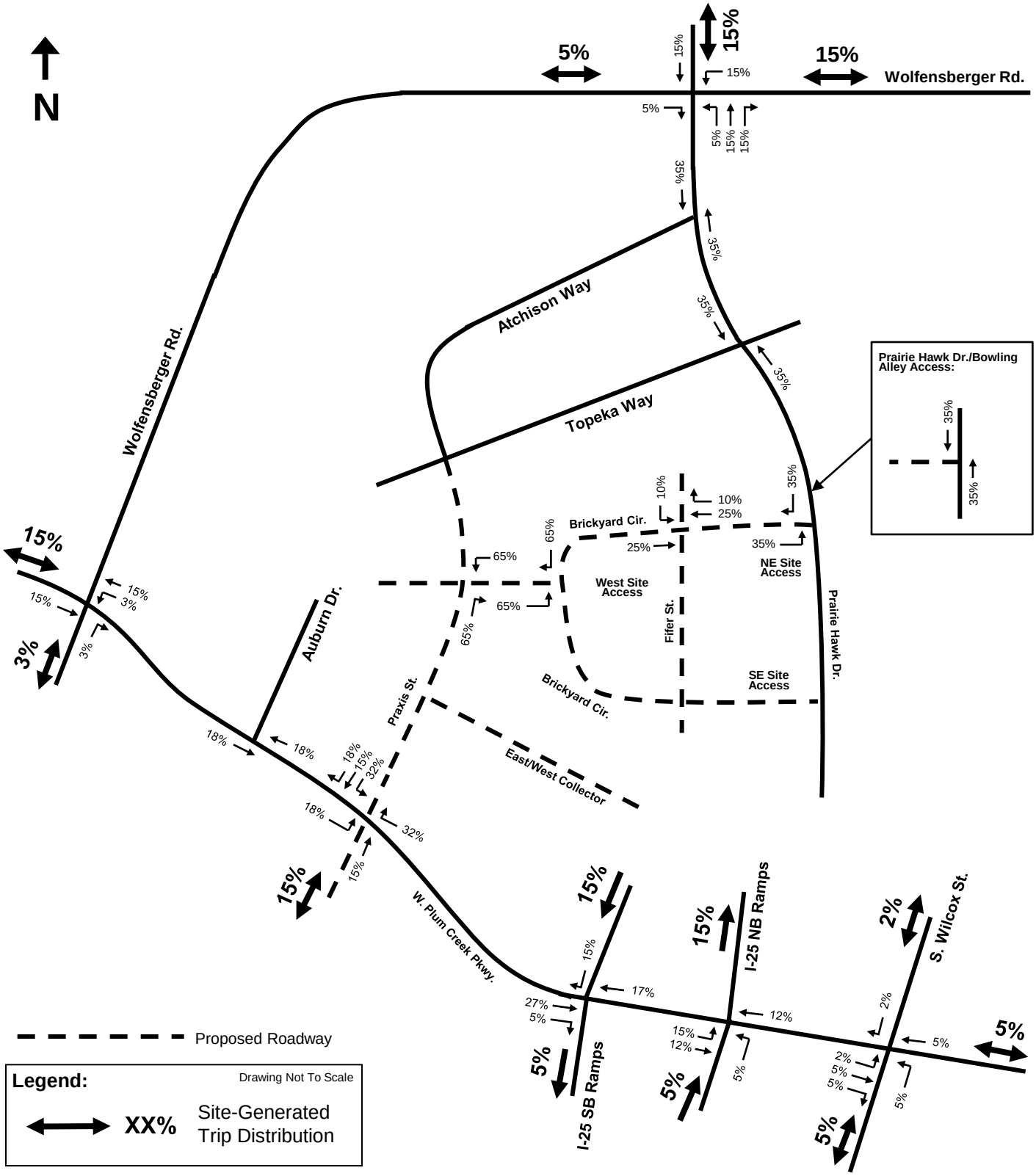


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
High Turnover (Sit-Down) Restaurant Land Use

Figure 17

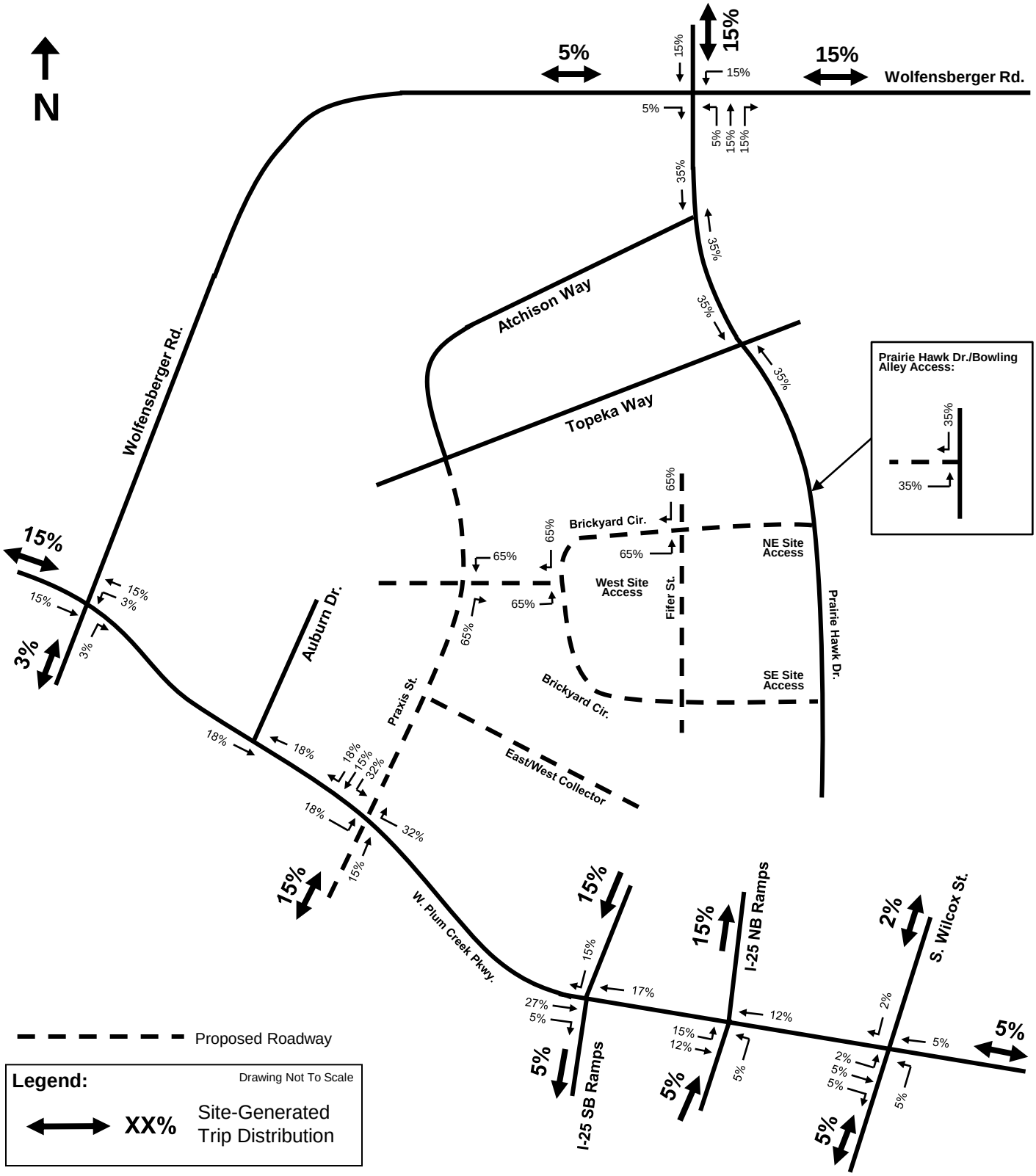


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Supermarket Land Use

Figure 18

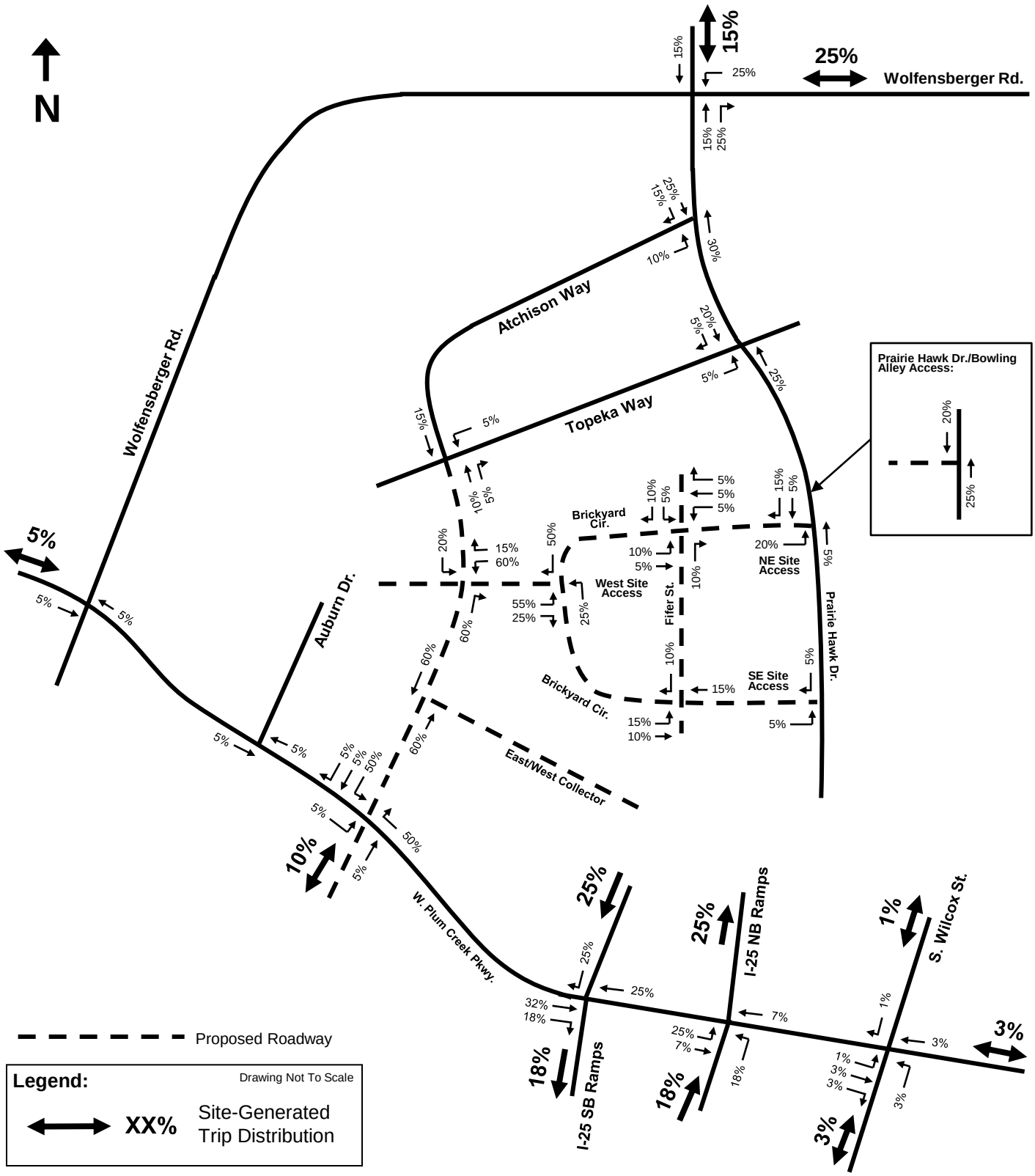


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Bowling Alley Land Use

Figure 19

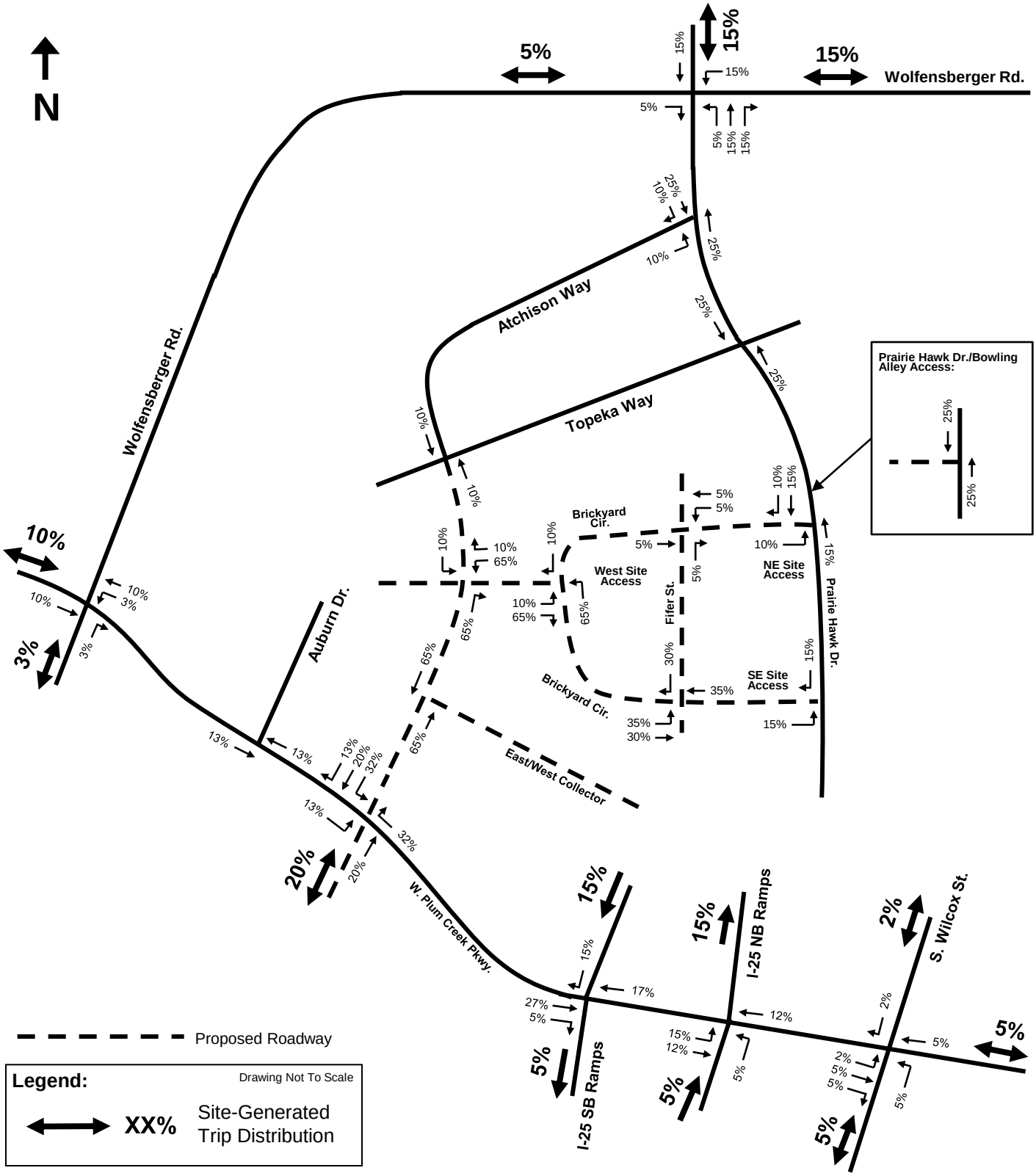


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Residential Land Use

Figure 20

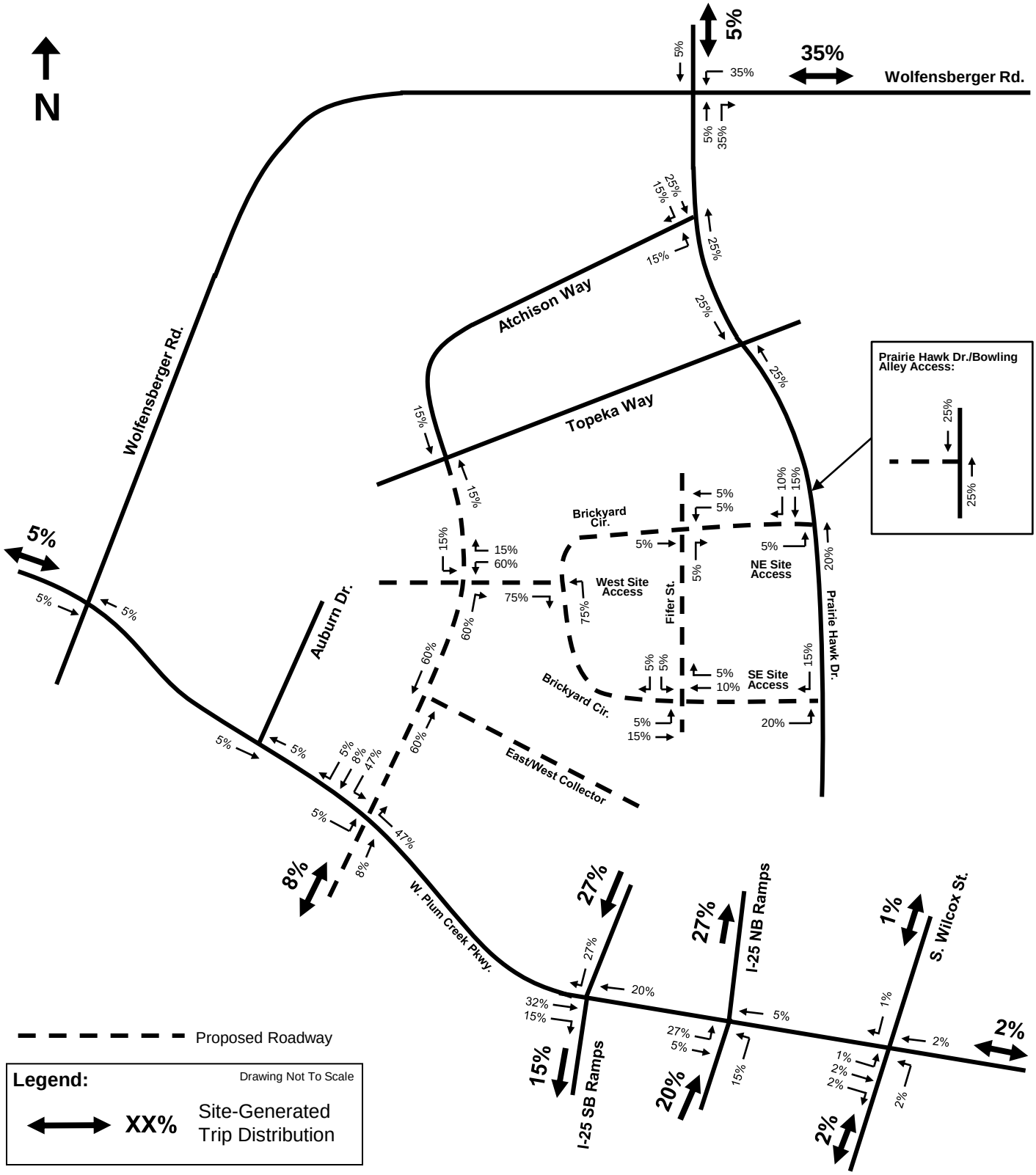


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Commercial/Retail Land Use

Figure 21

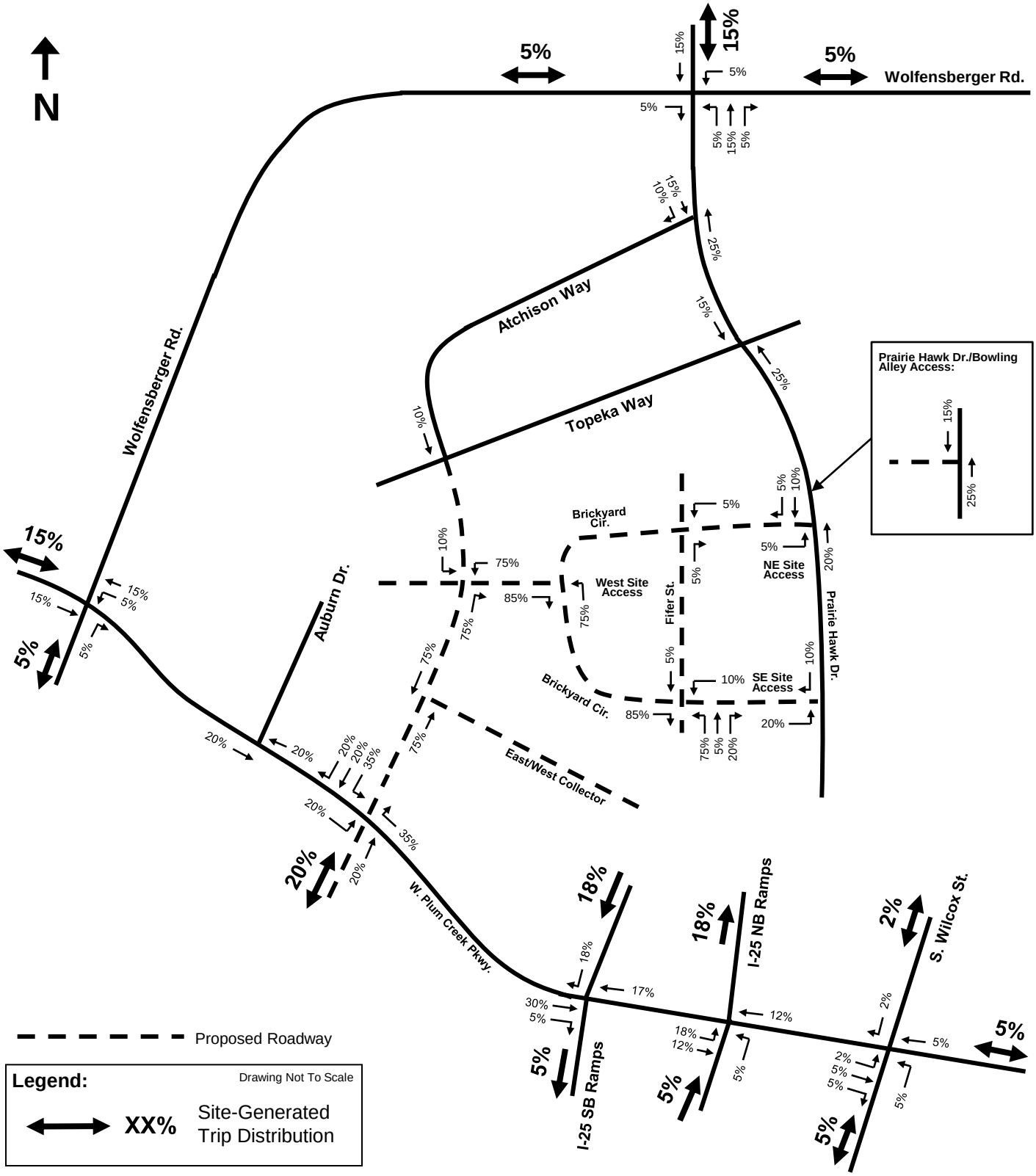


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Hotel Land Use

Figure 22

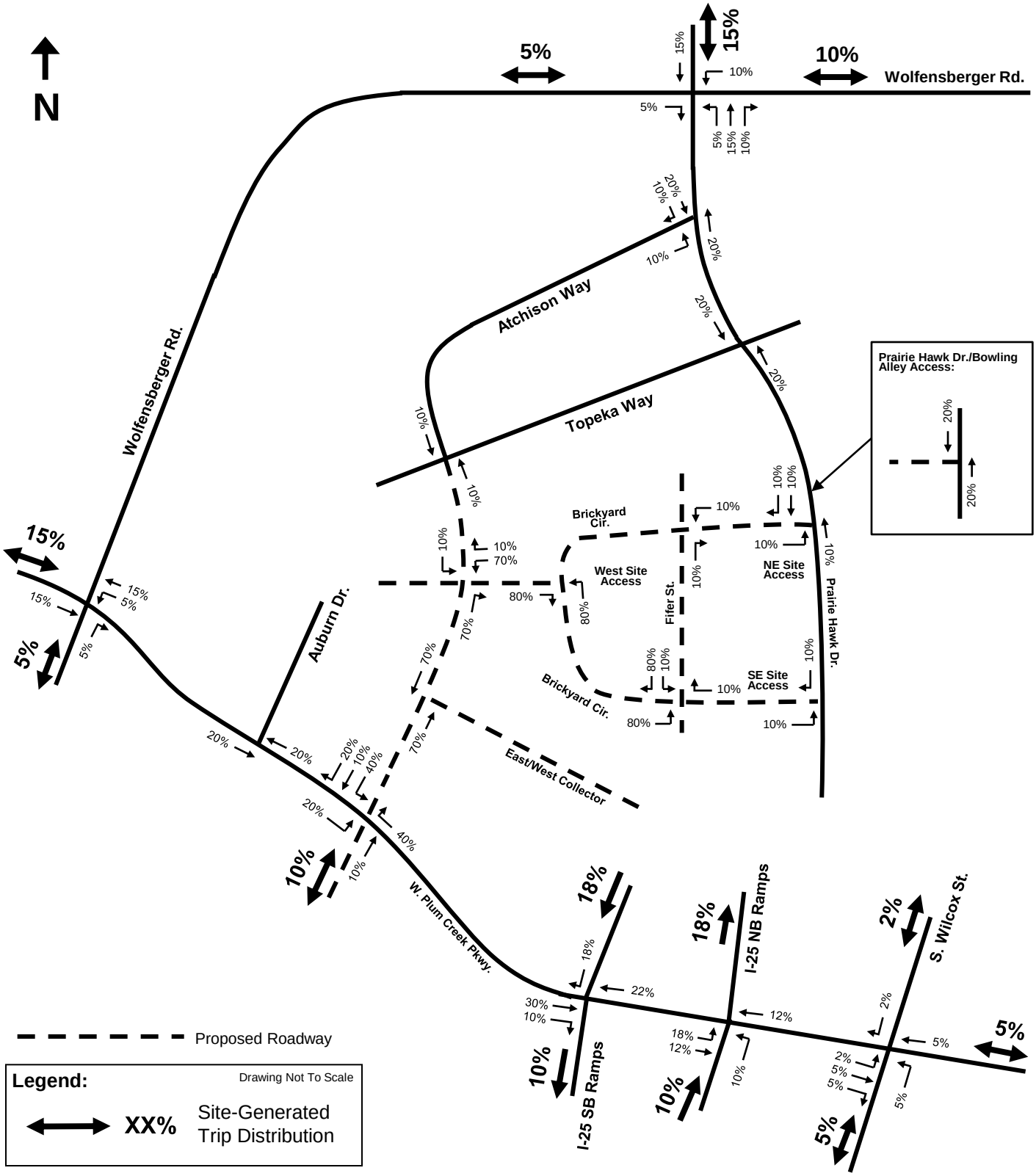


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Rec Center Land Use

Figure 23

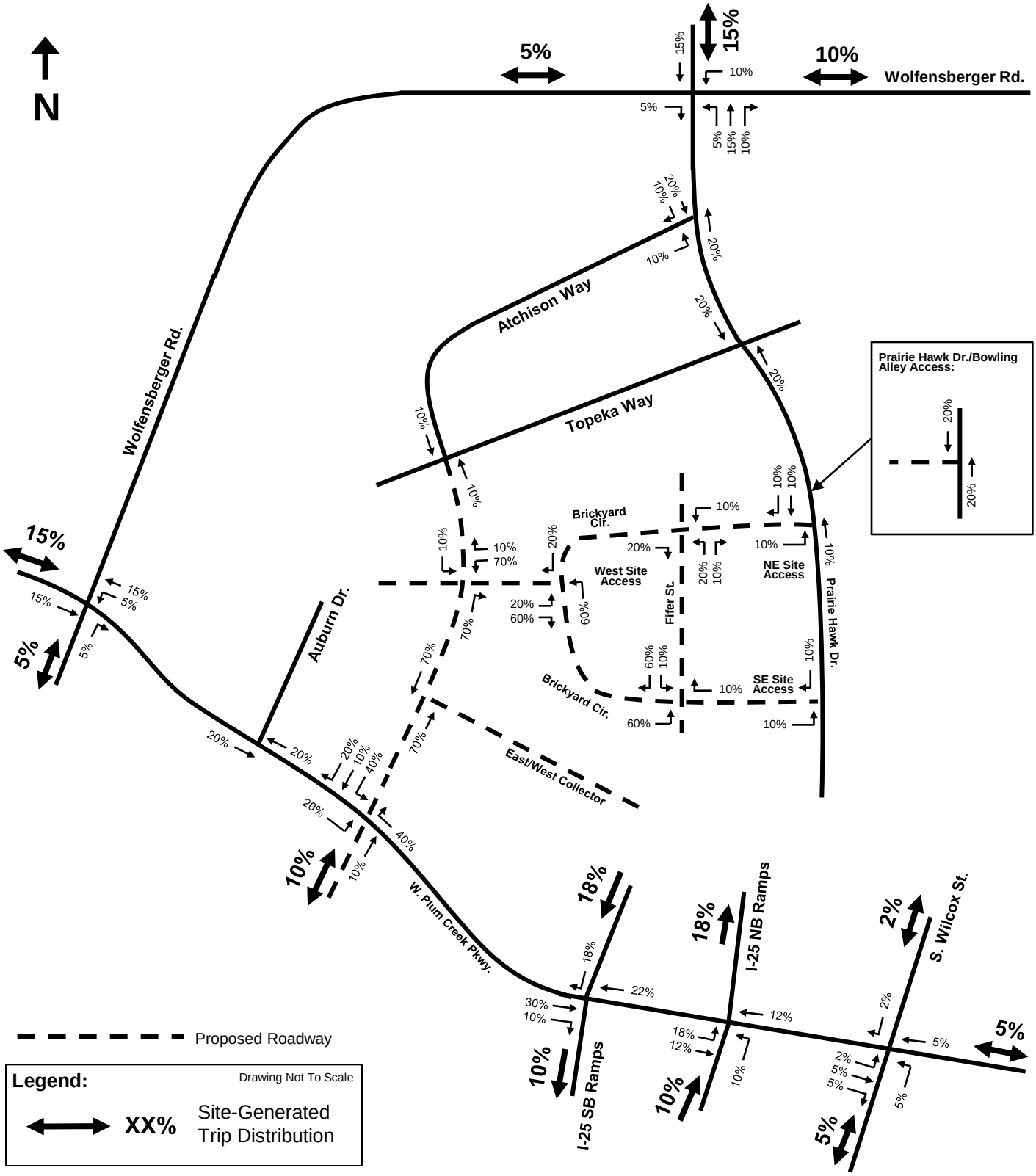


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: General Office Land Use

Figure 24

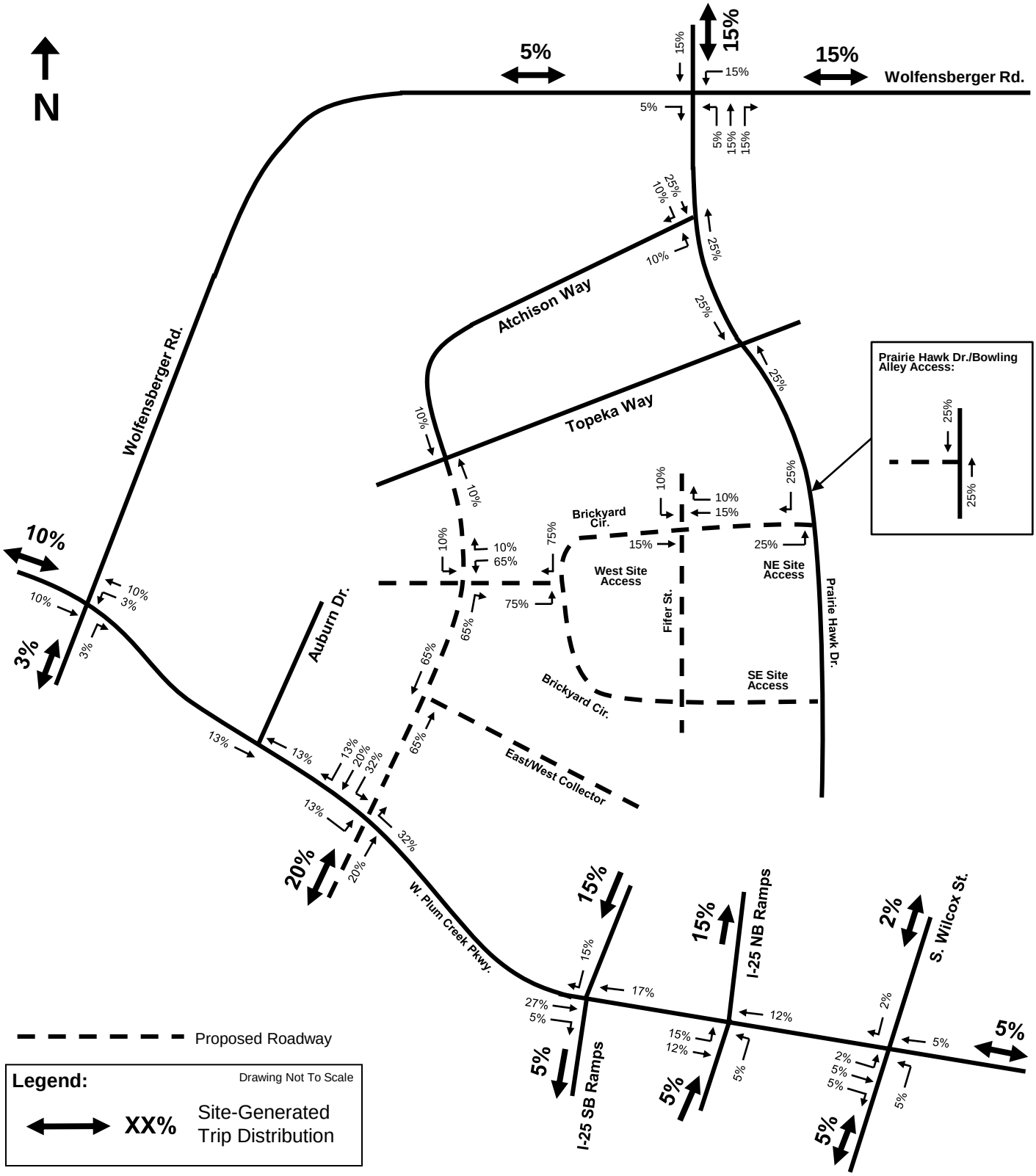


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution:
High Turnover (Sit-Down) Restaurant Land Use

Figure 25

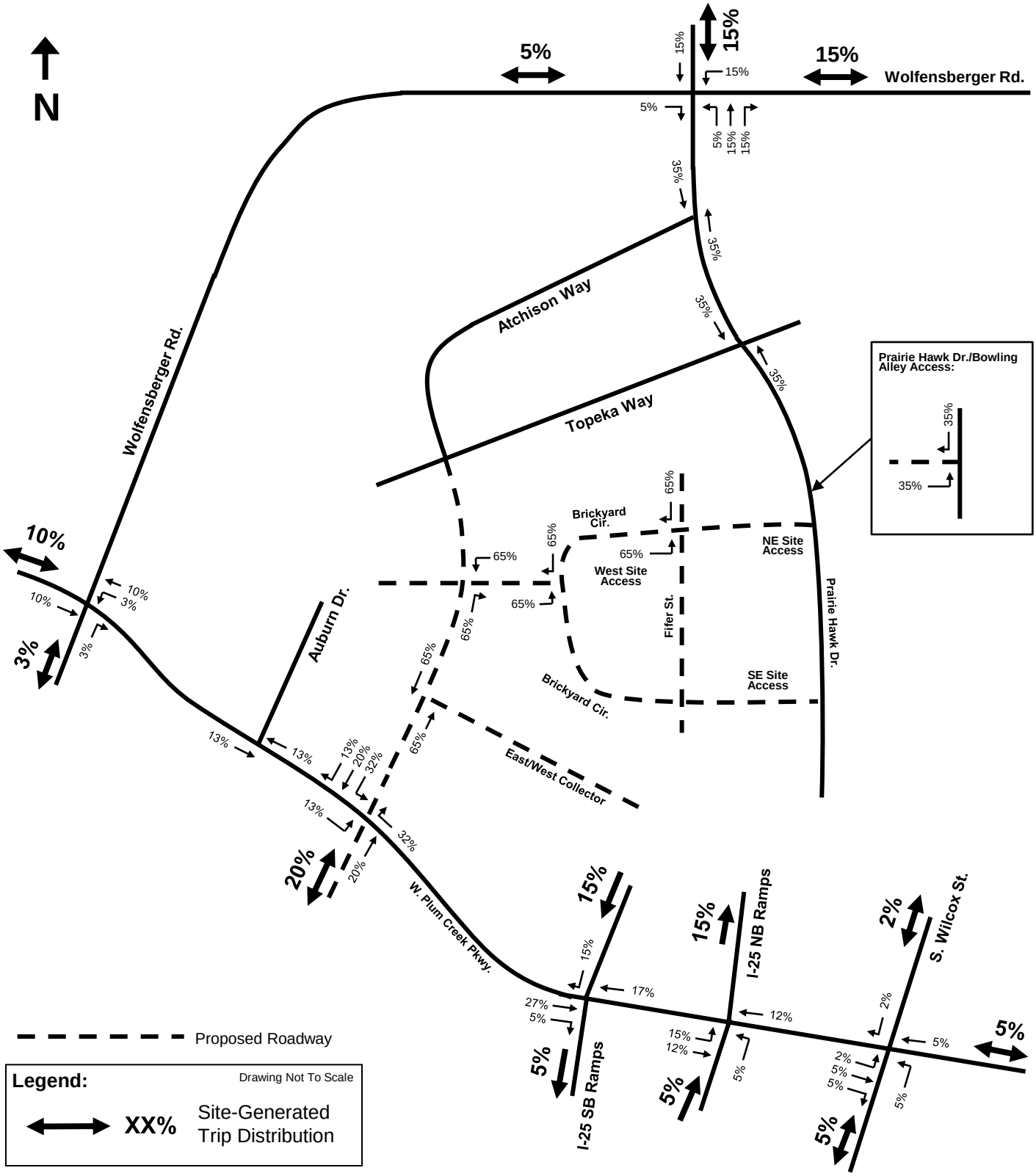


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Supermarket Land Use

Figure 26

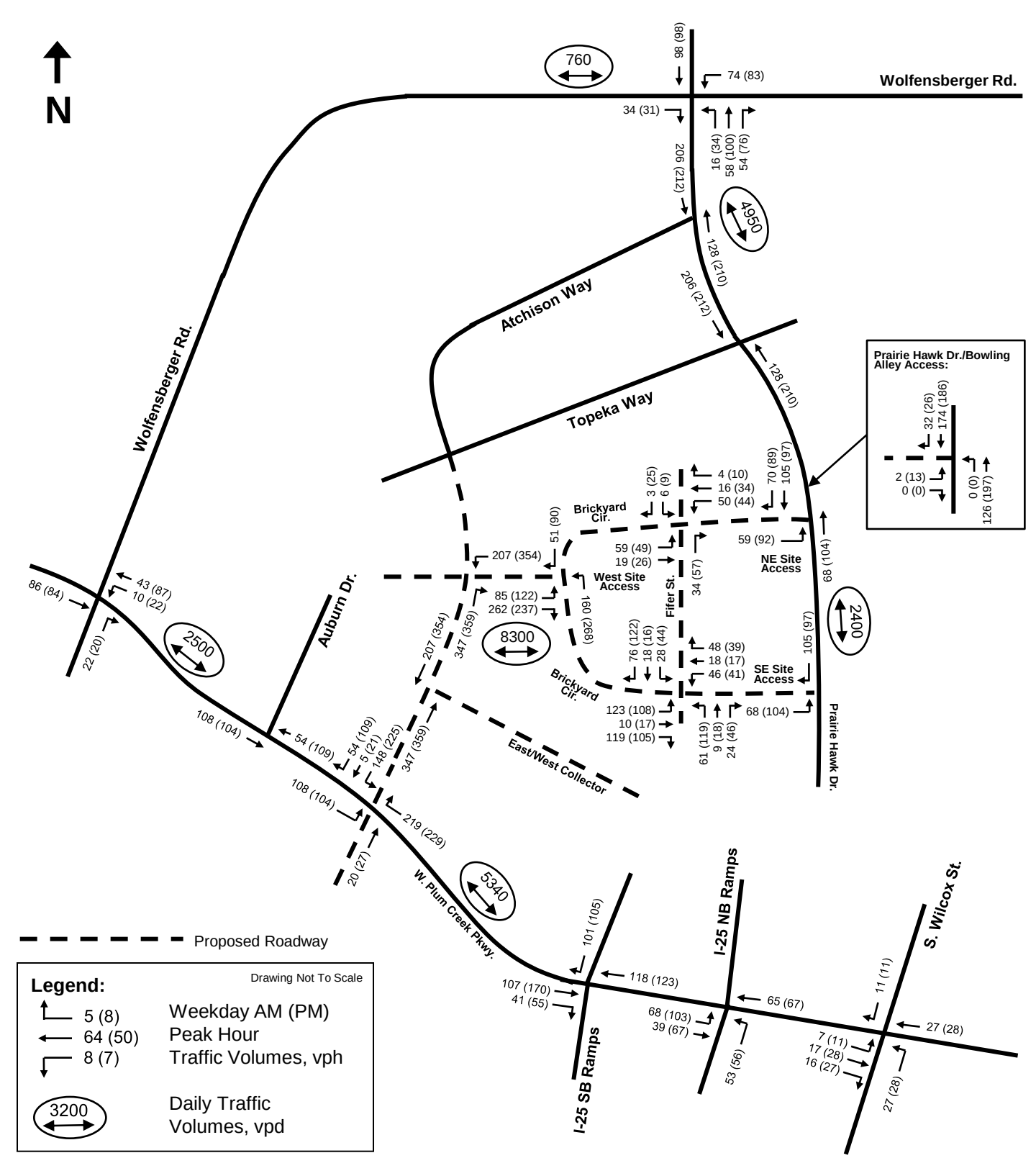


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Bowling Alley Land Use

Figure 27



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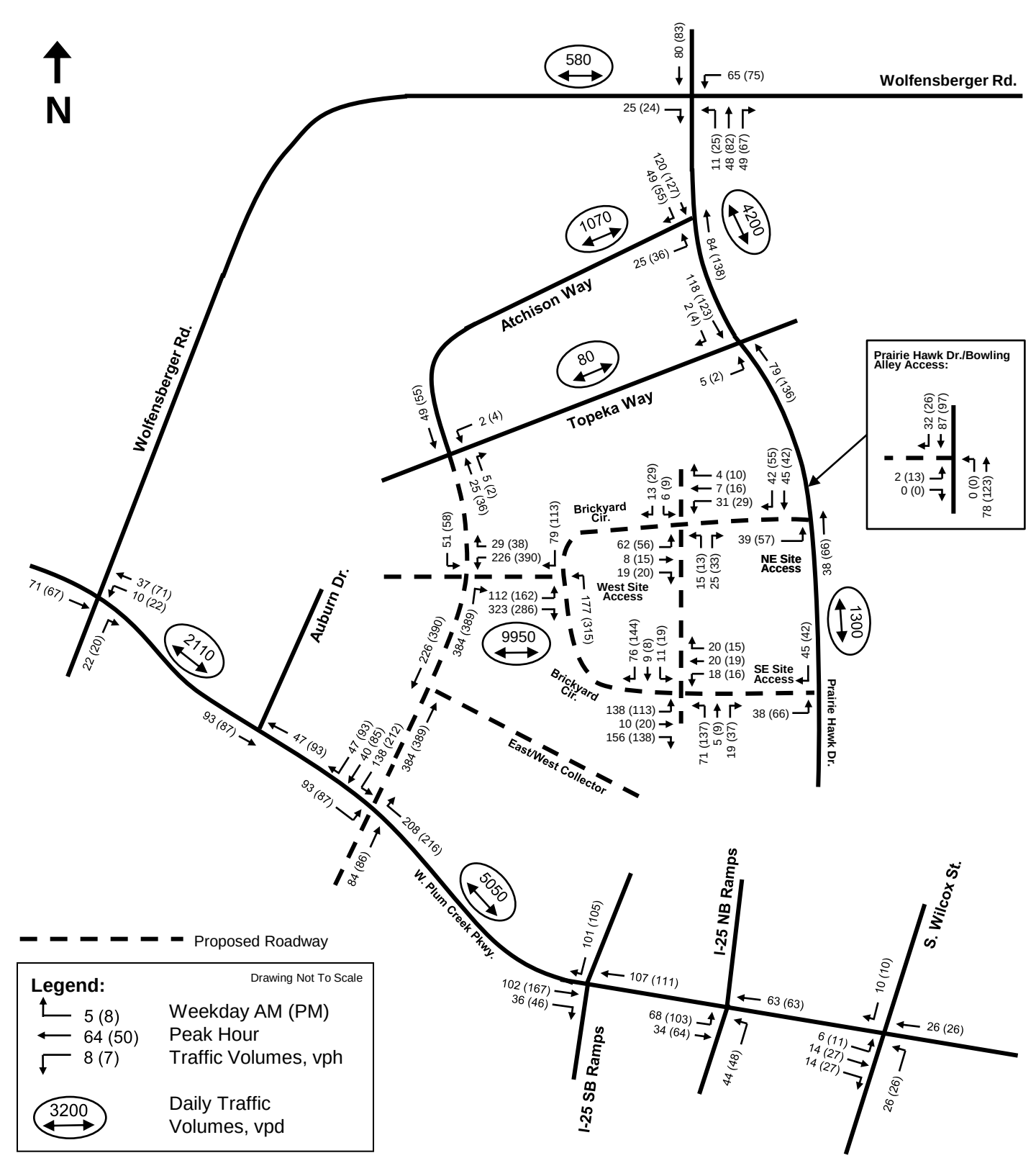
Site Generated Trip Assignment: 2027 (Build-Out) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 28



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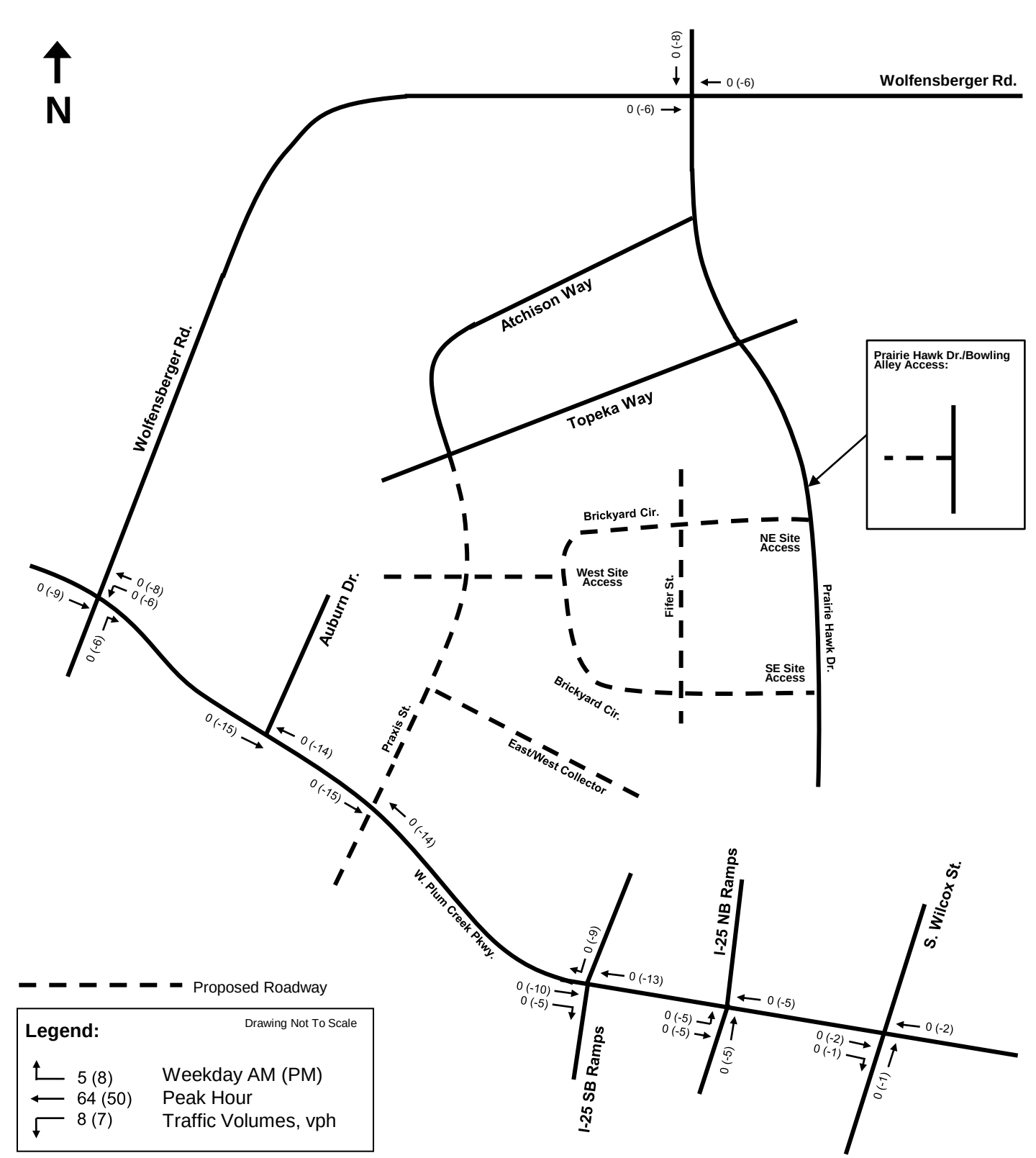
Site Generated Trip Assignment: 2050 (Long-Term) Analysis Horizon

The Brickyard

Confluence Companies

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Figure 29



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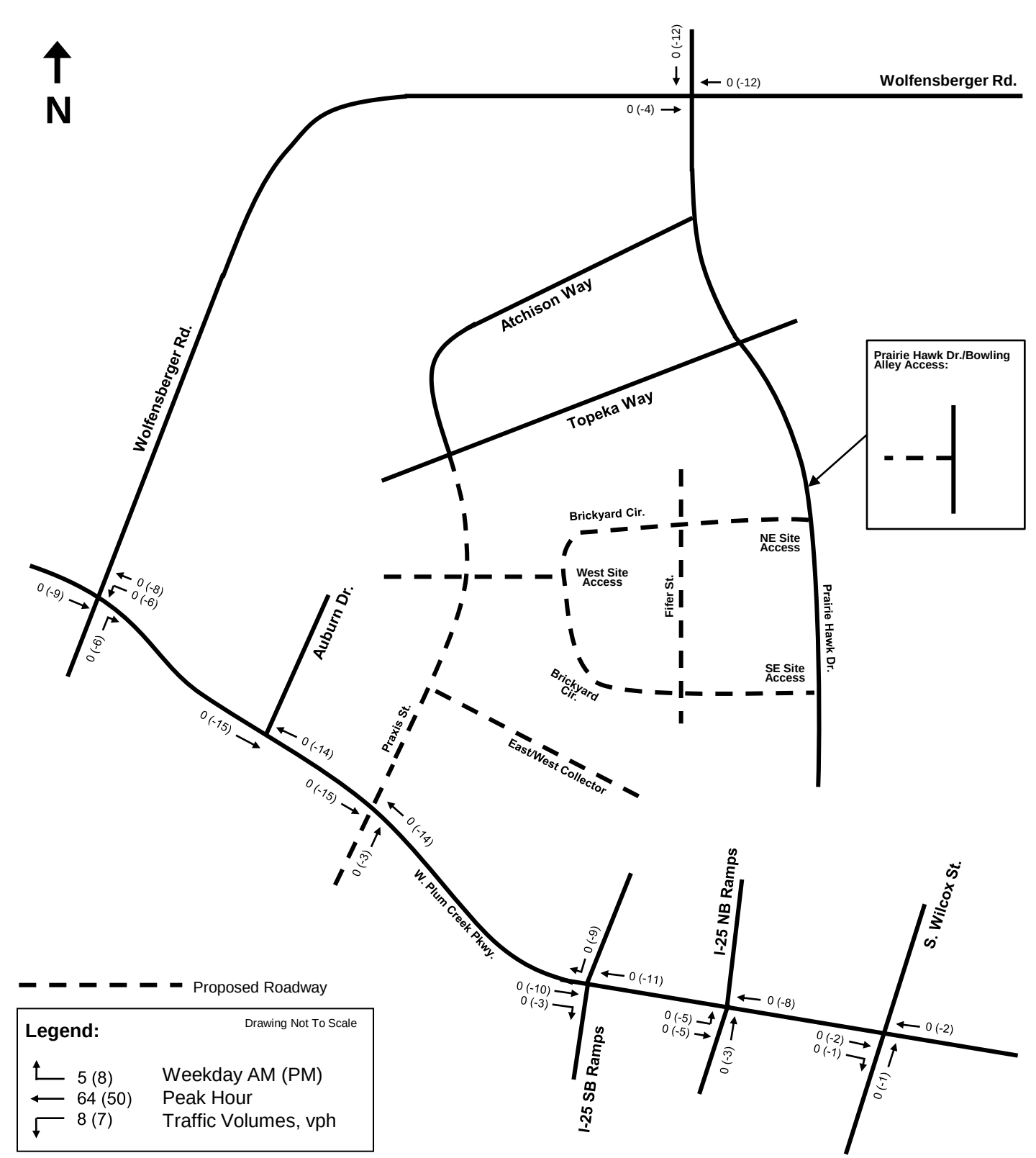
Site Generated Pass-By Trip Adjustments: 2027 (Build-Out) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 30



HARRIS KOCHER SMITH
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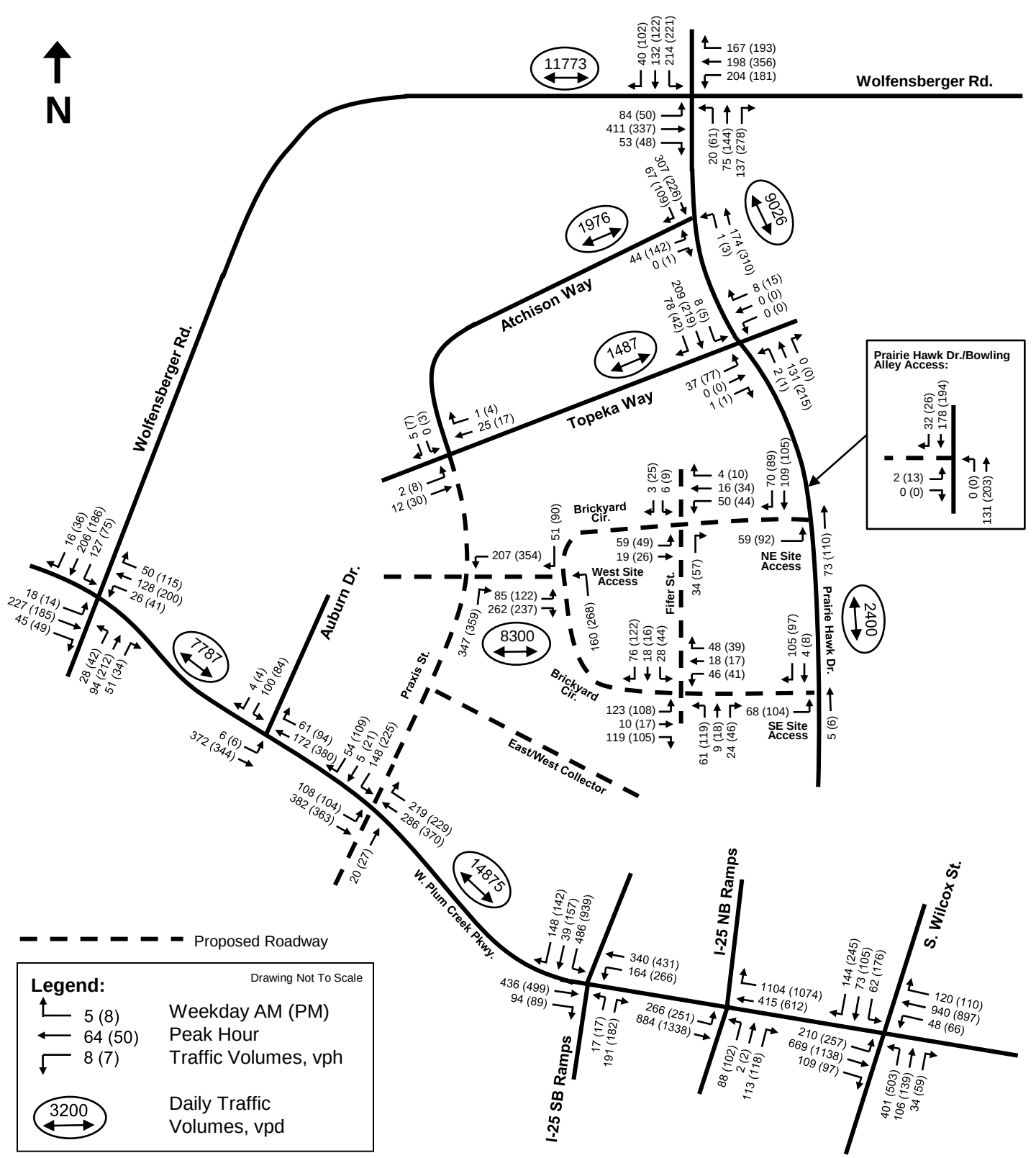
Site Generated Pass-By Trip Adjustments: 2050 (Long-Term) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 31



HARRIS KOCHER SMITH
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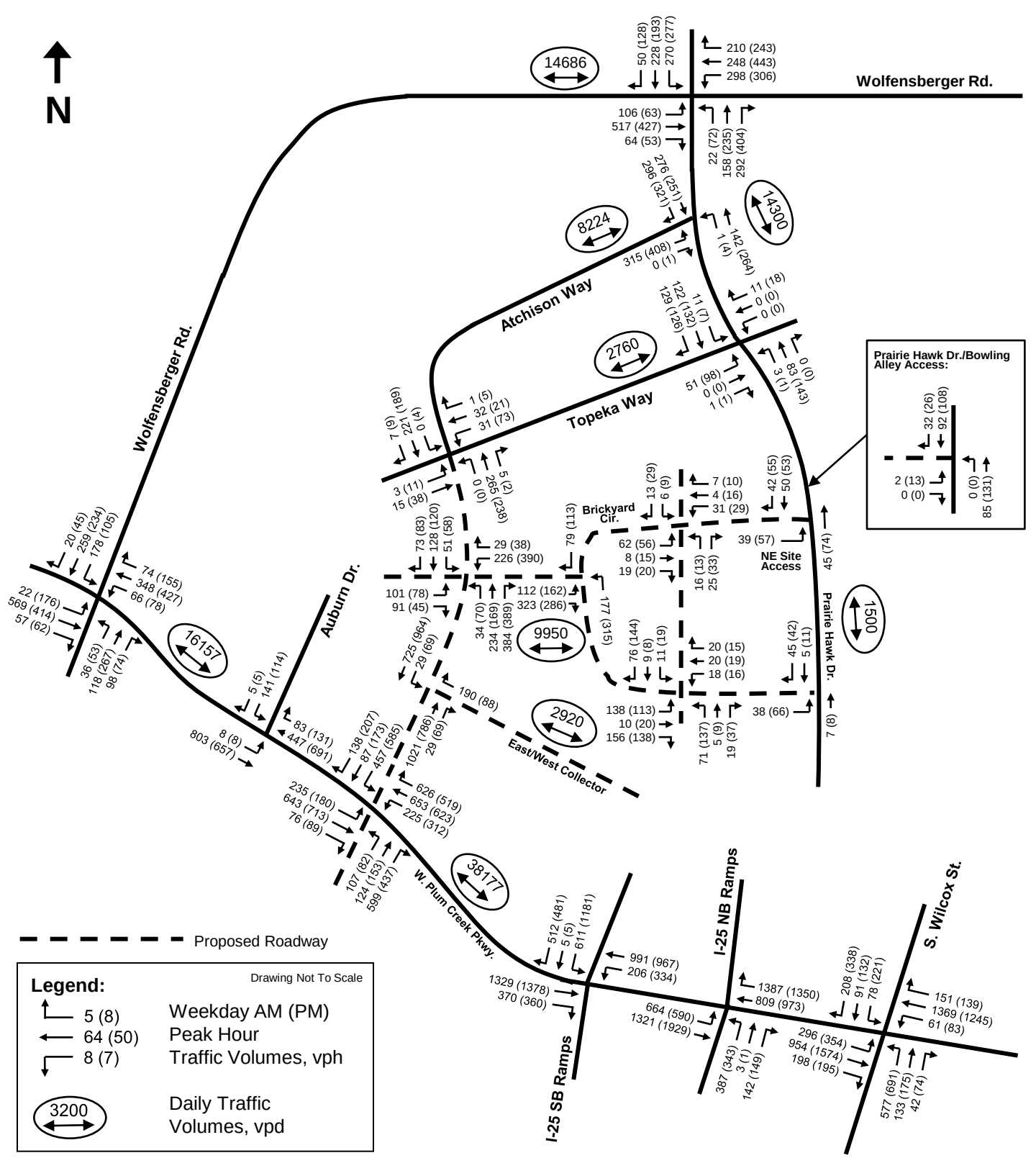
2027 (Build-Out) Analysis Horizon
Total Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 32



HARRIS KOCHER SMITH
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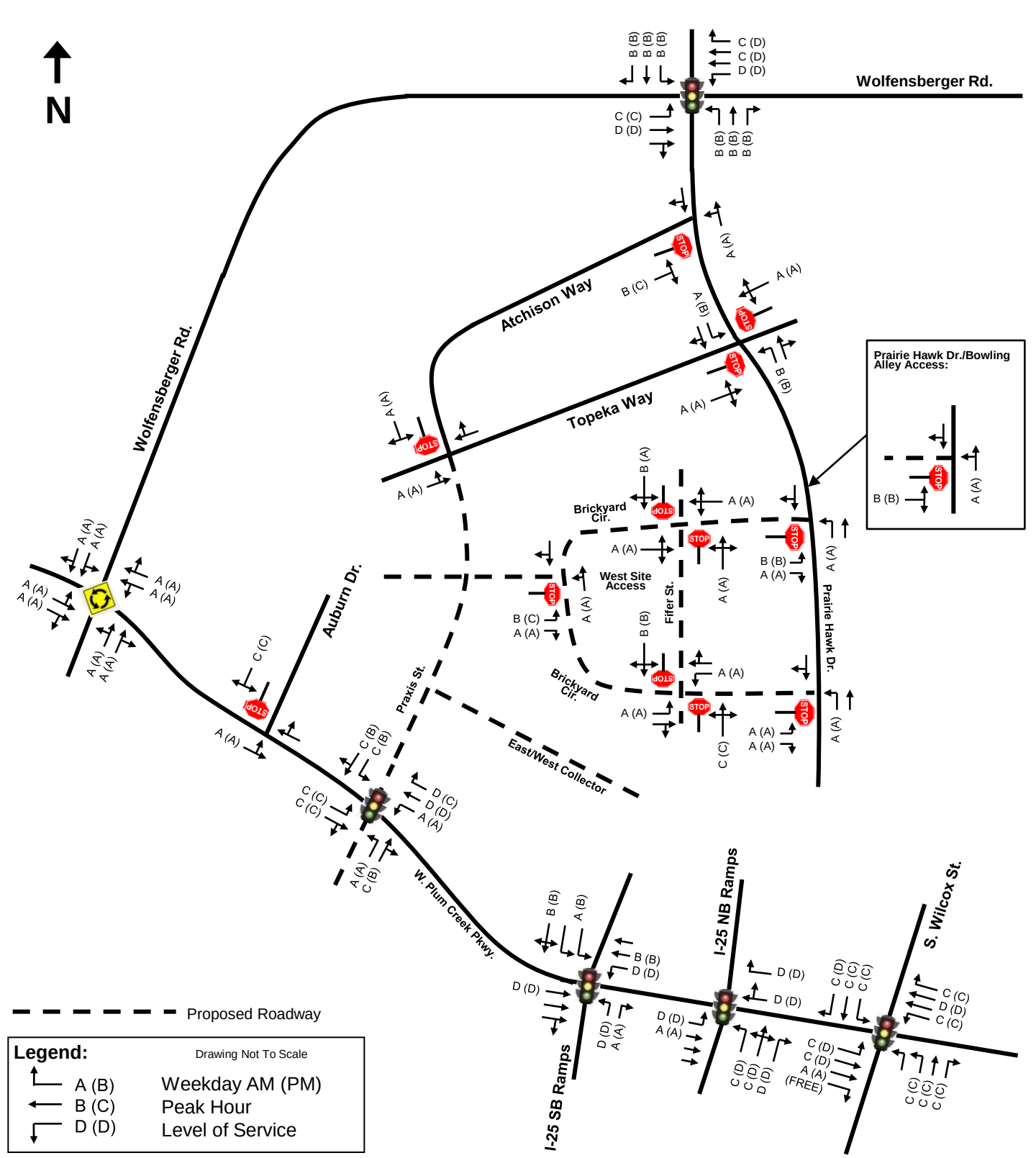
2050 (Long-Term) Analysis Horizon
Total Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 33

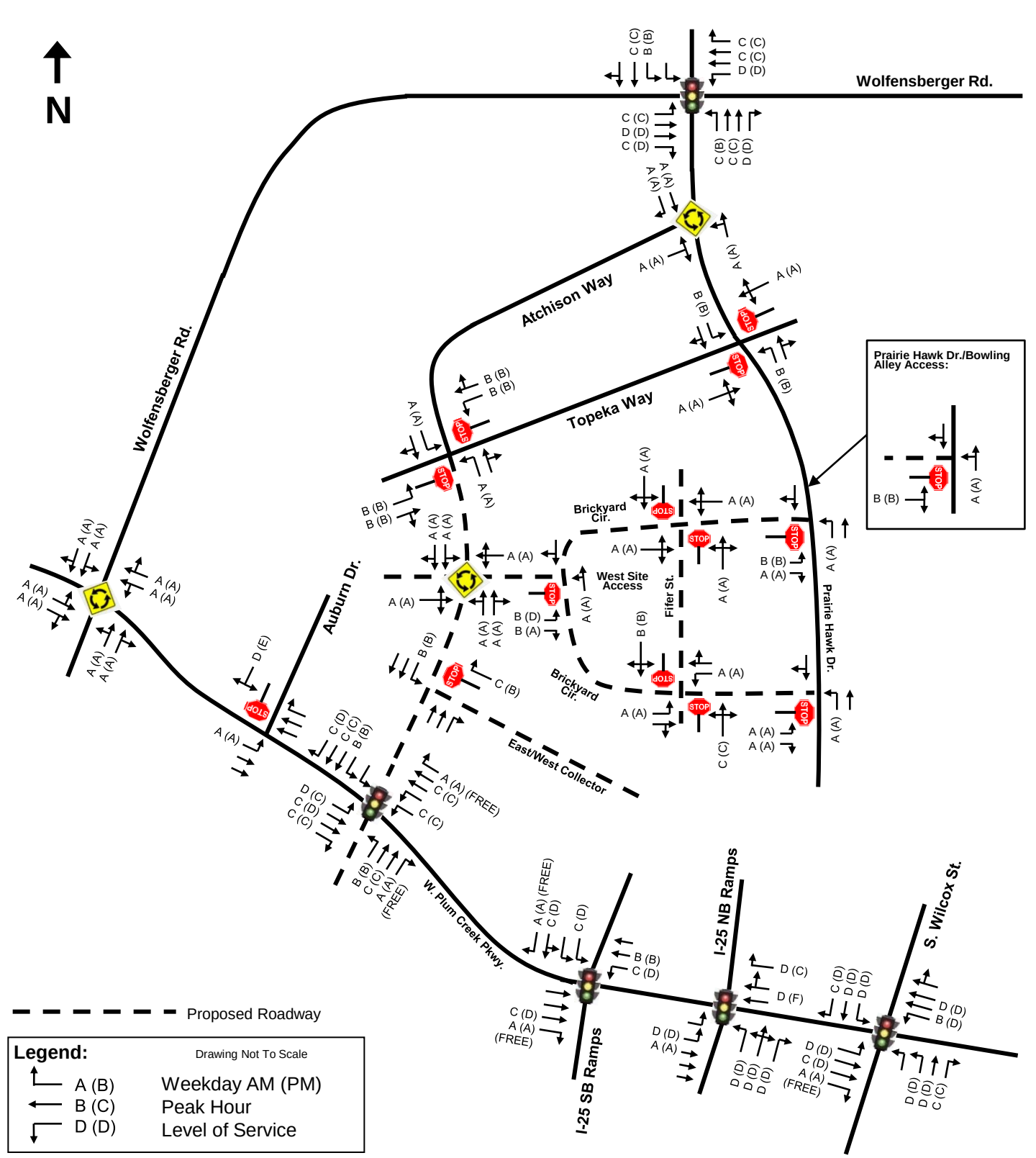


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2027 (Build-Out) Analysis Horizon
Total Traffic Operational Conditions

The Brickyard
Confluence Companies
HKS #200726

Figure 34



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2050 (Long-Term) Analysis Horizon
Total Traffic Operational Conditions

The Brickyard
Confluence Companies
HKS #200726

Figure 35

APPENDIX “A”

2022 (EXISTING)
TRAFFIC VOLUME COUNTS

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 10
Station ID: 10
WOLFENSBERGER RD W.O .PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		13	25							38
01:00		8	16							24
02:00		8	3							11
03:00		6	8							14
04:00		34	6							40
05:00		105	27							132
06:00		250	129							379
07:00		446	213							659
08:00		**550**	259							**809**
09:00		423	296							719
10:00		424	**303**							727
11:00		394	303							697
12:00 PM		**430**	299							729
01:00		349	259							608
02:00		336	318							654
03:00		351	351							702
04:00		391	462							853
05:00		361	**497**							**858**
06:00		331	365							696
07:00		195	282							477
08:00		138	249							387
09:00		86	161							247
10:00		50	105							155
11:00		22	74							96
Total		5701	5010							10711
Percent		53.2%	46.8%							
AM Peak	-	08:00	10:00	-	-	-	-	-	-	08:00
Vol.	-	550	303	-	-	-	-	-	-	809
PM Peak	-	12:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	430	497	-	-	-	-	-	-	858

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 10
Station ID: 10
WOLFENSBERGER RD W.O .PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		21	29							50
01:00		14	16							30
02:00		4	9							13
03:00		8	2							10
04:00		31	6							37
05:00		97	29							126
06:00		228	106							334
07:00		409	170							579
08:00		**485**	230							**715**
09:00		413	262							675
10:00		371	287							658
11:00		371	**336**							707
12:00 PM		365	370							735
01:00		355	324							679
02:00		352	341							693
03:00		**381**	383							764
04:00		363	**443**							**806**
05:00		334	431							765
06:00		286	380							666
07:00		184	275							459
08:00		127	251							378
09:00		82	170							252
10:00		77	105							182
11:00		27	60							87
Total		5385	5015							10400
Percent		51.8%	48.2%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	485	336	-	-	-	-	-	-	715
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	381	443	-	-	-	-	-	-	806
Grand Total		11086	10025							21111
Percent		52.5%	47.5%							
ADT		ADT 10,497		AADT 10,497						

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 11
Station ID: 11
PRAIRIE HAWK DR S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	NB	SB							Total
12:00 AM		7	7							14
01:00		1	5							6
02:00		4	0							4
03:00		7	7							14
04:00		12	21							33
05:00		22	43							65
06:00		31	122							153
07:00		50	154							204
08:00		107	**205**							312
09:00		137	137							274
10:00		106	121							227
11:00		**183**	171							**354**
12:00 PM		203	168							371
01:00		141	**169**							310
02:00		159	144							303
03:00		201	103							304
04:00		**224**	148							**372**
05:00		188	108							296
06:00		137	83							220
07:00		35	30							65
08:00		42	18							60
09:00		21	11							32
10:00		12	8							20
11:00		12	11							23
Total		2042	1994							4036
Percent		50.6%	49.4%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	183	205	-	-	-	-	-	-	354
PM Peak	-	16:00	13:00	-	-	-	-	-	-	16:00
Vol.	-	224	169	-	-	-	-	-	-	372

Site Code: 11
Station ID: 11
PRAIRIE HAWK DR S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	NB	SB							Total
12:00 AM		9	11							20
01:00		5	9							14
02:00		14	5							19
03:00		1	2							3
04:00		12	21							33
05:00		10	37							47
06:00		30	105							135
07:00		40	142							182
08:00		90	157							247
09:00		**134**	**174**							**308**
10:00		119	114							233
11:00		124	101							225
12:00 PM		174	**164**							**338**
01:00		105	137							242
02:00		169	150							319
03:00		194	130							324
04:00		**199**	120							319
05:00		163	69							232
06:00		82	105							187
07:00		75	28							103
08:00		33	44							77
09:00		74	5							79
10:00		4	3							7
11:00		7	5							12
Total		1867	1838							3705
Percent		50.4%	49.6%							
AM Peak	-	09:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	134	174	-	-	-	-	-	-	308
PM Peak	-	16:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	199	164	-	-	-	-	-	-	338
Grand Total		3909	3832							7741
Percent		50.5%	49.5%							
ADT		ADT 1,812		AADT 1,812						

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Site Code: 12
Station ID: 12
ATCHISON WAY S.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		1	2							3
01:00		0	0							0
02:00		0	0							0
03:00		2	2							4
04:00		6	4							10
05:00		7	8							15
06:00		10	78							88
07:00		25	92							117
08:00		47	**93**							140
09:00		60	49							109
10:00		39	48							87
11:00		**69**	84							**153**
12:00 PM		106	87							193
01:00		59	80							139
02:00		70	73							143
03:00		**125**	64							189
04:00		125	**92**							**217**
05:00		112	82							194
06:00		92	52							144
07:00		30	18							48
08:00		23	12							35
09:00		13	5							18
10:00		3	1							4
11:00		4	2							6
Total		1028	1028							2056
Percent		50.0%	50.0%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	69	93	-	-	-	-	-	-	153
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	125	92	-	-	-	-	-	-	217

Site Code: 12
Station ID: 12
ATCHISON WAY S.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		2	6							8
01:00		2	7							9
02:00		10	3							13
03:00		0	0							0
04:00		9	5							14
05:00		3	16							19
06:00		11	64							75
07:00		13	**91**							104
08:00		42	68							110
09:00		**64**	79							**143**
10:00		44	42							86
11:00		58	37							95
12:00 PM		80	**83**							163
01:00		44	54							98
02:00		75	79							154
03:00		**109**	75							**184**
04:00		98	58							156
05:00		82	33							115
06:00		39	24							63
07:00		29	17							46
08:00		23	4							27
09:00		9	0							9
10:00		1	1							2
11:00		3	3							6
Total		850	849							1699
Percent		50.0%	50.0%							
AM Peak	-	09:00	07:00	-	-	-	-	-	-	09:00
Vol.	-	64	91	-	-	-	-	-	-	143
PM Peak	-	15:00	12:00	-	-	-	-	-	-	15:00
Vol.	-	109	83	-	-	-	-	-	-	184
Grand Total		1878	1877							3755
Percent		50.0%	50.0%							
ADT		ADT 1,886		AADT 1,886						

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Site Code: 13
Station ID: 13
TOPEKA WAY W.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		2	7							9
01:00		5	2							7
02:00		8	5							13
03:00		4	7							11
04:00		10	20							30
05:00		14	43							57
06:00		16	48							64
07:00		47	**91**							138
08:00		47	61							108
09:00		56	53							109
10:00		**73**	63							136
11:00		72	69							**141**
12:00 PM		57	**70**							127
01:00		55	39							94
02:00		51	35							86
03:00		73	42							115
04:00		**101**	36							**137**
05:00		43	26							69
06:00		5	6							11
07:00		2	0							2
08:00		3	5							8
09:00		5	5							10
10:00		10	6							16
11:00		2	7							9
Total		761	746							1507
Percent		50.5%	49.5%							
AM Peak	-	10:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	73	91	-	-	-	-	-	-	141
PM Peak	-	16:00	12:00	-	-	-	-	-	-	16:00
Vol.	-	101	70	-	-	-	-	-	-	137

Site Code: 13
Station ID: 13
TOPEKA WAY W.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		3	0							3
01:00		5	2							7
02:00		2	0							2
03:00		2	5							7
04:00		5	11							16
05:00		15	40							55
06:00		18	35							53
07:00		21	**68**							89
08:00		34	48							82
09:00		44	55							99
10:00		59	51							110
11:00		**64**	59							**123**
12:00 PM		58	**67**							**125**
01:00		65	59							124
02:00		72	49							121
03:00		**74**	42							116
04:00		60	24							84
05:00		28	17							45
06:00		16	14							30
07:00		8	10							18
08:00		5	3							8
09:00		1	1							2
10:00		0	1							1
11:00		0	4							4
Total		659	665							1324
Percent		49.8%	50.2%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	64	68	-	-	-	-	-	-	123
PM Peak	-	15:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	74	67	-	-	-	-	-	-	125
Grand Total		1420	1411							2831
Percent		50.2%	49.8%							
ADT		ADT 1,404		AADT 1,404						

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Site Code: 14
Station ID: 14
PLUM CREEK PKWY W.O. I25

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		19	21							40
01:00		9	17							26
02:00		5	9							14
03:00		2	12							14
04:00		7	28							35
05:00		40	66							106
06:00		108	217							325
07:00		204	319							523
08:00		**303**	**462**							**765**
09:00		245	361							606
10:00		212	323							535
11:00		231	356							587
12:00 PM		193	386							579
01:00		169	348							517
02:00		206	340							546
03:00		261	**416**							677
04:00		343	377							**720**
05:00		**352**	328							680
06:00		270	340							610
07:00		221	225							446
08:00		171	179							350
09:00		99	106							205
10:00		65	77							142
11:00		38	70							108
Total		3773	5383							9156
Percent		41.2%	58.8%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	303	462	-	-	-	-	-	-	765
PM Peak	-	17:00	15:00	-	-	-	-	-	-	16:00
Vol.	-	352	416	-	-	-	-	-	-	720

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Site Code: 14
Station ID: 14
PLUM CREEK PKWY W.O. I25

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		14	23							37
01:00		4	10							14
02:00		3	12							15
03:00		3	11							14
04:00		4	19							23
05:00		30	43							73
06:00		94	155							249
07:00		197	171							368
08:00		**368**	246							**614**
09:00		222	265							487
10:00		243	262							505
11:00		231	**270**							501
12:00 PM		244	343							587
01:00		228	389							617
02:00		251	299							550
03:00		275	341							616
04:00		**286**	406							692
05:00		253	**476**							**729**
06:00		275	396							671
07:00		211	283							494
08:00		175	223							398
09:00		121	190							311
10:00		63	208							271
11:00		39	57							96
Total		3834	5098							8932
Percent		42.9%	57.1%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	368	270	-	-	-	-	-	-	614
PM Peak	-	16:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	286	476	-	-	-	-	-	-	729
Grand Total		7607	10481							18088
Percent		42.1%	57.9%							
ADT		ADT 9,072		AADT 9,072						

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Site Code: 15
Station ID: 15
PLUM CREEK PKWY S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	NB	SB							Total
12:00 AM		6	7							13
01:00		1	3							4
02:00		3	6							9
03:00		2	13							15
04:00		9	40							49
05:00		35	120							155
06:00		78	277							355
07:00		123	**365**							**488**
08:00		144	256							400
09:00		146	168							314
10:00		158	165							323
11:00		**166**	170							336
12:00 PM		172	164							336
01:00		163	134							297
02:00		185	183							368
03:00		227	233							460
04:00		**264**	**260**							**524**
05:00		228	199							427
06:00		148	95							243
07:00		100	71							171
08:00		79	38							117
09:00		41	14							55
10:00		17	19							36
11:00		4	4							8
Total		2499	3004							5503
Percent		45.4%	54.6%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	166	365	-	-	-	-	-	-	488
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	264	260	-	-	-	-	-	-	524

Site Code: 15
Station ID: 15
PLUM CREEK PKWY S.O. WOLFENSBERGER RD

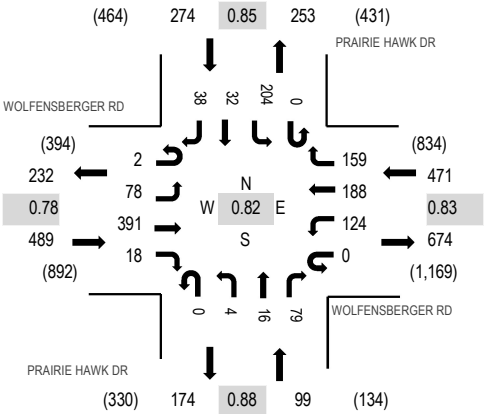
Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	NB	SB							Total
12:00 AM		2	5							7
01:00		2	6							8
02:00		1	3							4
03:00		2	5							7
04:00		9	27							36
05:00		51	83							134
06:00		73	155							228
07:00		115	**251**							**366**
08:00		109	151							260
09:00		132	142							274
10:00		**178**	157							335
11:00		166	169							335
12:00 PM		138	177							315
01:00		149	157							306
02:00		182	179							361
03:00		**218**	**181**							**399**
04:00		204	176							380
05:00		159	147							306
06:00		122	99							221
07:00		81	67							148
08:00		83	34							117
09:00		42	29							71
10:00		20	17							37
11:00		6	8							14
Total		2244	2425							4669
Percent		48.1%	51.9%							
AM Peak	-	10:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	178	251	-	-	-	-	-	-	366
PM Peak	-	15:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	218	181	-	-	-	-	-	-	399
Grand Total		4743	5429							10172
Percent		46.6%	53.4%							
ADT		ADT 5,030		AADT 5,030						

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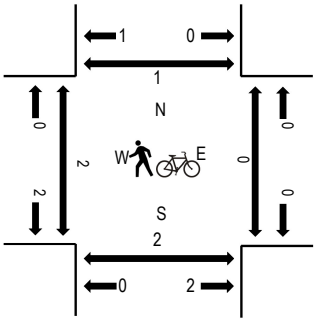
Location: 1 PRAIRIE HAWK DR & WOLFENSBERGER RD AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



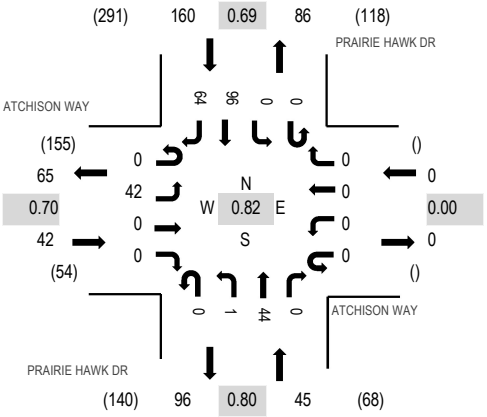
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	11	70	2	0	18	30	23	0	1	1	6	0	28	3	6	199	991	0	0	0	1
7:15 AM	0	11	88	3	0	22	36	35	0	0	2	12	0	28	4	6	247	1,106	0	0	0	1
7:30 AM	0	14	83	8	0	26	29	32	0	1	0	5	0	40	7	12	257	1,157	1	0	1	0
7:45 AM	0	16	86	11	0	48	32	32	0	0	1	6	0	43	4	9	288	1,213	0	0	1	0
8:00 AM	1	19	94	3	0	32	57	28	0	2	5	19	0	40	7	7	314	1,333	0	0	0	0
8:15 AM	0	13	74	5	0	28	41	45	0	0	4	15	0	48	12	13	298		2	0	0	0
8:30 AM	0	17	103	3	0	25	41	32	0	0	2	24	0	50	4	12	313		0	0	2	0
8:45 AM	1	29	120	7	0	39	49	54	0	2	5	21	0	66	9	6	408		0	0	0	1
Count Total	2	130	718	42	0	238	315	281	0	6	20	108	0	343	50	71	2,324		3	0	4	3
Peak Hour	2	78	391	18	0	124	188	159	0	4	16	79	0	204	32	38	1,333		2	0	2	1

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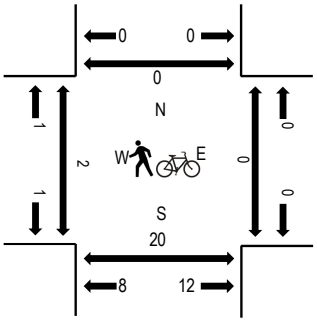
Location: 2 PRAIRIE HAWK DR & ATCHISON WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



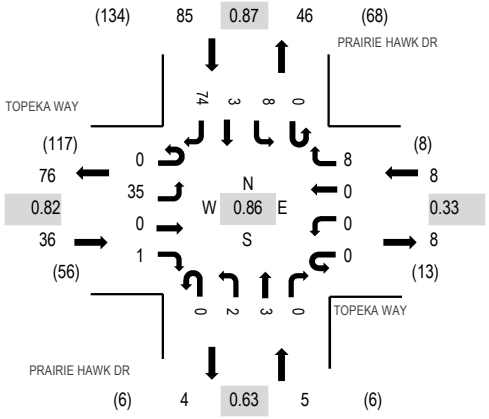
Traffic Counts

Interval Start Time	ATCHISON WAY Eastbound				ATCHISON WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	0	0	0	0	0	0	0	0	3	0	0	0	2	15	22	166	0	0	0	0
7:15 AM	0	8	0	0	0	0	0	0	0	0	8	0	0	0	12	14	42	206	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	1	3	0	0	0	8	18	31	216	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	2	6	0	0	0	22	40	71	243	0	0	1	0
8:00 AM	0	7	0	0	0	0	0	0	0	0	14	0	0	0	25	16	62	247	0	0	0	0
8:15 AM	0	8	0	0	0	0	0	0	0	0	7	0	0	0	28	9	52		0	0	4	0
8:30 AM	0	15	0	0	0	0	0	0	0	1	11	0	0	0	19	12	58		2	0	14	0
8:45 AM	0	12	0	0	0	0	0	0	0	0	12	0	0	0	24	27	75		0	0	2	0
Count Total	0	54	0	0	0	0	0	0	0	4	64	0	0	0	140	151	413		2	0	21	0
Peak Hour	0	42	0	0	0	0	0	0	0	1	44	0	0	0	96	64	247		2	0	20	0

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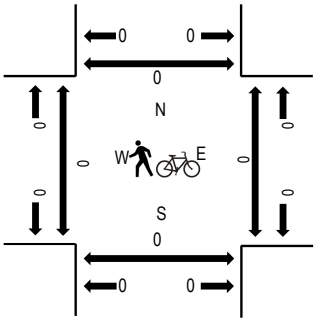
Location: 3 PRAIRIE HAWK DR & TOPEKA WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



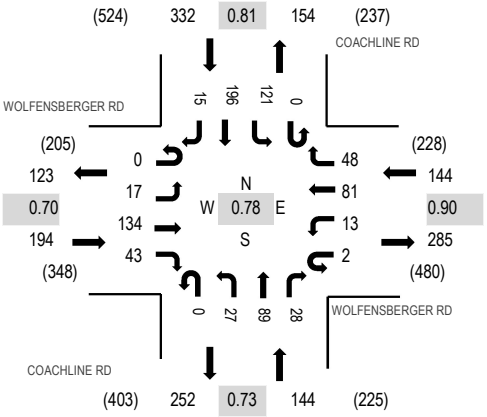
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	7	11	70	0	0	0	0
7:15 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	1	1	10	20	98	0	0	0	0
7:30 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	1	1	7	14	113	0	0	0	0
7:45 AM	0	4	0	0	0	0	0	0	0	1	0	0	2	2	0	16	25	127	0	0	0	0
8:00 AM	0	8	0	0	0	0	0	6	0	0	1	0	0	3	1	20	39	134	0	0	0	0
8:15 AM	0	7	0	1	0	0	0	1	0	0	1	0	0	4	2	19	35		0	0	0	0
8:30 AM	0	9	0	0	0	0	0	0	0	1	0	0	0	0	0	18	28		0	0	0	0
8:45 AM	0	11	0	0	0	0	0	1	0	1	1	0	0	1	0	17	32		0	0	0	0
Count Total	0	55	0	1	0	0	0	8	0	3	3	0	2	13	5	114	204		0	0	0	0
Peak Hour	0	35	0	1	0	0	0	8	0	2	3	0	0	8	3	74	134		0	0	0	0

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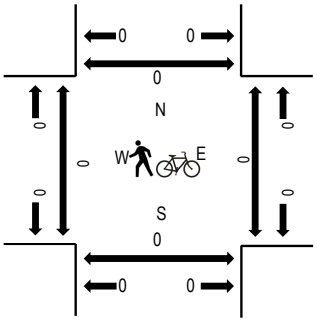
Location: 4 COACHLINE RD & WOLFENSBERGER RD AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



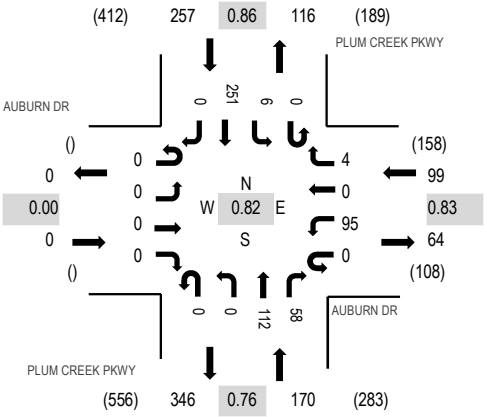
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				COACHLINE RD Northbound				COACHLINE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	24	3	0	3	14	4	0	3	11	3	0	12	19	1	99	511	0	0	0	0
7:15 AM	0	3	26	10	0	0	13	6	0	2	8	8	0	15	26	1	118	581	0	0	0	0
7:30 AM	0	2	27	7	1	2	12	5	0	5	10	0	0	16	36	3	126	652	0	0	2	0
7:45 AM	0	5	35	10	0	0	20	4	0	3	23	5	0	23	35	5	168	722	0	0	0	0
8:00 AM	0	4	29	9	2	1	19	15	0	7	14	3	0	21	40	5	169	814	0	0	0	0
8:15 AM	0	4	27	10	0	4	22	13	0	4	23	6	0	27	44	5	189		0	0	0	0
8:30 AM	0	5	30	7	0	2	17	9	0	6	24	8	0	27	59	2	196		0	0	0	0
8:45 AM	0	4	48	17	0	6	23	11	0	10	28	11	0	46	53	3	260		0	0	0	0
Count Total	0	29	246	73	3	18	140	67	0	40	141	44	0	187	312	25	1,325		0	0	2	0
Peak Hour	0	17	134	43	2	13	81	48	0	27	89	28	0	121	196	15	814		0	0	0	0

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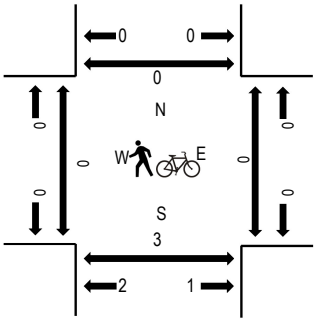
Location: 5 PLUM CREEK PKWY & AUBURN DR AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



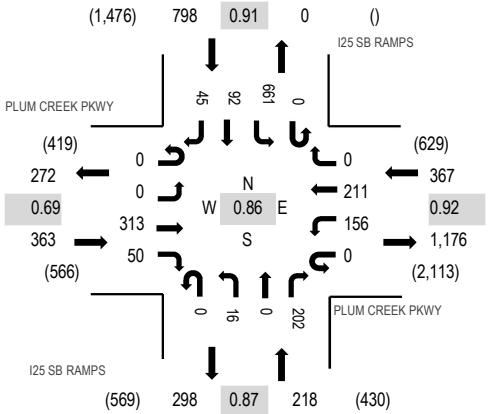
Traffic Counts

Interval Start Time	AUBURN DR Eastbound				AUBURN DR Westbound				PLUM CREEK PKWY Northbound				PLUM CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	11	0	0	0	0	15	8	0	1	27	0	62	327	0	0	1	0
7:15 AM	0	0	0	0	0	15	0	0	0	0	14	10	0	2	33	0	74	366	0	0	1	0
7:30 AM	0	0	0	0	0	16	0	0	0	0	17	7	0	0	46	0	86	405	0	1	1	0
7:45 AM	0	0	0	0	0	17	0	0	0	0	27	15	0	1	45	0	105	471	0	0	0	0
8:00 AM	0	0	0	0	0	14	0	2	0	0	18	13	0	0	54	0	101	526	0	0	1	0
8:15 AM	0	0	0	0	0	23	0	1	0	0	22	13	0	2	52	0	113		0	0	0	0
8:30 AM	0	0	0	0	0	29	0	1	0	0	33	15	0	2	72	0	152		0	0	0	0
8:45 AM	0	0	0	0	0	29	0	0	0	0	39	17	0	2	73	0	160		0	0	2	0
Count Total	0	0	0	0	0	154	0	4	0	0	185	98	0	10	402	0	853		0	1	6	0
Peak Hour	0	0	0	0	0	95	0	4	0	0	112	58	0	6	251	0	526		0	0	3	0

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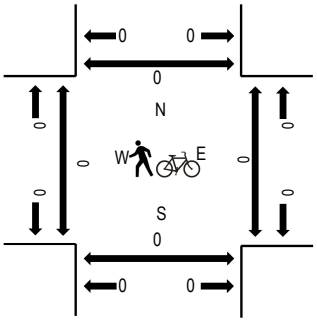
Location: 6 I25 SB RAMPS & PLUM CREEK PKWY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



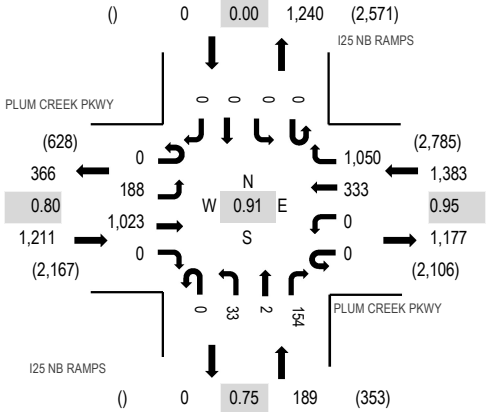
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	32	6	0	34	20	0	0	3	0	47	0	150	16	2	310	1,355	0	0	0	0
7:15 AM	0	0	31	15	0	42	24	0	0	3	0	48	0	125	20	8	316	1,405	0	0	0	0
7:30 AM	0	0	51	9	0	38	20	0	0	3	0	48	0	129	22	6	326	1,493	0	0	0	0
7:45 AM	0	0	50	9	0	36	48	0	0	2	0	58	0	168	24	8	403	1,641	0	0	0	0
8:00 AM	0	0	49	9	0	37	36	0	0	2	0	42	0	152	23	10	360	1,746	0	0	0	0
8:15 AM	0	0	53	13	0	39	61	0	0	6	0	57	0	134	25	16	404		0	0	0	0
8:30 AM	0	0	91	17	0	43	54	0	0	3	0	46	0	188	22	10	474		0	0	0	0
8:45 AM	0	0	120	11	0	37	60	0	0	5	0	57	0	187	22	9	508		0	0	0	0
Count Total	0	0	477	89	0	306	323	0	0	27	0	403	0	1,233	174	69	3,101		0	0	0	0
Peak Hour	0	0	313	50	0	156	211	0	0	16	0	202	0	661	92	45	1,746		0	0	0	0

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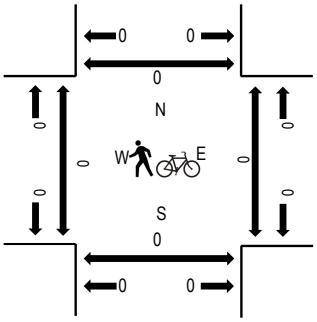
Location: 7 I25 NB RAMPS & PLUM CREEK PKWY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



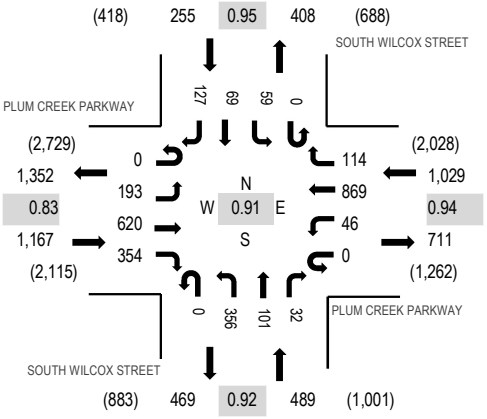
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	46	192	0	0	0	51	267	0	4	1	21	0	0	0	0	582	2,522	0	0	0	0
7:15 AM	0	38	171	0	0	0	59	302	0	5	0	27	0	0	0	0	602	2,556	0	0	0	0
7:30 AM	0	43	193	0	0	0	56	298	0	3	0	34	0	0	0	0	627	2,617	0	0	0	0
7:45 AM	0	41	232	0	0	0	75	294	0	9	1	59	0	0	0	0	711	2,728	0	0	0	0
8:00 AM	0	35	224	0	0	0	69	247	0	10	1	30	0	0	0	0	616	2,783	0	0	0	0
8:15 AM	0	38	215	0	0	0	92	266	0	4	0	48	0	0	0	0	663		0	0	0	0
8:30 AM	0	55	266	0	0	0	91	282	0	8	0	36	0	0	0	0	738		0	0	0	0
8:45 AM	0	60	318	0	0	0	81	255	0	11	1	40	0	0	0	0	766		0	0	0	0
Count Total	0	356	1,811	0	0	0	574	2,211	0	54	4	295	0	0	0	0	5,305		0	0	0	0
Peak Hour	0	188	1,023	0	0	0	333	1,050	0	33	2	154	0	0	0	0	2,783		0	0	0	0

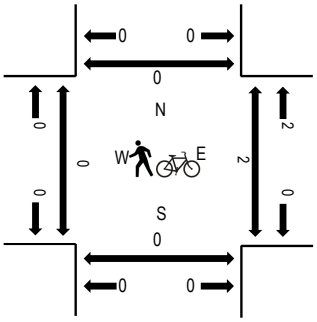
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Location: 8 SOUTH WILCOX STREET & PLUM CREEK PARKWAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

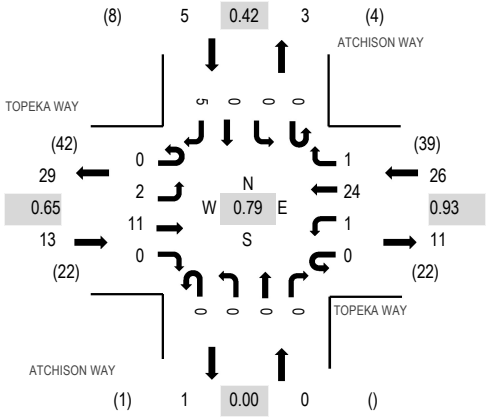
Traffic Counts

Interval Start Time	PLUM CREEK PARKWAY Eastbound				PLUM CREEK PARKWAY Westbound				SOUTH WILCOX STREET Northbound				SOUTH WILCOX STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	24	118	72	0	13	190	16	0	113	16	4	0	8	9	23	606	2,622	0	0	0	0
7:15 AM	0	20	105	75	0	12	228	19	0	112	17	5	0	7	6	20	626	2,677	0	1	0	0
7:30 AM	0	31	125	77	0	12	228	27	0	88	16	2	0	5	13	14	638	2,747	0	0	0	0
7:45 AM	0	52	155	94	0	12	219	23	0	117	19	3	0	14	19	25	752	2,887	0	0	0	0
8:00 AM	0	39	137	79	0	9	189	26	0	90	24	7	0	13	20	28	661	2,940	0	0	0	0
8:15 AM	0	49	130	76	0	16	228	16	0	81	30	6	0	12	18	34	696		0	0	0	0
8:30 AM	0	41	174	90	0	7	233	33	0	105	24	8	0	16	14	33	778		0	1	0	0
8:45 AM	0	64	179	109	0	14	219	39	0	80	23	11	0	18	17	32	805		0	0	0	0
Count Total	0	320	1,123	672	0	95	1,734	199	0	786	169	46	0	93	116	209	5,562		0	2	0	0
Peak Hour	0	193	620	354	0	46	869	114	0	356	101	32	0	59	69	127	2,940		0	1	0	0

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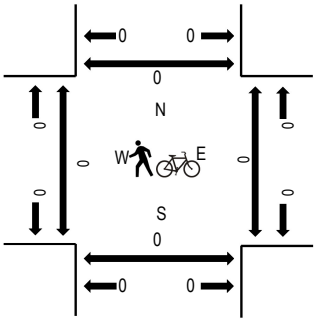
Location: 9 ATCHISON WAY & TOPEKA WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



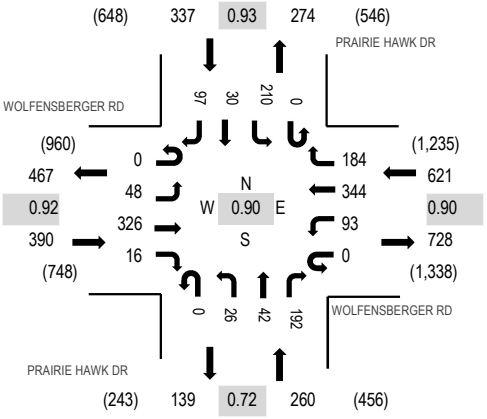
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				ATCHISON WAY Northbound				ATCHISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	2	0	0	0	2	1	0	0	0	0	0	0	0	0	5	25	0	0	0	0
7:15 AM	0	0	5	0	0	0	4	0	0	0	0	0	0	1	0	0	10	26	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	27	0	0	0	0
7:45 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	0	1	8	38	0	0	0	0
8:00 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	44	0	0	0	0
8:15 AM	0	1	3	0	0	1	6	0	0	0	0	0	0	0	0	0	11		0	0	0	0
8:30 AM	0	1	3	0	0	0	7	0	0	0	0	0	0	0	0	2	13		0	0	0	0
8:45 AM	0	0	5	0	0	0	5	1	0	0	0	0	0	0	0	3	14		0	0	0	0
Count Total	0	2	20	0	0	1	36	2	0	0	0	0	0	2	0	6	69		0	0	0	0
Peak Hour	0	2	11	0	0	1	24	1	0	0	0	0	0	0	0	5	44		0	0	0	0

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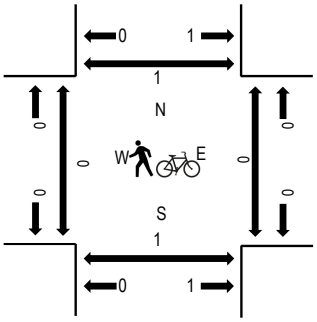
Location: 1 PRAIRIE HAWK DR & WOLFENSBERGER RD PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



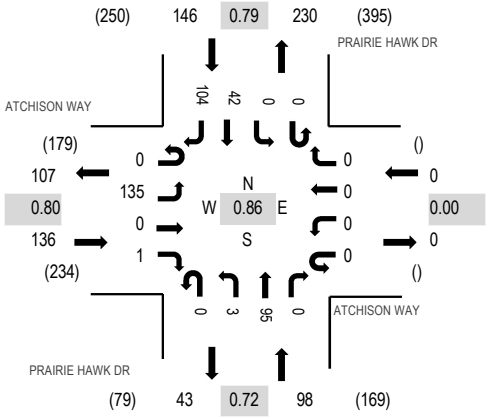
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	13	81	7	0	29	94	57	0	8	10	42	0	54	4	32	431	1,608	0	0	0	0
4:15 PM	0	13	79	3	0	21	85	37	0	4	7	52	0	59	12	20	392	1,578	0	0	1	1
4:30 PM	0	11	95	1	0	19	93	53	0	11	18	65	0	50	9	24	449	1,589	0	0	0	0
4:45 PM	0	11	71	5	0	24	72	37	0	3	7	33	0	47	5	21	336	1,476	0	0	0	0
5:00 PM	0	16	79	9	0	25	89	45	0	7	18	47	0	36	6	24	401	1,479	0	0	0	0
5:15 PM	0	15	76	1	0	10	121	45	0	4	8	42	0	58	4	19	403		1	0	2	0
5:30 PM	0	17	60	3	0	17	76	43	0	6	7	22	0	55	6	24	336		0	0	0	0
5:45 PM	0	11	67	4	0	10	95	38	0	8	9	18	0	50	9	20	339		0	0	0	0
Count Total	0	107	608	33	0	155	725	355	0	51	84	321	0	409	55	184	3,087		1	0	3	1
Peak Hour	0	48	326	16	0	93	344	184	0	26	42	192	0	210	30	97	1,608		0	0	1	1

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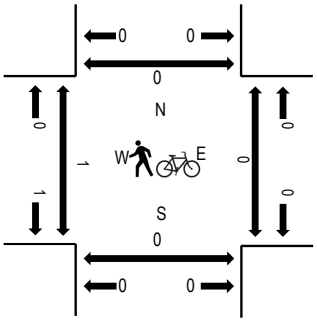
Location: 2 PRAIRIE HAWK DR & ATCHISON WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



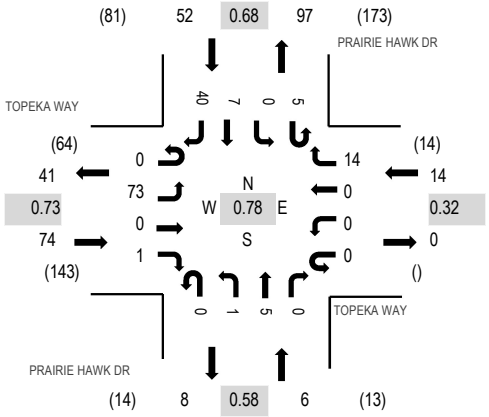
Traffic Counts

Interval Start Time	ATCHISON WAY Eastbound				ATCHISON WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	27	0	0	0	0	0	0	1	1	23	0	0	0	20	23	95	364	0	0	0	0
4:15 PM	0	26	0	0	0	0	0	0	0	0	22	0	0	0	15	20	83	380	1	0	0	0
4:30 PM	0	44	0	0	0	0	0	0	0	0	34	0	0	0	12	19	109	364	0	0	0	0
4:45 PM	0	28	0	1	0	0	0	0	0	0	14	0	0	0	5	29	77	311	0	0	0	0
5:00 PM	0	37	0	0	0	0	0	0	0	3	25	0	0	0	10	36	111	289	0	0	0	0
5:15 PM	0	30	0	1	0	0	0	0	0	0	21	0	0	0	5	10	67		0	0	0	0
5:30 PM	0	17	0	0	0	0	0	0	0	1	14	0	0	0	6	18	56		0	0	0	0
5:45 PM	0	23	0	0	0	0	0	0	0	0	10	0	0	0	3	19	55		0	0	0	0
Count Total	0	232	0	2	0	0	0	0	1	5	163	0	0	0	76	174	653		1	0	0	0
Peak Hour	0	135	0	1	0	0	0	0	0	3	95	0	0	0	42	104	380		1	0	0	0

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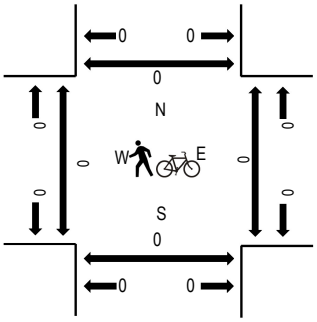
Location: 3 PRAIRIE HAWK DR & TOPEKA WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



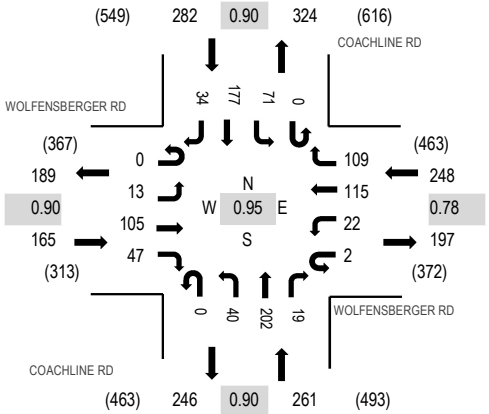
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	24	0	1	0	0	0	0	0	1	2	0	1	0	5	13	47	146	0	0	0	0
4:15 PM	0	17	0	0	0	0	0	1	0	0	2	0	2	0	0	14	36	135	0	0	0	0
4:30 PM	0	21	0	0	0	0	0	11	0	0	0	0	2	0	0	8	42	130	0	0	0	0
4:45 PM	0	11	0	0	0	0	0	2	0	0	1	0	0	0	2	5	21	109	0	0	0	0
5:00 PM	0	27	0	0	0	0	0	0	0	0	1	0	0	0	1	7	36	105	0	0	0	0
5:15 PM	0	20	0	0	0	0	0	0	0	0	1	0	0	0	3	7	31		0	0	0	0
5:30 PM	0	12	0	0	0	0	0	0	0	1	2	0	1	0	2	3	21		0	0	0	0
5:45 PM	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	5	17		0	0	0	0
Count Total	0	142	0	1	0	0	0	14	0	2	11	0	6	0	13	62	251		0	0	0	0
Peak Hour	0	73	0	1	0	0	0	14	0	1	5	0	5	0	7	40	146		0	0	0	0

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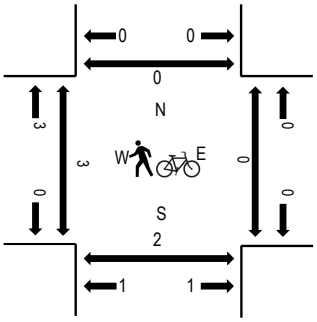
Location: 4 COACHLINE RD & WOLFENSBERGER RD PM
Date: Thursday, June 30, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



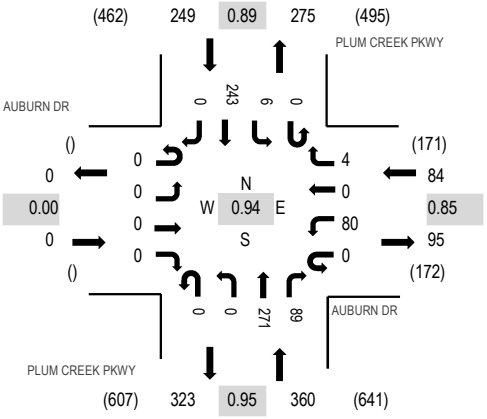
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				COACHLINE RD Northbound				COACHLINE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	25	8	0	3	27	23	0	11	37	5	0	21	47	11	225	917	0	0	0	0
4:15 PM	0	10	23	11	1	6	24	27	0	7	35	4	0	15	44	10	217	921	0	0	0	0
4:30 PM	0	3	26	9	0	6	32	19	0	11	45	6	0	27	42	14	240	956	0	0	0	0
4:45 PM	0	1	27	19	2	2	27	21	0	13	51	3	0	13	50	6	235	947	0	0	0	0
5:00 PM	0	4	24	12	0	6	20	33	0	8	51	7	0	19	38	7	229	901	2	0	0	0
5:15 PM	0	5	28	7	0	8	36	36	0	8	55	3	0	12	47	7	252		0	0	0	0
5:30 PM	0	3	17	11	1	7	27	17	2	11	59	4	0	20	43	9	231		0	0	0	0
5:45 PM	0	5	19	9	0	0	28	24	0	5	45	7	0	13	26	8	189		0	0	0	0
Count Total	0	38	189	86	4	38	221	200	2	74	378	39	0	140	337	72	1,818		2	0	0	0
Peak Hour	0	13	105	47	2	22	115	109	0	40	202	19	0	71	177	34	956		2	0	0	0

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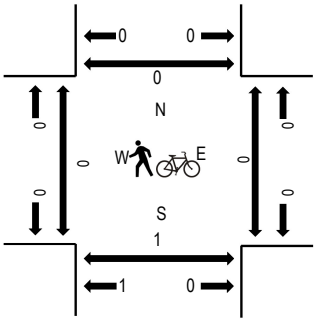
Location: 5 PLUM CREEK PKWY & AUBURN DR PM
Date: Thursday, June 30, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



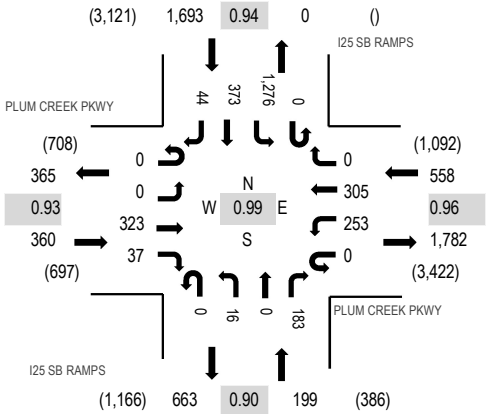
Traffic Counts

Interval Start Time	AUBURN DR Eastbound				AUBURN DR Westbound				PLUM CREEK PKWY Northbound				PLUM CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	18	0	1	0	0	47	22	0	3	52	0	143	643	0	0	0	0
4:15 PM	0	0	0	0	0	24	0	3	0	0	47	23	0	2	64	0	163	676	0	0	0	0
4:30 PM	0	0	0	0	0	19	0	1	0	0	62	13	0	2	55	0	152	680	0	0	0	0
4:45 PM	0	0	0	0	0	18	0	1	0	0	68	27	0	0	71	0	185	693	0	0	1	0
5:00 PM	0	0	0	0	0	25	0	1	0	0	73	19	0	3	55	0	176	631	0	0	0	0
5:15 PM	0	0	0	0	0	22	0	2	0	0	63	23	0	3	54	0	167		0	0	0	0
5:30 PM	0	0	0	0	0	15	0	0	0	0	67	20	0	0	63	0	165		0	0	0	0
5:45 PM	0	0	0	0	0	18	0	3	0	0	56	11	0	1	34	0	123		0	0	0	0
Count Total	0	0	0	0	0	159	0	12	0	0	483	158	0	14	448	0	1,274		0	0	1	0
Peak Hour	0	0	0	0	0	80	0	4	0	0	271	89	0	6	243	0	693		0	0	1	0

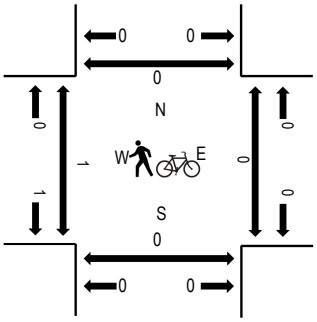
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Location: 6 I25 SB RAMPS & PLUM CREEK PKWY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

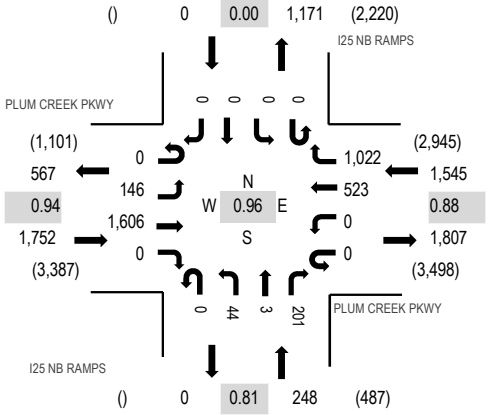
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	78	9	0	63	64	0	0	6	0	44	0	278	48	10	600	2,716	0	0	0	0
4:15 PM	0	0	69	9	0	57	67	0	0	2	0	50	0	345	87	17	703	2,810	0	0	0	0
4:30 PM	0	0	87	12	0	69	63	0	0	7	0	36	0	316	100	14	704	2,808	0	0	0	0
4:45 PM	0	0	82	9	0	65	87	0	0	4	0	52	0	312	92	6	709	2,726	1	0	0	0
5:00 PM	0	0	85	7	0	62	88	0	0	3	0	45	0	303	94	7	694	2,580	0	0	0	0
5:15 PM	1	0	78	7	0	54	93	0	0	1	0	44	0	330	78	15	701		0	0	0	0
5:30 PM	0	0	86	8	0	60	74	0	0	5	0	45	0	290	51	3	622		0	0	0	0
5:45 PM	0	0	62	8	0	64	62	0	0	1	0	41	0	264	53	8	563		0	0	0	0
Count Total	1	0	627	69	0	494	598	0	0	29	0	357	0	2,438	603	80	5,296		1	0	0	0
Peak Hour	0	0	323	37	0	253	305	0	0	16	0	183	0	1,276	373	44	2,810		1	0	0	0

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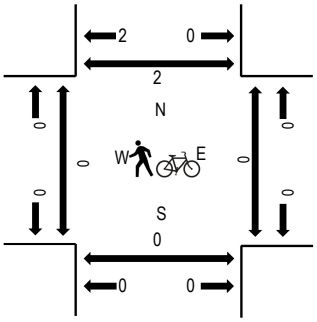
Location: 7 I25 NB RAMPS & PLUM CREEK PKWY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



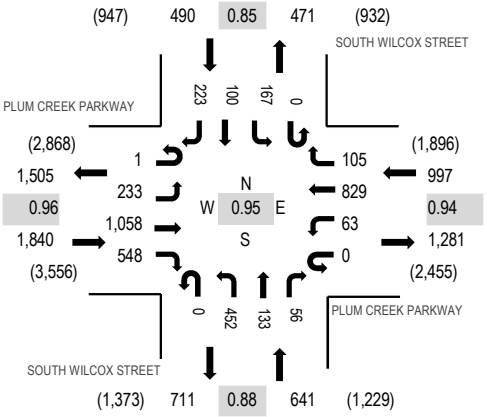
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	36	373	0	0	0	121	221	0	7	1	41	0	0	0	0	800	3,421	0	0	0	0
4:15 PM	0	40	427	0	0	0	120	252	0	8	2	47	0	0	0	0	896	3,545	0	0	0	0
4:30 PM	0	36	399	0	0	0	115	232	0	16	1	61	0	0	0	0	860	3,517	0	0	0	0
4:45 PM	0	34	393	0	0	0	147	236	0	9	0	46	0	0	0	0	865	3,512	0	0	0	1
5:00 PM	0	36	387	0	0	0	141	302	0	11	0	47	0	0	0	0	924	3,398	0	0	0	0
5:15 PM	0	33	413	0	0	0	133	226	0	14	2	47	0	0	0	0	868		0	0	0	0
5:30 PM	0	41	376	0	0	0	120	248	0	13	1	56	0	0	0	0	855		0	0	0	0
5:45 PM	0	25	338	0	0	0	116	215	0	10	0	47	0	0	0	0	751		0	0	0	0
Count Total	0	281	3,106	0	0	0	1,013	1,932	0	88	7	392	0	0	0	0	6,819		0	0	0	1
Peak Hour	0	146	1,606	0	0	0	523	1,022	0	44	3	201	0	0	0	0	3,545		0	0	0	1

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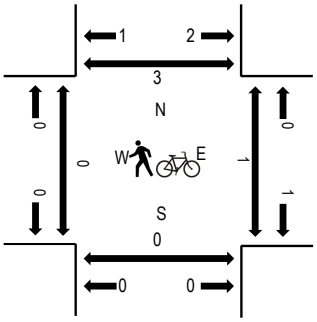
Location: 8 SOUTH WILCOX STREET & PLUM CREEK PARKWAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



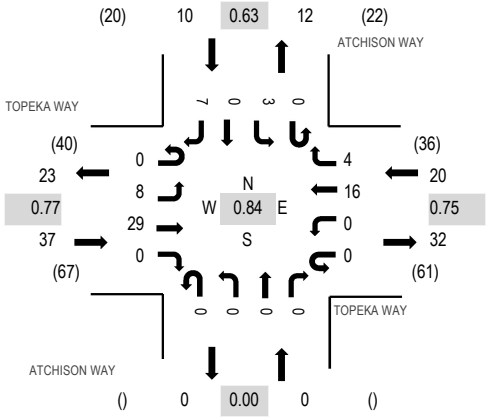
Traffic Counts

Interval Start Time	PLUM CREEK PARKWAY Eastbound				PLUM CREEK PARKWAY Westbound				SOUTH WILCOX STREET Northbound				SOUTH WILCOX STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	50	248	110	0	6	188	31	0	84	29	15	0	38	34	63	896	3,816	0	0	0	0
4:15 PM	0	58	261	141	0	15	189	27	0	117	36	9	0	30	35	49	967	3,964	0	0	0	0
4:30 PM	0	60	270	147	0	15	187	30	0	93	31	14	0	36	24	64	971	3,968	0	0	0	0
4:45 PM	1	63	256	139	0	16	223	24	0	105	25	18	0	47	26	39	982	3,954	0	0	0	0
5:00 PM	0	51	264	128	0	15	223	27	0	139	36	16	0	45	29	71	1,044	3,812	0	0	0	0
5:15 PM	0	59	268	134	0	17	196	24	0	115	41	8	0	39	21	49	971		0	0	0	3
5:30 PM	0	68	250	135	0	9	193	25	0	120	32	16	0	36	27	46	957		0	0	0	0
5:45 PM	0	53	233	109	0	10	184	22	0	90	30	10	0	28	31	40	840		1	0	1	0
Count Total	1	462	2,050	1,043	0	103	1,583	210	0	863	260	106	0	299	227	421	7,628		1	0	1	3
Peak Hour	1	233	1,058	548	0	63	829	105	0	452	133	56	0	167	100	223	3,968		0	0	0	3

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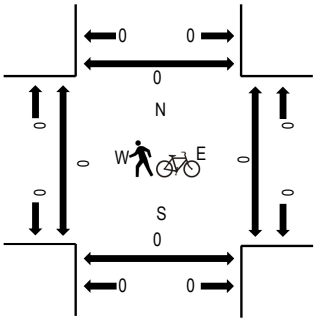
Location: 9 ATCHISON WAY & TOPEKA WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				ATCHISON WAY Northbound				ATCHISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	10	0	0	0	2	0	0	0	0	0	0	2	0	2	18	67	0	0	0	0
4:15 PM	0	4	8	0	0	0	5	1	0	0	0	0	0	0	0	2	20	62	0	0	0	0
4:30 PM	0	1	5	0	0	0	4	1	0	0	0	0	0	1	0	2	14	59	0	0	0	0
4:45 PM	0	1	6	0	0	0	5	2	0	0	0	0	0	0	0	1	15	58	0	0	0	0
5:00 PM	0	2	6	0	0	0	3	0	0	0	0	0	0	2	0	0	13	56	0	0	0	0
5:15 PM	0	1	7	0	0	0	5	1	0	0	0	0	0	2	0	1	17		0	0	0	0
5:30 PM	0	3	5	0	0	0	4	0	0	0	0	0	0	1	0	0	13		0	0	0	0
5:45 PM	0	2	4	0	0	0	2	1	0	0	0	0	0	2	0	2	13		0	0	0	0
Count Total	0	16	51	0	0	0	30	6	0	0	0	0	0	10	0	10	123		0	0	0	0
Peak Hour	0	8	29	0	0	0	16	4	0	0	0	0	0	3	0	7	67		0	0	0	0

APPENDIX “B”

EXISTING TRAFFIC SIGNAL TIMING PLANS

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.

Ring 2	|	**5**	**6**	|	**8**	**7**	|	**11**	**12**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 13																			
Ring 1	|	**1**	**2**	|	**3**	**4**	|	**9**	**10**	|	**13**	**14**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 14																			
Ring 1	|	**2**	**1**	|	**3**	**4**	|	**10**	**9**	|	**13**	**14**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 15																			
Ring 1	|	**1**	**2**	|	**4**	**3**	|	**9**	**10**	|	**14**	**13**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 16																			
Ring 1	|	**2**	**1**	|	**4**	**3**	|	**10**	**9**	|	**14**	**13**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Phases In Use	X	X	X	X	X	X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	1956
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing 1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases 2	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	X	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase 6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must 7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap 8	.	.	.	X	.	.	.		.	.	.	.	.	.	.	.
With 9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase 10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			

10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack	X	X	X	X				

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: Yes

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Red	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable:	No
Controller IP:	10.50.60.60
Subnet Mask:	255.255.255.0
Default Gateway IP:	10.50.60.1
Server IP:	10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2 Priority (Port C50S for 2070):	4
Port 3A Priority (Port C21S for 2070):	3
Port 3B Priority (Port C22S for 2070):	2

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0

Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
Wireless Access Code: 327423274

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Wolfensberger & Prarie Hawk
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control
1	D
2	D
3	D

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME RING	1	On
CTR SET STIME RING	2	On

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
LP SET CIB ON	135	
LP SET CIB ON	143	

Logic #: 3 - "Door Open"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		160

Then:

Assignment	#	State
CTR SET ALARM	1	On

Else:

Assignment	#	State
CTR SET ALARM	1	Off

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	8	3	8	3	8	5	8	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	8	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	26	0	20	0	25	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.0	1.0	1.0	3.0	1.0	1.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	30	26	10	28	10	26	30	30	0	0	0	0	0	0	0	0
Max2	30	26	10	28	12	30	30	30	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	8	3	5	3	8	3	3	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	8	3	5	3	8	5	5	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	8	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	26	0	20	0	25	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	26	10	28	10	90	30	28	0	0	0	0	0	0	0	0
Max2	12	12	7	7	12	12	7	7	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	8	3	5	3	8	5	5	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Green Overlap	13	0.0	0.0	1	No
B	3	4	Green Overlap	14	0.0	0.0	2	No
C	5	6	Green Overlap	15	0.0	0.0	3	No
D	7	8	Green Overlap	16	0.0	0.0	4	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	Y
3	.
4	.
5	.
6	Y
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 6
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2

6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II				X				X								
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										

Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Percent	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	1s	Dwell/Add Time	29		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	12	30	11	37	12	30	27	21	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90%	90%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	80	Std (COS)	17	Offsets In	Seconds
Offset Value	73s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	15	18	12	35	11	22	22	25	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80%	80%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0	
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0	

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	18s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	11	30	11	48	11	30	33	26	0	0	0	0	0	0	0	0

Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	75	Std (COS)	33	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	26		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	4		
Max Select	None	Force Off	Float		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	9	22	9	35	9	22	30	14	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	75%	75%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0	
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0	

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	12	30	11	37	12	30	27	21	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90%	90%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	15	18	12	35	11	22	22	25	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	80%	80%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	11	30	11	48	11	30	33	26	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	9	22	9	35	9	22	30	14	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	75%	75%	0%	0%

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Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**

Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	**1**	**2**	**3**	**4**
Free During Pmt	No	No	No	No

Timing	**Walk**	**Ped Clr**	**Min Grn**	**Yellow**	**Red**
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
				Yellow	**Red**

	Min Dwell	Pmt Ext	Max Time		
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red

Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Preempt Preempt Filtering
Enable Preempt Filtering &
TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Clock/Calendar

Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	4	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10 - "NB arterial"

Pattern	Free	Override Sys	No
Timing Plan	4	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall						X										
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall						X										
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	05:30
2	1	06:00
3	20	07:30
4	1	08:10
5	2	09:00
6	3	15:00
7	2	18:30
8	30	21:00
9	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	2	08:00
2	30	21:00
3	21	23:59

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Exceptions

Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1	2	S
2	2		S
3	3	4	S
4	4		S
5	5	6	S
6	6		S
7	7	8	S
8	8		S
12	4		S
14	6		S
30	2		S
50	6		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S

22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S
22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S

11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S
22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	WBL
2	S-STANDARD	Yes	EBT
3	S-STANDARD	Yes	NBL
4	S-STANDARD	Yes	SBT
5	S-STANDARD	Yes	EBL
6	S-STANDARD	Yes	WBT
7	S-STANDARD	Yes	SBL
8	S-STANDARD	Yes	NBT
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	SBR
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	WBR
15	S-STANDARD	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	EBL
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	EBT1
25	S-STANDARD	Yes	EBT2
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	EBR
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	EB Advance

30	S-STANDARD	Yes	Dilemma EB
31	S-STANDARD	Yes	SBL
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	SBT
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	SBR
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	WBL
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	WBT
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	WBR
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	WB Advance
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	NBL
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	NBT
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	NBR
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
2	2	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
3	3	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
4	4	Yes	Yes	0.0	None	2.0	0	No	0	None	Yes	Yes	No
5	5	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
6	6	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
7	7	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
8	8	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
9	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No

10	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	Yes	Yes	8.0	Passage	0.0	0	No	0	None	Yes	Yes	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	Yes	Yes	8.0	Passage	0.0	0	No	0	None	Yes	Yes	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
24	0	Yes	Yes	0.0	None	0.0	0	No	0	None	Yes	Yes	No
25	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
27	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
29	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
30	2	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
31	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
34	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
37	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	Yes	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
44	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
47	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
49	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
50	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
54	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
57	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

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035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								

Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	6507
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Timing Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
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13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
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16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

Phase Must Gap With Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
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6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
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Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Solutions that Move the World™

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Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack								

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Solutions that Move the World™

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Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable: No
Controller IP: 10.50.70.51
Subnet Mask: 255.255.255.0
Default Gateway IP: 10.50.70.1
Server IP: 10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec): 0
NTCIP UDP Port: 501
Ethernet Priority: 1
Port 2 Priority (Port C50S for 2070): 4
Port 3A Priority (Port C21S for 2070): 3
Port 3B Priority (Port C22S for 2070): 2

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0
Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
Wireless Access Code: 327423274

Peer to Peer Setup (MM) 1-5-8

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name (Cobalt only)
1	503	10.50.70.50	1	PCP/Perry
2	503	10.50.70.52	1	PCP/PCB
3	503	10.50.70.54	1	PCP/I25NB
4	503	10.50.70.53	1	PCP/I25SB
5	503	10.50.60.30	1	Virtual 2

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Plum Creek Pkwy & Wilcox Street
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

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Solutions that Move the World™

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Logic Processor Page 1

Logic Statement Control (MM)

1-8-1

Logic #	Statement Control
1	E
2	E
3	D
18	D
21	D
22	D
23	D
24	D
25	D
30	E
31	E
32	E
33	E
34	E
35	E
36	E
51	E
52	E
53	E
54	E

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME RING	1	On
CTR SET STIME RING	2	On

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 3 - "Door Open"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		160

Then:

Assignment	#	State
CTR SET ALARM	1	On

Else:

Assignment	#	State
CTR SET ALARM	1	Off

Logic #: 11 - "LNG PED 2&6"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	PED ON PH PED CLR	2	IS	On
OR	--	F	PED ON PH PED CLR	6	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	2	On

Logic #: 12 - "LNG Ped 2&6"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	CTR PHASE TIMING	2	IS	Off
AND	--	F	CTR PHASE TIMING	6	IS	Off
AND	--	F	LP LOGIC FLAG	2	IS	On

Then:

Assignment	#	State
CRD SET FREE		On

Else:

Assignment	#	State
LP SET LOGIC FLAG	2	Off

Logic #: 13 - "LNG Ped 4&8"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	PED ON PH PED CLR	4	IS	On
OR	--	F	PED ON PH PED CLR	8	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	4	On

Logic #: 14 - "LNG Ped 4&8"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	CTR PHASE TIMING	2	IS	Off
AND	--	F	CTR PHASE TIMING	6	IS	Off
AND	--	F	LP LOGIC STATEMENT	4	IS	On

Then:

Assignment	#	State
CRD SET FREE		On

Else:

Assignment	#	State
LP SET LOGIC FLAG	4	Off

Logic #: 18 - "Vir2StpTim"

If:

	Peer	T/F	Assignment	#		State
IF	5	F	LP LOGIC FLAG	3	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 20 - "VirtStpTim"

If:

	Peer	T/F	Assignment	#		State
IF	5	F	CTR STOP TIME RING	1	IS	On
OR	5	F	CTR STOP TIME RING	2	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 21 - "PCB E/W stp"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	5	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 22 - "PCB N/S stp"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	2	IS	On
AND	--	F	VEH GREEN ON PH	6	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 23 - "PCP E/W stp2"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 24 - "PCP Wstp"

If:

	Peer	T/F	Assignment	#		State
IF	3	F	LP LOGIC FLAG	6	IS	On
AND	3	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 25 - "Perry StpTim"

If:

	Peer	T/F	Assignment	#		State
IF	1	F	LP LOGIC FLAG	3	IS	On
OR	1	F	LP LOGIC FLAG	4	IS	On
AND	1	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 30 - "Call p2"

If:

	Assignment	#		State
IF	DET	1	IS	On
AND	LP COB CODE OFF			512

Then:

Assignment	#	State
DET SET VEH 1-16	3	On
LP SET LOGIC FLAG	16	On

Logic #: 31 - "P2 GAP CHK"

If:

	Assignment	#		State
IF	DET	2	IS	Off
AND	DET	10	IS	Off
AND	LP LOGIC FLAG	15	IS	Off
AND	VEH GREEN ON PH	2	IS	On
AND	LP COB CODE OFF			512

Then:

Assignment	#	State

Then:

Assignment	#	State
LP DELAY FOR	6.0 Sec.	
LP SET LOGIC FLAG	15	On

Logic #: 32 - "LF 16 on"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	Off
	VEH GREEN ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	16	On

Logic #: 33 - "LF 16 off"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	On
	VEH GREEN ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	16	Off

Logic #: 34 - "p2 nogap ck "

If:

	Assignment	#		State
IF	LP LOGIC FLAG	16	IS	On
AND	CTR ON PH FORC OFF	2	IS	On
AND	VEH YELLOW ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	8	On
LP SET LOGIC FLAG	16	Off

Logic #: 35 - "flg 8 & alrm"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	8	IS	On

Then:

Assignment	#	State
CTR SET ALARM	8	On

Else:

Assignment	#	State
CTR SET ALARM	8	Off

Logic #: 36 - "LF P2 CLR"

If:

	Assignment	#		State
IF	VEH RED ON PHASE	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	8	Off
LP SET LOGIC FLAG	15	Off
LP SET LOGIC FLAG	16	Off

Logic #: 51 - "NB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
OR	DET OCCUPANCY %	18	>	99
OR	DET OCCUPANCY %	1	>	99

Then:

Assignment	#	State
CTR SET ALARM	2	On

Else:

Assignment	#	State
CTR SET ALARM	2	Off

Logic #: 52 - "SB Occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	2	>	99
OR	DET OCCUPANCY %	17	>	99

Then:

Assignment	#	State
CTR SET ALARM	4	On

Else:

Assignment	#	State
CTR SET ALARM	4	Off

Logic #: 53 - "EB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	6	>	99
OR	DET OCCUPANCY %	21	>	99

Then:

Assignment	#	State
CTR SET ALARM	3	On

Else:

Assignment	#	State
CTR SET ALARM	3	Off

Logic #: 54 - "WB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	5	>	99
OR	DET OCCUPANCY %	22	>	99

Then:

Assignment	#	State
CTR SET ALARM	5	On

Else:

Assignment	#	State
CTR SET ALARM	5	Off

Logic #: 100 - ""

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	Off

Then:

Assignment	#	State
LP SET LOGIC FLAG	15	Off
LP SET LOGIC FLAG	8	Off

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035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	10	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	30	15	25	25	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	6	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	40	30	10	30	15	30	15	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	6	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	30	15	25	25	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	8	0	7	0	8	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	27	0	20	0	27	0	22	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	90	15	25	15	90	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Yellow Ped	9	0.0	0.0	1	No
B	3	4	Yellow Ped	10	0.0	0.0	2	No
C	5	6	Yellow Ped	11	0.0	0.0	3	No
D	7	8	Yellow Ped	12	0.0	0.0	4	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	.
3	.
4	Y
5	.
6	.
7	.
8	Y
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 6
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
4
8

Exit
4
8

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I				X				X								
Non-Act II		X				X										
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall				X				X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
Al Calc																

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall				X				X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
Al Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	32s	Dwell/Add Time	3		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	26	13	9	40	11	28	14	37	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	88s	90s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	90	Std (COS)	17	Offsets In	Seconds
Offset Value	34s	Dwell/Add Time	31		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	26	18	11	35	15	29	18	28	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	26	17	15	42	18	25	20	37	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Seconds
Cycle	100	Std (COS)	33	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	33		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	4		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	24	17	10	49	18	18	18	46	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits In	Seconds
Cycle	120	Std (COS)	41	Offsets In	Seconds
Offset Value	83s	Dwell/Add Time	41		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	5		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 5)	23	22	13	62	23	22	13	62	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits In	Seconds
Cycle	120	Std (COS)	73	Offsets In	Seconds
Offset Value	43s	Dwell/Add Time	41		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	6		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 6)	29	23	15	53	10	37	15	58	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 7

Split Pattern	7	TS2 (Pat-Off)	2-1	Splits In	Seconds
Cycle	100	Std (COS)	81	Offsets In	Seconds
Offset Value	32s	Dwell/Add Time	3		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 7)	26	12	12	50	10	28	15	47	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	120	Std (COS)	137	Offsets In	Seconds
Offset Value	34s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	3		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	41	18	16	45	16	43	16	45	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 13

Split Pattern	13	TS2 (Pat-Off)	4-1	Splits In	Seconds
Cycle	150	Std (COS)	153	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 13)	50	24	17	59	18	46	17	59	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	150s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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Coordination Split Pattern

Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	13	9	40	11	28	14	37	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	88s	90s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	18	11	35	15	29	18	28	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	90s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	17	15	42	18	25	20	37	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	24	17	10	49	18	18	18	46	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	23	22	13	62	23	22	13	62	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	29	23	15	53	10	37	15	58	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 7

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	12	12	50	10	28	15	47	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	41	18	16	45	16	43	16	45	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 13

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	50	24	17	59	18	46	17	59	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	150s	140s	0s	0s

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Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off

Conditional Delay	Off

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.

Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Preempt Preempt Filtering
Enable Preempt Filtering & TSP/SCP
(MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

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035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Clock/Calendar

Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

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Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	4	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 5 - "5"

Pattern	5	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 6 - "6"

Pattern	6	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 7 - "AM peak"

Pattern	7	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10 - "NB arterial"

Pattern	Free	Override Sys	No
Timing Plan	4	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 11 - "star exit"

Pattern	11	Override Sys	No
Timing Plan	3	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 13 - "13"

Pattern	13	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	1	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	1	Ped Det Diag Plan	1
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 22 - "22"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.

Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	7	07:00
4	2	09:00
5	3	15:00
6	2	19:00
7	30	21:00
8	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	30	21:00
4	21	23:59
5	1	10:00
6	2	14:30

Day Plan #3 - "I25 Nt close"

Event	Action Plan	Start Time
1	1	05:30
2	2	09:00
3	3	15:00
4	2	19:00
5	30	20:00

Day Plan #5 - "5"

Event	Action Plan	Start Time
1	2	05:00
2	30	21:00
3	21	23:59
4	1	09:30
5	2	16:00

Day Plan #6 - "Starlight"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	1	10:00
4	2	19:00
5	30	21:00
6	21	23:59

Day Plan #7 - "R Fair"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	2	09:00

4	3	15:00
5	1	19:00
6	30	22:30
7	21	23:59

Day Plan #8 - "F Fair"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	2	09:00
4	3	15:00
5	2	19:00
6	1	21:00
7	21	23:59

Day Plan #9 - "Sat Fair"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	1	11:00
4	2	14:30
5	1	21:30
6	21	23:59

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 5

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

Schedule Number - 6

Day Plan No.: 6

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.

Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Exceptions

Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FLOAT	6	1	1	5
2	FIXED	11	21	2020	6
3	FIXED	6	10	2019	3
4	FIXED	6	11	2019	3
5	FIXED	8	1	2019	7
6	FIXED	8	2	2019	8
7	FIXED	8	3	2019	9

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Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	6		S
5	3	4	S
6	4		S
7	4		S
8	4		S
11	1	2	S
17	5	6	S
18	6		S
19	8		S
20	8		S
21	7	8	S
22	8		S
23	8		S
24	8		S
25	5	6	S
26	6		S
27	3	4	S
29	7	8	S
30	8		S
31	8		S
58	2		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S

26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description

1	S-STANDARD	Yes	
2	S-STANDARD	Yes	
3	S-STANDARD	Yes	
4	S-STANDARD	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	S-STANDARD	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	S-STANDARD	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

	Phase												

Veh Detector		ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
3	2	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
4	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
11	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	3.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
18	6	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
19	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
20	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
23	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	6	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
27	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	7	No	Yes	3.0	Passage	0.0	0	No	0	None	No	No	No
30	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
31	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.

Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log Period: 60 ECPI Log Period: 0 Length Unit: Inches

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
1	0	0	60	1	255	0
2	0	0	60	1	255	0
5	0	0	60	1	255	0
6	0	0	60	1	255	0
17	0	0	60	1	255	0
18	0	0	60	1	255	0
21	0	0	60	1	255	0
22	0	0	60	1	255	0
30	0	0	22	15	255	0

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier
2	0	168	1	60

4	0	168	1	60
6	0	168	1	60
8	0	168	1	60

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 3

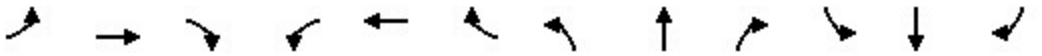
Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier

APPENDIX “C”

INTERSECTION CAPACITY ANALYSIS WORKSHEETS



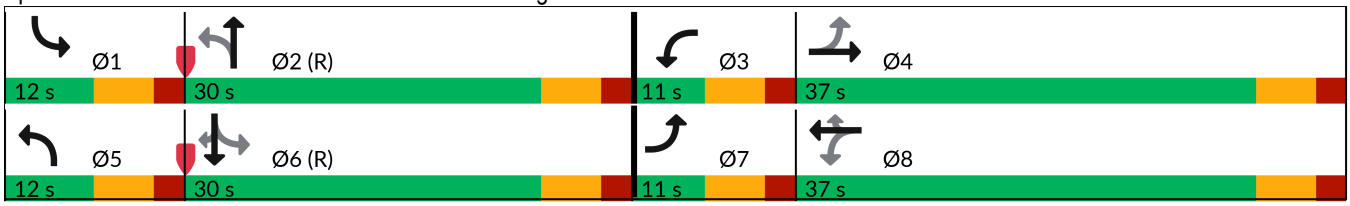
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1630	0	1770	1863	1583
Flt Permitted	0.624			0.344			0.734			0.581		
Satd. Flow (perm)	1162	3514	0	641	3539	1583	1367	1630	0	1082	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				182		86				182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

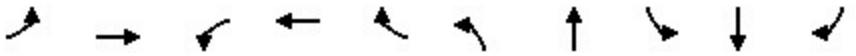
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	80	391	124	188	159	4	16	204	32	38
Future Volume (vph)	80	391	124	188	159	4	16	204	32	38
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	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)	11.0	38.0	11.0	40.0	40.0	11.0	33.0	11.0	32.0	32.0
Total Split (s)	11.0	37.0	11.0	37.0	37.0	12.0	30.0	12.0	30.0	30.0
Total Split (%)	12.2%	41.1%	12.2%	41.1%	41.1%	13.3%	33.3%	13.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	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
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	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)	21.8	16.8	23.0	19.0	19.0	38.6	32.9	50.2	47.8	47.8
Actuated g/C Ratio	0.24	0.19	0.26	0.21	0.21	0.43	0.37	0.56	0.53	0.53
v/c Ratio	0.28	0.67	0.60	0.27	0.36	0.01	0.16	0.32	0.04	0.04
Control Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
LOS	C	D	D	C	A	B	A	B	B	A
Approach Delay (s/veh)		36.2		23.9			8.3		10.8	
Approach LOS		D		C			A		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 1 (1%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 24.6	Intersection LOS: C
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

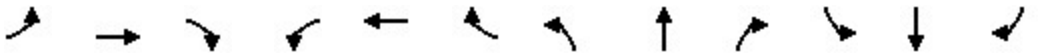
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	87	445	135	204	173	4	103	222	35	41
v/c Ratio	0.28	0.67	0.60	0.27	0.36	0.01	0.16	0.32	0.04	0.04
Control Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Length 50th (ft)	36	123	57	53	0	1	6	59	8	0
Queue Length 95th (ft)	65	162	94	79	45	6	45	113	32	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	315	1214	226	1218	664	618	650	689	989	926
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	0.37	0.60	0.17	0.26	0.01	0.16	0.32	0.04	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	391	18	124	188	159	4	16	79	204	32	38
Future Volume (veh/h)	80	391	18	124	188	159	4	16	79	204	32	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	87	425	20	135	204	173	4	17	86	222	35	41
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	2	2	2	2	2
Cap, veh/h	293	569	27	224	587	262	680	120	606	727	950	805
Arrive On Green	0.06	0.16	0.16	0.06	0.17	0.17	0.01	0.45	0.45	0.07	0.51	0.51
Sat Flow, veh/h	1781	3456	162	1781	3554	1585	1781	268	1358	1781	1870	1585
Grp Volume(v), veh/h	87	218	227	135	204	173	4	0	103	222	35	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1626	1781	1870	1585
Q Serve(g_s), s	3.6	10.5	10.6	5.0	4.6	9.2	0.1	0.0	3.4	6.0	0.8	1.2
Cycle Q Clear(g_c), s	3.6	10.5	10.6	5.0	4.6	9.2	0.1	0.0	3.4	6.0	0.8	1.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	293	293	303	224	587	262	680	0	726	727	950	805
V/C Ratio(X)	0.30	0.74	0.75	0.60	0.35	0.66	0.01	0.00	0.14	0.31	0.04	0.05
Avail Cap(c_a), veh/h	294	612	634	224	1224	546	789	0	726	727	950	805
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	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	35.8	35.8	31.6	33.3	35.2	13.6	0.0	14.7	11.5	11.1	11.2
Incr Delay (d2), s/veh	0.6	3.8	3.7	4.5	0.4	2.8	0.0	0.0	0.4	0.2	0.1	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	1.5	4.7	4.9	2.6	1.9	3.6	0.0	0.0	1.3	2.1	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.5	39.5	39.5	36.1	33.6	38.1	13.6	0.0	15.1	11.8	11.2	11.3
LnGrp LOS	C	D	D	D	C	D	B		B	B	B	B
Approach Vol, veh/h		532			512			107			298	
Approach Delay, s/veh		37.9			35.8			15.1			11.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	46.2	11.0	20.8	6.5	51.7	11.0	20.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	24.0	5.0	31.0	6.0	24.0	5.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	5.4	7.0	12.6	2.1	3.2	5.6	11.2
Green Ext Time (p_c), s	0.0	0.5	0.0	2.3	0.0	0.2	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	30.1
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.946	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1762	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

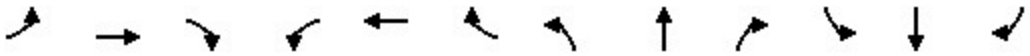
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	0	1	44	96	64
Future Vol, veh/h	42	0	1	44	96	64
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	2	2	2	2
Mvmt Flow	46	0	1	48	104	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	189	139	174	0	-	0
Stage 1	139	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	800	909	1403	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	799	909	1403	-	-	-
Mov Cap-2 Maneuver	799	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	972	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.78	0.17	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	40	-	799	-	-
HCM Lane V/C Ratio	0.001	-	0.057	-	-
HCM Control Delay (s/veh)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.865						0.883	
Flt Protected		0.954						0.980			0.995	
Satd. Flow (prot)	0	1772	0	0	1611	0	0	1825	0	0	1637	0
Flt Permitted		0.954						0.980			0.995	
Satd. Flow (perm)	0	1772	0	0	1611	0	0	1825	0	0	1637	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

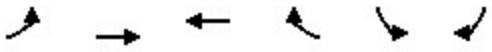
Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	0	1	0	0	8	2	3	0	8	3	74
Future Vol, veh/h	35	0	1	0	0	8	2	3	0	8	3	74
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	0	1	0	0	9	2	3	0	9	3	80

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	1	0	0	78	85	1	82	82	4
Stage 1	-	-	-	-	-	-	77	77	-	4	4	-
Stage 2	-	-	-	-	-	-	2	9	-	78	77	-
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	1611	-	-	1622	-	-	911	805	1084	905	809	1079
Stage 1	-	-	-	-	-	-	932	831	-	1018	892	-
Stage 2	-	-	-	-	-	-	1021	888	-	931	831	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1611	-	-	1622	-	-	819	786	1084	880	790	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	819	786	-	880	790	-
Stage 1	-	-	-	-	-	-	910	812	-	1018	892	-
Stage 2	-	-	-	-	-	-	942	888	-	905	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.09	0	9.54	8.79
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	799	1458	-	-	1622	-	-	1043
HCM Lane V/C Ratio	0.007	0.024	-	-	-	-	-	0.089
HCM Control Delay (s/veh)	9.5	7.3	0	-	0	-	-	8.8
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

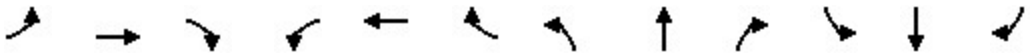
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	11	24	1	0	5
Future Vol, veh/h	2	11	24	1	0	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	-	-	-	-	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	2	2	2	2
Mvmt Flow	2	12	26	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	27	0	-	0	43	27
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	16	-
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	1587	-	-	-	968	1049
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1587	-	-	-	967	1049
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.12	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	277	-	-	-	1049
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



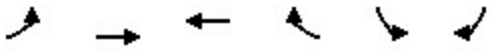
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.967			0.950			0.971			0.993	
Flt Protected		0.996			0.995			0.991			0.982	
Satd. Flow (prot)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Flt Permitted		0.996			0.995			0.991			0.982	
Satd. Flow (perm)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	211	156	156	361
Demand Flow Rate, veh/h	215	159	160	368
Vehicles Circulating, veh/h	368	147	302	136
Vehicles Exiting, veh/h	136	315	281	170
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.6	3.5	4.1	4.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.472	0.528	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	101	114	75	84	75	85	173	195
Cap Entry Lane, veh/h	962	1039	1179	1253	1022	1099	1191	1265
Entry HV Adj Factor	0.982	0.981	0.979	0.986	0.978	0.973	0.980	0.980
Flow Entry, veh/h	99	112	73	83	73	83	170	191
Cap Entry, veh/h	945	1019	1154	1235	1000	1069	1167	1240
V/C Ratio	0.105	0.110	0.064	0.067	0.073	0.077	0.145	0.154
Control Delay, s/veh	4.8	4.5	3.6	3.5	4.3	4.0	4.3	4.2
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.954		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1777	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1777	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

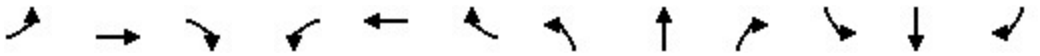
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	251	112	58	95	4
Future Vol, veh/h	6	251	112	58	95	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	273	122	63	103	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	185	0	-	0	439	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	286	-
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	1390	-	-	-	575	893
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1390	-	-	-	572	893
Mov Cap-2 Maneuver	-	-	-	-	572	-
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.18	0	12.61
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	42	-	-	-	580
HCM Lane V/C Ratio	0.005	-	-	-	0.185
HCM Control Delay (s/veh)	7.6	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7



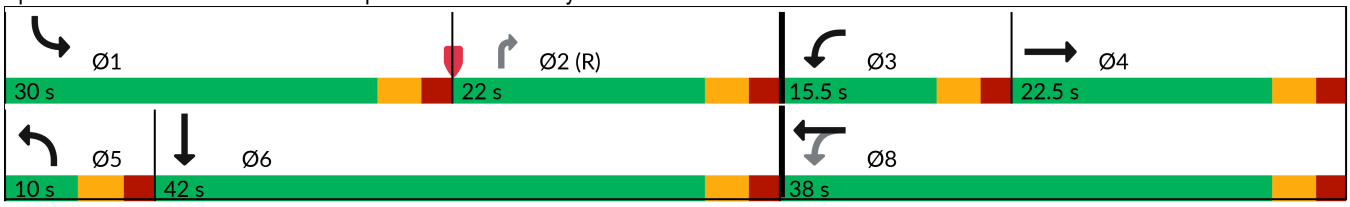
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		0	0		175
Storage Lanes	1		0	1		0	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.979							0.850		0.974	
Flt Protected				0.950			0.950			0.950	0.977	
Satd. Flow (prot)	0	4979	0	1770	3539	0	1770	0	1583	3221	1613	0
Flt Permitted				0.308			0.950			0.950	0.977	
Satd. Flow (perm)	0	4979	0	574	3539	0	1770	0	1583	3221	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30							220		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	313	156	211	16	202	661	92
Future Volume (vph)	313	156	211	16	202	661	92
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	22.5	22.5
Total Split (s)	22.5	15.5	38.0	10.0	22.0	30.0	42.0
Total Split (%)	25.0%	17.2%	42.2%	11.1%	24.4%	33.3%	46.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	12.1	27.1	27.1	6.3	17.0	30.9	30.9
Actuated g/C Ratio	0.13	0.30	0.30	0.07	0.19	0.34	0.34
v/c Ratio	0.57	0.56	0.22	0.14	0.46	0.53	0.51
Control Delay (s/veh)	36.7	15.6	11.2	41.6	8.1	26.5	27.4
Queue Delay	0.0	1.4	0.0	0.0	0.2	2.1	3.2
Total Delay (s/veh)	36.7	16.9	11.2	41.6	8.2	28.5	30.6
LOS	D	B	B	D	A	C	C
Approach Delay (s/veh)	36.7		13.7				29.2
Approach LOS	D		B				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay (s/veh): 25.2	Intersection LOS: C
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

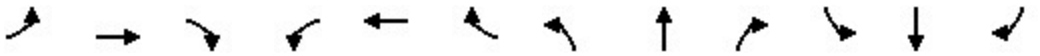




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	394	170	229	17	220	582	285
v/c Ratio	0.57	0.56	0.22	0.14	0.46	0.53	0.51
Control Delay (s/veh)	36.7	15.6	11.2	41.6	8.1	26.5	27.4
Queue Delay	0.0	1.4	0.0	0.0	0.2	2.1	3.2
Total Delay (s/veh)	36.7	16.9	11.2	41.6	8.2	28.5	30.6
Queue Length 50th (ft)	72	51	33	9	0	144	135
Queue Length 95th (ft)	99	m52	m34	30	59	213	236
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375			
Base Capacity (vph)	992	311	1297	123	477	1107	561
Starvation Cap Reductn	0	43	0	0	0	0	0
Spillback Cap Reductn	2	0	0	0	24	367	183
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.63	0.18	0.14	0.49	0.79	0.75

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



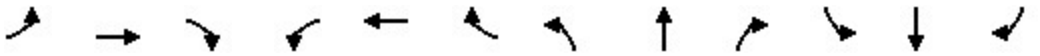
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	313	50	156	211	0	16	0	202	661	92	45
Future Volume (veh/h)	0	313	50	156	211	0	16	0	202	661	92	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	340	54	170	229	0	17	0	220	648	198	49
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	513	79	301	969	0	34	0	0	2196	784	194
Arrive On Green	0.00	0.11	0.11	0.03	0.09	0.00	0.02	0.00	0.00	0.62	0.54	0.54
Sat Flow, veh/h	0	4629	689	1781	3647	0	1781	17		3563	1448	358
Grp Volume(v), veh/h	0	257	137	170	229	0	17	54.4		648	0	247
Grp Sat Flow(s),veh/h/ln	0	1702	1746	1781	1777	0	1781	D		1781	0	1806
Q Serve(g_s), s	0.0	6.5	6.8	7.3	5.4	0.0	0.9			7.7	0.0	6.5
Cycle Q Clear(g_c), s	0.0	6.5	6.8	7.3	5.4	0.0	0.9			7.7	0.0	6.5
Prop In Lane	0.00		0.39	1.00		0.00	1.00			1.00		0.20
Lane Grp Cap(c), veh/h	0	391	201	301	969	0	34			2196	0	978
V/C Ratio(X)	0.00	0.66	0.68	0.56	0.24	0.00	0.50			0.30	0.00	0.25
Avail Cap(c_a), veh/h	0	662	340	327	1303	0	99			2196	0	978
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.35	0.35	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.1	38.2	31.6	32.2	0.0	43.7			8.1	0.0	11.0
Incr Delay (d2), s/veh	0.0	1.9	4.0	0.7	0.0	0.0	10.7			0.3	0.0	0.6
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
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	3.3	2.4	0.0	0.5			2.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	40.0	42.3	32.2	32.3	0.0	54.4			8.4	0.0	11.6
LnGrp LOS		D	D	C	C		D			A		B
Approach Vol, veh/h		394			399						895	
Approach Delay, s/veh		40.8			32.3						9.3	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	60.5		14.2	15.3	6.7	53.7		29.5				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0		10.5	17.5	5.0	37.0		33.0				
Max Q Clear Time (g_c+I1), s	9.7		9.3	8.8	2.9	8.5		7.4				
Green Ext Time (p_c), s	2.2		0.1	1.6	0.0	1.5		1.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



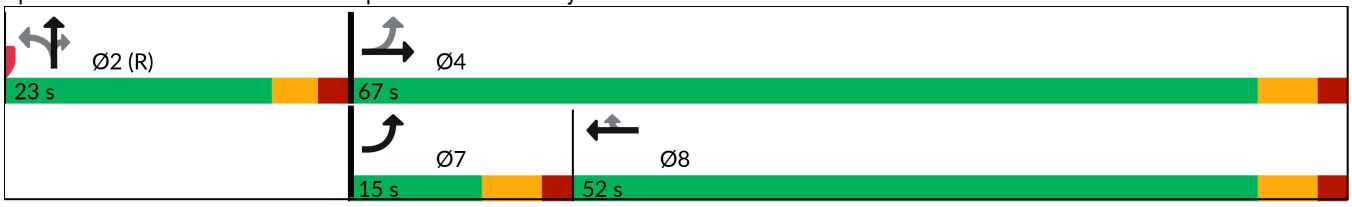
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	400		0	400		175	0		0
Storage Lanes	1		0	1		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.919	0.850		0.860	0.850			
Flt Protected	0.950						0.950	0.998				
Satd. Flow (prot)	1770	5085	0	0	1626	1504	1681	1455	1504	0	0	0
Flt Permitted	0.086						0.950	0.998				
Satd. Flow (perm)	160	5085	0	0	1626	1504	1681	1455	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					95	719		80	109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		253			709			503			557	
Travel Time (s)		5.8			16.1			11.4			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	188	1023	333	1050	33	2	154
Future Volume (vph)	188	1023	333	1050	33	2	154
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	24.0	23.0	23.0	23.0
Total Split (s)	15.0	67.0	52.0	52.0	23.0	23.0	23.0
Total Split (%)	16.7%	74.4%	57.8%	57.8%	25.6%	25.6%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	59.7	59.7	44.7	44.7	19.3	19.3	19.3
Actuated g/C Ratio	0.66	0.66	0.50	0.50	0.21	0.21	0.21
v/c Ratio	0.76	0.33	0.92	0.65	0.09	0.23	0.21
Control Delay (s/veh)	34.3	15.1	35.6	4.1	30.3	10.1	5.5
Queue Delay	6.3	3.6	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.6	18.7	35.6	4.1	30.3	10.1	5.5
LOS	D	B	D	A	C	B	A
Approach Delay (s/veh)		22.1	20.6			11.3	
Approach LOS		C	C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 51 (57%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 20.6	Intersection LOS: C
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramp & Plum Creek Pkwy.

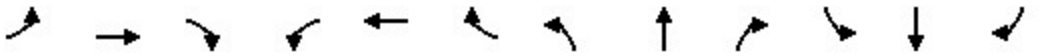




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	204	1112	784	719	32	86	87
v/c Ratio	0.76	0.33	0.92	0.65	0.09	0.23	0.21
Control Delay (s/veh)	34.3	15.1	35.6	4.1	30.3	10.1	5.5
Queue Delay	6.3	3.6	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.6	18.7	35.6	4.1	30.3	10.1	5.5
Queue Length 50th (ft)	96	194	362	0	15	3	0
Queue Length 95th (ft)	#151	236	#637	56	42	45	28
Internal Link Dist (ft)		173	629			423	
Turn Bay Length (ft)					400		175
Base Capacity (vph)	267	3446	877	1120	361	375	408
Starvation Cap Reductn	32	2211	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.90	0.89	0.64	0.09	0.23	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



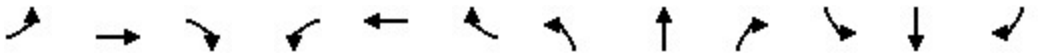
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1023	0	0	333	1050	33	2	154	0	0	0
Future Volume (veh/h)	188	1023	0	0	333	1050	33	2	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	204	1112	0	0	946	752	25	0	180			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	239	3398	0	0	956	810	378	0	673			
Arrive On Green	0.09	0.67	0.00	0.00	0.51	0.51	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	204	1112	0	0	946	752	25	0	180			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	5.9	8.4	0.0	0.0	45.0	39.7	1.0	0.0	4.3			
Cycle Q Clear(g_c), s	5.9	8.4	0.0	0.0	45.0	39.7	1.0	0.0	4.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	239	3398	0	0	956	810	378	0	673			
V/C Ratio(X)	0.85	0.33	0.00	0.00	0.99	0.93	0.07	0.00	0.27			
Avail Cap(c_a), veh/h	261	3461	0	0	956	810	378	0	673			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.84	0.84	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.0	6.4	0.0	0.0	21.8	20.5	28.3	0.0	29.6			
Incr Delay (d2), s/veh	18.7	0.0	0.0	0.0	22.6	13.5	0.3	0.0	1.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.6	2.6	0.0	0.0	23.9	16.4	0.5	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.7	6.5	0.0	0.0	44.4	34.0	28.7	0.0	30.6			
LnGrp LOS	D	A			D	C	C		C			
Approach Vol, veh/h		1316			1698			205				
Approach Delay, s/veh		12.3			39.8			30.3				
Approach LOS		B			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		24.1		65.9			13.9	52.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		61.0			9.0	46.0				
Max Q Clear Time (g_c+I1), s		6.3		10.4			7.9	47.0				
Green Ext Time (p_c), s		0.5		10.7			0.1	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



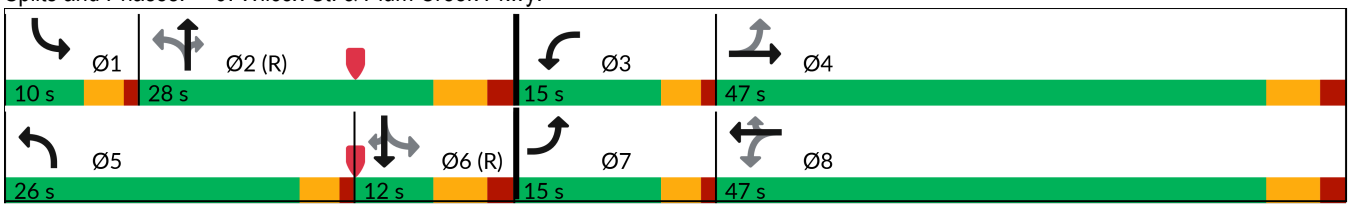
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.133			0.360			0.589			0.686		
Satd. Flow (perm)	248	3539	1583	671	3539	1583	2128	1863	1583	1278	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			385			164			120			164
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

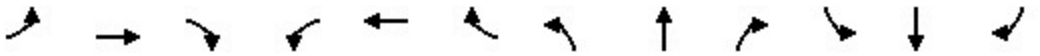
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	620	354	46	869	114	356	101	32	59	69	127
Future Volume (vph)	193	620	354	46	869	114	356	101	32	59	69	127
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	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)	9.5	31.0		9.5	31.0	31.0	9.5	36.0	36.0	9.5	34.0	34.0
Total Split (s)	15.0	47.0		15.0	47.0	47.0	26.0	28.0	28.0	10.0	12.0	12.0
Total Split (%)	15.0%	47.0%		15.0%	47.0%	47.0%	26.0%	28.0%	28.0%	10.0%	12.0%	12.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	51.8	41.2	100.0	44.1	35.2	35.2	39.9	29.1	29.1	29.3	20.5	20.5
Actuated g/C Ratio	0.52	0.41	1.00	0.44	0.35	0.35	0.40	0.29	0.29	0.29	0.21	0.21
v/c Ratio	0.72	0.46	0.24	0.14	0.76	0.19	0.38	0.20	0.06	0.16	0.20	0.30
Control Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
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 (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
LOS	C	C	A	B	C	A	C	C	A	C	D	A
Approach Delay (s/veh)		16.9			28.2			23.1			19.0	
Approach LOS		B			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 32 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 22.1	Intersection LOS: C
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

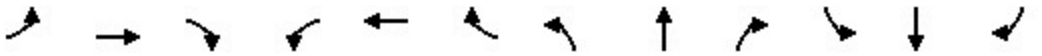




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	210	674	385	50	945	124	387	110	35	64	75	138
v/c Ratio	0.72	0.46	0.24	0.14	0.76	0.19	0.38	0.20	0.06	0.16	0.20	0.30
Control Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
Queue Length 50th (ft)	68	164	0	15	274	0	85	56	0	25	40	0
Queue Length 95th (ft)	#140	201	0	29	318	18	132	108	0	58	91	39
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	150			225			225		250	175		200
Base Capacity (vph)	295	1489	1583	444	1450	745	1136	541	545	409	382	455
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	0.45	0.24	0.11	0.65	0.17	0.34	0.20	0.06	0.16	0.20	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	620	354	46	869	114	356	101	32	59	69	127
Future Volume (veh/h)	193	620	354	46	869	114	356	101	32	59	69	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	210	674	0	50	945	124	387	110	35	64	75	138
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	2	2	2	2	2
Cap, veh/h	285	1365		322	1159	517	1060	630	534	483	507	430
Arrive On Green	0.10	0.38	0.00	0.04	0.33	0.33	0.11	0.34	0.34	0.04	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	210	674	0	50	945	124	387	110	35	64	75	138
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.5	14.4	0.0	1.8	24.4	5.7	7.6	4.1	1.5	2.6	3.0	6.9
Cycle Q Clear(g_c), s	7.5	14.4	0.0	1.8	24.4	5.7	7.6	4.1	1.5	2.6	3.0	6.9
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	285	1365		322	1159	517	1060	630	534	483	507	430
V/C Ratio(X)	0.74	0.49		0.16	0.82	0.24	0.36	0.17	0.07	0.13	0.15	0.32
Avail Cap(c_a), veh/h	311	1457		451	1457	650	1450	630	534	516	507	430
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)	0.96	0.96	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	22.8	23.4	0.0	21.2	30.9	24.6	20.5	23.4	22.5	24.5	27.7	29.1
Incr Delay (d2), s/veh	7.8	0.3	0.0	0.2	3.0	0.2	0.2	0.6	0.2	0.1	0.6	2.0
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	3.6	6.0	0.0	0.8	10.7	2.2	3.0	1.9	0.6	1.1	1.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	23.7	0.0	21.4	33.9	24.9	20.7	24.0	22.7	24.6	28.3	31.0
LnGrp LOS	C	C		C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		884			1119			532			277	
Approach Delay, s/veh		25.3			32.3			21.5			28.8	
Approach LOS		C			C			C			C	

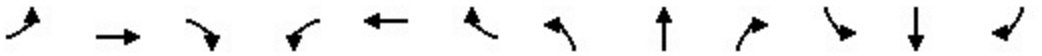
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	39.7	7.8	44.4	14.7	33.1	13.5	38.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	22.0	11.0	41.0	22.0	6.0	11.0	41.0
Max Q Clear Time (g_c+I1), s	4.6	6.1	3.8	16.4	9.6	8.9	9.5	26.4
Green Ext Time (p_c), s	0.0	0.5	0.0	4.9	1.1	0.0	0.1	6.2

Intersection Summary	
HCM 7th Control Delay, s/veh	27.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



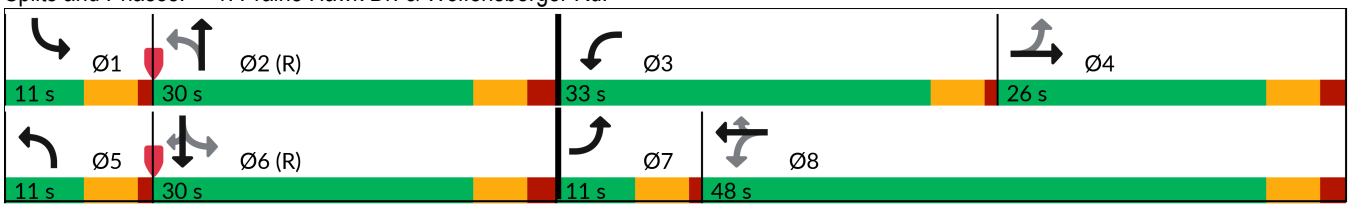
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.877				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1634	0	1770	1863	1583
Flt Permitted	0.515			0.317			0.736			0.491		
Satd. Flow (perm)	959	3514	0	590	3539	1583	1371	1634	0	915	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				200		209				196
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

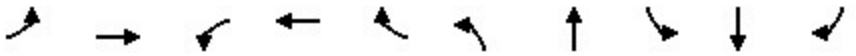
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	48	326	93	344	184	26	42	210	30	97
Future Volume (vph)	48	326	93	344	184	26	42	210	30	97
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	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)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	10.0	32.0	32.0
Total Split (s)	11.0	26.0	33.0	48.0	48.0	11.0	30.0	11.0	30.0	30.0
Total Split (%)	11.0%	26.0%	33.0%	48.0%	48.0%	11.0%	30.0%	11.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	1.0	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	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	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)	21.5	15.7	28.2	19.2	19.2	50.0	42.7	61.0	53.0	53.0
Actuated g/C Ratio	0.22	0.16	0.28	0.19	0.19	0.50	0.43	0.61	0.53	0.53
v/c Ratio	0.21	0.67	0.36	0.55	0.43	0.04	0.31	0.34	0.03	0.11
Control Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
LOS	C	D	C	D	A	B	A	B	B	A
Approach Delay (s/veh)		42.7		27.8			7.6		9.2	
Approach LOS		D		C			A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 24.2	Intersection LOS: C
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

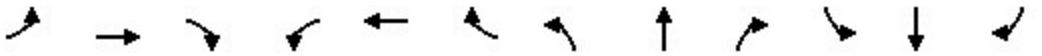
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	52	371	101	374	200	28	255	228	33	105
v/c Ratio	0.21	0.67	0.36	0.55	0.43	0.04	0.31	0.34	0.03	0.11
Control Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Length 50th (ft)	23	117	47	114	0	7	18	64	11	0
Queue Length 95th (ft)	46	158	77	146	54	22	85	123	33	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	254	706	519	1486	780	713	818	662	986	930
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	0.20	0.53	0.19	0.25	0.26	0.04	0.31	0.34	0.03	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	326	16	93	344	184	26	42	192	210	30	97
Future Volume (veh/h)	48	326	16	93	344	184	26	42	192	210	30	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	52	354	17	101	374	200	28	46	209	228	33	105
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	2	2	2	2	2
Cap, veh/h	201	494	24	234	605	270	760	150	683	652	1018	863
Arrive On Green	0.04	0.14	0.14	0.07	0.17	0.17	0.03	0.51	0.51	0.06	0.54	0.54
Sat Flow, veh/h	1781	3452	165	1781	3554	1585	1781	294	1336	1781	1870	1585
Grp Volume(v), veh/h	52	182	189	101	374	200	28	0	255	228	33	105
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1630	1781	1870	1585
Q Serve(g_s), s	2.5	9.8	9.8	4.8	9.8	12.0	0.7	0.0	9.1	6.0	0.8	3.2
Cycle Q Clear(g_c), s	2.5	9.8	9.8	4.8	9.8	12.0	0.7	0.0	9.1	6.0	0.8	3.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	201	254	263	234	605	270	760	0	834	652	1018	863
V/C Ratio(X)	0.26	0.72	0.72	0.43	0.62	0.74	0.04	0.00	0.31	0.35	0.03	0.12
Avail Cap(c_a), veh/h	240	355	368	616	1493	666	819	0	834	652	1018	863
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	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	40.9	40.9	33.7	38.5	39.4	10.8	0.0	14.1	11.1	10.6	11.1
Incr Delay (d2), s/veh	0.7	4.0	4.1	1.3	1.0	4.0	0.0	0.0	0.9	0.3	0.1	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	1.1	4.4	4.6	2.1	4.2	4.8	0.3	0.0	3.4	2.2	0.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	44.9	45.0	35.0	39.5	43.4	10.8	0.0	15.1	11.5	10.6	11.4
LnGrp LOS	D	D	D	C	D	D	B		B	B	B	B
Approach Vol, veh/h		423			675			283			366	
Approach Delay, s/veh		43.8			40.0			14.7			11.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	57.1	11.6	20.3	7.7	60.4	8.8	23.0
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	6.0	24.0	28.0	20.0	6.0	24.0	6.0	42.0
Max Q Clear Time (g_c+I1), s	8.0	11.1	6.8	11.8	2.7	5.2	4.5	14.0
Green Ext Time (p_c), s	0.0	1.2	0.2	1.2	0.0	0.4	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	30.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.904	
Flt Protected	0.953			0.999		
Satd. Flow (prot)	1773	0	0	1861	1684	0
Flt Permitted	0.953			0.999		
Satd. Flow (perm)	1773	0	0	1861	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

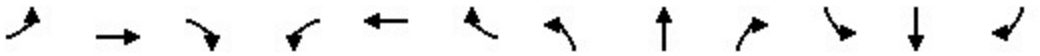
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	135	1	3	95	42	104
Future Vol, veh/h	135	1	3	95	42	104
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	2	2	2	2
Mvmt Flow	147	1	3	103	46	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	212	102	159	0	-	0
Stage 1	102	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	776	953	1421	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	774	953	1421	-	-	-
Mov Cap-2 Maneuver	774	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.73	0.23	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	55	-	776	-	-
HCM Lane V/C Ratio	0.002	-	0.191	-	-
HCM Control Delay (s/veh)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.865						0.896	
Flt Protected		0.953						0.992			0.996	
Satd. Flow (prot)	0	1772	0	0	1611	0	0	1848	0	0	1662	0
Flt Permitted		0.953						0.992			0.996	
Satd. Flow (perm)	0	1772	0	0	1611	0	0	1848	0	0	1662	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

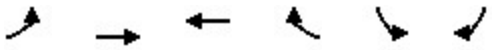
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	73	0	1	0	0	14	1	5	0	5	7	40
Future Vol, veh/h	73	0	1	0	0	14	1	5	0	5	7	40
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	0	1	0	0	15	1	5	0	5	8	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	1	0	0	163	174	1	169	167	8
Stage 1	-	-	-	-	-	-	159	159	-	8	8	-
Stage 2	-	-	-	-	-	-	4	15	-	161	160	-
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	1603	-	-	1622	-	-	802	719	1084	795	725	1075
Stage 1	-	-	-	-	-	-	843	766	-	1014	889	-
Stage 2	-	-	-	-	-	-	1019	883	-	841	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1622	-	-	724	683	1084	750	689	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	683	-	750	689	-
Stage 1	-	-	-	-	-	-	801	728	-	1014	889	-
Stage 2	-	-	-	-	-	-	969	883	-	793	728	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.26	0	10.27	8.98
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1480	-	-	1622	-	-	962
HCM Lane V/C Ratio	0.009	0.05	-	-	-	-	-	0.059
HCM Control Delay (s/veh)	10.3	7.4	0	-	0	-	-	9
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.974		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1814	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1814	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

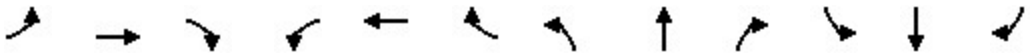
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	16	4	3	7
Future Vol, veh/h	8	29	16	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	9	32	17	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	68	20
Stage 1	-	-	-	-	20	-
Stage 2	-	-	-	-	49	-
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	1594	-	-	-	936	1058
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1594	-	-	-	931	1058
Mov Cap-2 Maneuver	-	-	-	-	931	-
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	974	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.57	0	8.58
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	389	-	-	-	1017
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



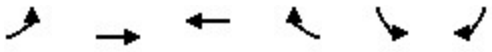
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.957			0.934			0.989			0.982	
Flt Protected		0.996			0.995			0.992			0.988	
Satd. Flow (prot)	0	3373	0	0	3289	0	0	3472	0	0	3434	0
Flt Permitted		0.996			0.995			0.992			0.988	
Satd. Flow (perm)	0	3373	0	0	3289	0	0	3472	0	0	3434	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	179	269	284	306
Demand Flow Rate, veh/h	182	275	289	313
Vehicles Circulating, veh/h	302	282	209	199
Vehicles Exiting, veh/h	210	216	275	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	4.2	4.5	4.3	4.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.473	0.527	0.469	0.531	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	86	96	129	146	136	153	147	166
Cap Entry Lane, veh/h	1022	1099	1041	1117	1114	1189	1124	1199
Entry HV Adj Factor	0.977	0.987	0.982	0.978	0.980	0.982	0.979	0.977
Flow Entry, veh/h	84	95	127	143	133	150	144	162
Cap Entry, veh/h	999	1084	1023	1093	1092	1168	1100	1172
V/C Ratio	0.084	0.087	0.124	0.131	0.122	0.129	0.131	0.138
Control Delay, s/veh	4.4	4.1	4.6	4.4	4.4	4.2	4.4	4.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.967		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1801	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1801	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

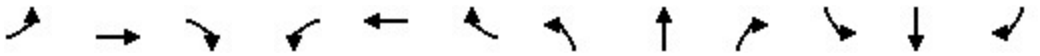
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	243	271	89	80	4
Future Vol, veh/h	6	243	271	89	80	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	264	295	97	87	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	391	0	-	0	620	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	277	-
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	1167	-	-	-	452	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1167	-	-	-	449	700
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.2	0	14.85
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	43	-	-	-	456
HCM Lane V/C Ratio	0.006	-	-	-	0.2
HCM Control Delay (s/veh)	8.1	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7



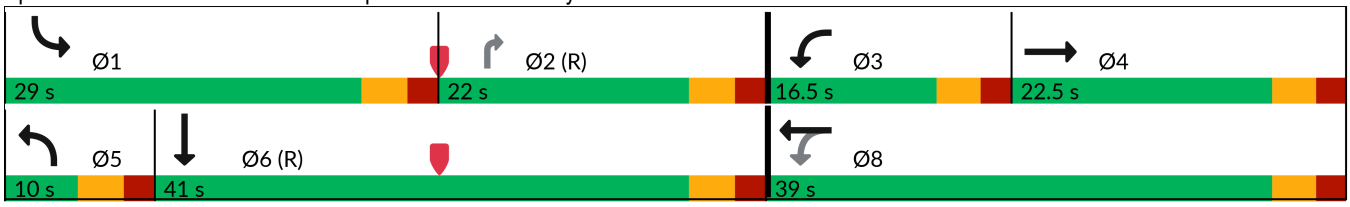
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.985							0.850		0.988	
Flt Protected				0.950			0.950			0.950	0.987	
Satd. Flow (prot)	0	5009	0	1770	3539	0	1770	0	1583	3221	1653	0
Flt Permitted				0.312			0.950			0.950	0.987	
Satd. Flow (perm)	0	5009	0	581	3539	0	1770	0	1583	3221	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19							206		5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	323	253	305	16	183	1276	373
Future Volume (vph)	323	253	305	16	183	1276	373
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	22.5	16.5	39.0	10.0	22.0	29.0	41.0
Total Split (%)	25.0%	18.3%	43.3%	11.1%	24.4%	32.2%	45.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.2	28.6	28.6	6.2	17.0	29.4	29.4
Actuated g/C Ratio	0.14	0.32	0.32	0.07	0.19	0.33	0.33
v/c Ratio	0.56	0.82	0.30	0.14	0.43	1.16	1.14
Control Delay (s/veh)	37.6	46.6	34.1	41.7	7.5	113.7	114.3
Queue Delay	0.0	13.9	0.5	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	60.4	34.6	41.7	7.5	113.7	114.3
LOS	D	E	C	D	A	F	F
Approach Delay (s/veh)	37.6		46.3				113.9
Approach LOS	D		D				F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay (s/veh): 83.4	Intersection LOS: F
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	391	275	332	17	199	1221	619
v/c Ratio	0.56	0.82	0.30	0.14	0.43	1.16	1.14
Control Delay (s/veh)	37.6	46.6	34.1	41.7	7.5	113.7	114.3
Queue Delay	0.0	13.9	0.5	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	60.4	34.6	41.7	7.5	113.7	114.3
Queue Length 50th (ft)	73	138	86	9	0	~454	~454
Queue Length 95th (ft)	100	m139	m87	30	52	#634	#730
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	989	336	1336	122	466	1051	543
Starvation Cap Reductn	0	49	612	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.96	0.46	0.14	0.43	1.16	1.14

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.

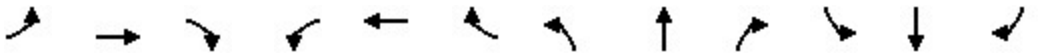
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	323	37	253	305	0	16	0	183	1276	373	44
Future Volume (veh/h)	0	323	37	253	305	0	16	0	183	1276	373	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	351	40	275	332	0	17	0	199	1307	517	48
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	529	59	347	1055	0	34	0	0	2109	872	81
Arrive On Green	0.00	0.11	0.11	0.26	0.59	0.00	0.02	0.00	0.00	0.59	0.52	0.52
Sat Flow, veh/h	0	4828	521	1781	3647	0	1781	17		3563	1686	157
Grp Volume(v), veh/h	0	255	136	275	332	0	17	54.4		1307	0	565
Grp Sat Flow(s),veh/h/ln	0	1702	1777	1781	1777	0	1781	D		1781	0	1842
Q Serve(g_s), s	0.0	6.4	6.6	11.5	4.2	0.0	0.9			21.3	0.0	19.2
Cycle Q Clear(g_c), s	0.0	6.4	6.6	11.5	4.2	0.0	0.9			21.3	0.0	19.2
Prop In Lane	0.00		0.29	1.00		0.00	1.00			1.00		0.08
Lane Grp Cap(c), veh/h	0	386	202	347	1055	0	34			2109	0	953
V/C Ratio(X)	0.00	0.66	0.68	0.79	0.31	0.00	0.50			0.62	0.00	0.59
Avail Cap(c_a), veh/h	0	662	345	347	1343	0	99			2109	0	953
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.29	0.29	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.2	38.3	25.9	13.7	0.0	43.7			11.8	0.0	15.1
Incr Delay (d2), s/veh	0.0	1.9	3.9	3.7	0.0	0.0	10.7			0.6	0.0	2.7
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
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	4.5	1.5	0.0	0.5			7.7	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	40.1	42.2	29.6	13.8	0.0	54.4			12.4	0.0	17.8
LnGrp LOS		D	D	C	B		D			B		B
Approach Vol, veh/h		391			607						1872	
Approach Delay, s/veh		40.9			21.0						14.0	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	58.3		16.5	15.2	6.7	51.6		31.7				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		11.5	17.5	5.0	36.0		34.0				
Max Q Clear Time (g_c+I1), s	23.3		13.5	8.6	2.9	21.2		6.2				
Green Ext Time (p_c), s	0.5		0.0	1.6	0.0	3.3		2.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.4
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



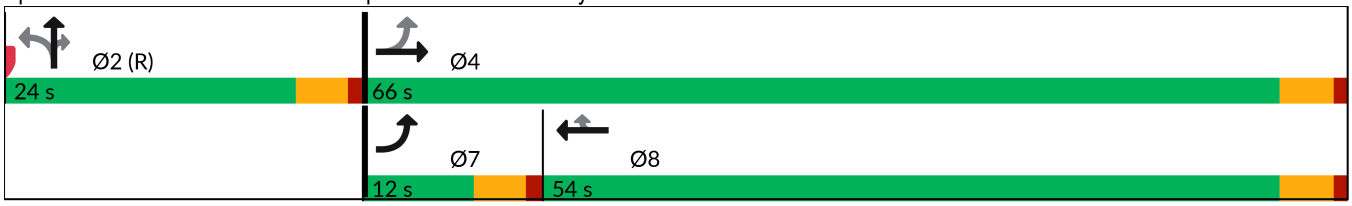
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.947	0.850		0.861	0.850			
Flt Protected	0.950						0.950	0.998				
Satd. Flow (prot)	1770	5085	0	0	1676	1504	1681	1457	1504	0	0	0
Flt Permitted	0.075						0.950	0.998				
Satd. Flow (perm)	140	5085	0	0	1676	1504	1681	1457	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					49	800		35	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		364			351			392			179	
Travel Time (s)		8.3			8.0			8.9			4.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	146	1606	523	1022	44	3	201
Future Volume (vph)	146	1606	523	1022	44	3	201
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	66.0	54.0	54.0	24.0	24.0	24.0
Total Split (%)	13.3%	73.3%	60.0%	60.0%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	61.0	61.0	49.0	49.0	20.0	20.0	20.0
Actuated g/C Ratio	0.68	0.68	0.54	0.54	0.22	0.22	0.22
v/c Ratio	0.69	0.51	0.94	0.68	0.11	0.32	0.29
Control Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
LOS	C	A	D	A	C	C	B
Approach Delay (s/veh)		9.6	21.8			20.8	
Approach LOS		A	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 15.7	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramps & Plum Creek Pkwy

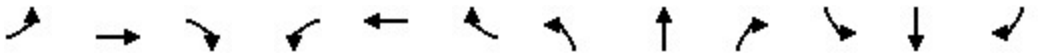




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	159	1746	879	800	43	113	113
v/c Ratio	0.69	0.51	0.94	0.68	0.11	0.32	0.29
Control Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Length 50th (ft)	35	152	435	0	21	40	18
Queue Length 95th (ft)	#122	183	#738	53	50	93	66
Internal Link Dist (ft)		284	271			312	
Turn Bay Length (ft)							
Base Capacity (vph)	230	3474	943	1187	374	351	391
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.50	0.93	0.67	0.11	0.32	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

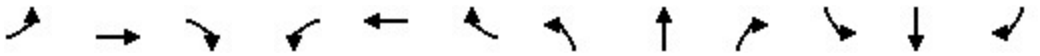


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	1606	0	0	523	1022	44	3	201	0	0	0
Future Volume (veh/h)	146	1606	0	0	523	1022	44	3	201	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	159	1746	0	0	975	840	33	0	236			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	198	3349	0	0	1024	868	435	0	774			
Arrive On Green	0.06	0.66	0.00	0.00	0.55	0.55	0.24	0.00	0.24			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	159	1746	0	0	975	840	33	0	236			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	3.3	16.1	0.0	0.0	44.4	45.9	1.3	0.0	5.5			
Cycle Q Clear(g_c), s	3.3	16.1	0.0	0.0	44.4	45.9	1.3	0.0	5.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	198	3349	0	0	1024	868	435	0	774			
V/C Ratio(X)	0.80	0.52	0.00	0.00	0.95	0.97	0.08	0.00	0.31			
Avail Cap(c_a), veh/h	243	3489	0	0	1029	872	435	0	774			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.2	8.1	0.0	0.0	19.3	19.6	26.2	0.0	27.8			
Incr Delay (d2), s/veh	14.5	0.1	0.0	0.0	17.7	22.9	0.3	0.0	1.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.6	5.1	0.0	0.0	22.2	20.6	0.6	0.0	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.8	8.2	0.0	0.0	36.9	42.5	26.5	0.0	28.8			
LnGrp LOS	D	A			D	D	C		C			
Approach Vol, veh/h		1905			1815			269				
Approach Delay, s/veh		10.5			39.5			28.5				
Approach LOS		B			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.5		63.5			9.8	53.8				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		19.5		61.5			7.5	49.5				
Max Q Clear Time (g_c+I1), s		7.5		18.1			5.3	47.9				
Green Ext Time (p_c), s		0.8		20.4			0.1	1.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



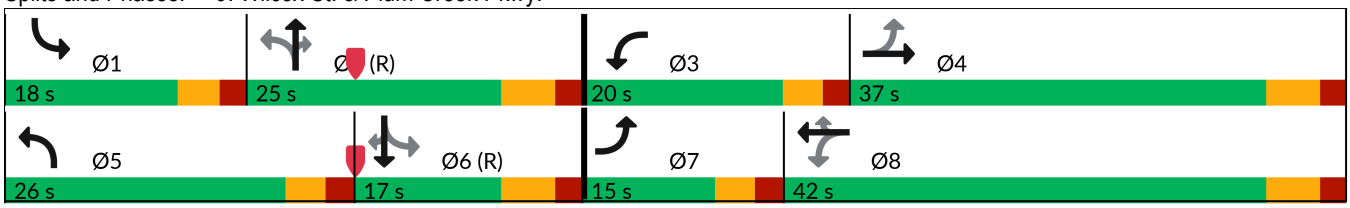
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.149			0.112			0.545			0.665		
Satd. Flow (perm)	278	3539	1583	209	3539	1583	1969	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			390			196			142			242
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

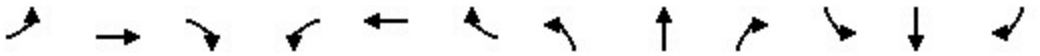
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	1058	548	63	829	105	452	133	56	167	100	223
Future Volume (vph)	234	1058	548	63	829	105	452	133	56	167	100	223
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	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)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	15.0	37.0		20.0	42.0	42.0	26.0	25.0	25.0	18.0	17.0	17.0
Total Split (%)	15.0%	37.0%		20.0%	42.0%	42.0%	26.0%	25.0%	25.0%	18.0%	17.0%	17.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		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	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	48.3	39.3	100.0	43.0	34.6	34.6	38.3	22.0	22.0	30.2	17.7	17.7
Actuated g/C Ratio	0.48	0.39	1.00	0.43	0.35	0.35	0.38	0.22	0.22	0.30	0.18	0.18
v/c Ratio	0.90	0.83	0.38	0.33	0.74	0.17	0.50	0.36	0.13	0.42	0.33	0.51
Control Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
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 (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
LOS	D	C	A	B	C	A	C	D	A	C	D	A
Approach Delay (s/veh)		26.5			28.3			24.7			21.4	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 69 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 26.1	Intersection LOS: C
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

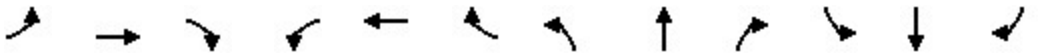




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	254	1150	596	68	901	114	491	145	61	182	109	242
v/c Ratio	0.90	0.83	0.38	0.33	0.74	0.17	0.50	0.36	0.13	0.42	0.33	0.51
Control Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
Queue Length 50th (ft)	87	344	0	21	256	0	114	82	0	79	63	0
Queue Length 95th (ft)	#235	#482	0	42	327	0	157	142	0	132	121	71
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	283	1390	1583	339	1274	695	1083	408	458	461	329	479
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	0.90	0.83	0.38	0.20	0.71	0.16	0.45	0.36	0.13	0.39	0.33	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1058	548	63	829	105	452	133	56	167	100	223
Future Volume (veh/h)	234	1058	548	63	829	105	452	133	56	167	100	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	254	1150	0	68	901	114	491	145	61	182	109	242
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	2	2	2	2	2
Cap, veh/h	288	1286		175	1081	482	997	523	443	501	451	382
Arrive On Green	0.10	0.36	0.00	0.04	0.30	0.30	0.13	0.28	0.28	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	254	1150	0	68	901	114	491	145	61	182	109	242
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.6	30.5	0.0	2.6	23.6	5.4	10.2	6.1	2.9	7.5	4.7	13.7
Cycle Q Clear(g_c), s	9.6	30.5	0.0	2.6	23.6	5.4	10.2	6.1	2.9	7.5	4.7	13.7
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	288	1286		175	1081	482	997	523	443	501	451	382
V/C Ratio(X)	0.88	0.89		0.39	0.83	0.24	0.49	0.28	0.14	0.36	0.24	0.63
Avail Cap(c_a), veh/h	288	1286		367	1279	571	1258	523	443	561	451	382
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)	0.85	0.85	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	24.1	30.1	0.0	25.8	32.4	26.1	22.3	28.1	27.0	24.5	30.6	34.0
Incr Delay (d2), s/veh	22.7	7.3	0.0	1.4	4.2	0.2	0.4	1.3	0.6	0.4	1.3	7.8
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	5.7	13.9	0.0	1.1	10.6	2.0	4.1	2.9	1.2	3.2	2.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.8	37.4	0.0	27.2	36.7	26.3	22.7	29.5	27.6	24.9	31.8	41.8
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1404			1083			697			533	
Approach Delay, s/veh		39.1			35.0			24.5			34.0	
Approach LOS		D			C			C			C	

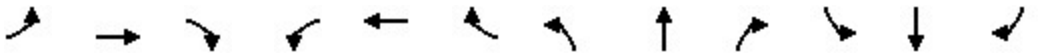
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	33.9	9.2	42.2	18.5	30.1	15.0	36.4
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	19.0	15.0	31.0	21.0	11.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	9.5	8.1	4.6	32.5	12.2	15.7	11.6	25.6
Green Ext Time (p_c), s	0.2	0.7	0.1	0.0	1.3	0.0	0.0	4.8

Intersection Summary	
HCM 7th Control Delay, s/veh	34.4
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



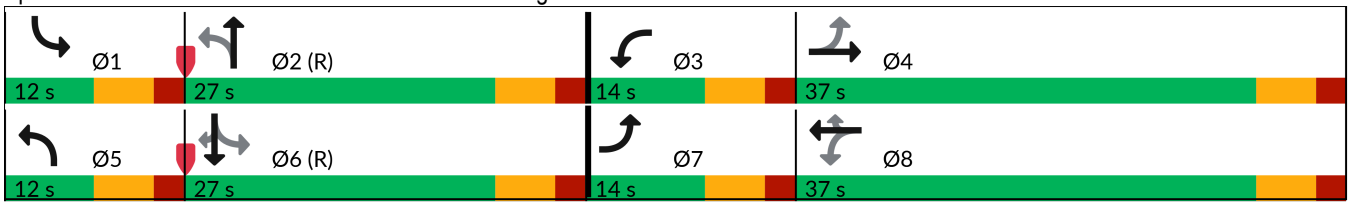
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1630	0	1770	1863	1583
Flt Permitted	0.617			0.322			0.733			0.565		
Satd. Flow (perm)	1149	3514	0	600	3539	1583	1365	1630	0	1052	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				182		90				182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

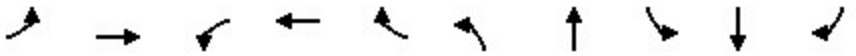
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	84	411	130	198	167	4	17	214	34	40
Future Volume (vph)	84	411	130	198	167	4	17	214	34	40
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	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)	11.0	38.0	11.0	40.0	40.0	11.0	33.0	11.0	32.0	32.0
Total Split (s)	14.0	37.0	14.0	37.0	37.0	12.0	27.0	12.0	27.0	27.0
Total Split (%)	15.6%	41.1%	15.6%	41.1%	41.1%	13.3%	30.0%	13.3%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	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
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	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)	25.0	17.5	26.7	20.3	20.3	34.5	28.9	46.6	44.2	44.2
Actuated g/C Ratio	0.28	0.19	0.30	0.23	0.23	0.38	0.32	0.52	0.49	0.49
v/c Ratio	0.25	0.68	0.50	0.27	0.37	0.01	0.19	0.37	0.04	0.05
Control Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
LOS	C	D	C	C	A	B	A	B	B	A
Approach Delay (s/veh)		35.2		21.3			9.4		12.9	
Approach LOS		D		C			A		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay (s/veh): 23.8	Intersection LOS: C
Intersection Capacity Utilization 52.7%	ICU Level of Service A
Analysis Period (min) 15	

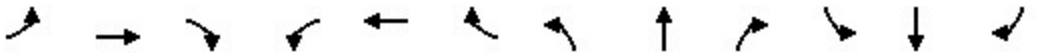
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	91	468	141	215	182	4	108	233	37	43
v/c Ratio	0.25	0.68	0.50	0.27	0.37	0.01	0.19	0.37	0.04	0.05
Control Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Length 50th (ft)	35	130	56	55	0	1	7	69	10	0
Queue Length 95th (ft)	63	168	91	82	50	7	49	130	36	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	381	1214	282	1218	664	555	583	638	915	870
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	0.24	0.39	0.50	0.18	0.27	0.01	0.19	0.37	0.04	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	411	19	130	198	167	4	17	83	214	34	40
Future Volume (veh/h)	84	411	19	130	198	167	4	17	83	214	34	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	91	447	21	141	215	182	4	18	90	233	37	43
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	2	2	2	2	2
Cap, veh/h	327	594	28	274	704	314	631	111	557	673	884	749
Arrive On Green	0.06	0.17	0.17	0.08	0.20	0.20	0.01	0.41	0.41	0.07	0.47	0.47
Sat Flow, veh/h	1781	3456	162	1781	3554	1585	1781	271	1355	1781	1870	1585
Grp Volume(v), veh/h	91	229	239	141	215	182	4	0	108	233	37	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1626	1781	1870	1585
Q Serve(g_s), s	3.7	11.0	11.1	5.8	4.6	9.4	0.1	0.0	3.8	6.0	1.0	1.3
Cycle Q Clear(g_c), s	3.7	11.0	11.1	5.8	4.6	9.4	0.1	0.0	3.8	6.0	1.0	1.3
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	327	305	316	274	704	314	631	0	668	673	884	749
V/C Ratio(X)	0.28	0.75	0.75	0.51	0.31	0.58	0.01	0.00	0.16	0.35	0.04	0.06
Avail Cap(c_a), veh/h	383	612	634	283	1224	546	741	0	668	673	884	749
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	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	35.4	35.5	27.9	30.8	32.7	15.4	0.0	16.7	13.8	12.8	12.9
Incr Delay (d2), s/veh	0.5	3.7	3.6	1.5	0.2	1.7	0.0	0.0	0.5	0.3	0.1	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	1.6	4.9	5.1	2.4	1.9	3.6	0.0	0.0	1.5	2.5	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.7	39.1	39.1	29.4	31.0	34.4	15.4	0.0	17.2	14.1	12.9	13.0
LnGrp LOS	C	D	D	C	C	C	B		B	B	B	B
Approach Vol, veh/h		559			538			112			313	
Approach Delay, s/veh		37.4			31.7			17.2			13.8	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	43.0	13.5	21.5	6.5	48.5	11.2	23.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	21.0	8.0	31.0	6.0	21.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	5.8	7.8	13.1	2.1	3.3	5.7	11.4
Green Ext Time (p_c), s	0.0	0.4	0.0	2.4	0.0	0.2	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.946	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1762	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

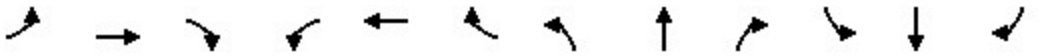
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	0	1	46	101	67
Future Vol, veh/h	44	0	1	46	101	67
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	2	2	2	2
Mvmt Flow	48	0	1	50	110	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	198	146	183	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	52	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	790	901	1392	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	790	901	1392	-	-	-
Mov Cap-2 Maneuver	790	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.85	0.16	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	38	-	790	-	-
HCM Lane V/C Ratio	0.001	-	0.061	-	-
HCM Control Delay (s/veh)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.882						0.997			0.865	
Flt Protected		0.995			0.980			0.953				
Satd. Flow (prot)	0	1635	0	0	1825	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.980			0.953				
Satd. Flow (perm)	0	1635	0	0	1825	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

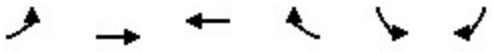
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	78	2	3	0	37	0	1	0	0	8
Future Vol, veh/h	8	3	78	2	3	0	37	0	1	0	0	8
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	85	2	3	0	40	0	1	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	88	0	0	71	71	46	28	113	3
Stage 1	-	-	-	-	-	-	63	63	-	8	8	-
Stage 2	-	-	-	-	-	-	8	8	-	21	105	-
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	1619	-	-	1508	-	-	921	820	1024	981	777	1081
Stage 1	-	-	-	-	-	-	948	842	-	1014	889	-
Stage 2	-	-	-	-	-	-	1014	889	-	998	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1619	-	-	1508	-	-	907	814	1024	973	772	1081
Mov Cap-2 Maneuver	-	-	-	-	-	-	907	814	-	973	772	-
Stage 1	-	-	-	-	-	-	943	838	-	1012	888	-
Stage 2	-	-	-	-	-	-	1004	888	-	991	803	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.65	2.96	9.15	8.36
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	136	-	-	720	-	-	1081
HCM Lane V/C Ratio	0.045	0.005	-	-	0.001	-	-	0.008
HCM Control Delay (s/veh)	9.1	7.2	0	-	7.4	0	-	8.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

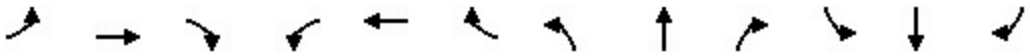
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	25	1	0	5
Future Vol, veh/h	2	12	25	1	0	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	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	13	27	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	28	0	-	0	45	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	17	-
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	1585	-	-	-	965	1048
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1585	-	-	-	964	1048
Mov Cap-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	1005	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.04	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	1048
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



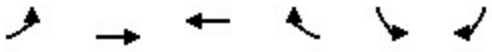
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.967			0.950			0.971			0.993	
Flt Protected		0.996			0.995			0.991			0.982	
Satd. Flow (prot)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Flt Permitted		0.996			0.995			0.991			0.982	
Satd. Flow (perm)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	222	162	164	379
Demand Flow Rate, veh/h	226	165	168	386
Vehicles Circulating, veh/h	385	155	317	141
Vehicles Exiting, veh/h	142	330	294	179
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	3.6	4.2	4.4
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.473	0.527	0.470	0.530	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	106	120	78	87	79	89	181	205
Cap Entry Lane, veh/h	947	1024	1170	1245	1008	1085	1186	1260
Entry HV Adj Factor	0.984	0.980	0.977	0.988	0.975	0.976	0.983	0.979
Flow Entry, veh/h	104	118	76	86	77	87	178	201
Cap Entry, veh/h	932	1003	1144	1230	984	1059	1165	1233
V/C Ratio	0.112	0.117	0.067	0.070	0.078	0.082	0.153	0.163
Control Delay, s/veh	4.9	4.6	3.7	3.5	4.4	4.1	4.4	4.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.954		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1777	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1777	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	264	118	61	100	4
Future Vol, veh/h	6	264	118	61	100	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	287	128	66	109	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	195	0	-	0	461	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	300	-
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	1379	-	-	-	558	884
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1379	-	-	-	555	884
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.17	0	12.99
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	40	-	-	-	563
HCM Lane V/C Ratio	0.005	-	-	-	0.201
HCM Control Delay (s/veh)	7.6	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

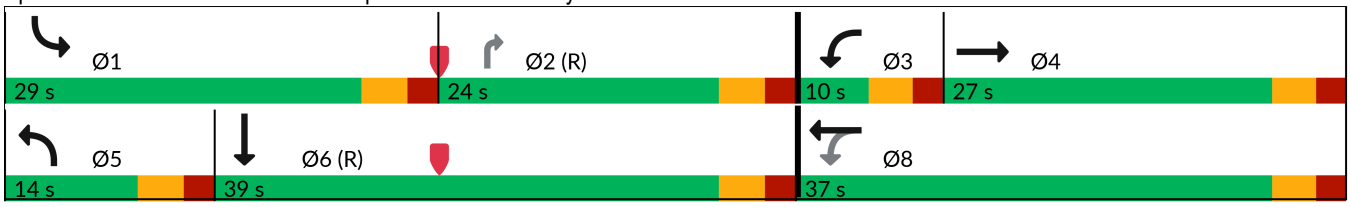
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.979							0.850		0.962	
Flt Protected				0.950			0.950			0.950	0.974	
Satd. Flow (prot)	0	4979	0	1770	3539	0	1770	0	1583	3221	1588	0
Flt Permitted				0.296			0.950			0.950	0.974	
Satd. Flow (perm)	0	4979	0	551	3539	0	1770	0	1583	3221	1588	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33							208		18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1476			253			493			625	
Travel Time (s)		33.5			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	329	164	222	17	191	486	39
Future Volume (vph)	329	164	222	17	191	486	39
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	10.0	23.0	10.0	23.0	10.0	23.0
Total Split (s)	27.0	10.0	37.0	14.0	24.0	29.0	39.0
Total Split (%)	30.0%	11.1%	41.1%	15.6%	26.7%	32.2%	43.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	22.6	22.6	6.5	35.5	16.8	16.8
Actuated g/C Ratio	0.14	0.25	0.25	0.07	0.39	0.19	0.19
v/c Ratio	0.57	0.86	0.27	0.14	0.28	0.69	0.66
Control Delay (s/veh)	36.1	65.1	34.5	41.1	4.5	40.2	40.7
Queue Delay	0.0	57.9	0.0	0.0	0.0	0.0	0.3
Total Delay (s/veh)	36.1	123.0	34.5	41.1	4.5	40.2	41.0
LOS	D	F	C	D	A	D	D
Approach Delay (s/veh)	36.1		72.1				40.5
Approach LOS	D		E				D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 42.8	Intersection LOS: D
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

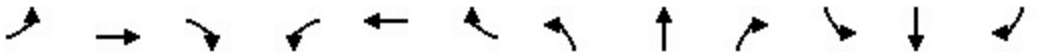




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	416	178	241	18	208	417	204
v/c Ratio	0.57	0.86	0.27	0.14	0.28	0.69	0.66
Control Delay (s/veh)	36.1	65.1	34.5	41.1	4.5	40.2	40.7
Queue Delay	0.0	57.9	0.0	0.0	0.0	0.0	0.3
Total Delay (s/veh)	36.1	123.0	34.5	41.1	4.5	40.2	41.0
Queue Length 50th (ft)	75	107	75	10	0	122	108
Queue Length 95th (ft)	102	m#139	m95	31	48	164	179
Internal Link Dist (ft)	1396		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1242	206	1258	177	750	858	311
Starvation Cap Reductn	0	65	0	0	0	0	0
Spillback Cap Reductn	1	0	0	0	47	18	7
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	1.26	0.19	0.10	0.30	0.50	0.67

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	329	53	164	222	0	17	0	191	486	39	47
Future Volume (veh/h)	0	329	53	164	222	0	17	0	191	486	39	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	358	58	178	241	0	18	0	208	471	122	51
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	554	87	223	838	0	36	0	0	2327	723	302
Arrive On Green	0.00	0.12	0.12	0.11	0.47	0.00	0.02	0.00	0.00	0.65	0.58	0.58
Sat Flow, veh/h	0	4615	701	1781	3647	0	1781	18		3563	1253	524
Grp Volume(v), veh/h	0	272	144	178	241	0	18	54.1		471	0	173
Grp Sat Flow(s),veh/h/ln	0	1702	1744	1781	1777	0	1781	D		1781	0	1776
Q Serve(g_s), s	0.0	6.8	7.1	5.0	3.7	0.0	0.9			4.8	0.0	4.1
Cycle Q Clear(g_c), s	0.0	6.8	7.1	5.0	3.7	0.0	0.9			4.8	0.0	4.1
Prop In Lane	0.00		0.40	1.00		0.00	1.00			1.00		0.29
Lane Grp Cap(c), veh/h	0	424	217	223	838	0	36			2327	0	1026
V/C Ratio(X)	0.00	0.64	0.66	0.80	0.29	0.00	0.50			0.20	0.00	0.17
Avail Cap(c_a), veh/h	0	832	426	223	1264	0	178			2327	0	1026
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.84	0.45	0.45	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.5	37.6	34.0	19.2	0.0	43.6			6.2	0.0	8.9
Incr Delay (d2), s/veh	0.0	1.4	2.9	8.9	0.1	0.0	10.4			0.0	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.9	3.2	2.0	1.4	0.0	0.5			1.6	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	38.8	40.5	42.9	19.3	0.0	54.1			6.3	0.0	9.3
LnGrp LOS		D	D	D	B		D			A		A
Approach Vol, veh/h		416			419						644	
Approach Delay, s/veh		39.4			29.3						7.1	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	63.8		10.0	16.2	6.8	57.0		26.2				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		5.0	22.0	9.0	34.0		32.0				
Max Q Clear Time (g_c+I1), s	6.8		7.0	9.1	2.9	6.1		5.7				
Green Ext Time (p_c), s	1.6		0.0	2.1	0.0	1.0		1.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

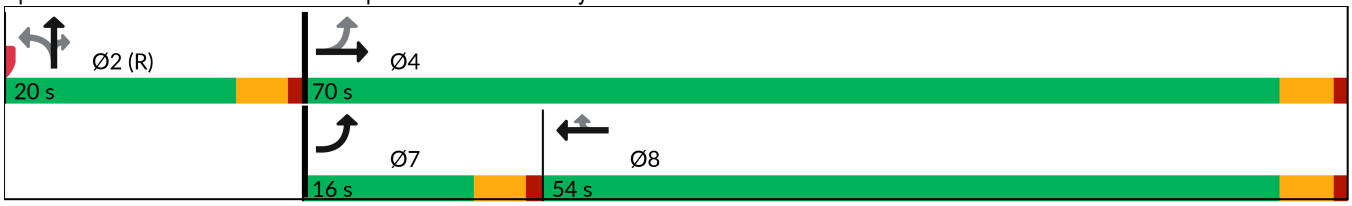
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.919	0.850		0.864	0.850			
Flt Protected	0.950						0.950	0.997				
Satd. Flow (prot)	1770	5085	0	0	1626	1504	1681	1460	1504	0	0	0
Flt Permitted	0.085						0.950	0.997				
Satd. Flow (perm)	158	5085	0	0	1626	1504	1681	1460	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					104	715		59	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		398			457			361			428	
Travel Time (s)		9.0			10.4			8.2			9.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	198	845	350	1104	35	2	113
Future Volume (vph)	198	845	350	1104	35	2	113
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	16.0	70.0	54.0	54.0	20.0	20.0	20.0
Total Split (%)	17.8%	77.8%	60.0%	60.0%	22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	63.5	63.5	47.8	47.8	17.5	17.5	17.5
Actuated g/C Ratio	0.71	0.71	0.53	0.53	0.19	0.19	0.19
v/c Ratio	0.69	0.26	0.90	0.67	0.10	0.20	0.18
Control Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
LOS	C	A	C	A	C	B	A
Approach Delay (s/veh)		9.2	18.5			15.0	
Approach LOS		A	B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 14.6	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

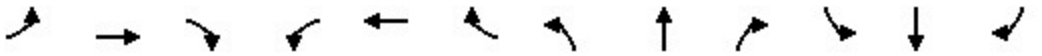




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	215	918	824	756	34	65	64
v/c Ratio	0.69	0.26	0.90	0.67	0.10	0.20	0.18
Control Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Length 50th (ft)	56	52	358	10	17	3	0
Queue Length 95th (ft)	#145	67	#651	67	45	41	30
Internal Link Dist (ft)		318	377			281	
Turn Bay Length (ft)							
Base Capacity (vph)	317	3700	941	1148	326	331	351
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.25	0.88	0.66	0.10	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



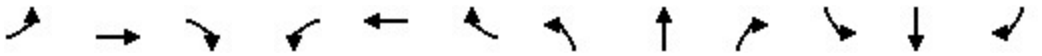
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	845	0	0	350	1104	35	2	113	0	0	0
Future Volume (veh/h)	198	845	0	0	350	1104	35	2	113	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	215	918	0	0	995	790	26	0	137			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	252	3522	0	0	1025	869	375	0	667			
Arrive On Green	0.09	0.69	0.00	0.00	0.55	0.55	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	215	918	0	0	995	790	26	0	137			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	6.1	6.1	0.0	0.0	46.2	40.4	1.1	0.0	3.2			
Cycle Q Clear(g_c), s	6.1	6.1	0.0	0.0	46.2	40.4	1.1	0.0	3.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	252	3522	0	0	1025	869	375	0	667			
V/C Ratio(X)	0.85	0.26	0.00	0.00	0.97	0.91	0.07	0.00	0.21			
Avail Cap(c_a), veh/h	317	3716	0	0	1029	872	375	0	667			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.0	5.3	0.0	0.0	19.6	18.3	28.5	0.0	29.3			
Incr Delay (d2), s/veh	16.3	0.0	0.0	0.0	21.2	13.4	0.4	0.0	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			
%ile BackOfQ(50%),veh/ln	5.7	1.8	0.0	0.0	23.9	16.5	0.5	0.0	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.3	5.3	0.0	0.0	40.8	31.7	28.8	0.0	30.0			
LnGrp LOS	D	A			D	C	C		C			
Approach Vol, veh/h		1133			1785			163				
Approach Delay, s/veh		12.3			36.8			29.8				
Approach LOS		B			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		23.4		66.6			12.8	53.8				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		15.5		65.5			11.5	49.5				
Max Q Clear Time (g_c+I1), s		5.2		8.1			8.1	48.2				
Green Ext Time (p_c), s		0.4		8.2			0.2	1.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			27.4									
HCM 7th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



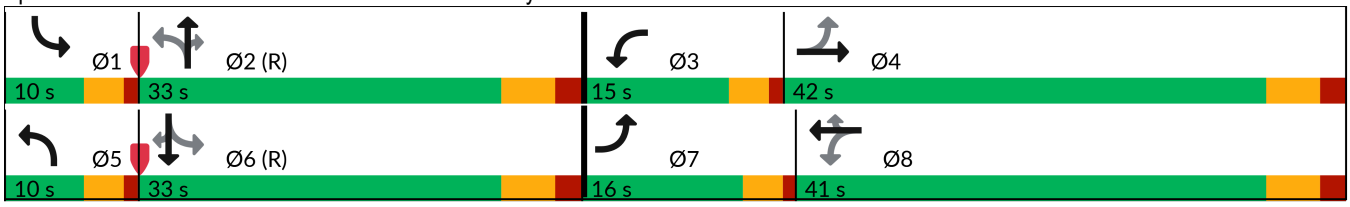
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.105			0.342			0.655			0.683		
Satd. Flow (perm)	196	3539	1583	637	3539	1583	2367	1863	1583	1272	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			130			120			145
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

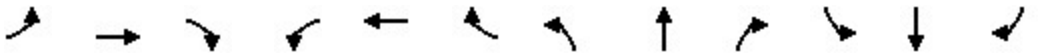
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	652	93	48	913	120	374	106	34	62	73	133
Future Volume (vph)	203	652	93	48	913	120	374	106	34	62	73	133
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	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)	9.5	31.0		9.5	31.0	31.0	9.5	36.0	36.0	9.5	34.0	34.0
Total Split (s)	16.0	42.0		15.0	41.0	41.0	10.0	33.0	33.0	10.0	33.0	33.0
Total Split (%)	16.0%	42.0%		15.0%	41.0%	41.0%	10.0%	33.0%	33.0%	10.0%	33.0%	33.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	51.2	40.2	100.0	42.4	33.4	33.4	37.7	30.5	30.5	35.7	27.6	27.6
Actuated g/C Ratio	0.51	0.40	1.00	0.42	0.33	0.33	0.38	0.31	0.31	0.36	0.28	0.28
v/c Ratio	0.77	0.50	0.06	0.15	0.84	0.21	0.42	0.20	0.07	0.14	0.15	0.27
Control Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
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 (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
LOS	D	C	A	B	D	A	C	C	A	C	C	A
Approach Delay (s/veh)		24.9			33.3			22.8			15.6	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
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: 0.84	
Intersection Signal Delay (s/veh): 26.9	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

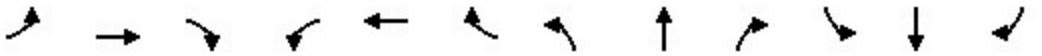




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	709	101	52	992	130	407	115	37	67	79	145
v/c Ratio	0.77	0.50	0.06	0.15	0.84	0.21	0.42	0.20	0.07	0.14	0.15	0.27
Control Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
Queue Length 50th (ft)	80	174	0	15	297	0	91	57	0	27	38	0
Queue Length 95th (ft)	#193	235	0	34	378	39	127	104	0	55	76	46
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	289	1424	1583	420	1238	638	968	569	567	486	514	542
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	0.76	0.50	0.06	0.12	0.80	0.20	0.42	0.20	0.07	0.14	0.15	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	652	93	48	913	120	374	106	34	62	73	133
Future Volume (veh/h)	203	652	93	48	913	120	374	106	34	62	73	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	221	709	0	52	992	130	407	115	37	67	79	145
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	2	2	2	2	2
Cap, veh/h	280	1362		310	1141	509	999	629	533	509	596	505
Arrive On Green	0.10	0.38	0.00	0.04	0.32	0.32	0.06	0.34	0.34	0.04	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	221	709	0	52	992	130	407	115	37	67	79	145
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.9	15.4	0.0	1.9	26.3	6.1	6.0	4.3	1.6	2.5	3.0	6.9
Cycle Q Clear(g_c), s	7.9	15.4	0.0	1.9	26.3	6.1	6.0	4.3	1.6	2.5	3.0	6.9
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	280	1362		310	1141	509	999	629	533	509	596	505
V/C Ratio(X)	0.79	0.52		0.17	0.87	0.26	0.41	0.18	0.07	0.13	0.13	0.29
Avail Cap(c_a), veh/h	315	1362		438	1244	555	999	629	533	541	596	505
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)	0.94	0.94	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	23.2	23.8	0.0	21.6	32.0	25.1	22.7	23.5	22.5	21.3	24.2	25.6
Incr Delay (d2), s/veh	10.8	0.3	0.0	0.3	6.4	0.3	0.3	0.6	0.3	0.1	0.5	1.4
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	4.0	6.4	0.0	0.8	12.0	2.3	0.0	2.0	0.6	1.0	1.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	24.1	0.0	21.8	38.4	25.4	23.0	24.1	22.8	21.4	24.7	27.0
LnGrp LOS	C	C		C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		930			1174			559			291	
Approach Delay, s/veh		26.5			36.2			23.2			25.1	
Approach LOS		C			D			C			C	

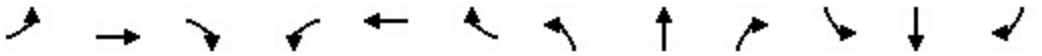
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	39.6	7.8	44.3	10.0	37.9	14.0	38.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	27.0	11.0	36.0	6.0	27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	4.5	6.3	3.9	17.4	8.0	8.9	9.9	28.3
Green Ext Time (p_c), s	0.0	0.6	0.0	4.8	0.0	0.8	0.1	3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	29.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] 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												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.877				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1634	0	1770	1863	1583
Flt Permitted	0.419			0.369			0.734			0.484		
Satd. Flow (perm)	780	3514	0	687	3539	1583	1367	1634	0	902	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				210		220				142
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

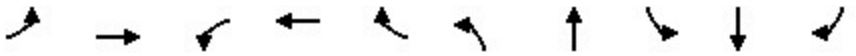
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	50	343	98	362	193	27	44	221	32	102
Future Volume (vph)	50	343	98	362	193	27	44	221	32	102
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	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)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	10.0	32.0	32.0
Total Split (s)	10.0	40.0	10.0	40.0	40.0	10.0	33.0	17.0	40.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	40.0%	10.0%	33.0%	17.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	1.0	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	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	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)	23.1	17.1	24.1	19.1	19.1	51.3	44.1	61.9	53.9	53.9
Actuated g/C Ratio	0.23	0.17	0.24	0.19	0.19	0.51	0.44	0.62	0.54	0.54
v/c Ratio	0.24	0.65	0.49	0.58	0.44	0.04	0.32	0.36	0.03	0.12
Control Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
LOS	C	D	D	D	A	A	A	B	B	A
Approach Delay (s/veh)		40.9		30.1			6.5		8.6	
Approach LOS		D		C			A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay (s/veh): 24.4	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

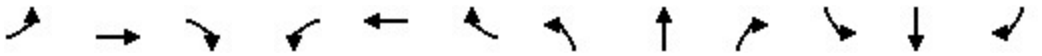
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	54	391	107	393	210	29	268	240	35	111
v/c Ratio	0.24	0.65	0.49	0.58	0.44	0.04	0.32	0.36	0.03	0.12
Control Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Length 50th (ft)	25	121	52	123	0	7	17	63	11	0
Queue Length 95th (ft)	51	160	88	163	58	20	79	115	31	19
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	229	1198	219	1203	676	725	842	672	1004	918
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	0.24	0.33	0.49	0.33	0.31	0.04	0.32	0.36	0.03	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	343	17	98	362	193	27	44	202	221	32	102
Future Volume (veh/h)	50	343	17	98	362	193	27	44	202	221	32	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	54	373	18	107	393	210	29	48	220	240	35	111
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	2	2	2	2	2
Cap, veh/h	201	568	27	224	624	278	716	140	641	644	1006	852
Arrive On Green	0.04	0.16	0.16	0.05	0.18	0.18	0.03	0.48	0.48	0.09	0.54	0.54
Sat Flow, veh/h	1781	3451	166	1781	3554	1585	1781	292	1338	1781	1870	1585
Grp Volume(v), veh/h	54	192	199	107	393	210	29	0	268	240	35	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1840	1781	1777	1585	1781	0	1630	1781	1870	1585
Q Serve(g_s), s	2.5	10.1	10.2	5.0	10.2	12.6	0.8	0.0	10.3	6.5	0.9	3.5
Cycle Q Clear(g_c), s	2.5	10.1	10.2	5.0	10.2	12.6	0.8	0.0	10.3	6.5	0.9	3.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	201	292	303	224	624	278	716	0	780	644	1006	852
V/C Ratio(X)	0.27	0.66	0.66	0.48	0.63	0.75	0.04	0.00	0.34	0.37	0.03	0.13
Avail Cap(c_a), veh/h	221	604	626	224	1208	539	756	0	780	704	1006	852
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	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	39.1	39.1	33.4	38.2	39.2	12.4	0.0	16.3	10.9	10.9	11.5
Incr Delay (d2), s/veh	0.7	2.5	2.4	1.6	1.1	4.1	0.0	0.0	1.2	0.4	0.1	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	1.1	4.5	4.7	2.2	4.4	5.1	0.3	0.0	4.0	2.3	0.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	41.6	41.6	35.0	39.3	43.3	12.4	0.0	17.5	11.2	10.9	11.8
LnGrp LOS	C	D	D	D	D	D	B		B	B	B	B
Approach Vol, veh/h		445			710			297			386	
Approach Delay, s/veh		40.7			39.8			17.0			11.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	53.9	10.0	22.5	7.8	59.8	8.9	23.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	12.0	27.0	5.0	34.0	5.0	34.0	5.0	34.0
Max Q Clear Time (g_c+I1), s	8.5	12.3	7.0	12.2	2.8	5.5	4.5	14.6
Green Ext Time (p_c), s	0.2	1.4	0.0	2.0	0.0	0.5	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.904	
Flt Protected	0.953			0.999		
Satd. Flow (prot)	1773	0	0	1861	1684	0
Flt Permitted	0.953			0.999		
Satd. Flow (perm)	1773	0	0	1861	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

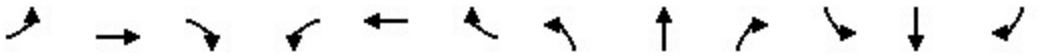
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	1	3	100	44	109
Future Vol, veh/h	142	1	3	100	44	109
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	2	2	2	2
Mvmt Flow	154	1	3	109	48	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	222	107	166	0	-	0
Stage 1	107	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	766	947	1412	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	764	947	1412	-	-	-
Mov Cap-2 Maneuver	764	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.9	0.22	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	52	-	765	-	-
HCM Lane V/C Ratio	0.002	-	0.203	-	-
HCM Control Delay (s/veh)	7.6	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.895									0.865	
Flt Protected		0.996			0.992			0.953				
Satd. Flow (prot)	0	1660	0	0	1848	0	0	1775	0	0	1611	0
Flt Permitted		0.996			0.992			0.953				
Satd. Flow (perm)	0	1660	0	0	1848	0	0	1775	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

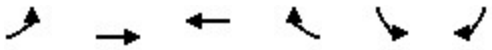
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	7	42	1	5	0	77	1	0	0	0	15
Future Vol, veh/h	5	7	42	1	5	0	77	1	0	0	0	15
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	8	46	1	5	0	84	1	0	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	53	0	0	49	49	30	27	72	5
Stage 1	-	-	-	-	-	-	41	41	-	8	8	-
Stage 2	-	-	-	-	-	-	8	8	-	19	64	-
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	1616	-	-	1552	-	-	951	843	1044	983	819	1078
Stage 1	-	-	-	-	-	-	973	861	-	1014	889	-
Stage 2	-	-	-	-	-	-	1014	889	-	1000	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1616	-	-	1552	-	-	933	839	1044	978	815	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	933	839	-	978	815	-
Stage 1	-	-	-	-	-	-	970	858	-	1013	889	-
Stage 2	-	-	-	-	-	-	998	889	-	995	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.67	1.22	9.25	8.39
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	932	142	-	-	300	-	-	1078
HCM Lane V/C Ratio	0.091	0.003	-	-	0.001	-	-	0.015
HCM Control Delay (s/veh)	9.3	7.2	0	-	7.3	0	-	8.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.975		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1816	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1816	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

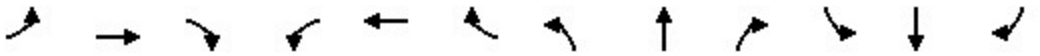
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	17	4	3	7
Future Vol, veh/h	8	30	17	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	18	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	71	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	50	-
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	1592	-	-	-	934	1057
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	972	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	928	1057
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	972	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.53	0	8.59
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	379	-	-	-	1015
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



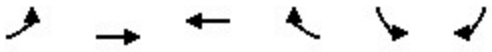
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.958			0.934			0.989			0.982	
Flt Protected		0.996			0.995			0.992			0.987	
Satd. Flow (prot)	0	3377	0	0	3289	0	0	3472	0	0	3430	0
Flt Permitted		0.996			0.995			0.992			0.987	
Satd. Flow (perm)	0	3377	0	0	3289	0	0	3472	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	188	284	298	323
Demand Flow Rate, veh/h	191	291	304	330
Vehicles Circulating, veh/h	318	297	221	210
Vehicles Exiting, veh/h	222	228	288	378
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.3	4.7	4.4	4.4
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	90	101	137	154	143	161	155	175
Cap Entry Lane, veh/h	1007	1084	1027	1103	1102	1177	1113	1188
Entry HV Adj Factor	0.980	0.984	0.976	0.979	0.981	0.982	0.979	0.978
Flow Entry, veh/h	88	99	134	151	140	158	152	171
Cap Entry, veh/h	987	1067	1002	1080	1080	1156	1090	1162
V/C Ratio	0.089	0.093	0.133	0.140	0.130	0.137	0.139	0.147
Control Delay, s/veh	4.5	4.2	4.8	4.6	4.5	4.3	4.5	4.4
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.967		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1801	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1801	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

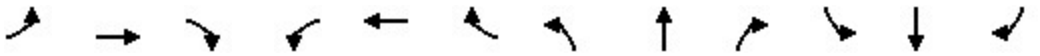
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	255	285	94	84	4
Future Vol, veh/h	6	255	285	94	84	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	277	310	102	91	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	651	361
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	290	-
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	1147	-	-	-	433	684
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1147	-	-	-	430	684
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.19	0	15.51
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	41	-	-	-	438
HCM Lane V/C Ratio	0.006	-	-	-	0.219
HCM Control Delay (s/veh)	8.2	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.8



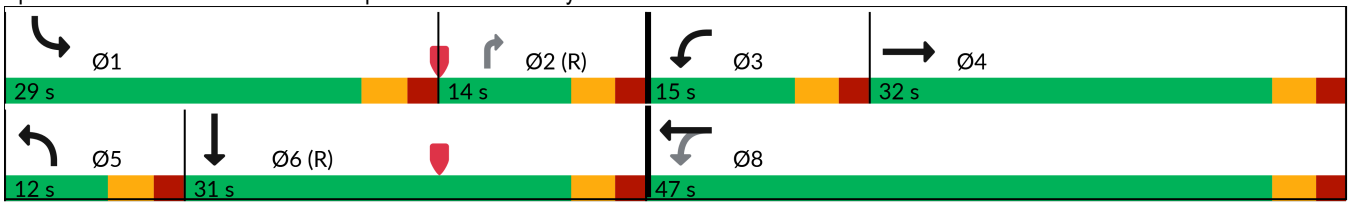
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.985							0.850		0.982	
Flt Protected				0.950			0.950			0.950	0.977	
Satd. Flow (prot)	0	5009	0	1770	3539	0	1770	0	1583	3221	1626	0
Flt Permitted				0.303			0.950			0.950	0.977	
Satd. Flow (perm)	0	5009	0	564	3539	0	1770	0	1583	3221	1626	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							206		7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1484			253			667			625	
Travel Time (s)		33.7			5.8			15.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	339	266	321	17	182	939	157
Future Volume (vph)	339	266	321	17	182	939	157
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	32.0	15.0	47.0	12.0	14.0	29.0	31.0
Total Split (%)	35.6%	16.7%	52.2%	13.3%	15.6%	32.2%	34.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	27.7	27.7	6.5	17.4	29.9	29.9
Actuated g/C Ratio	0.14	0.31	0.31	0.07	0.19	0.33	0.33
v/c Ratio	0.57	0.94	0.32	0.14	0.42	0.77	0.76
Control Delay (s/veh)	49.0	62.8	30.3	41.1	8.2	32.1	35.9
Queue Delay	0.0	47.2	0.2	0.0	0.1	0.2	0.3
Total Delay (s/veh)	49.0	110.0	30.5	41.1	8.3	32.3	36.2
LOS	D	F	C	D	A	C	D
Approach Delay (s/veh)	49.0		66.5				33.6
Approach LOS	D		E				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 42.6	Intersection LOS: D
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

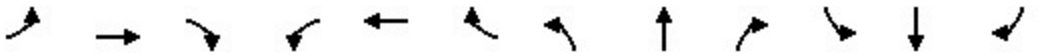




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	410	289	349	18	198	827	415
v/c Ratio	0.57	0.94	0.32	0.14	0.42	0.77	0.76
Control Delay (s/veh)	49.0	62.8	30.3	41.1	8.2	32.1	35.9
Queue Delay	0.0	47.2	0.2	0.0	0.1	0.2	0.3
Total Delay (s/veh)	49.0	110.0	30.5	41.1	8.3	32.3	36.2
Queue Length 50th (ft)	91	173	107	10	0	228	225
Queue Length 95th (ft)	124	m#208	m124	31	58	276	318
Internal Link Dist (ft)	1404		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1518	307	1651	141	472	1071	545
Starvation Cap Reductn	0	92	632	0	0	0	0
Spillback Cap Reductn	34	0	0	0	20	21	11
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	1.34	0.34	0.13	0.44	0.79	0.78

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	339	39	266	321	0	17	0	182	939	157	46
Future Volume (veh/h)	0	339	39	266	321	0	17	0	182	939	157	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	368	42	289	349	0	18	0	198	925	306	50
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	596	67	325	1047	0	36	0	0	2117	813	133
Arrive On Green	0.00	0.04	0.04	0.22	0.59	0.00	0.02	0.00	0.00	0.59	0.52	0.52
Sat Flow, veh/h	0	4827	522	1781	3647	0	1781	18		3563	1568	256
Grp Volume(v), veh/h	0	267	143	289	349	0	18	54.1		925	0	356
Grp Sat Flow(s),veh/h/ln	0	1702	1776	1781	1777	0	1781	D		1781	0	1824
Q Serve(g_s), s	0.0	6.9	7.1	10.0	4.5	0.0	0.9			12.8	0.0	10.5
Cycle Q Clear(g_c), s	0.0	6.9	7.1	10.0	4.5	0.0	0.9			12.8	0.0	10.5
Prop In Lane	0.00		0.29	1.00		0.00	1.00			1.00		0.14
Lane Grp Cap(c), veh/h	0	436	227	325	1047	0	36			2117	0	946
V/C Ratio(X)	0.00	0.61	0.63	0.89	0.33	0.00	0.50			0.44	0.00	0.38
Avail Cap(c_a), veh/h	0	1021	533	325	1658	0	139			2117	0	946
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.58	0.58	0.40	0.40	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.9	41.0	28.6	14.0	0.0	43.6			10.0	0.0	13.0
Incr Delay (d2), s/veh	0.0	0.8	1.7	11.7	0.1	0.0	10.4			0.1	0.0	1.1
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
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.4	5.6	1.6	0.0	0.5			4.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	41.7	42.7	40.4	14.0	0.0	54.1			10.1	0.0	14.1
LnGrp LOS		D	D	D	B		D			B		B
Approach Vol, veh/h		410			638						1281	
Approach Delay, s/veh		42.1			26.0						11.2	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	58.5		15.0	16.5	6.8	51.7		31.5				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		10.0	27.0	7.0	26.0		42.0				
Max Q Clear Time (g_c+I1), s	14.8		12.0	9.1	2.9	12.5		6.5				
Green Ext Time (p_c), s	2.7		0.0	2.4	0.0	1.8		2.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	21.0
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

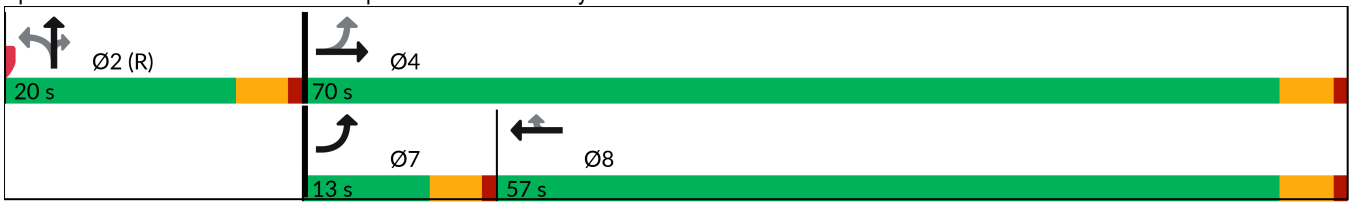
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.947	0.850		0.868	0.850			
Flt Protected	0.950						0.950	0.996				
Satd. Flow (prot)	1770	5085	0	0	1676	1504	1681	1465	1504	0	0	0
Flt Permitted	0.071						0.950	0.996				
Satd. Flow (perm)	132	5085	0	0	1676	1504	1681	1465	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					52	773		60	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			673			450			375	
Travel Time (s)		9.0			15.3			10.2			8.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	153	1276	550	1074	46	3	118
Future Volume (vph)	153	1276	550	1074	46	3	118
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	13.0	70.0	57.0	57.0	20.0	20.0	20.0
Total Split (%)	14.4%	77.8%	63.3%	63.3%	22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	64.9	64.9	51.9	51.9	16.1	16.1	16.1
Actuated g/C Ratio	0.72	0.72	0.58	0.58	0.18	0.18	0.18
v/c Ratio	0.67	0.38	0.94	0.70	0.15	0.22	0.21
Control Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
LOS	C	A	C	A	C	B	A
Approach Delay (s/veh)		7.6	20.6			16.6	
Approach LOS		A	C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 14.6	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

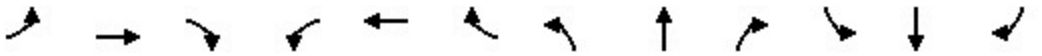




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	166	1387	925	840	45	68	68
v/c Ratio	0.67	0.38	0.94	0.70	0.15	0.22	0.21
Control Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Length 50th (ft)	38	89	444	15	23	4	0
Queue Length 95th (ft)	#121	109	#765	80	55	43	34
Internal Link Dist (ft)		316	593			370	
Turn Bay Length (ft)							
Base Capacity (vph)	249	3700	999	1199	301	311	329
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.37	0.93	0.70	0.15	0.22	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



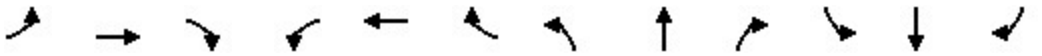
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1276	0	0	550	1074	46	3	118	0	0	0
Future Volume (veh/h)	153	1276	0	0	550	1074	46	3	118	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	166	1387	0	0	1025	883	34	0	147			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	203	3516	0	0	1083	917	377	0	670			
Arrive On Green	0.06	0.69	0.00	0.00	0.58	0.58	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	166	1387	0	0	1025	883	34	0	147			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	3.3	10.5	0.0	0.0	46.0	47.7	1.4	0.0	3.5			
Cycle Q Clear(g_c), s	3.3	10.5	0.0	0.0	46.0	47.7	1.4	0.0	3.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	203	3516	0	0	1083	917	377	0	670			
V/C Ratio(X)	0.82	0.39	0.00	0.00	0.95	0.96	0.09	0.00	0.22			
Avail Cap(c_a), veh/h	264	3716	0	0	1091	925	377	0	670			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.4	6.0	0.0	0.0	17.7	18.0	28.5	0.0	29.3			
Incr Delay (d2), s/veh	14.3	0.1	0.0	0.0	16.0	20.9	0.5	0.0	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			
%ile BackOfQ(50%),veh/ln	2.8	3.1	0.0	0.0	22.2	20.6	0.6	0.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	6.1	0.0	0.0	33.7	38.9	29.0	0.0	30.1			
LnGrp LOS	D	A			C	D	C		C			
Approach Vol, veh/h		1553			1908			181				
Approach Delay, s/veh		9.3			36.1			29.9				
Approach LOS		A			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		23.5		66.5			9.9	56.6				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		15.5		65.5			8.5	52.5				
Max Q Clear Time (g_c+I1), s		5.5		12.5			5.3	49.7				
Green Ext Time (p_c), s		0.4		15.1			0.1	2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			24.4									
HCM 7th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



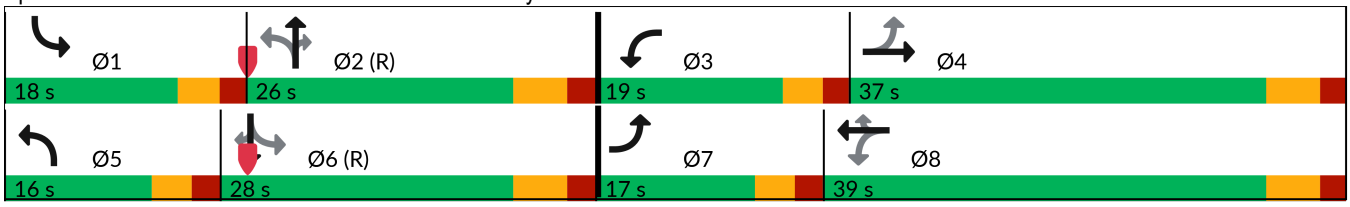
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.114			0.118			0.684			0.596		
Satd. Flow (perm)	212	3539	1583	220	3539	1583	2472	1863	1583	1110	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			142			142			254
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

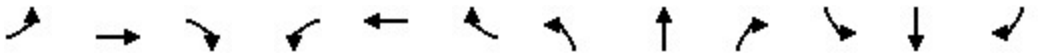
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	246	1112	71	66	871	110	475	140	59	176	105	234
Future Volume (vph)	246	1112	71	66	871	110	475	140	59	176	105	234
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	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)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	17.0	37.0		19.0	39.0	39.0	16.0	26.0	26.0	18.0	28.0	28.0
Total Split (%)	17.0%	37.0%		19.0%	39.0%	39.0%	16.0%	26.0%	26.0%	18.0%	28.0%	28.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		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	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	50.1	39.6	100.0	41.6	33.0	33.0	33.3	21.3	21.3	34.7	22.0	22.0
Actuated g/C Ratio	0.50	0.40	1.00	0.42	0.33	0.33	0.33	0.21	0.21	0.35	0.22	0.22
v/c Ratio	0.91	0.86	0.05	0.35	0.81	0.19	0.56	0.38	0.14	0.41	0.28	0.47
Control Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
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 (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
LOS	E	D	A	B	D	A	C	D	A	C	C	A
Approach Delay (s/veh)		38.7			32.5			25.8			18.6	
Approach LOS		D			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 31.7	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

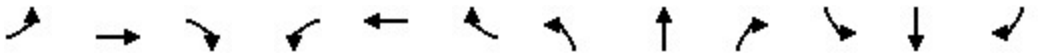




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	267	1209	77	72	947	120	516	152	64	191	114	254
v/c Ratio	0.91	0.86	0.05	0.35	0.81	0.19	0.56	0.38	0.14	0.41	0.28	0.47
Control Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
Queue Length 50th (ft)	112	379	0	22	288	0	119	85	0	82	61	0
Queue Length 95th (ft)	#269	#541	0	45	367	28	162	146	0	135	110	63
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	293	1400	1583	322	1167	617	929	397	449	485	409	546
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	0.86	0.05	0.22	0.81	0.19	0.56	0.38	0.14	0.39	0.28	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1112	71	66	871	110	475	140	59	176	105	234
Future Volume (veh/h)	246	1112	71	66	871	110	475	140	59	176	105	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	267	1209	0	72	947	120	516	152	64	191	114	254
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	2	2	2	2	2
Cap, veh/h	310	1350		177	1084	483	913	481	408	472	462	391
Arrive On Green	0.12	0.38	0.00	0.04	0.30	0.30	0.11	0.26	0.26	0.10	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	267	1209	0	72	947	120	516	152	64	191	114	254
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.8	32.0	0.0	2.7	25.2	5.7	11.0	6.6	3.1	7.9	4.9	14.4
Cycle Q Clear(g_c), s	9.8	32.0	0.0	2.7	25.2	5.7	11.0	6.6	3.1	7.9	4.9	14.4
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	310	1350		177	1084	483	913	481	408	472	462	391
V/C Ratio(X)	0.86	0.90		0.41	0.87	0.25	0.56	0.32	0.16	0.40	0.25	0.65
Avail Cap(c_a), veh/h	314	1350		349	1173	523	913	481	408	527	462	391
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)	0.78	0.78	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	23.2	29.1	0.0	25.7	32.9	26.1	24.6	30.0	28.7	24.1	30.2	33.8
Incr Delay (d2), s/veh	16.8	6.5	0.0	1.5	7.1	0.3	0.8	1.7	0.8	0.6	1.3	8.1
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	5.4	14.4	0.0	1.2	11.7	2.2	4.6	3.2	1.3	3.3	2.4	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.1	35.7	0.0	27.2	40.1	26.4	25.4	31.7	29.6	24.7	31.5	41.9
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1476			1139			732			559	
Approach Delay, s/veh		36.5			37.8			27.1			33.9	
Approach LOS		D			D			C			C	

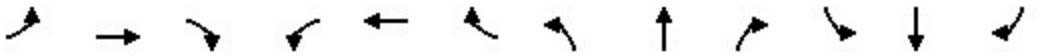
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.7	9.3	44.0	16.0	30.7	16.8	36.5
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	20.0	14.0	31.0	11.0	22.0	12.0	33.0
Max Q Clear Time (g_c+I1), s	9.9	8.6	4.7	34.0	13.0	16.4	11.8	27.2
Green Ext Time (p_c), s	0.2	0.7	0.1	0.0	0.0	0.8	0.0	3.2

Intersection Summary	
HCM 7th Control Delay, s/veh	34.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



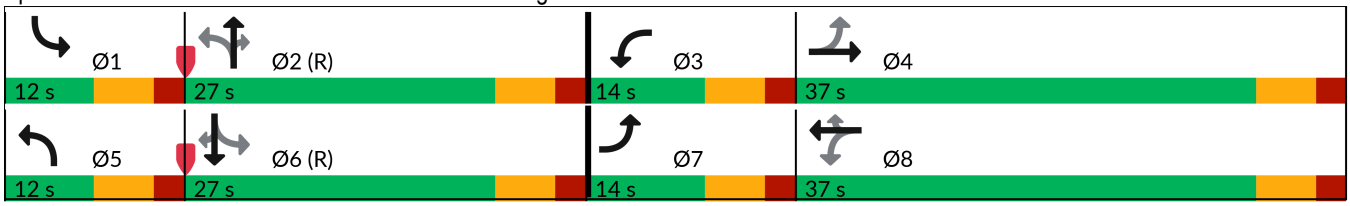
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		150	350		350
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.617			0.293			0.666			0.575		
Satd. Flow (perm)	1149	3479	0	546	3539	1583	1241	1863	1583	1071	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				182			182			182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			808	
Travel Time (s)		15.7			17.4			14.5			12.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	84	411	204	198	167	20	75	137	214	132	40
Future Volume (vph)	84	411	204	198	167	20	75	137	214	132	40
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	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	33.0	11.0	40.0	40.0	11.0	33.0	33.0	11.0	32.0	32.0
Total Split (s)	14.0	37.0	14.0	37.0	37.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (%)	15.6%	41.1%	15.6%	41.1%	41.1%	13.3%	30.0%	30.0%	13.3%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	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	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
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	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)	25.9	18.4	27.7	21.3	21.3	34.1	28.0	28.0	45.6	40.5	40.5
Actuated g/C Ratio	0.29	0.20	0.31	0.24	0.24	0.38	0.31	0.31	0.51	0.45	0.45
v/c Ratio	0.24	0.70	0.80	0.26	0.35	0.04	0.14	0.24	0.37	0.17	0.05
Control Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	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
Total Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
LOS	C	D	D	C	A	B	C	A	B	B	A
Approach Delay (s/veh)		34.5		28.2			11.8			15.0	
Approach LOS		C		C			B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 25.1	Intersection LOS: C
Intersection Capacity Utilization 57.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

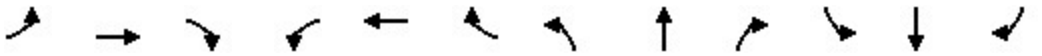




Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	91	505	222	215	182	22	82	149	233	143	43
v/c Ratio	0.24	0.70	0.80	0.26	0.35	0.04	0.14	0.24	0.37	0.17	0.05
Control Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
Queue Length 50th (ft)	35	136	92	55	0	6	33	0	71	41	0
Queue Length 95th (ft)	61	176	#137	80	49	20	76	30	134	109	0
Internal Link Dist (ft)		842		941			558			728	
Turn Bay Length (ft)	325		125		100	225		150	350		350
Base Capacity (vph)	391	1209	276	1218	664	510	579	617	633	838	812
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	0.23	0.42	0.80	0.18	0.27	0.04	0.14	0.24	0.37	0.17	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	411	53	204	198	167	20	75	137	214	132	40
Future Volume (veh/h)	84	411	53	204	198	167	20	75	137	214	132	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	91	447	58	222	215	182	22	82	149	233	143	43
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	2	2	2	2	2
Cap, veh/h	346	587	76	284	773	345	587	734	622	618	815	690
Arrive On Green	0.06	0.19	0.19	0.09	0.22	0.22	0.02	0.39	0.39	0.07	0.44	0.44
Sat Flow, veh/h	1781	3165	409	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	91	250	255	222	215	182	22	82	149	233	143	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1797	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.7	12.0	12.1	8.0	4.5	9.1	0.7	2.5	5.7	6.0	4.2	1.4
Cycle Q Clear(g_c), s	3.7	12.0	12.1	8.0	4.5	9.1	0.7	2.5	5.7	6.0	4.2	1.4
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	329	333	284	773	345	587	734	622	618	815	690
V/C Ratio(X)	0.26	0.76	0.77	0.78	0.28	0.53	0.04	0.11	0.24	0.38	0.18	0.06
Avail Cap(c_a), veh/h	403	612	619	284	1224	546	664	734	622	618	815	690
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	34.7	34.8	29.8	29.3	31.1	15.5	17.4	18.3	15.5	15.5	14.7
Incr Delay (d2), s/veh	0.4	3.6	3.7	13.3	0.2	1.3	0.0	0.3	0.9	0.4	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	1.5	5.3	5.4	4.8	1.9	3.5	0.3	1.1	2.1	2.7	1.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.6	38.3	38.5	43.1	29.5	32.4	15.6	17.7	19.2	15.9	16.0	14.9
LnGrp LOS	C	D	D	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		596			619			253			419	
Approach Delay, s/veh		36.8			35.2			18.4			15.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	41.3	14.0	22.7	8.1	45.2	11.1	25.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	21.0	8.0	31.0	6.0	21.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	7.7	10.0	14.1	2.7	6.2	5.7	11.1
Green Ext Time (p_c), s	0.0	0.7	0.0	2.6	0.0	0.6	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.976	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1818	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1818	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

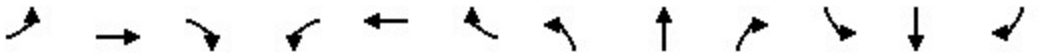
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	0	1	174	307	67
Future Vol, veh/h	44	0	1	174	307	67
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	2	2	2	2
Mvmt Flow	48	0	1	189	334	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	561	370	407	0	-	0
Stage 1	370	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	489	676	1152	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	488	676	1152	-	-	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.18	0.05	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	10	-	488	-	-
HCM Lane V/C Ratio	0.001	-	0.098	-	-
HCM Control Delay (s/veh)	8.1	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959						0.997			0.865	
Flt Protected	0.950			0.950				0.953				
Satd. Flow (prot)	1770	1786	0	1770	1863	0	0	1770	0	0	1611	0
Flt Permitted	0.950			0.950				0.953				
Satd. Flow (perm)	1770	1786	0	1770	1863	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			801			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

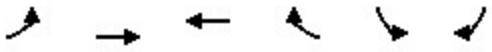
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	209	78	2	131	0	37	0	1	0	0	8
Future Vol, veh/h	8	209	78	2	131	0	37	0	1	0	0	8
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	227	85	2	142	0	40	0	1	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	312	0	0	434	434	270	391	476	142
Stage 1	-	-	-	-	-	-	287	287	-	147	147	-
Stage 2	-	-	-	-	-	-	147	147	-	245	329	-
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	1440	-	-	1248	-	-	532	515	769	568	488	905
Stage 1	-	-	-	-	-	-	720	674	-	856	776	-
Stage 2	-	-	-	-	-	-	856	776	-	759	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1248	-	-	523	511	769	563	484	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	511	-	563	484	-
Stage 1	-	-	-	-	-	-	716	670	-	854	774	-
Stage 2	-	-	-	-	-	-	846	774	-	753	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.12	12.4	9.02
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1440	-	-	1248	-	-	905
HCM Lane V/C Ratio	0.078	0.006	-	-	0.002	-	-	0.01
HCM Control Delay (s/veh)	12.4	7.5	-	-	7.9	-	-	9
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

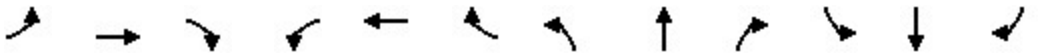
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	25	1	0	5
Future Vol, veh/h	2	12	25	1	0	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	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	13	27	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	28	0	-	0	45	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	17	-
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	1585	-	-	-	965	1048
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1585	-	-	-	964	1048
Mov Cap-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	1005	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.04	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	1048
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



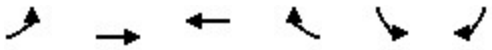
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.977			0.963			0.956			0.993	
Flt Protected		0.997			0.994			0.992			0.982	
Satd. Flow (prot)	0	3447	0	0	3388	0	0	3356	0	0	3451	0
Flt Permitted		0.997			0.994			0.992			0.982	
Satd. Flow (perm)	0	3447	0	0	3388	0	0	3356	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	316	221	187	379
Demand Flow Rate, veh/h	322	226	191	386
Vehicles Circulating, veh/h	398	155	413	202
Vehicles Exiting, veh/h	190	449	307	179
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.3	3.8	4.7	4.6
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.469	0.531	0.471	0.529	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	151	171	106	120	90	101	181	205
Cap Entry Lane, veh/h	936	1012	1170	1245	923	1000	1121	1196
Entry HV Adj Factor	0.984	0.980	0.981	0.977	0.976	0.981	0.983	0.979
Flow Entry, veh/h	149	168	104	117	88	99	178	201
Cap Entry, veh/h	921	992	1148	1216	901	981	1102	1170
V/C Ratio	0.161	0.169	0.091	0.096	0.097	0.101	0.161	0.171
Control Delay, s/veh	5.5	5.2	3.9	3.8	4.9	4.6	4.7	4.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.965		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1798	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1798	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

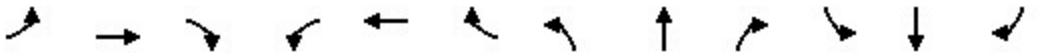
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	372	172	61	100	4
Future Vol, veh/h	6	372	172	61	100	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	404	187	66	109	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	638	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	417	-
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	1312	-	-	-	441	820
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1312	-	-	-	438	820
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.12	0	15.78
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	29	-	-	-	446
HCM Lane V/C Ratio	0.005	-	-	-	0.253
HCM Control Delay (s/veh)	7.8	0	-	-	15.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1



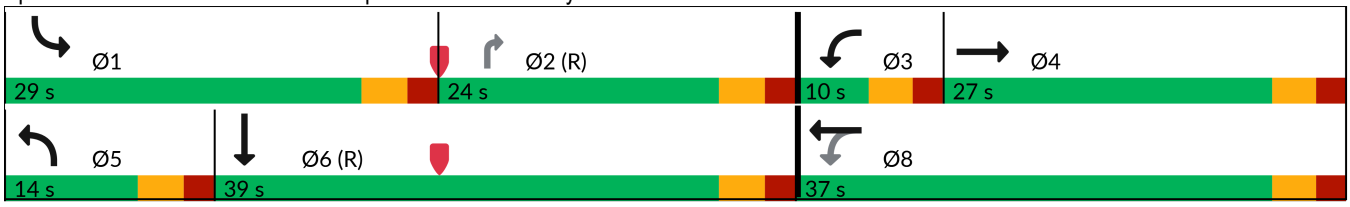
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.973							0.850		0.906	
Flt Protected				0.950			0.950			0.950	0.990	
Satd. Flow (prot)	0	4948	0	1770	3539	0	1770	0	1583	3221	1520	0
Flt Permitted				0.225			0.950			0.950	0.990	
Satd. Flow (perm)	0	4948	0	419	3539	0	1770	0	1583	3221	1520	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50							206		92	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	436	164	340	17	191	486	39
Future Volume (vph)	436	164	340	17	191	486	39
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	27.0	10.0	37.0	14.0	24.0	29.0	39.0
Total Split (%)	30.0%	11.1%	41.1%	15.6%	26.7%	32.2%	43.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.9	25.9	25.9	6.5	30.6	18.4	18.4
Actuated g/C Ratio	0.18	0.29	0.29	0.07	0.34	0.20	0.20
v/c Ratio	0.63	0.91	0.36	0.14	0.31	0.72	0.67
Control Delay (s/veh)	40.7	70.6	35.6	41.1	5.6	39.7	29.3
Queue Delay	0.0	53.6	0.8	0.0	0.1	0.1	0.6
Total Delay (s/veh)	40.7	124.1	36.3	41.1	5.6	39.8	29.8
LOS	D	F	D	D	A	D	C
Approach Delay (s/veh)	40.7		64.8				36.3
Approach LOS	D		E				D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 42.0	Intersection LOS: D
Intersection Capacity Utilization 51.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	576	178	370	18	208	475	256
v/c Ratio	0.63	0.91	0.36	0.14	0.31	0.72	0.67
Control Delay (s/veh)	40.7	70.6	35.6	41.1	5.6	39.7	29.3
Queue Delay	0.0	53.6	0.8	0.0	0.1	0.1	0.6
Total Delay (s/veh)	40.7	124.1	36.3	41.1	5.6	39.8	29.8
Queue Length 50th (ft)	117	107	117	10	1	139	93
Queue Length 95th (ft)	154	m#135	m136	31	54	182	172
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1247	195	1258	177	674	858	384
Starvation Cap Reductn	0	64	579	0	0	0	0
Spillback Cap Reductn	2	0	0	0	48	27	17
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.36	0.54	0.10	0.33	0.57	0.70

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	436	94	164	340	0	17	0	191	486	39	148
Future Volume (veh/h)	0	436	94	164	340	0	17	0	191	486	39	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	474	102	178	370	0	18	0	208	508	70	161
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	695	146	222	979	0	36	0	0	2185	271	623
Arrive On Green	0.00	0.05	0.05	0.11	0.55	0.00	0.02	0.00	0.00	0.61	0.54	0.54
Sat Flow, veh/h	0	4396	887	1781	3647	0	1781	18		3563	504	1158
Grp Volume(v), veh/h	0	379	197	178	370	0	18	54.1		508	0	231
Grp Sat Flow(s),veh/h/ln	0	1702	1711	1781	1777	0	1781	D		1781	0	1662
Q Serve(g_s), s	0.0	9.8	10.2	5.0	5.3	0.0	0.9			5.8	0.0	6.7
Cycle Q Clear(g_c), s	0.0	9.8	10.2	5.0	5.3	0.0	0.9			5.8	0.0	6.7
Prop In Lane	0.00		0.52	1.00		0.00	1.00			1.00		0.70
Lane Grp Cap(c), veh/h	0	560	281	222	979	0	36			2185	0	894
V/C Ratio(X)	0.00	0.68	0.70	0.80	0.38	0.00	0.50			0.23	0.00	0.26
Avail Cap(c_a), veh/h	0	832	418	222	1264	0	178			2185	0	894
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.86	0.34	0.34	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.2	40.4	32.2	15.8	0.0	43.6			7.8	0.0	11.2
Incr Delay (d2), s/veh	0.0	1.2	2.7	7.1	0.1	0.0	10.4			0.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	4.5	4.8	1.9	1.9	0.0	0.5			2.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	41.5	43.1	39.3	15.9	0.0	54.1			7.9	0.0	11.9
LnGrp LOS		D	D	D	B		D			A		B
Approach Vol, veh/h		576			548						739	
Approach Delay, s/veh		42.0			23.5						9.1	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	60.2		10.0	19.8	6.8	53.4		29.8				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		5.0	22.0	9.0	34.0		32.0				
Max Q Clear Time (g_c+I1), s	7.8		7.0	12.2	2.9	8.7		7.3				
Green Ext Time (p_c), s	1.7		0.0	2.6	0.0	1.4		2.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	23.8
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

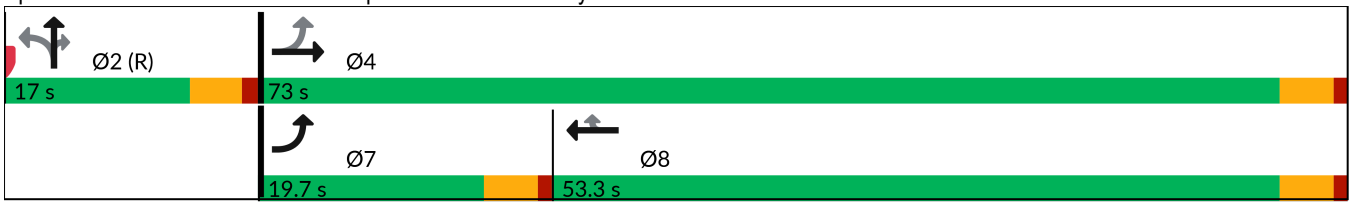
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.929	0.850		0.895	0.850			
Flt Protected	0.950						0.950	0.987				
Satd. Flow (prot)	1770	5085	0	0	1644	1504	1681	1497	1504	0	0	0
Flt Permitted	0.076						0.950	0.987				
Satd. Flow (perm)	142	5085	0	0	1644	1504	1681	1497	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					79	588		52	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		451			733			505			498	
Travel Time (s)		10.3			16.7			11.5			11.3	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	266	884	415	1104	89	2	113
Future Volume (vph)	266	884	415	1104	89	2	113
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.7	73.0	53.3	53.3	17.0	17.0	17.0
Total Split (%)	21.9%	81.1%	59.2%	59.2%	18.9%	18.9%	18.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	67.4	67.4	48.1	48.1	13.6	13.6	13.6
Actuated g/C Ratio	0.75	0.75	0.53	0.53	0.15	0.15	0.15
v/c Ratio	0.77	0.25	0.94	0.74	0.30	0.28	0.25
Control Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
LOS	D	A	D	A	D	B	B
Approach Delay (s/veh)		10.9	23.4			23.0	
Approach LOS		B	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 18.4	Intersection LOS: B
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

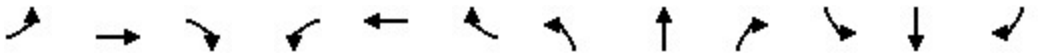




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	289	961	859	792	77	74	71
v/c Ratio	0.77	0.25	0.94	0.74	0.30	0.28	0.25
Control Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Length 50th (ft)	102	46	413	61	42	12	0
Queue Length 95th (ft)	#220	59	#714	213	86	54	37
Internal Link Dist (ft)		371	653			425	
Turn Bay Length (ft)							
Base Capacity (vph)	381	3870	927	1084	253	269	288
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.25	0.93	0.73	0.30	0.28	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	884	0	0	415	1104	89	2	113	0	0	0
Future Volume (veh/h)	266	884	0	0	415	1104	89	2	113	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	289	961	0	0	1013	826	140	0	78			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	326	3729	0	0	1014	859	604	0	269			
Arrive On Green	0.14	0.73	0.00	0.00	0.54	0.54	0.17	0.00	0.17			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	3563	0	1585			
Grp Volume(v), veh/h	289	961	0	0	1013	826	140	0	78			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	10.2	5.6	0.0	0.0	48.7	44.8	3.1	0.0	3.9			
Cycle Q Clear(g_c), s	10.2	5.6	0.0	0.0	48.7	44.8	3.1	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	326	3729	0	0	1014	859	604	0	269			
V/C Ratio(X)	0.89	0.26	0.00	0.00	1.00	0.96	0.23	0.00	0.29			
Avail Cap(c_a), veh/h	381	3886	0	0	1014	859	604	0	269			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	29.0	4.0	0.0	0.0	20.6	19.7	32.3	0.0	32.6			
Incr Delay (d2), s/veh	19.2	0.0	0.0	0.0	28.0	21.7	0.9	0.0	2.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.8	1.5	0.0	0.0	26.8	20.0	1.4	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.2	4.1	0.0	0.0	48.5	41.4	33.2	0.0	35.3			
LnGrp LOS	D	A			D	D	C		D			
Approach Vol, veh/h		1250			1839			218				
Approach Delay, s/veh		14.3			45.3			34.0				
Approach LOS		B			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		19.8		70.2			16.9	53.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		12.5		68.5			15.2	48.8				
Max Q Clear Time (g_c+I1), s		5.9		7.6			12.2	50.7				
Green Ext Time (p_c), s		0.4		8.8			0.3	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	32.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



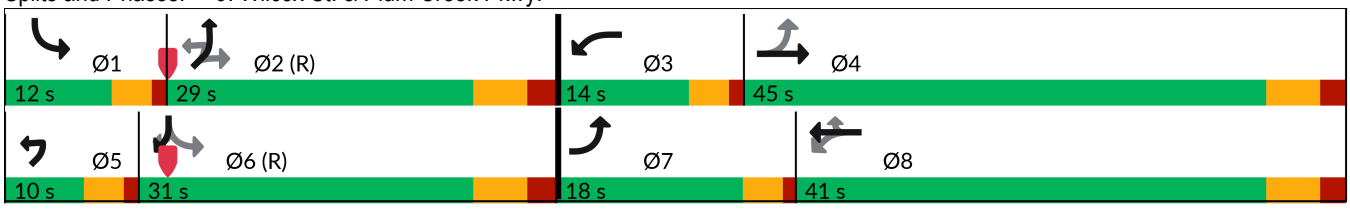
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%				0%	
Storage Length (ft)	325		0	225		0	175	200			225	250
Storage Lanes	1		1	1		1	1	1			3	0
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.850	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.950	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	1583	3433	1770	1583
Flt Permitted	0.103			0.353			0.683			0.684	0.950	
Satd. Flow (perm)	192	3539	1583	658	3539	1583	1272	1583	1583	2472	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			130			157			120
Link Speed (mph)		30			30		30				30	
Link Distance (ft)		709			907		491				739	
Travel Time (s)		16.1			20.6		11.2				16.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	210	669	109	48	940	120	62	73	144	401	106	34
Future Volume (vph)	210	669	109	48	940	120	62	73	144	401	106	34
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	Prot	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		Free	8		8	6		6	2		2
Detector Phase	7	4		3	8	8	1	6	6	5	2	2
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)	9.5	31.0		9.5	31.0	31.0	9.5	34.0	34.0	9.5	36.0	36.0
Total Split (s)	18.0	45.0		14.0	41.0	41.0	12.0	31.0	31.0	10.0	29.0	29.0
Total Split (%)	18.0%	45.0%		14.0%	41.0%	41.0%	12.0%	31.0%	31.0%	10.0%	29.0%	29.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	53.2	42.2	100.0	42.7	33.9	33.9	35.1	25.8	25.8	34.5	27.5	27.5
Actuated g/C Ratio	0.53	0.42	1.00	0.43	0.34	0.34	0.35	0.26	0.26	0.35	0.28	0.28
v/c Ratio	0.73	0.49	0.07	0.15	0.85	0.21	0.14	0.19	0.30	0.47	0.24	0.07
Control Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	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 (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
LOS	C	C	A	B	D	A	C	C	A	C	C	A
Approach Delay (s/veh)		22.6			33.9		16.3				25.6	
Approach LOS		C			C		B				C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NEL and 6:SBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 26.9	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Group Flow (vph)	228	727	118	52	1022	130	67	79	157	436	115	37
v/c Ratio	0.73	0.49	0.07	0.15	0.85	0.21	0.14	0.19	0.30	0.47	0.24	0.07
Control Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	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 (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
Queue Length 50th (ft)	83	173	0	15	310	0	28	40	0	102	61	0
Queue Length 95th (ft)	#180	233	0	32	393	39	57	79	49	142	111	0
Internal Link Dist (ft)		629			827		411				659	
Turn Bay Length (ft)	325			225			175	200	200	225	225	250
Base Capacity (vph)	322	1494	1583	413	1238	638	495	407	524	919	486	521
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	0.49	0.07	0.13	0.83	0.20	0.14	0.19	0.30	0.47	0.24	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (veh/h)	210	669	109	48	940	120	62	73	144	401	106	34
Future Volume (veh/h)	210	669	109	48	940	120	62	73	144	401	106	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870
Adj Flow Rate, veh/h	228	727	0	52	1022	130	67	157	157	436	436	37
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	2	2	2	2	2
Cap, veh/h	282	1391		311	1161	518	498	492	492	973	973	520
Arrive On Green	0.10	0.39	0.00	0.04	0.33	0.33	0.04	0.31	0.31	0.06	0.06	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1585	1585	3456	3456	1585
Grp Volume(v), veh/h	228	727	0	52	1022	130	67	157	157	436	436	37
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1585	1585	1728	1728	1585
Q Serve(g_s), s	8.1	15.6	0.0	1.9	27.2	6.0	2.5	7.6	7.6	6.0	6.0	1.6
Cycle Q Clear(g_c), s	8.1	15.6	0.0	1.9	27.2	6.0	2.5	7.6	7.6	6.0	6.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	282	1391		311	1161	518	498	492	492	973	973	520
V/C Ratio(X)	0.81	0.52		0.17	0.88	0.25	0.13	0.32	0.32	0.45	0.45	0.07
Avail Cap(c_a), veh/h	348	1391		421	1244	555	565	492	492	973	973	520
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)	0.93	0.93	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	23.1	23.3	0.0	21.2	31.8	24.7	21.8	26.4	26.4	23.8	23.8	23.1
Incr Delay (d2), s/veh	10.2	0.3	0.0	0.3	7.2	0.3	0.1	1.7	1.7	0.3	0.3	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	4.0	6.5	0.0	0.8	12.5	2.3	1.1	3.1	3.1	1.1	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.3	23.6	0.0	21.5	39.0	24.9	21.9	28.1	28.1	24.1	24.1	23.4
LnGrp LOS	C	C		C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		955			1204		303			588	588	
Approach Delay, s/veh		25.9			36.8		26.0			24.2	24.2	
Approach LOS		C			D		C			C	C	

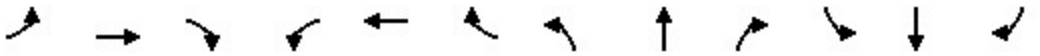
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	38.8	7.8	45.2	10.0	37.0	14.3	38.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	23.0	10.0	39.0	6.0	25.0	14.0	35.0
Max Q Clear Time (g_c+I1), s	4.5	6.4	3.9	17.6	8.0	9.6	10.1	29.2
Green Ext Time (p_c), s	0.0	0.3	0.0	5.2	0.0	0.6	0.2	3.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



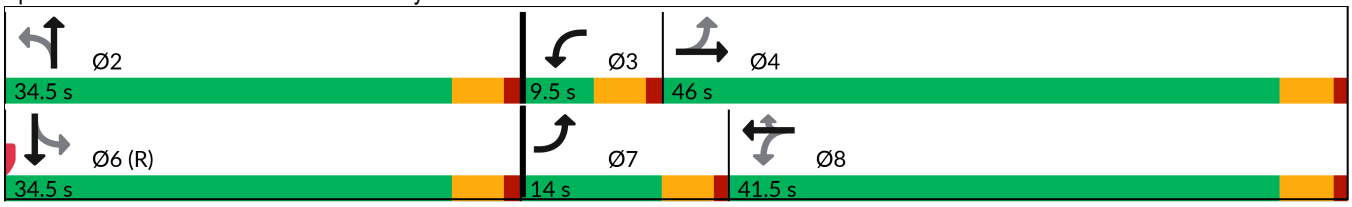
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		150	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.862	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	1863	0	1863	1863	1583	1863	1863	0	1770	1606	0
Flt Permitted	0.271									0.743		
Satd. Flow (perm)	505	1863	0	1863	1863	1583	1863	1863	0	1384	1606	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						238					59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		862			1497			360			1340	
Travel Time (s)		19.6			34.0			8.2			30.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	108	382	286	219	20	148	5	
Future Volume (vph)	108	382	286	219	20	148	5	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	7	4	8		2		6	3
Permitted Phases	4			8		6		
Detector Phase	7	4	8	8	2	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)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	46.0	41.5	41.5	34.5	34.5	34.5	9.5
Total Split (%)	15.6%	51.1%	46.1%	46.1%	38.3%	38.3%	38.3%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	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	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	33.4	33.4	22.4	22.4	47.6	47.6	47.6	
Actuated g/C Ratio	0.37	0.37	0.25	0.25	0.53	0.53	0.53	
v/c Ratio	0.38	0.60	0.67	0.42	0.02	0.22	0.07	
Control Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2	
LOS	C	C	C	A	B	B	A	
Approach Delay (s/veh)		24.2	17.1		14.0		12.2	
Approach LOS		C	B		B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 19.1	Intersection LOS: B
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.





Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	117	415	311	238	22	161	64
v/c Ratio	0.38	0.60	0.67	0.42	0.02	0.22	0.07
Control Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2
Queue Length 50th (ft)	42	180	62	10	6	49	1
Queue Length 95th (ft)	66	226	87	m24	22	106	25
Internal Link Dist (ft)		782	1417		280		1260
Turn Bay Length (ft)	150			150		100	
Base Capacity (vph)	320	868	765	790	985	731	877
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.48	0.41	0.30	0.02	0.22	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	382	0	0	286	219	0	20	0	148	5	54
Future Volume (veh/h)	108	382	0	0	286	219	0	20	0	148	5	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	117	415	0	0	311	238	0	22	0	161	5	59
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	2	2	2	2	2
Cap, veh/h	246	613	0	214	392	332	80	623	0	532	42	493
Arrive On Green	0.07	0.33	0.00	0.00	0.21	0.21	0.00	0.33	0.00	0.33	0.33	0.33
Sat Flow, veh/h	1781	1870	0	1781	1870	1585	1338	1870	0	1390	125	1479
Grp Volume(v), veh/h	117	415	0	0	311	238	0	22	0	161	0	64
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1585	1338	1870	0	1390	0	1604
Q Serve(g_s), s	4.4	17.3	0.0	0.0	14.2	12.6	0.0	0.7	0.0	8.0	0.0	2.5
Cycle Q Clear(g_c), s	4.4	17.3	0.0	0.0	14.2	12.6	0.0	0.7	0.0	8.7	0.0	2.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.92
Lane Grp Cap(c), veh/h	246	613	0	214	392	332	80	623	0	532	0	535
V/C Ratio(X)	0.48	0.68	0.00	0.00	0.79	0.72	0.00	0.04	0.00	0.30	0.00	0.12
Avail Cap(c_a), veh/h	312	862	0	311	769	652	80	623	0	532	0	535
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	0.94	0.94	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	26.1	0.0	0.0	33.7	33.1	0.0	20.2	0.0	23.2	0.0	20.8
Incr Delay (d2), s/veh	1.4	1.3	0.0	0.0	3.5	2.7	0.0	0.0	0.0	1.5	0.0	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	1.9	7.7	0.0	0.0	6.7	5.0	0.0	0.3	0.0	2.8	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.7	27.5	0.0	0.0	37.2	35.8	0.0	20.3	0.0	24.6	0.0	21.3
LnGrp LOS	C	C			D	D		C		C		C
Approach Vol, veh/h		532			549			22			225	
Approach Delay, s/veh		27.3			36.6			20.3			23.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.5	0.0	34.0		34.5	10.7	23.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.0	5.0	41.5		30.0	9.5	37.0				
Max Q Clear Time (g_c+I1), s		2.7	0.0	19.3		10.7	6.4	16.2				
Green Ext Time (p_c), s		0.1	0.0	2.6		0.8	0.1	2.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.947	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1764	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1764	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	473			1039	403	
Travel Time (s)	10.8			23.6	14.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	59	0	0	73	109	70
Future Vol, veh/h	59	0	0	73	109	70
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	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	0	0	79	118	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	236	157	195	0	-	0
Stage 1	157	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	752	889	1379	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	752	889	1379	-	-	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	944	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.23	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1379	-	752	-	-	-
HCM Lane V/C Ratio	-	-	0.085	-	-	-
HCM Control Delay (s/veh)	0	-	10.2	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.870	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1621	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1621	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	482			849	1039	
Travel Time (s)	11.0			19.3	23.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	0	0	5	4	105
Future Vol, veh/h	68	0	0	5	4	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	0	0	5	4	114

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	67	61	118	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	938	1004	1470	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	938	1004	1470	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.16	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1470	-	938	-	-	-
HCM Lane V/C Ratio	-	-	0.079	-	-	-
HCM Control Delay (s/veh)	0	-	9.2	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.875	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1630	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1630	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	428			524	537	
Travel Time (s)	9.7			11.9	12.2	

Intersection Summary	
Area Type:	Other

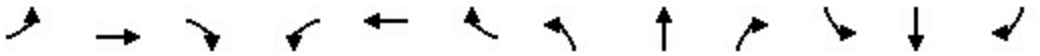
Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	262	160	0	4	47
Future Vol, veh/h	85	262	160	0	4	47
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	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	285	174	0	4	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	378	30	55	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	624	1045	1549	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	554	1045	1549	-	-	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.48	7.62	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1549	-	554	1045	-	-
HCM Lane V/C Ratio	0.112	-	0.167	0.273	-	-
HCM Control Delay (s/veh)	7.6	0	12.8	9.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0.6	1.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.993			0.865			0.959	
Flt Protected		0.964			0.965						0.966	
Satd. Flow (prot)	0	1796	0	0	1785	0	0	1611	0	0	1726	0
Flt Permitted		0.964			0.965						0.966	
Satd. Flow (perm)	0	1796	0	0	1785	0	0	1611	0	0	1726	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		610			473			1035			186	
Travel Time (s)		13.9			10.8			23.5			4.2	

Intersection Summary	
Area Type:	Other

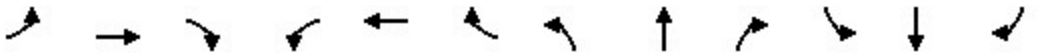
Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	19	0	50	16	4	0	0	34	6	0	3
Future Vol, veh/h	59	19	0	50	16	4	0	0	34	6	0	3
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	21	0	54	17	4	0	0	37	7	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	21	0	0	275	279	21	277	277	20
Stage 1	-	-	-	-	-	-	149	149	-	128	128	-
Stage 2	-	-	-	-	-	-	126	130	-	149	149	-
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	1594	-	-	1595	-	-	677	629	1057	675	631	1058
Stage 1	-	-	-	-	-	-	854	774	-	875	790	-
Stage 2	-	-	-	-	-	-	878	788	-	854	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1594	-	-	1595	-	-	625	582	1057	603	584	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	582	-	603	584	-
Stage 1	-	-	-	-	-	-	819	742	-	845	763	-
Stage 2	-	-	-	-	-	-	845	761	-	790	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	5.56	5.24	8.53	10.18
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1057	1362	-	-	1236	-	-	704
HCM Lane V/C Ratio	0.035	0.04	-	-	0.034	-	-	0.014
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.862			0.892			0.966			0.915	
Flt Protected	0.950			0.950				0.969			0.989	
Satd. Flow (prot)	1770	1606	0	1770	1662	0	0	1744	0	0	1686	0
Flt Permitted	0.950			0.950				0.969			0.989	
Satd. Flow (perm)	1770	1606	0	1770	1662	0	0	1744	0	0	1686	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			482			434			1035	
Travel Time (s)		9.0			11.0			9.9			23.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	123	10	119	46	18	48	61	9	24	28	18	79
Future Vol, veh/h	123	10	119	46	18	48	61	9	24	28	18	79
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	134	11	129	50	20	52	66	10	26	30	20	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	140	0	0	472	515	76	429	553	46
Stage 1	-	-	-	-	-	-	343	343	-	146	146	-
Stage 2	-	-	-	-	-	-	129	172	-	283	408	-
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	1528	-	-	1443	-	-	502	464	986	536	441	1024
Stage 1	-	-	-	-	-	-	672	637	-	857	776	-
Stage 2	-	-	-	-	-	-	874	757	-	724	597	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1443	-	-	387	408	986	450	388	1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	387	408	-	450	388	-
Stage 1	-	-	-	-	-	-	613	582	-	827	750	-
Stage 2	-	-	-	-	-	-	753	730	-	632	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.7	3.11	15.02	11.69
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	461	1528	-	-	1443	-	-	673
HCM Lane V/C Ratio	0.222	0.087	-	-	0.035	-	-	0.202
HCM Control Delay (s/veh)	15	7.6	-	-	7.6	-	-	11.7
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0.1	-	-	0.8



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.979	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1824	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1824	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	337			403	362	
Travel Time (s)	7.7			9.0	5.3	

Intersection Summary	
Area Type:	Other

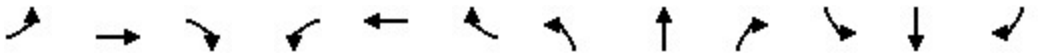
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	131	178	32
Future Vol, veh/h	2	0	0	131	178	32
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	2	2	2	2
Mvmt Flow	2	0	0	142	193	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	353	211	228	0	-	0
Stage 1	211	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	644	829	1340	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	644	829	1340	-	-	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1340	-	644	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s/veh)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		150	350		350
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.981				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.480			0.313			0.672			0.582		
Satd. Flow (perm)	894	3472	0	583	3539	1583	1252	1863	1583	1084	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				210			302			142
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			522			586	
Travel Time (s)		15.7			17.4			11.9			8.9	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	50	337	181	356	193	61	144	278	221	122	102
Future Volume (vph)	50	337	181	356	193	61	144	278	221	122	102
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	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)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0	32.0
Total Split (s)	14.0	40.0	14.0	40.0	40.0	11.0	35.0	35.0	11.0	35.0	35.0
Total Split (%)	14.0%	40.0%	14.0%	40.0%	40.0%	11.0%	35.0%	35.0%	11.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	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)	25.6	17.2	29.0	20.8	20.8	47.6	39.4	39.4	57.6	46.7	46.7
Actuated g/C Ratio	0.26	0.17	0.29	0.21	0.21	0.48	0.39	0.39	0.58	0.47	0.47
v/c Ratio	0.18	0.69	0.72	0.53	0.42	0.10	0.21	0.37	0.34	0.15	0.14
Control Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
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 (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
LOS	C	D	D	D	A	B	C	A	B	B	A
Approach Delay (s/veh)		40.8		31.1			11.0			11.7	
Approach LOS		D		C			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 24.4	Intersection LOS: C
Intersection Capacity Utilization 59.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

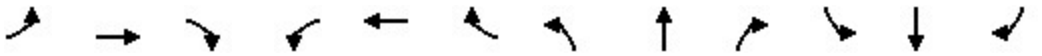




Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	418	197	387	210	66	157	302	240	133	111
v/c Ratio	0.18	0.69	0.72	0.53	0.42	0.10	0.21	0.37	0.34	0.15	0.14
Control Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
Queue Length 50th (ft)	24	127	96	120	0	17	64	0	69	49	0
Queue Length 95th (ft)	48	168	#148	160	58	41	132	61	127	99	21
Internal Link Dist (ft)		842		941			442			506	
Turn Bay Length (ft)	325		125		100	225		150	350		350
Base Capacity (vph)	321	1191	275	1203	676	635	734	807	709	870	815
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	0.17	0.35	0.72	0.32	0.31	0.10	0.21	0.37	0.34	0.15	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	337	48	181	356	193	61	144	278	221	122	102
Future Volume (veh/h)	50	337	48	181	356	193	61	144	278	221	122	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	54	366	52	197	387	210	66	157	302	240	133	111
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	2	2	2	2	2
Cap, veh/h	231	485	68	273	733	327	663	888	753	577	922	781
Arrive On Green	0.04	0.16	0.16	0.09	0.21	0.21	0.04	0.47	0.47	0.06	0.49	0.49
Sat Flow, veh/h	1781	3127	441	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	54	207	211	197	387	210	66	157	302	240	133	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.5	11.1	11.3	9.0	9.7	12.1	1.9	4.8	12.4	6.0	3.9	3.8
Cycle Q Clear(g_c), s	2.5	11.1	11.3	9.0	9.7	12.1	1.9	4.8	12.4	6.0	3.9	3.8
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	275	278	273	733	327	663	888	753	577	922	781
V/C Ratio(X)	0.23	0.75	0.76	0.72	0.53	0.64	0.10	0.18	0.40	0.42	0.14	0.14
Avail Cap(c_a), veh/h	322	604	609	273	1208	539	695	888	753	577	922	781
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	40.4	40.5	31.7	35.4	36.3	12.1	15.0	17.0	13.2	13.8	13.8
Incr Delay (d2), s/veh	0.5	4.1	4.3	9.0	0.6	2.1	0.1	0.4	1.6	0.5	0.3	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	1.1	5.0	5.1	4.5	4.1	4.7	0.7	2.1	4.5	2.7	1.6	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	44.5	44.8	40.6	35.9	38.4	12.2	15.5	18.6	13.7	14.2	14.2
LnGrp LOS	C	D	D	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		472			794			525			484	
Approach Delay, s/veh		43.4			37.8			16.9			13.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	53.5	14.0	21.5	9.2	55.3	8.9	26.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	6.0	29.0	9.0	34.0	6.0	29.0	9.0	34.0
Max Q Clear Time (g_c+I1), s	8.0	14.4	11.0	13.3	3.9	5.9	4.5	14.1
Green Ext Time (p_c), s	0.0	1.7	0.0	2.2	0.0	0.9	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.960	
Flt Protected	0.953					
Satd. Flow (prot)	1773	0	0	1863	1788	0
Flt Permitted	0.953					
Satd. Flow (perm)	1773	0	0	1863	1788	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	611			661	522	
Travel Time (s)	15.5			15.2	12.2	

Intersection Summary	
Area Type:	Other

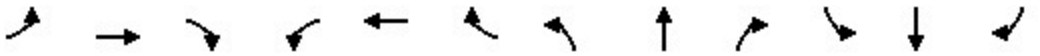
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	1	3	310	256	109
Future Vol, veh/h	142	1	3	310	256	109
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	2	2	2	2
Mvmt Flow	154	1	3	337	278	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	681	338	397	0	-	0
Stage 1	338	-	-	-	-	-
Stage 2	343	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	416	705	1162	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	705	1162	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	718	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.74	0.08	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	17	-	416	-	-
HCM Lane V/C Ratio	0.003	-	0.374	-	-
HCM Control Delay (s/veh)	8.1	0	18.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	1.7	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.979	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1863	0	0	1822	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1863	0	0	1822	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			661			1975			245	
Travel Time (s)		15.2			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

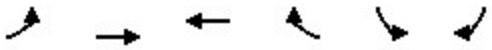
Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	0	1	0	0	15	1	215	0	5	219	42
Future Vol, veh/h	77	0	1	0	0	15	1	215	0	5	219	42
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	0	1	0	0	16	1	234	0	5	238	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	1	0	0	287	184	1	292	177	8
Stage 1	-	-	-	-	-	-	168	168	-	8	8	-
Stage 2	-	-	-	-	-	-	119	16	-	284	168	-
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	1601	-	-	1622	-	-	665	710	1084	660	717	1074
Stage 1	-	-	-	-	-	-	834	759	-	1013	889	-
Stage 2	-	-	-	-	-	-	885	882	-	723	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1601	-	-	1622	-	-	400	673	1084	416	679	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	400	673	-	416	679	-
Stage 1	-	-	-	-	-	-	790	720	-	1013	889	-
Stage 2	-	-	-	-	-	-	621	882	-	463	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.28	0	13.23	13.46
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	671	1601	-	-	1622	-	-	712
HCM Lane V/C Ratio	0.35	0.052	-	-	-	-	-	0.406
HCM Control Delay (s/veh)	13.2	7.4	-	-	0	-	-	13.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.6	0.2	-	-	0	-	-	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.975		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1816	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1816	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

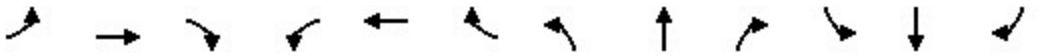
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	17	4	3	7
Future Vol, veh/h	8	30	17	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	18	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	71	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	50	-
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	1592	-	-	-	934	1057
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	972	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	928	1057
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	972	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.53	0	8.59
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	379	-	-	-	1015
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



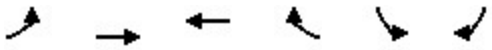
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.970			0.952			0.982			0.982	
Flt Protected		0.997			0.994			0.993			0.987	
Satd. Flow (prot)	0	3423	0	0	3349	0	0	3451	0	0	3430	0
Flt Permitted		0.997			0.994			0.993			0.987	
Satd. Flow (perm)	0	3423	0	0	3349	0	0	3451	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	269	387	313	323
Demand Flow Rate, veh/h	274	395	320	330
Vehicles Circulating, veh/h	336	297	304	314
Vehicles Exiting, veh/h	308	327	306	378
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	5.2	4.8	4.9
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	129	145	186	209	150	170	155	175
Cap Entry Lane, veh/h	991	1067	1027	1103	1021	1097	1011	1087
Entry HV Adj Factor	0.980	0.983	0.977	0.981	0.982	0.977	0.979	0.978
Flow Entry, veh/h	126	143	182	205	147	166	152	171
Cap Entry, veh/h	971	1049	1004	1082	1002	1072	990	1064
V/C Ratio	0.130	0.136	0.181	0.189	0.147	0.155	0.153	0.161
Control Delay, s/veh	4.9	4.6	5.3	5.1	4.9	4.8	5.1	4.8
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.973		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1812	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1812	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

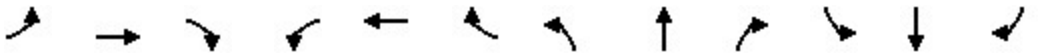
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	344	380	94	84	4
Future Vol, veh/h	6	344	380	94	84	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	2	2	2
Mvmt Flow	7	374	413	102	91	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	515	0	-	0	851	464
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	387	-
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	1050	-	-	-	330	598
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	686	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1050	-	-	-	328	598
Mov Cap-2 Maneuver	-	-	-	-	328	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	686	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.14	0	20.01
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	31	-	-	-	335
HCM Lane V/C Ratio	0.006	-	-	-	0.286
HCM Control Delay (s/veh)	8.4	0	-	-	20
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.2



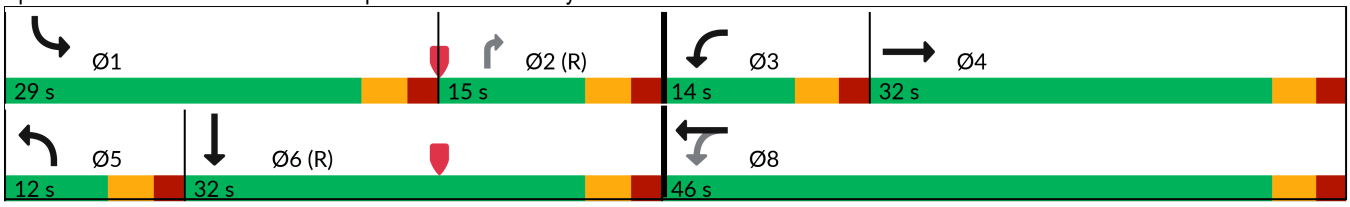
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.977							0.850		0.947	
Flt Protected				0.950			0.950			0.950	0.987	
Satd. Flow (prot)	0	4968	0	1770	3539	0	1770	0	1583	3221	1584	0
Flt Permitted				0.207			0.950			0.950	0.987	
Satd. Flow (perm)	0	4968	0	386	3539	0	1770	0	1583	3221	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40							206		30	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	499	266	431	17	182	939	157
Future Volume (vph)	499	266	431	17	182	939	157
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	32.0	14.0	46.0	12.0	15.0	29.0	32.0
Total Split (%)	35.6%	15.6%	51.1%	13.3%	16.7%	32.2%	35.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.6	31.6	31.6	6.5	10.9	32.5	32.5
Actuated g/C Ratio	0.20	0.35	0.35	0.07	0.12	0.36	0.36
v/c Ratio	0.64	1.06	0.38	0.14	0.53	0.78	0.74
Control Delay (s/veh)	33.2	94.5	33.6	41.1	10.9	32.2	33.3
Queue Delay	0.0	19.4	0.8	0.0	0.4	0.2	0.3
Total Delay (s/veh)	33.2	113.8	34.5	41.1	11.3	32.4	33.6
LOS	C	F	C	D	B	C	C
Approach Delay (s/veh)	33.2		64.8				32.8
Approach LOS	C		E				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 39.7	Intersection LOS: D
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





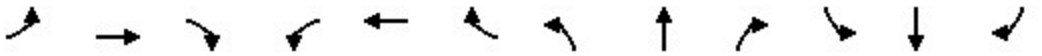
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	639	289	468	18	198	909	437
v/c Ratio	0.64	1.06	0.38	0.14	0.53	0.78	0.74
Control Delay (s/veh)	33.2	94.5	33.6	41.1	10.9	32.2	33.3
Queue Delay	0.0	19.4	0.8	0.0	0.4	0.2	0.3
Total Delay (s/veh)	33.2	113.8	34.5	41.1	11.3	32.4	33.6
Queue Length 50th (ft)	126	~181	145	10	0	246	216
Queue Length 95th (ft)	123	m#235	m169	31	57	#386	#417
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1518	273	1612	141	372	1164	591
Starvation Cap Reductn	0	80	819	0	0	0	0
Spillback Cap Reductn	21	0	0	0	25	24	13
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	1.50	0.59	0.13	0.57	0.80	0.76

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	499	89	266	431	0	17	0	182	939	157	142
Future Volume (veh/h)	0	499	89	266	431	0	17	0	182	939	157	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	542	97	289	468	0	18	0	198	959	258	154
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	789	139	307	1195	0	36	0	0	1969	523	312
Arrive On Green	0.00	0.18	0.18	0.20	0.67	0.00	0.02	0.00	0.00	0.55	0.48	0.48
Sat Flow, veh/h	0	4537	768	1781	3647	0	1781	18		3563	1097	655
Grp Volume(v), veh/h	0	420	219	289	468	0	18	54.1		959	0	412
Grp Sat Flow(s),veh/h/ln	0	1702	1732	1781	1777	0	1781	D		1781	0	1752
Q Serve(g_s), s	0.0	10.4	10.7	9.0	5.3	0.0	0.9			14.8	0.0	14.5
Cycle Q Clear(g_c), s	0.0	10.4	10.7	9.0	5.3	0.0	0.9			14.8	0.0	14.5
Prop In Lane	0.00		0.44	1.00		0.00	1.00			1.00		0.37
Lane Grp Cap(c), veh/h	0	615	313	307	1195	0	36			1969	0	836
V/C Ratio(X)	0.00	0.68	0.70	0.94	0.39	0.00	0.50			0.49	0.00	0.49
Avail Cap(c_a), veh/h	0	1021	520	307	1619	0	139			1969	0	836
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.39	0.39	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.5	34.6	28.0	10.6	0.0	43.6			12.3	0.0	16.1
Incr Delay (d2), s/veh	0.0	1.2	2.5	19.2	0.1	0.0	10.4			0.2	0.0	2.1
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
%ile BackOfQ(50%),veh/ln	0.0	4.3	4.6	6.0	1.7	0.0	0.5			5.5	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	35.7	37.1	47.2	10.7	0.0	54.1			12.5	0.0	18.2
LnGrp LOS		D	D	D	B		D			B		B
Approach Vol, veh/h		639			757						1371	
Approach Delay, s/veh		36.1			24.6						14.2	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	54.7		14.0	21.3	6.8	47.9		35.3				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		9.0	27.0	7.0	27.0		41.0				
Max Q Clear Time (g_c+I1), s	16.8		11.0	12.7	2.9	16.5		7.3				
Green Ext Time (p_c), s	2.4		0.0	3.6	0.0	1.9		3.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

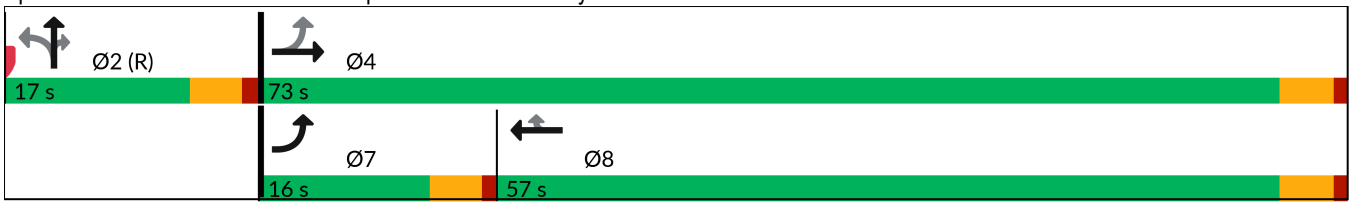
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.953	0.850		0.903	0.850			
Flt Protected	0.950						0.950	0.983				
Satd. Flow (prot)	1770	5085	0	0	1686	1504	1681	1505	1504	0	0	0
Flt Permitted	0.070						0.950	0.983				
Satd. Flow (perm)	130	5085	0	0	1686	1504	1681	1505	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					44	634		73	77			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		371			518			473			332	
Travel Time (s)		8.4			11.8			10.8			7.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	251	1338	612	1074	102	0	118
Future Volume (vph)	251	1338	612	1074	102	0	118
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	16.0	73.0	57.0	57.0	17.0	17.0	17.0
Total Split (%)	17.8%	81.1%	63.3%	63.3%	18.9%	18.9%	18.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	68.5	68.5	52.5	52.5	12.5	12.5	12.5
Actuated g/C Ratio	0.76	0.76	0.58	0.58	0.14	0.14	0.14
v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28
Control Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
LOS	D	A	D	A	D	B	B
Approach Delay (s/veh)		11.6	25.3			22.0	
Approach LOS		B	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay (s/veh): 18.9	Intersection LOS: B
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

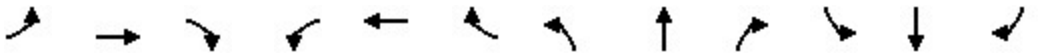




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	273	1454	968	864	83	79	77
v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28
Control Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Length 50th (ft)	102	80	494	63	45	3	0
Queue Length 95th (ft)	#246	97	#825	230	92	47	41
Internal Link Dist (ft)		291	438			393	
Turn Bay Length (ft)							
Base Capacity (vph)	308	3870	1001	1141	233	271	275
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



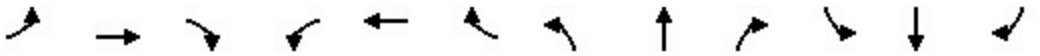
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	1338	0	0	612	1074	102	0	118	0	0	0
Future Volume (veh/h)	251	1338	0	0	612	1074	102	0	118	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	273	1454	0	0	1042	916	153	0	83			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	307	3848	0	0	1091	925	522	0	232			
Arrive On Green	0.12	0.75	0.00	0.00	0.58	0.58	0.15	0.00	0.15			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	3563	0	1585			
Grp Volume(v), veh/h	273	1454	0	0	1042	916	153	0	83			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	8.8	8.8	0.0	0.0	47.2	51.3	3.4	0.0	4.2			
Cycle Q Clear(g_c), s	8.8	8.8	0.0	0.0	47.2	51.3	3.4	0.0	4.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	307	3848	0	0	1091	925	522	0	232			
V/C Ratio(X)	0.89	0.38	0.00	0.00	0.96	0.99	0.29	0.00	0.36			
Avail Cap(c_a), veh/h	321	3886	0	0	1091	925	522	0	232			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.6	3.8	0.0	0.0	17.6	18.5	34.3	0.0	34.6			
Incr Delay (d2), s/veh	24.1	0.1	0.0	0.0	17.5	27.2	1.4	0.0	4.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	2.2	0.0	0.0	23.0	23.3	1.6	0.0	1.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.7	3.9	0.0	0.0	35.1	45.7	35.7	0.0	38.9			
LnGrp LOS	D	A			D	D	D		D			
Approach Vol, veh/h		1727			1958			236				
Approach Delay, s/veh		11.6			40.1			36.8				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		17.7		72.3			15.3	57.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		12.5		68.5			11.5	52.5				
Max Q Clear Time (g_c+I1), s		6.2		10.8			10.8	53.3				
Green Ext Time (p_c), s		0.4		16.6			0.1	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



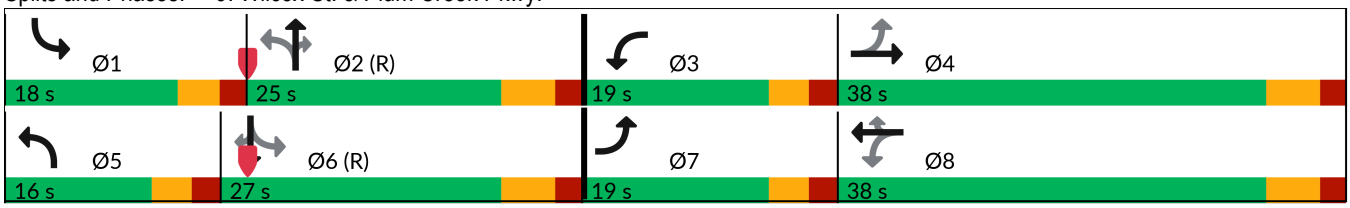
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.104			0.120			0.684			0.592		
Satd. Flow (perm)	194	3539	1583	224	3539	1583	2472	1863	1583	1103	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			142			142			266
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

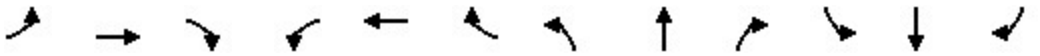
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	1138	97	66	897	110	503	139	59	176	105	245
Future Volume (vph)	257	1138	97	66	897	110	503	139	59	176	105	245
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	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)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	19.0	38.0		19.0	38.0	38.0	16.0	25.0	25.0	18.0	27.0	27.0
Total Split (%)	19.0%	38.0%		19.0%	38.0%	38.0%	16.0%	25.0%	25.0%	18.0%	27.0%	27.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		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	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	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)	51.9	40.6	100.0	41.0	32.4	32.4	32.3	20.3	20.3	33.7	21.0	21.0
Actuated g/C Ratio	0.52	0.41	1.00	0.41	0.32	0.32	0.32	0.20	0.20	0.34	0.21	0.21
v/c Ratio	0.89	0.86	0.07	0.35	0.85	0.20	0.61	0.40	0.15	0.43	0.29	0.49
Control Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
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 (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
LOS	D	D	A	B	D	A	C	D	A	C	D	A
Approach Delay (s/veh)		36.7			35.0			27.4			19.0	
Approach LOS		D			D			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 32.1	Intersection LOS: C
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

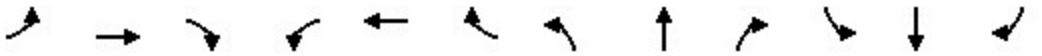




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	279	1237	105	72	975	120	547	151	64	191	114	266
v/c Ratio	0.89	0.86	0.07	0.35	0.85	0.20	0.61	0.40	0.15	0.43	0.29	0.49
Control Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
Queue Length 50th (ft)	123	385	0	22	304	0	130	86	0	83	62	0
Queue Length 95th (ft)	#271	#547	0	44	#400	28	176	147	0	137	112	65
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	321	1436	1583	322	1148	609	903	377	434	472	391	542
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	0.87	0.86	0.07	0.22	0.85	0.20	0.61	0.40	0.15	0.40	0.29	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	1138	97	66	897	110	503	139	59	176	105	245
Future Volume (veh/h)	257	1138	97	66	897	110	503	139	59	176	105	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	279	1237	0	72	975	120	547	151	64	191	114	266
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	2	2	2	2	2
Cap, veh/h	315	1373		175	1086	485	896	468	397	466	450	381
Arrive On Green	0.12	0.39	0.00	0.04	0.31	0.31	0.11	0.25	0.25	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	279	1237	0	72	975	120	547	151	64	191	114	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.2	32.8	0.0	2.7	26.3	5.7	11.0	6.6	3.2	7.9	4.9	15.3
Cycle Q Clear(g_c), s	10.2	32.8	0.0	2.7	26.3	5.7	11.0	6.6	3.2	7.9	4.9	15.3
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	315	1373		175	1086	485	896	468	397	466	450	381
V/C Ratio(X)	0.89	0.90		0.41	0.90	0.25	0.61	0.32	0.16	0.41	0.25	0.70
Avail Cap(c_a), veh/h	344	1373		348	1137	507	896	468	397	519	450	381
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)	0.77	0.77	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	23.1	28.9	0.0	25.7	33.2	26.1	25.7	30.6	29.3	24.5	30.7	34.7
Incr Delay (d2), s/veh	17.9	6.8	0.0	1.5	9.4	0.3	1.2	1.8	0.9	0.6	1.4	10.1
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	5.7	14.7	0.0	1.2	12.4	2.2	5.1	3.2	1.3	3.4	2.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.0	35.7	0.0	27.3	42.6	26.3	26.9	32.4	30.2	25.1	32.1	44.8
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1516			1167			762			571	
Approach Delay, s/veh		36.6			40.0			28.3			35.7	
Approach LOS		D			D			C			D	

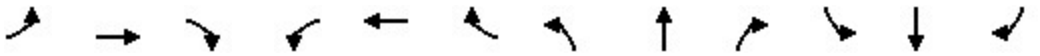
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.0	9.3	44.6	16.0	30.1	17.4	36.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	19.0	14.0	32.0	11.0	21.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	9.9	8.6	4.7	34.8	13.0	17.3	12.2	28.3
Green Ext Time (p_c), s	0.1	0.7	0.1	0.0	0.0	0.6	0.2	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	35.9
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



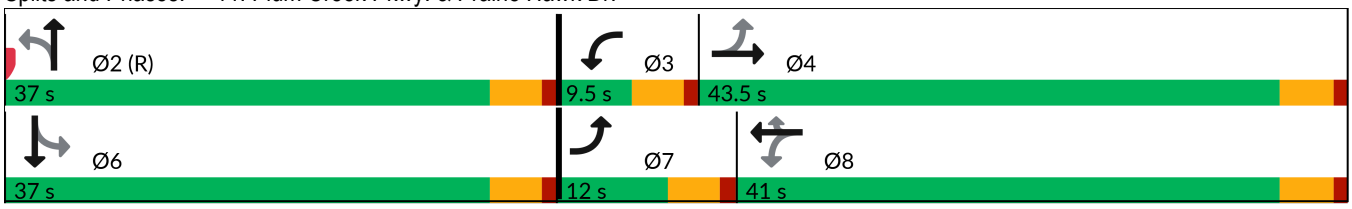
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	200		100	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.874	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	1863	0	1863	1863	1583	1863	1863	0	1770	1628	0
Flt Permitted	0.211									0.738		
Satd. Flow (perm)	393	1863	0	1863	1863	1583	1863	1863	0	1375	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						208					118	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			1497			317			1476	
Travel Time (s)		20.0			34.0			7.2			33.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	104	363	370	229	27	225	21	
Future Volume (vph)	104	363	370	229	27	225	21	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	7	4	8		2		6	3
Permitted Phases	4			8		6		
Detector Phase	7	4	8	8	2	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)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	12.0	43.5	41.0	41.0	37.0	37.0	37.0	9.5
Total Split (%)	13.3%	48.3%	45.6%	45.6%	41.1%	41.1%	41.1%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	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	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	None	C-Max	Max	Max	None
Act Effct Green (s)	35.8	35.8	26.2	26.2	45.2	45.2	45.2	
Actuated g/C Ratio	0.40	0.40	0.29	0.29	0.50	0.50	0.50	
v/c Ratio	0.42	0.53	0.74	0.41	0.03	0.36	0.16	
Control Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3	
LOS	B	C	C	A	B	B	A	
Approach Delay (s/veh)		21.5	18.1		15.7		13.7	
Approach LOS		C	B		B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 18.1	Intersection LOS: B
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.





Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	113	395	402	249	29	245	141
v/c Ratio	0.42	0.53	0.74	0.41	0.03	0.36	0.16
Control Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3
Queue Length 50th (ft)	38	158	246	6	9	86	7
Queue Length 95th (ft)	59	197	m336	m16	28	174	45
Internal Link Dist (ft)		801	1417		237		1396
Turn Bay Length (ft)	150			100		100	
Base Capacity (vph)	270	851	755	765	935	690	876
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.46	0.53	0.33	0.03	0.36	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	363	0	0	370	229	0	27	0	225	21	109
Future Volume (veh/h)	104	363	0	0	370	229	0	27	0	225	21	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	113	395	0	0	402	249	0	29	0	245	23	118
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	2	2	2	2	2
Cap, veh/h	236	697	0	284	485	411	80	987	0	798	140	718
Arrive On Green	0.06	0.37	0.00	0.00	0.26	0.26	0.00	0.53	0.00	0.53	0.53	0.53
Sat Flow, veh/h	1781	1870	0	1781	1870	1585	1248	1870	0	1381	265	1360
Grp Volume(v), veh/h	113	395	0	0	402	249	0	29	0	245	0	141
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1585	1248	1870	0	1381	0	1625
Q Serve(g_s), s	4.0	15.1	0.0	0.0	18.2	12.4	0.0	0.7	0.0	9.3	0.0	4.0
Cycle Q Clear(g_c), s	4.0	15.1	0.0	0.0	18.2	12.4	0.0	0.7	0.0	10.0	0.0	4.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.84
Lane Grp Cap(c), veh/h	236	697	0	284	485	411	80	987	0	798	0	858
V/C Ratio(X)	0.48	0.57	0.00	0.00	0.83	0.61	0.00	0.03	0.00	0.31	0.00	0.16
Avail Cap(c_a), veh/h	273	810	0	381	759	643	80	987	0	798	0	858
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	0.94	0.94	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.3	22.5	0.0	0.0	31.4	29.3	0.0	10.2	0.0	12.6	0.0	11.0
Incr Delay (d2), s/veh	1.5	0.7	0.0	0.0	4.2	1.4	0.0	0.1	0.0	1.0	0.0	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	1.7	6.5	0.0	0.0	8.6	4.8	0.0	0.3	0.0	2.9	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.8	23.2	0.0	0.0	35.6	30.6	0.0	10.3	0.0	13.6	0.0	11.4
LnGrp LOS	C	C			D	C		B		B		B
Approach Vol, veh/h		508			651			29			386	
Approach Delay, s/veh		23.6			33.7			10.3			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		52.0	0.0	38.0		52.0	10.2	27.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	5.0	39.0		32.5	7.5	36.5				
Max Q Clear Time (g_c+I1), s		2.7	0.0	17.1		12.0	6.0	20.2				
Green Ext Time (p_c), s		0.1	0.0	2.4		1.5	0.0	3.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.9
HCM 7th LOS	C



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.938	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1747	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	346			1064	387	
Travel Time (s)	7.9			24.2	12.3	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	92	0	0	110	105	89
Future Vol, veh/h	92	0	0	110	105	89
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	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	0	0	120	114	97

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	282	163	211	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	708	882	1360	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	708	882	1360	-	-	-
Mov Cap-2 Maneuver	708	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	906	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.92	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1360	-	708	-	-	-
HCM Lane V/C Ratio	-	-	0.141	-	-	-
HCM Control Delay (s/veh)	0	-	10.9	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.876	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1632	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1632	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	348			849	1064	
Travel Time (s)	7.9			19.3	24.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	104	0	0	6	8	97
Future Vol, veh/h	104	0	0	6	8	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	0	0	7	9	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	68	61	114	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	937	1004	1475	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	937	1004	1475	-	-	-
Mov Cap-2 Maneuver	937	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.37	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1475	-	937	-	-	-
HCM Lane V/C Ratio	-	-	0.121	-	-	-
HCM Control Delay (s/veh)	0	-	9.4	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.871	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1622	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1622	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	577			485	556	
Travel Time (s)	13.1			11.0	12.6	

Intersection Summary	
Area Type:	Other

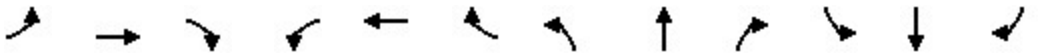
Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	122	237	268	0	4	86
Future Vol, veh/h	122	237	268	0	4	86
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	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	258	291	0	4	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	634	51	98	0	-	0
Stage 1	51	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	443	1017	1495	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	357	1017	1495	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	558	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.54	7.99	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1495	-	357	1017	-	-
HCM Lane V/C Ratio	0.195	-	0.371	0.253	-	-
HCM Control Delay (s/veh)	8	0	20.9	9.7	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.7	-	1.7	1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.985			0.865			0.901	
Flt Protected		0.968			0.976						0.987	
Satd. Flow (prot)	0	1803	0	0	1791	0	0	1611	0	0	1657	0
Flt Permitted		0.968			0.976						0.987	
Satd. Flow (perm)	0	1803	0	0	1791	0	0	1611	0	0	1657	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		610			346			1050			199	
Travel Time (s)		13.9			7.9			23.9			4.5	

Intersection Summary	
Area Type:	Other

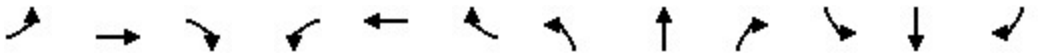
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	26	0	44	34	10	0	0	57	9	0	25
Future Vol, veh/h	49	26	0	44	34	10	0	0	57	9	0	25
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	28	0	48	37	11	0	0	62	10	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	28	0	0	267	278	28	273	273	42
Stage 1	-	-	-	-	-	-	135	135	-	138	138	-
Stage 2	-	-	-	-	-	-	133	143	-	135	135	-
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	1559	-	-	1585	-	-	685	630	1047	680	634	1028
Stage 1	-	-	-	-	-	-	869	785	-	865	782	-
Stage 2	-	-	-	-	-	-	871	778	-	869	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1585	-	-	624	589	1047	598	593	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-	624	589	-	598	593	-
Stage 1	-	-	-	-	-	-	838	758	-	838	758	-
Stage 2	-	-	-	-	-	-	822	754	-	789	758	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	4.83	3.67	8.66	9.35
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1047	1176	-	-	861	-	-	864
HCM Lane V/C Ratio	0.059	0.034	-	-	0.03	-	-	0.043
HCM Control Delay (s/veh)	8.7	7.4	0	-	7.3	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.870			0.895			0.966			0.909	
Flt Protected	0.950			0.950				0.969			0.988	
Satd. Flow (prot)	1770	1621	0	1770	1667	0	0	1744	0	0	1673	0
Flt Permitted	0.950			0.950				0.969			0.988	
Satd. Flow (perm)	1770	1621	0	1770	1667	0	0	1744	0	0	1673	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		391			348			346			1050	
Travel Time (s)		8.9			7.9			7.9			23.9	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	17	105	41	17	39	119	18	46	44	16	122
Future Vol, veh/h	108	17	105	41	17	39	119	18	46	44	16	122
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	117	18	114	45	18	42	129	20	50	48	17	133

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	133	0	0	427	460	76	392	496	40
Stage 1	-	-	-	-	-	-	310	310	-	129	129	-
Stage 2	-	-	-	-	-	-	116	150	-	263	367	-
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	1542	-	-	1452	-	-	538	498	986	567	475	1032
Stage 1	-	-	-	-	-	-	700	659	-	875	790	-
Stage 2	-	-	-	-	-	-	888	773	-	742	622	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1452	-	-	405	446	986	463	425	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	446	-	463	425	-
Stage 1	-	-	-	-	-	-	647	609	-	848	765	-
Stage 2	-	-	-	-	-	-	733	749	-	630	574	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.53	3.19	17.7	11.81
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	1542	-	-	1452	-	-	726
HCM Lane V/C Ratio	0.414	0.076	-	-	0.031	-	-	0.273
HCM Control Delay (s/veh)	17.7	7.5	-	-	7.6	-	-	11.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2	0.2	-	-	0.1	-	-	1.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.984	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1833	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1833	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	323			387	467	
Travel Time (s)	7.3			8.5	9.9	

Intersection Summary	
Area Type:	Other

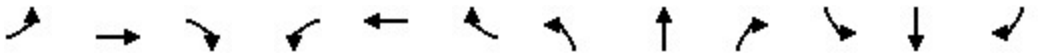
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	203	194	26
Future Vol, veh/h	13	0	0	203	194	26
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	2	2	2	2
Mvmt Flow	14	0	0	221	211	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	446	225	239	0	-	0
Stage 1	225	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	570	814	1328	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	570	814	1328	-	-	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.47	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1328	-	570	-	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s/veh)	0	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



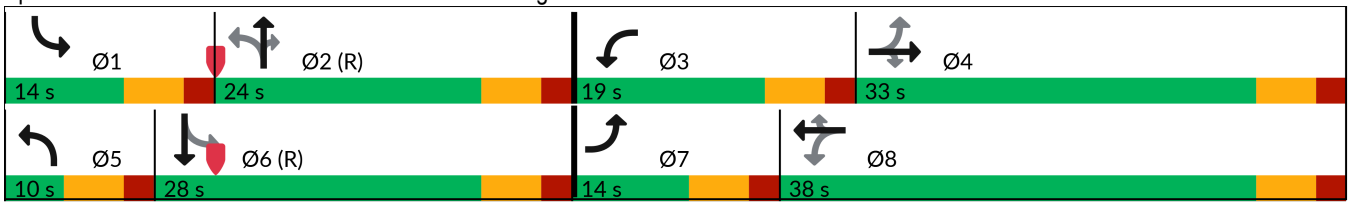
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		150	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3405	0
Flt Permitted	0.585			0.230			0.617			0.533		
Satd. Flow (perm)	1090	3539	1583	428	3539	1583	1149	3539	1583	1926	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			228			264		48	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			902			575			563	
Travel Time (s)		13.5			20.5			13.1			12.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	106	517	39	233	248	210	11	110	243	270	148
Future Volume (vph)	106	517	39	233	248	210	11	110	243	270	148
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0
Minimum Split (s)	11.0	33.0	33.0	11.0	39.0	39.0	10.0	30.0	30.0	10.0	30.0
Total Split (s)	14.0	33.0	33.0	19.0	38.0	38.0	10.0	24.0	24.0	14.0	28.0
Total Split (%)	15.6%	36.7%	36.7%	21.1%	42.2%	42.2%	11.1%	26.7%	26.7%	15.6%	31.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	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	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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.3	20.6	20.6	38.1	27.8	27.8	29.2	23.7	23.7	38.7	36.9
Actuated g/C Ratio	0.31	0.23	0.23	0.42	0.31	0.31	0.32	0.26	0.26	0.43	0.41
v/c Ratio	0.29	0.69	0.08	0.69	0.25	0.35	0.03	0.13	0.43	0.30	0.15
Control Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
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 (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
LOS	B	D	A	C	C	A	B	C	A	B	B
Approach Delay (s/veh)		31.0			19.0			13.5			16.9
Approach LOS		C			B			B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
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: 0.69	
Intersection Signal Delay (s/veh): 21.2	Intersection LOS: C
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	562	42	253	270	228	12	120	264	293	215
v/c Ratio	0.29	0.69	0.08	0.69	0.25	0.35	0.03	0.13	0.43	0.30	0.15
Control Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
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 (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
Queue Length 50th (ft)	38	155	0	92	62	0	4	27	0	52	28
Queue Length 95th (ft)	62	193	0	128	86	47	16	54	63	89	70
Internal Link Dist (ft)		512			822			495			483
Turn Bay Length (ft)	325		150	125		100	225		150	350	
Base Capacity (vph)	407	1061	602	375	1258	709	410	930	610	986	1425
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	0.28	0.53	0.07	0.67	0.21	0.32	0.03	0.13	0.43	0.30	0.15

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	517	39	233	248	210	11	110	243	270	148	50
Future Volume (veh/h)	106	517	39	233	248	210	11	110	243	270	148	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	115	562	42	253	270	228	12	120	264	293	161	54
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	2	2	2	2	2
Cap, veh/h	387	729	325	358	948	423	474	1139	508	1003	1019	330
Arrive On Green	0.07	0.21	0.21	0.13	0.27	0.27	0.01	0.32	0.32	0.08	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2638	855
Grp Volume(v), veh/h	115	562	42	253	270	228	12	120	264	293	107	108
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1716
Q Serve(g_s), s	4.5	13.4	1.9	9.6	5.4	11.1	0.4	2.1	12.2	4.8	3.5	3.7
Cycle Q Clear(g_c), s	4.5	13.4	1.9	9.6	5.4	11.1	0.4	2.1	12.2	4.8	3.5	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	387	729	325	358	948	423	474	1139	508	1003	686	663
V/C Ratio(X)	0.30	0.77	0.13	0.71	0.28	0.54	0.03	0.11	0.52	0.29	0.16	0.16
Avail Cap(c_a), veh/h	423	1066	476	383	1264	564	533	1139	508	1042	686	663
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	33.8	29.2	23.7	26.2	28.2	20.2	21.5	24.9	16.7	18.0	18.1
Incr Delay (d2), s/veh	0.4	2.1	0.2	5.5	0.2	1.1	0.0	0.2	3.8	0.2	0.5	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	1.9	5.9	0.7	4.4	2.3	4.2	0.2	0.9	5.0	1.9	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.8	35.9	29.4	29.2	26.3	29.3	20.2	21.7	28.7	16.9	18.5	18.6
LnGrp LOS	C	D	C	C	C	C	C	C	C	B	B	B
Approach Vol, veh/h		719			751			396			508	
Approach Delay, s/veh		33.9			28.2			26.3			17.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	34.8	17.7	24.5	7.0	40.8	12.2	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	18.0	13.0	27.0	4.0	22.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	6.8	14.2	11.6	15.4	2.4	5.7	6.5	13.1
Green Ext Time (p_c), s	0.1	0.6	0.1	3.0	0.0	1.0	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



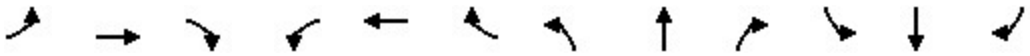
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1863	1583
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	519			602	535	
Travel Time (s)	11.8			13.7	12.2	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	315	64	438
Demand Flow Rate, veh/h	321	65	446
Vehicles Circulating, veh/h	173	321	1
Vehicles Exiting, veh/h	1	173	385
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.8	4.3	1.4
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	321	65	173	273
Cap Entry Lane, veh/h	1157	995	1378	1938
Entry HV Adj Factor	0.981	0.981	0.980	0.980
Flow Entry, veh/h	315	64	170	268
Cap Entry, veh/h	1135	975	1351	1900
V/C Ratio	0.278	0.065	0.126	0.141
Control Delay, s/veh	5.8	4.3	3.7	0.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.865						0.879	
Flt Protected		0.953						0.979			0.996	
Satd. Flow (prot)	0	1770	0	0	1611	0	0	1824	0	0	1631	0
Flt Permitted		0.953						0.979			0.996	
Satd. Flow (perm)	0	1770	0	0	1611	0	0	1824	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		602			909			1975			245	
Travel Time (s)		13.7			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	0	1	0	0	11	3	4	0	11	4	127
Future Vol, veh/h	46	0	1	0	0	11	3	4	0	11	4	127
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	0	1	0	0	12	3	4	0	12	4	138

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	1	0	0	103	113	1	108	107	6
Stage 1	-	-	-	-	-	-	101	101	-	6	6	-
Stage 2	-	-	-	-	-	-	2	12	-	102	101	-
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	1607	-	-	1622	-	-	878	778	1084	871	783	1077
Stage 1	-	-	-	-	-	-	906	812	-	1016	891	-
Stage 2	-	-	-	-	-	-	1021	886	-	904	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1622	-	-	737	753	1084	839	759	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	737	753	-	839	759	-
Stage 1	-	-	-	-	-	-	877	787	-	1016	891	-
Stage 2	-	-	-	-	-	-	885	886	-	871	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.16	0	9.87	9.06
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	746	1468	-	-	1622	-	-	1042
HCM Lane V/C Ratio	0.01	0.031	-	-	-	-	-	0.148
HCM Control Delay (s/veh)	9.9	7.3	0	-	0	-	-	9.1
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996						0.994	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	1863	0	1770	1855	0	1863	1863	0	1863	1852	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	1863	0	1770	1855	0	1863	1863	0	1863	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

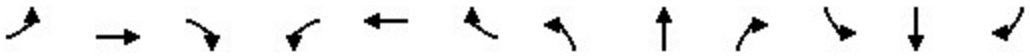
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	15	0	29	32	1	0	240	0	0	172	7
Future Vol, veh/h	3	15	0	29	32	1	0	240	0	0	172	7
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	150	-	-	150	-	-	0	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	16	0	32	35	1	0	261	0	0	187	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	469	452	191	456	455	261	195	0	0	261	0	0
Stage 1	191	191	-	261	261	-	-	-	-	-	-	-
Stage 2	278	261	-	195	195	-	-	-	-	-	-	-
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	505	503	851	515	501	778	1379	-	-	1304	-	-
Stage 1	811	742	-	744	692	-	-	-	-	-	-	-
Stage 2	728	692	-	807	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	469	503	851	498	501	778	1379	-	-	1304	-	-
Mov Cap-2 Maneuver	469	503	-	498	501	-	-	-	-	-	-	-
Stage 1	811	742	-	744	692	-	-	-	-	-	-	-
Stage 2	691	692	-	789	740	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.45	12.68	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1379	-	-	469	503	498	506	1304	-	-
HCM Lane V/C Ratio	-	-	-	0.007	0.032	0.063	0.071	-	-	-
HCM Control Delay (s/veh)	0	-	-	12.7	12.4	12.7	12.7	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0.2	0	-	-



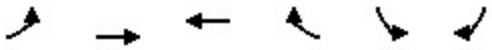
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.985			0.975			0.950			0.993	
Flt Protected		0.998			0.994			0.992			0.981	
Satd. Flow (prot)	0	3479	0	0	3430	0	0	3335	0	0	3448	0
Flt Permitted		0.998			0.994			0.992			0.981	
Satd. Flow (perm)	0	3479	0	0	3430	0	0	3335	0	0	3448	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	627	479	250	497
Demand Flow Rate, veh/h	639	489	256	507
Vehicles Circulating, veh/h	547	195	773	447
Vehicles Exiting, veh/h	407	834	413	237
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	5.0	7.3	6.7
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.470	0.530	0.469	0.531	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	300	339	230	259	120	136	238	269
Cap Entry Lane, veh/h	816	892	1128	1203	663	736	895	971
Entry HV Adj Factor	0.983	0.981	0.979	0.981	0.981	0.976	0.982	0.980
Flow Entry, veh/h	295	332	225	254	118	133	234	264
Cap Entry, veh/h	802	875	1105	1180	650	718	879	952
V/C Ratio	0.368	0.380	0.204	0.215	0.181	0.185	0.266	0.277
Control Delay, s/veh	8.9	8.5	5.1	5.0	7.7	7.1	6.9	6.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.996	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1770	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

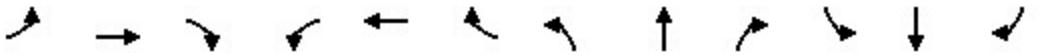
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	710	399	83	141	5
Future Vol, veh/h	8	710	399	83	141	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	150	-	-	150	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	2	2	2	2
Mvmt Flow	9	772	434	90	153	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	524	0	-	0	837	217
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1039	-	-	-	305	788
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1039	-	-	-	303	788
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.09	0	28.28
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1039	-	-	-	309
HCM Lane V/C Ratio	0.008	-	-	-	0.513
HCM Control Delay (s/veh)	8.5	-	-	-	28.3
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.8



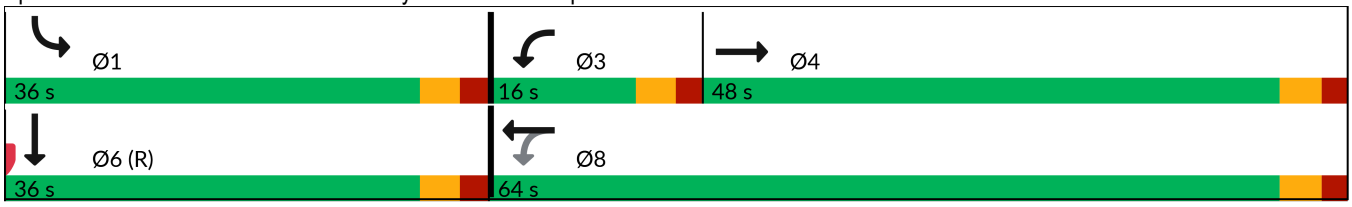
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	375		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.094						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	175	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			294									447
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		510			603			473			545	
Travel Time (s)		11.6			13.7			10.8			12.4	

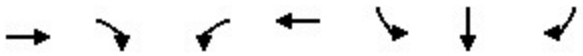
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1227	334	206	884	611	5	411
Future Volume (vph)	1227	334	206	884	611	5	411
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	48.0		16.0	64.0	36.0	36.0	
Total Split (%)	48.0%		16.0%	64.0%	36.0%	36.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	37.6	100.0	53.4	53.4	36.6	36.6	100.0
Actuated g/C Ratio	0.38	1.00	0.53	0.53	0.37	0.37	1.00
v/c Ratio	0.70	0.23	0.85	0.51	0.38	0.38	0.28
Control Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
LOS	C	A	D	B	C	C	A
Approach Delay (s/veh)	22.3			21.8		15.9	
Approach LOS	C			C		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 78 (78%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 20.3	Intersection LOS: C
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Plum Creek Pkwy. & I-25 SB Ramps





Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1334	363	224	961	445	224	447
v/c Ratio	0.70	0.23	0.85	0.51	0.38	0.38	0.28
Control Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Length 50th (ft)	256	0	88	192	114	115	0
Queue Length 95th (ft)	282	0	#204	215	173	203	0
Internal Link Dist (ft)	430			523		465	
Turn Bay Length (ft)							
Base Capacity (vph)	2186	1583	268	2088	1179	591	1583
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.23	0.84	0.46	0.38	0.38	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1227	334	206	884	0	0	0	0	611	5	411
Future Volume (veh/h)	0	1227	334	206	884	0	0	0	0	611	5	411
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1334	0	224	961	0				668	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1758		293	1750	0				2179	0	
Arrive On Green	0.00	0.34	0.00	0.10	0.49	0.00				0.41	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1334	0	224	961	0				668	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	23.2	0.0	7.7	18.8	0.0				8.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	23.2	0.0	7.7	18.8	0.0				8.5	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1758		293	1750	0				2179	0	
V/C Ratio(X)	0.00	0.76		0.77	0.55	0.00				0.31	0.00	
Avail Cap(c_a), veh/h	0	2196		314	2097	0				2179	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	29.1	0.0	22.0	17.7	0.0				20.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	10.1	0.3	0.0				0.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	9.4	0.0	3.9	7.4	0.0				3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	30.3	0.0	32.1	17.9	0.0				20.1	0.0	0.0
LnGrp LOS		C		C	B					C		
Approach Vol, veh/h		1334			1185						668	
Approach Delay, s/veh		30.3			20.6						20.1	
Approach LOS		C			C						C	

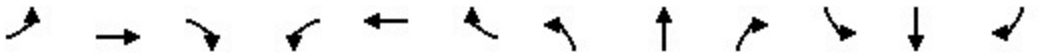
Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		14.8	39.4		45.8		54.2					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		11.0	43.0		31.0		59.0					
Max Q Clear Time (g_c+I1), s		9.7	25.2		10.5		20.8					
Green Ext Time (p_c), s		0.1	9.2		2.6		8.5					

Intersection Summary	
HCM 7th Control Delay, s/veh	24.6
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



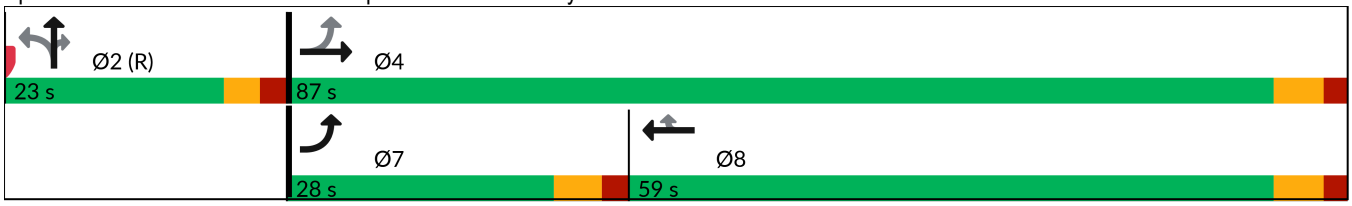
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	400		0	400		175	0		0
Storage Lanes	2		0	1		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.928	0.850		0.988	0.850			
Flt Protected	0.950						0.950	0.957				
Satd. Flow (prot)	3433	5085	0	0	3146	1441	1681	1603	1504	0	0	0
Flt Permitted	0.067						0.950	0.957				
Satd. Flow (perm)	242	5085	0	0	3146	1441	1681	1603	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					294	495		3	89			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		253			709			503			557	
Travel Time (s)		5.8			16.1			11.4			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	596	1287	746	1387	343	3	142
Future Volume (vph)	596	1287	746	1387	343	3	142
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	87.0	59.0	59.0	23.0	23.0	23.0
Total Split (%)	25.5%	79.1%	53.6%	53.6%	20.9%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	81.0	81.0	53.4	53.4	18.0	18.0	18.0
Actuated g/C Ratio	0.74	0.74	0.49	0.49	0.16	0.16	0.16
v/c Ratio	0.80	0.37	0.93	0.79	0.72	0.73	0.43
Control Delay (s/veh)	37.1	5.6	23.2	10.1	59.6	60.3	21.3
Queue Delay	51.1	3.9	0.3	0.3	0.0	0.0	0.0
Total Delay (s/veh)	88.1	9.5	23.4	10.4	59.6	60.3	21.3
LOS	F	A	C	B	E	E	C
Approach Delay (s/veh)		34.4	19.2			49.8	
Approach LOS		C	B			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 28.8	Intersection LOS: C
Intersection Capacity Utilization 99.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramp & Plum Creek Pkwy.

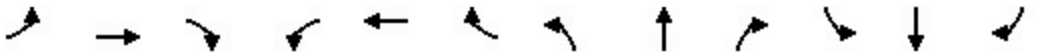




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	648	1399	1565	754	198	193	139
v/c Ratio	0.80	0.37	0.93	0.79	0.72	0.73	0.43
Control Delay (s/veh)	37.1	5.6	23.2	10.1	59.6	60.3	21.3
Queue Delay	51.1	3.9	0.3	0.3	0.0	0.0	0.0
Total Delay (s/veh)	88.1	9.5	23.4	10.4	59.6	60.3	21.3
Queue Length 50th (ft)	171	112	180	100	141	141	32
Queue Length 95th (ft)	239	133	#248	131	#247	#257	95
Internal Link Dist (ft)		173	629			423	
Turn Bay Length (ft)					400		175
Base Capacity (vph)	816	3744	1678	953	275	264	320
Starvation Cap Reductn	232	2232	8	22	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.93	0.94	0.81	0.72	0.73	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



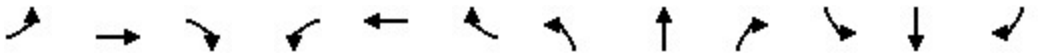
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	596	1287	0	0	746	1387	343	3	142	0	0	0
Future Volume (veh/h)	596	1287	0	0	746	1387	343	3	142	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	648	1399	0	0	811	1508	422	0	104			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	730	3586	0	0	901	1527	704	0	313			
Arrive On Green	0.17	0.70	0.00	0.00	0.48	0.48	0.20	0.00	0.20			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	648	1399	0	0	811	1508	422	0	104			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	15.0	12.4	0.0	0.0	43.6	51.7	11.9	0.0	6.2			
Cycle Q Clear(g_c), s	15.0	12.4	0.0	0.0	43.6	51.7	11.9	0.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	730	3586	0	0	901	1527	704	0	313			
V/C Ratio(X)	0.89	0.39	0.00	0.00	0.90	0.99	0.60	0.00	0.33			
Avail Cap(c_a), veh/h	848	3760	0	0	901	1527	704	0	313			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.32	0.32	0.00	0.00	0.57	0.57	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	6.7	0.0	0.0	26.1	28.2	40.2	0.0	37.9			
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.0	7.4	14.5	3.7	0.0	2.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.8	4.0	0.0	0.0	20.4	21.7	5.5	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	6.7	0.0	0.0	33.5	42.6	43.9	0.0	40.7			
LnGrp LOS	D	A			C	D	D		D			
Approach Vol, veh/h		2047			2319			526				
Approach Delay, s/veh		16.4			39.4			43.3				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.7		83.3			24.3	59.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		81.0			22.0	53.0				
Max Q Clear Time (g_c+I1), s		13.9		14.4			17.0	53.7				
Green Ext Time (p_c), s		0.8		15.9			1.2	0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			30.2									
HCM 7th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.



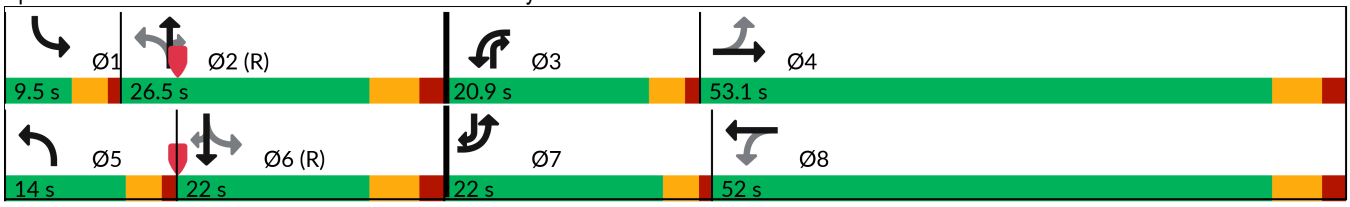
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.080			0.254			0.549			0.665		
Satd. Flow (perm)	149	3539	1583	473	5009	0	1984	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208		21				69			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	290	940	184	61	1343	551	133	42	78	91	198
Future Volume (vph)	290	940	184	61	1343	551	133	42	78	91	198
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
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	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	22.0	53.1		20.9	52.0	14.0	26.5	20.9	9.5	22.0	22.0
Total Split (%)	20.0%	48.3%		19.0%	47.3%	12.7%	24.1%	19.0%	8.6%	20.0%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	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)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	68.8	57.7	110.0	53.9	44.9	33.2	23.5	36.5	23.7	16.0	39.9
Actuated g/C Ratio	0.63	0.52	1.00	0.49	0.41	0.30	0.21	0.33	0.22	0.15	0.36
v/c Ratio	0.88	0.55	0.13	0.21	0.79	0.81	0.36	0.08	0.29	0.37	0.33
Control Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
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 (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
LOS	E	B	A	B	C	D	D	A	C	D	B
Approach Delay (s/veh)		24.6			30.5		41.0			26.0	
Approach LOS		C			C		D			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
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: 0.88	
Intersection Signal Delay (s/veh): 29.9	Intersection LOS: C
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

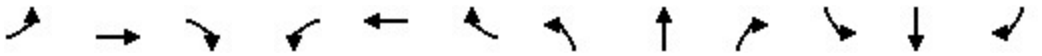




Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	315	1022	200	66	1624	599	145	46	85	99	215
v/c Ratio	0.88	0.55	0.13	0.21	0.79	0.81	0.36	0.08	0.29	0.37	0.33
Control Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
Queue Length 50th (ft)	179	128	0	16	350	187	91	0	45	64	51
Queue Length 95th (ft)	#325	331	0	33	410	#262	154	15	85	117	111
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	358	1857	1583	473	2106	744	398	707	294	270	645
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	0.88	0.55	0.13	0.14	0.77	0.81	0.36	0.07	0.29	0.37	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	940	184	61	1343	151	551	133	42	78	91	198
Future Volume (veh/h)	290	940	184	61	1343	151	551	133	42	78	91	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	315	1022	0	66	1460	164	599	145	46	85	99	215
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	2	2	2	2	2
Cap, veh/h	339	1696		345	1769	199	789	470	461	379	394	551
Arrive On Green	0.27	0.95	0.00	0.04	0.38	0.38	0.09	0.25	0.25	0.05	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	4657	523	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	315	1022	0	66	1067	557	599	145	46	85	99	215
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1776	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.7	3.4	0.0	2.5	31.1	31.2	10.0	6.9	2.3	4.1	4.9	11.3
Cycle Q Clear(g_c), s	12.7	3.4	0.0	2.5	31.1	31.2	10.0	6.9	2.3	4.1	4.9	11.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1696		345	1293	675	789	470	461	379	394	551
V/C Ratio(X)	0.93	0.60		0.19	0.83	0.83	0.76	0.31	0.10	0.22	0.25	0.39
Avail Cap(c_a), veh/h	387	1696		549	1424	743	789	470	461	379	394	551
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)	0.93	0.93	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	21.2	1.4	0.0	19.3	30.8	30.8	34.1	33.4	28.5	31.6	36.2	27.1
Incr Delay (d2), s/veh	25.4	0.6	0.0	0.3	3.8	7.0	4.3	1.7	0.4	0.3	1.5	2.1
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	6.3	0.7	0.0	1.0	13.2	14.4	3.2	3.4	0.9	1.8	2.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.5	1.9	0.0	19.5	34.6	37.9	38.5	35.1	28.9	31.9	37.7	29.2
LnGrp LOS	D	A		B	C	D	D	D	C	C	D	C
Approach Vol, veh/h		1337			1690			790			399	
Approach Delay, s/veh		12.4			35.1			37.3			31.9	
Approach LOS		B			D			D			C	

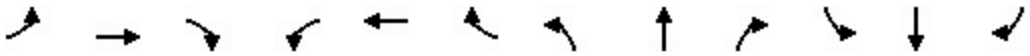
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	33.7	8.3	58.5	14.0	29.2	19.1	47.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.5	20.5	16.9	47.1	10.0	16.0	18.0	46.0
Max Q Clear Time (g_c+I1), s	6.1	8.9	4.5	5.4	12.0	13.3	14.7	33.2
Green Ext Time (p_c), s	0.0	0.6	0.1	9.5	0.0	0.3	0.3	8.6

Intersection Summary	
HCM 7th Control Delay, s/veh	28.0
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



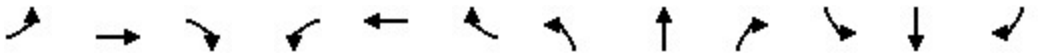
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.936									0.946	
Flt Protected		0.974						0.994				
Satd. Flow (prot)	0	1698	0	0	1863	0	0	3518	0	0	3348	0
Flt Permitted		0.974						0.994				
Satd. Flow (perm)	0	1698	0	0	1863	0	0	3518	0	0	3348	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			421			664			760	
Travel Time (s)		14.4			9.6			15.1			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	3.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	209	0	291	218
Demand Flow Rate, veh/h	213	0	297	223
Vehicles Circulating, veh/h	142	409	112	38
Vehicles Exiting, veh/h	119	0	243	371
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.4	0.0	3.9	3.4
Approach LOS	A	-	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	213	0	140	157	105	118
Cap Entry Lane, veh/h	1259	1003	1218	1291	1303	1375
Entry HV Adj Factor	0.981	1.000	0.977	0.982	0.977	0.980
Flow Entry, veh/h	209	0	137	154	103	116
Cap Entry, veh/h	1235	1003	1189	1268	1273	1348
V/C Ratio	0.169	0.000	0.115	0.122	0.081	0.086
Control Delay, s/veh	4.4	3.6	4.0	3.8	3.5	3.4
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	0	0	0	0



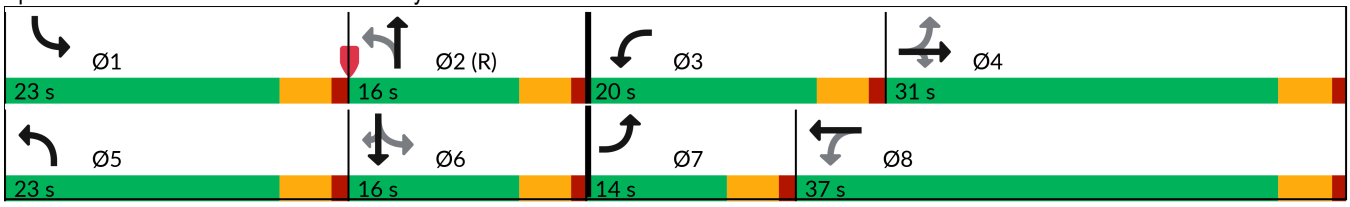
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.196			0.195			0.722			0.728		
Satd. Flow (perm)	365	3539	1583	705	3539	1583	1345	3539	1583	2631	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			454			322			182
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			686			431			741	
Travel Time (s)		20.0			15.6			9.8			16.8	

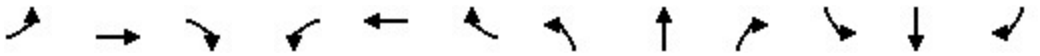
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	643	76	225	653	418	107	40	599	319	47	90
Future Volume (vph)	142	643	76	225	653	418	107	40	599	319	47	90
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.5	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.5	9.5	22.5		22.5	17.0		22.5	17.0	17.0
Total Split (s)	14.0	31.0	31.0	20.0	37.0		23.0	16.0		23.0	16.0	16.0
Total Split (%)	15.6%	34.4%	34.4%	22.2%	41.1%		25.6%	17.8%		25.6%	17.8%	17.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	34.0	25.0	25.0	34.6	25.3	90.0	37.7	11.5	90.0	37.7	11.5	11.5
Actuated g/C Ratio	0.38	0.28	0.28	0.38	0.28	1.00	0.42	0.13	1.00	0.42	0.13	0.13
v/c Ratio	0.55	0.71	0.15	0.44	0.71	0.29	0.17	0.10	0.41	0.26	0.11	0.27
Control Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
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 (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
LOS	C	C	A	B	C	A	B	D	A	B	D	A
Approach Delay (s/veh)		28.5			20.9			4.9			15.3	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 18.5	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

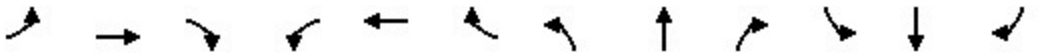




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	154	699	83	245	710	454	116	43	651	347	51	98
v/c Ratio	0.55	0.71	0.15	0.44	0.71	0.29	0.17	0.10	0.41	0.26	0.11	0.27
Control Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
Queue Length 50th (ft)	53	187	0	56	207	0	36	11	0	57	13	0
Queue Length 95th (ft)	78	224	0	m67	m225	m0	80	27	0	100	31	0
Internal Link Dist (ft)		801			606			351			661	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	288	1090	613	773	1277	1583	687	452	1583	1335	452	361
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	0.53	0.64	0.14	0.32	0.56	0.29	0.17	0.10	0.41	0.26	0.11	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	643	76	225	653	418	107	40	599	319	47	90
Future Volume (veh/h)	142	643	76	225	653	418	107	40	599	319	47	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	154	699	83	245	710	0	116	43	0	347	51	98
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	2	2	2	2	2
Cap, veh/h	280	921	411	537	904		750	911		1524	911	406
Arrive On Green	0.08	0.26	0.26	0.08	0.25	0.00	0.21	0.26	0.00	0.21	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	154	699	83	245	710	0	116	43	0	347	51	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.6	16.3	3.7	4.6	16.8	0.0	3.4	0.8	0.0	5.4	1.0	4.4
Cycle Q Clear(g_c), s	5.6	16.3	3.7	4.6	16.8	0.0	3.4	0.8	0.0	5.4	1.0	4.4
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	280	921	411	537	904		750	911		1524	911	406
V/C Ratio(X)	0.55	0.76	0.20	0.46	0.79		0.15	0.05		0.23	0.06	0.24
Avail Cap(c_a), veh/h	318	1046	467	860	1283		750	911		1524	911	406
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	30.7	26.1	23.2	31.3	0.0	13.9	25.2	0.0	14.5	25.3	26.5
Incr Delay (d2), s/veh	1.7	2.9	0.2	0.6	2.1	0.0	0.4	0.1	0.0	0.3	0.1	1.4
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	7.2	1.4	1.9	7.3	0.0	1.4	0.4	0.0	2.1	0.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.2	33.6	26.3	23.9	33.4	0.0	14.4	25.3	0.0	14.8	25.4	27.9
LnGrp LOS	C	C	C	C	C		B	C		B	C	C
Approach Vol, veh/h		936			955			159			496	
Approach Delay, s/veh		31.6			31.0			17.3			18.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	27.6	11.6	27.8	23.0	27.6	12.0	27.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	11.5	15.5	26.5	18.5	11.5	9.5	32.5
Max Q Clear Time (g_c+I1), s	7.4	2.8	6.6	18.3	5.4	6.4	7.6	18.8
Green Ext Time (p_c), s	0.9	0.1	0.5	3.2	0.2	0.2	0.1	4.1

Intersection Summary	
HCM 7th Control Delay, s/veh	27.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1150		741			664
Travel Time (s)	26.1		16.8			15.1

Intersection Summary	
Area Type:	Other

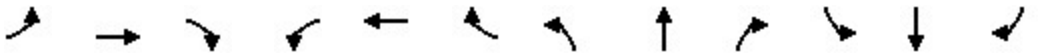
Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	637	29	29	499
Future Vol, veh/h	0	190	637	29	29	499
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	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	2	2	2	2
Mvmt Flow	0	207	692	32	32	542

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	346	0	-	692	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	650	-	0	899	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	650	-	-	899	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.1	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	650	899	-
HCM Lane V/C Ratio	-	0.318	0.035	-
HCM Control Delay (s/veh)	-	13.1	9.2	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.4	0.1	-



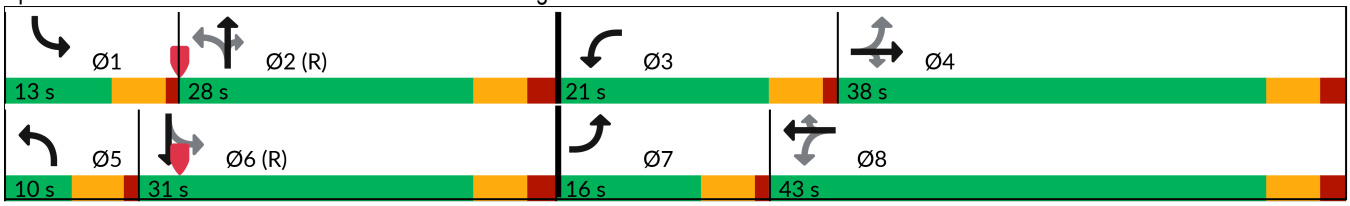
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		100	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.923	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3267	0
Flt Permitted	0.471			0.260			0.584			0.568		
Satd. Flow (perm)	877	3539	1583	484	3539	1583	1088	3539	1583	2053	3267	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			264			366		139	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			647			464			371	
Travel Time (s)		14.1			14.7			10.5			8.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	63	431	29	231	455	243	47	153	337	277	122
Future Volume (vph)	63	431	29	231	455	243	47	153	337	277	122
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	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	5.0
Minimum Split (s)	10.0	38.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0
Total Split (s)	16.0	38.0	38.0	21.0	43.0	43.0	10.0	28.0	28.0	13.0	31.0
Total Split (%)	16.0%	38.0%	38.0%	21.0%	43.0%	43.0%	10.0%	28.0%	28.0%	13.0%	31.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.0	19.2	19.2	39.9	28.3	28.3	41.7	33.6	33.6	49.0	39.1
Actuated g/C Ratio	0.28	0.19	0.19	0.40	0.28	0.28	0.42	0.34	0.34	0.49	0.39
v/c Ratio	0.22	0.69	0.08	0.66	0.49	0.41	0.10	0.14	0.47	0.26	0.20
Control Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
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 (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
LOS	B	D	A	C	C	A	B	C	A	B	B
Approach Delay (s/veh)		37.5			24.1			12.3			13.9
Approach LOS		D			C			B			B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 22.3	Intersection LOS: C
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	468	32	251	495	264	51	166	366	301	272
v/c Ratio	0.22	0.69	0.08	0.66	0.49	0.41	0.10	0.14	0.47	0.26	0.20
Control Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
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 (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
Queue Length 50th (ft)	26	146	0	107	139	0	17	39	0	53	29
Queue Length 95th (ft)	48	187	0	151	181	56	41	73	74	88	66
Internal Link Dist (ft)		542			567			384			291
Turn Bay Length (ft)	325		100	125		100	225		150	350	
Base Capacity (vph)	372	1132	603	399	1309	752	502	1189	774	1152	1361
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	0.18	0.41	0.05	0.63	0.38	0.35	0.10	0.14	0.47	0.26	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	431	29	231	455	243	47	153	337	277	122	128
Future Volume (veh/h)	63	431	29	231	455	243	47	153	337	277	122	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	68	468	32	251	495	264	51	166	366	301	133	139
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	2	2	2	2	2
Cap, veh/h	252	622	277	353	937	418	561	1427	636	1019	772	689
Arrive On Green	0.04	0.18	0.18	0.13	0.26	0.26	0.04	0.40	0.40	0.07	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	1777	1585
Grp Volume(v), veh/h	68	468	32	251	495	264	51	166	366	301	133	139
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.1	12.5	1.7	11.0	11.9	14.7	1.7	2.9	18.0	5.0	4.6	5.4
Cycle Q Clear(g_c), s	3.1	12.5	1.7	11.0	11.9	14.7	1.7	2.9	18.0	5.0	4.6	5.4
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	252	622	277	353	937	418	561	1427	636	1019	772	689
V/C Ratio(X)	0.27	0.75	0.12	0.71	0.53	0.63	0.09	0.12	0.58	0.30	0.17	0.20
Avail Cap(c_a), veh/h	370	1137	507	402	1315	586	582	1427	636	1050	772	689
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	39.2	34.7	27.8	31.5	32.5	16.2	18.8	23.3	15.1	17.3	17.5
Incr Delay (d2), s/veh	0.6	1.9	0.2	5.0	0.5	1.6	0.1	0.2	3.8	0.2	0.5	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	1.4	5.6	0.7	5.1	5.1	5.7	0.7	1.2	7.2	1.9	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.3	41.1	34.9	32.8	32.0	34.1	16.3	19.0	27.0	15.3	17.8	18.2
LnGrp LOS	C	D	C	C	C	C	B	B	C	B	B	B
Approach Vol, veh/h		568			1010			583			573	
Approach Delay, s/veh		39.7			32.7			23.8			16.5	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	46.1	18.2	23.5	8.8	49.5	9.4	32.4
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	8.0	22.0	16.0	32.0	5.0	25.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	7.0	20.0	13.0	14.5	3.7	7.4	5.1	16.7
Green Ext Time (p_c), s	0.1	0.5	0.2	3.0	0.0	1.5	0.1	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	28.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



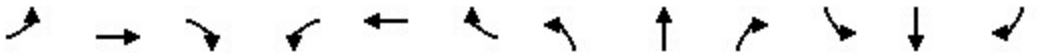
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.952			0.999		
Satd. Flow (prot)	1773	0	0	1861	1863	1583
Flt Permitted	0.952			0.999		
Satd. Flow (perm)	1773	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	444			608	533	
Travel Time (s)	10.1			13.8	12.1	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.0
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	405	141	424
Demand Flow Rate, veh/h	413	144	433
Vehicles Circulating, veh/h	138	412	4
Vehicles Exiting, veh/h	4	139	552
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	5.6	1.1
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	413	144	138	295
Cap Entry Lane, veh/h	1199	906	1374	1938
Entry HV Adj Factor	0.981	0.981	0.980	0.980
Flow Entry, veh/h	405	141	135	289
Cap Entry, veh/h	1175	889	1347	1900
V/C Ratio	0.345	0.159	0.100	0.152
Control Delay, s/veh	6.4	5.6	3.5	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	1	0	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.865						0.881	
Flt Protected		0.953						0.994			0.997	
Satd. Flow (prot)	0	1773	0	0	1611	0	0	1852	0	0	1636	0
Flt Permitted		0.953						0.994			0.997	
Satd. Flow (perm)	0	1773	0	0	1611	0	0	1852	0	0	1636	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			909			1975			245	
Travel Time (s)		13.8			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

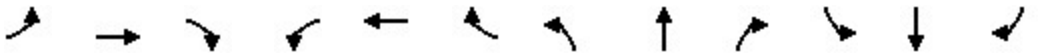
Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	96	0	1	0	0	18	1	7	0	7	9	122
Future Vol, veh/h	96	0	1	0	0	18	1	7	0	7	9	122
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	0	1	0	0	20	1	8	0	8	10	133

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	1	0	0	214	229	1	222	220	10
Stage 1	-	-	-	-	-	-	209	209	-	10	10	-
Stage 2	-	-	-	-	-	-	5	20	-	213	210	-
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	1597	-	-	1622	-	-	743	671	1084	733	679	1072
Stage 1	-	-	-	-	-	-	793	729	-	1011	887	-
Stage 2	-	-	-	-	-	-	1017	879	-	790	729	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1622	-	-	599	627	1084	678	634	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	599	627	-	678	634	-
Stage 1	-	-	-	-	-	-	741	681	-	1011	887	-
Stage 2	-	-	-	-	-	-	882	879	-	730	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.34	0	10.86	9.25
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	623	1485	-	-	1622	-	-	997
HCM Lane V/C Ratio	0.014	0.065	-	-	-	-	-	0.15
HCM Control Delay (s/veh)	10.9	7.4	0	-	0	-	-	9.2
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.973						0.990	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1812	0	1863	1863	0	1770	1844	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	1863	0	1770	1812	0	1863	1863	0	1770	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

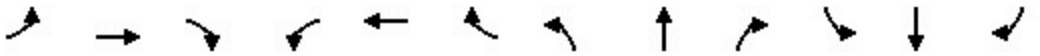
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	38	0	69	21	5	0	202	0	4	134	9
Future Vol, veh/h	11	38	0	69	21	5	0	202	0	4	134	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	150	-	-	150	-	-	0	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	41	0	75	23	5	0	220	0	4	146	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	390	379	151	395	384	220	155	0	0	220	0	0
Stage 1	159	159	-	220	220	-	-	-	-	-	-	-
Stage 2	231	220	-	175	164	-	-	-	-	-	-	-
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	569	553	896	565	550	820	1425	-	-	1350	-	-
Stage 1	843	766	-	783	721	-	-	-	-	-	-	-
Stage 2	772	721	-	827	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	540	551	896	521	548	820	1425	-	-	1350	-	-
Mov Cap-2 Maneuver	540	551	-	521	548	-	-	-	-	-	-	-
Stage 1	840	764	-	783	721	-	-	-	-	-	-	-
Stage 2	743	721	-	780	760	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12	12.63	0	0.21
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1425	-	-	540	551	521	585	1350	-	-
HCM Lane V/C Ratio	-	-	-	0.022	0.075	0.144	0.048	0.003	-	-
HCM Control Delay (s/veh)	0	-	-	11.8	12.1	13.1	11.5	7.7	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.5	0.2	0	-	-



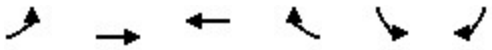
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.979			0.960			0.976			0.982	
Flt Protected		0.998			0.995			0.993			0.987	
Satd. Flow (prot)	0	3458	0	0	3381	0	0	3430	0	0	3430	0
Flt Permitted		0.998			0.995			0.993			0.987	
Satd. Flow (perm)	0	3458	0	0	3381	0	0	3430	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	472	631	413	417
Demand Flow Rate, veh/h	481	643	421	425
Vehicles Circulating, veh/h	443	373	529	531
Vehicles Exiting, veh/h	513	577	395	485
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	7.0	6.8	6.8
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	226	255	302	341	198	223	200	225
Cap Entry Lane, veh/h	898	974	958	1034	830	906	828	904
Entry HV Adj Factor	0.982	0.982	0.982	0.981	0.981	0.982	0.980	0.982
Flow Entry, veh/h	222	250	297	334	194	219	196	221
Cap Entry, veh/h	882	956	941	1014	814	889	811	888
V/C Ratio	0.252	0.262	0.315	0.330	0.239	0.246	0.241	0.249
Control Delay, s/veh	6.7	6.4	7.2	6.9	7.0	6.6	7.1	6.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.995	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1768	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

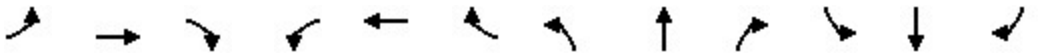
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	585	612	131	114	5
Future Vol, veh/h	8	585	612	131	114	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	150	-	-	150	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	2	2	2	2
Mvmt Flow	9	636	665	142	124	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	808	0	-	0	1001	333
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	813	-	-	-	240	663
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	813	-	-	-	237	663
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.13	0	35.37
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	244
HCM Lane V/C Ratio	0.011	-	-	-	0.531
HCM Control Delay (s/veh)	9.5	-	-	-	35.4
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.8



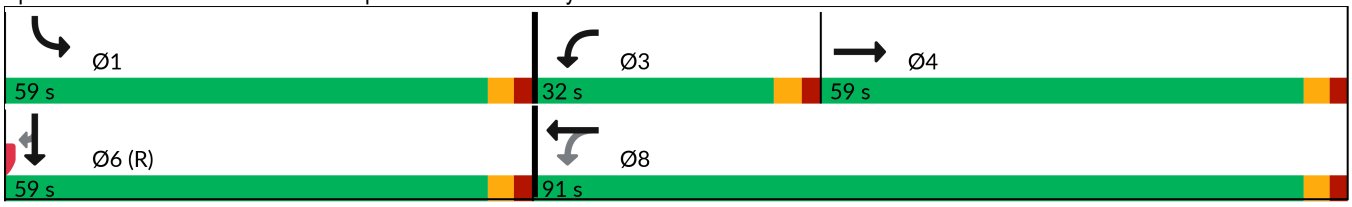
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.073						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	136	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			187									125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		819			253			493			625	
Travel Time (s)		18.6			5.8			11.2			14.2	

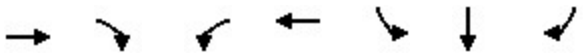
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1221	317	334	867	1181	5	385
Future Volume (vph)	1221	317	334	867	1181	5	385
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Perm
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				6
Detector Phase	4		3	8	1	6	6
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	22.5
Total Split (s)	59.0		32.0	91.0	59.0	59.0	59.0
Total Split (%)	39.3%		21.3%	60.7%	39.3%	39.3%	39.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	C-Max
Act Effct Green (s)	49.7	150.0	81.7	81.7	58.3	58.3	58.3
Actuated g/C Ratio	0.33	1.00	0.54	0.54	0.39	0.39	0.39
v/c Ratio	0.79	0.22	0.99	0.49	0.69	0.68	0.60
Control Delay (s/veh)	48.9	0.3	72.5	19.0	42.5	46.0	30.1
Queue Delay	2.1	0.0	40.5	16.6	41.2	44.8	0.0
Total Delay (s/veh)	51.1	0.3	113.0	35.6	83.7	90.8	30.1
LOS	D	A	F	D	F	F	C
Approach Delay (s/veh)	40.6			57.1		72.3	
Approach LOS	D			E		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 56.8	Intersection LOS: E
Intersection Capacity Utilization 121.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

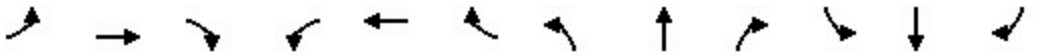




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1327	345	363	942	860	429	418
v/c Ratio	0.79	0.22	0.99	0.49	0.69	0.68	0.60
Control Delay (s/veh)	48.9	0.3	72.5	19.0	42.5	46.0	30.1
Queue Delay	2.1	0.0	40.5	16.6	41.2	44.8	0.0
Total Delay (s/veh)	51.1	0.3	113.0	35.6	83.7	90.8	30.1
Queue Length 50th (ft)	425	0	293	190	389	387	233
Queue Length 95th (ft)	468	0	m289	m174	487	551	366
Internal Link Dist (ft)	739			173		545	
Turn Bay Length (ft)							175
Base Capacity (vph)	1830	1583	368	2029	1251	627	691
Starvation Cap Reductn	0	0	135	1090	0	0	0
Spillback Cap Reductn	347	0	0	0	452	227	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.22	1.56	1.00	1.08	1.07	0.60

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1221	317	334	867	0	0	0	0	1181	5	385
Future Volume (veh/h)	0	1221	317	334	867	0	0	0	0	1181	5	385
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1327	0	363	942	0				1288	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1592		382	1835	0				2228	0	
Arrive On Green	0.00	0.31	0.00	0.23	0.69	0.00				0.42	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1327	0	363	942	0				1288	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	36.2	0.0	23.5	19.2	0.0				27.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	36.2	0.0	23.5	19.2	0.0				27.8	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1592		382	1835	0				2228	0	
V/C Ratio(X)	0.00	0.83		0.95	0.51	0.00				0.58	0.00	
Avail Cap(c_a), veh/h	0	1838		398	2037	0				2228	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	48.0	0.0	38.1	14.4	0.0				33.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.1	0.0	5.6	0.0	0.0				0.4	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	15.9	0.0	13.5	6.7	0.0				12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	51.1	0.0	43.7	14.4	0.0				34.0	0.0	0.0
LnGrp LOS		D		D	B					C		
Approach Vol, veh/h		1327			1305						1288	
Approach Delay, s/veh		51.1			22.5						34.0	
Approach LOS		D			C						C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		30.7	51.8		67.5		82.5					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		27.0	54.0		54.0		86.0					
Max Q Clear Time (g_c+I1), s		25.5	38.2		29.8		21.2					
Green Ext Time (p_c), s		0.2	8.5		5.8		8.8					

Intersection Summary	
HCM 7th Control Delay, s/veh	36.0
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

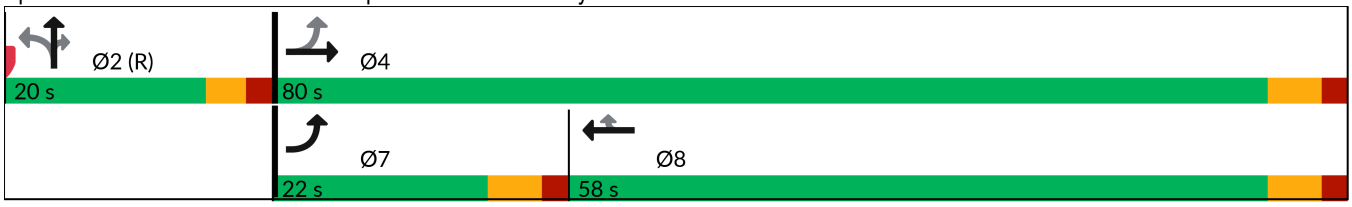
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.939	0.850		0.986	0.850			
Flt Protected	0.950						0.950	0.958				
Satd. Flow (prot)	3433	5085	0	0	3183	1441	1681	1601	1504	0	0	0
Flt Permitted	0.068						0.950	0.958				
Satd. Flow (perm)	246	5085	0	0	3183	1441	1681	1601	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					217	526		4	98			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			541			529			558	
Travel Time (s)		13.5			12.3			12.0			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	492	1870	918	1350	295	4	149
Future Volume (vph)	492	1870	918	1350	295	4	149
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	80.0	58.0	58.0	20.0	20.0	20.0
Total Split (%)	22.0%	80.0%	58.0%	58.0%	20.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	74.0	74.0	52.4	52.4	15.0	15.0	15.0
Actuated g/C Ratio	0.74	0.74	0.52	0.52	0.15	0.15	0.15
v/c Ratio	0.79	0.54	0.95	0.77	0.67	0.70	0.47
Control Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
LOS	C	A	C	B	D	E	C
Approach Delay (s/veh)		11.9	26.6			45.0	
Approach LOS		B	C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 21.4	Intersection LOS: C
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.





Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	535	2033	1687	778	170	171	146
v/c Ratio	0.79	0.54	0.95	0.77	0.67	0.70	0.47
Control Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Length 50th (ft)	116	172	491	124	109	112	28
Queue Length 95th (ft)	176	202	#697	325	#201	#215	91
Internal Link Dist (ft)		512	461			449	
Turn Bay Length (ft)							150
Base Capacity (vph)	691	3762	1771	1005	252	243	308
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.54	0.95	0.77	0.67	0.70	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	1870	0	0	918	1350	295	4	149	0	0	0
Future Volume (veh/h)	492	1870	0	0	918	1350	295	4	149	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	535	2033	0	0	998	1467	373	0	109			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	613	3655	0	0	973	1648	621	0	276			
Arrive On Green	0.14	0.72	0.00	0.00	0.52	0.52	0.17	0.00	0.17			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	535	2033	0	0	998	1467	373	0	109			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	10.9	18.8	0.0	0.0	52.0	41.3	9.7	0.0	6.1			
Cycle Q Clear(g_c), s	10.9	18.8	0.0	0.0	52.0	41.3	9.7	0.0	6.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	613	3655	0	0	973	1648	621	0	276			
V/C Ratio(X)	0.87	0.56	0.00	0.00	1.03	0.89	0.60	0.00	0.39			
Avail Cap(c_a), veh/h	697	3779	0	0	973	1648	621	0	276			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.9	6.7	0.0	0.0	24.0	21.4	38.1	0.0	36.6			
Incr Delay (d2), s/veh	10.7	0.2	0.0	0.0	35.7	6.5	4.3	0.0	4.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	5.7	0.0	0.0	30.8	15.7	4.5	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.6	6.9	0.0	0.0	59.7	27.9	42.4	0.0	40.8			
LnGrp LOS	D	A			F	C	D		D			
Approach Vol, veh/h		2568			2465			482				
Approach Delay, s/veh		14.3			40.8			42.0				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		22.4		77.6			19.6	58.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		15.0		74.0			16.0	52.0				
Max Q Clear Time (g_c+I1), s		11.7		20.8			12.9	54.0				
Green Ext Time (p_c), s		0.6		28.6			0.7	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	28.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

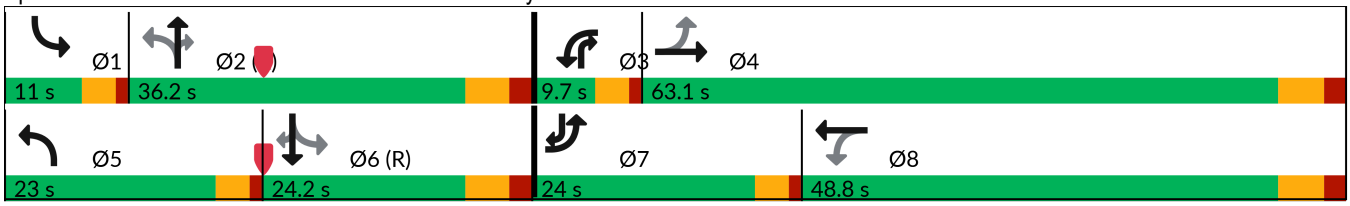
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.085			0.093			0.462			0.637		
Satd. Flow (perm)	158	3539	1583	173	5009	0	1670	1863	1583	1187	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			227		18				100			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	343	1549	169	83	1221	665	176	74	221	132	328
Future Volume (vph)	343	1549	169	83	1221	665	176	74	221	132	328
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
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	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	24.0	63.1		9.7	48.8	23.0	36.2	9.7	11.0	24.2	24.0
Total Split (%)	20.0%	52.6%		8.1%	40.7%	19.2%	30.2%	8.1%	9.2%	20.2%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	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)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	68.8	57.1	120.0	50.5	42.8	43.2	30.2	41.9	27.2	18.2	44.2
Actuated g/C Ratio	0.57	0.48	1.00	0.42	0.36	0.36	0.25	0.35	0.23	0.15	0.37
v/c Ratio	1.04	1.00	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55
Control Delay (s/veh)	92.6	53.8	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Delay	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.6	72.6	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
LOS	F	E	A	D	D	D	D	A	E	D	C
Approach Delay (s/veh)		70.0			39.2		37.6			40.5	
Approach LOS		E			D		D			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: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 51.5	Intersection LOS: D
Intersection Capacity Utilization 90.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.



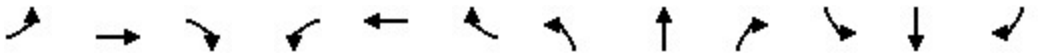


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	373	1684	184	90	1478	723	191	80	240	143	357
v/c Ratio	1.04	1.00	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55
Control Delay (s/veh)	92.6	53.8	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Delay	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.6	72.6	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Length 50th (ft)	~259	~668	0	30	374	232	124	0	137	103	155
Queue Length 95th (ft)	#454	#854	0	#80	437	294	195	23	#246	171	253
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	359	1683	1583	148	1798	880	468	617	303	282	646
Starvation Cap Reductn	0	90	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	1.04	1.06	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	1549	169	83	1221	139	665	176	74	221	132	328
Future Volume (veh/h)	343	1549	169	83	1221	139	665	176	74	221	132	328
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	373	1684	0	90	1327	151	723	191	80	240	143	357
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	2	2	2	2	2
Cap, veh/h	392	1691		143	1652	188	812	473	474	334	286	507
Arrive On Green	0.17	0.48	0.00	0.05	0.36	0.36	0.16	0.25	0.25	0.06	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	4650	529	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	373	1684	0	90	971	507	723	191	80	240	143	357
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1775	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	18.4	56.7	0.0	3.8	30.9	30.9	19.0	10.2	4.5	7.0	8.4	18.4
Cycle Q Clear(g_c), s	18.4	56.7	0.0	3.8	30.9	30.9	19.0	10.2	4.5	7.0	8.4	18.4
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	1691		143	1209	631	812	473	474	334	286	507
V/C Ratio(X)	0.95	1.00		0.63	0.80	0.80	0.89	0.40	0.17	0.72	0.50	0.70
Avail Cap(c_a), veh/h	392	1691		146	1214	633	812	473	474	334	286	507
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)	0.29	0.29	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	32.3	31.3	0.0	30.2	34.9	34.9	36.4	37.3	31.0	44.4	46.6	35.8
Incr Delay (d2), s/veh	14.6	10.8	0.0	8.1	4.0	7.4	12.0	2.5	0.8	7.3	6.1	8.0
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	12.5	25.9	0.0	1.9	13.3	14.5	10.3	5.0	1.8	4.0	4.4	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.9	42.2	0.0	38.3	38.9	42.3	48.4	39.8	31.8	51.7	52.7	43.8
LnGrp LOS	D	D		D	D	D	D	D	C	D	D	D
Approach Vol, veh/h		2057			1568			994			740	
Approach Delay, s/veh		43.0			40.0			45.4			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.4	9.5	63.1	23.0	24.4	24.0	48.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	7.0	30.2	5.7	57.1	19.0	18.2	20.0	42.8
Max Q Clear Time (g_c+I1), s	9.0	12.2	5.8	58.7	21.0	20.4	20.4	32.9
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	6.5

Intersection Summary	
HCM 7th Control Delay, s/veh	43.3
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] 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												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.951									0.939	
Flt Protected		0.969						0.986				
Satd. Flow (prot)	0	1717	0	0	1863	0	0	3490	0	0	3323	0
Flt Permitted		0.969						0.986				
Satd. Flow (perm)	0	1717	0	0	1863	0	0	3490	0	0	3323	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			891			763			760	
Travel Time (s)		14.4			20.3			17.3			17.3	

Intersection Summary

Area Type: Other

Intersection	
Intersection Delay, s/veh	3.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	134	0	260	220
Demand Flow Rate, veh/h	137	0	266	225
Vehicles Circulating, veh/h	133	353	87	78
Vehicles Exiting, veh/h	170	0	183	275
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	0.0	3.7	3.5
Approach LOS	A	-	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	137	0	125	141	106	119
Cap Entry Lane, veh/h	1268	1052	1246	1319	1256	1329
Entry HV Adj Factor	0.978	1.000	0.979	0.978	0.977	0.982
Flow Entry, veh/h	134	0	122	138	104	117
Cap Entry, veh/h	1241	1052	1220	1290	1228	1305
V/C Ratio	0.108	0.000	0.100	0.107	0.084	0.090
Control Delay, s/veh	3.8	3.4	3.8	3.7	3.6	3.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0

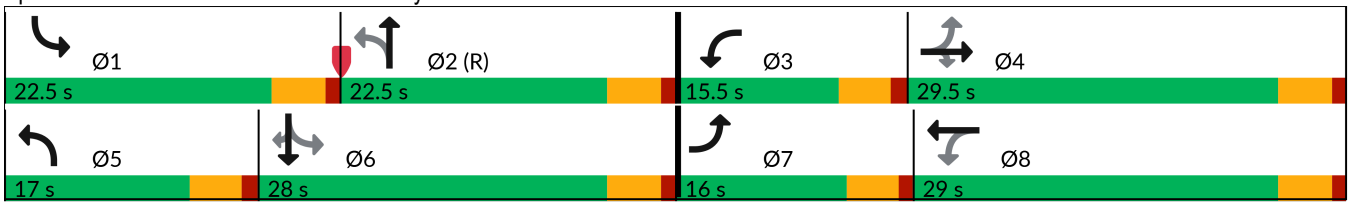
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.261			0.143			0.692			0.558		
Satd. Flow (perm)	486	3539	1583	517	3539	1583	1289	3539	1583	2016	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			329			356			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			659			431			594	
Travel Time (s)		20.0			15.0			9.8			13.5	

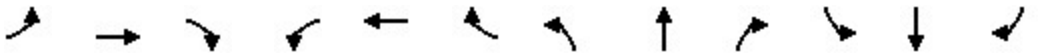
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	728	89	312	637	303	82	70	437	373	88	114
Future Volume (vph)	93	728	89	312	637	303	82	70	437	373	88	114
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	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	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	16.0	29.5	29.5	15.5	29.0		17.0	22.5		22.5	28.0	28.0
Total Split (%)	17.8%	32.8%	32.8%	17.2%	32.2%		18.9%	25.0%		25.0%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	32.5	24.0	24.0	36.5	28.0	90.0	32.1	18.0	90.0	42.1	23.5	23.5
Actuated g/C Ratio	0.36	0.27	0.27	0.41	0.31	1.00	0.36	0.20	1.00	0.47	0.26	0.26
v/c Ratio	0.34	0.84	0.17	0.62	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24
Control Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
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 (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
LOS	B	D	A	C	C	A	B	C	A	B	C	A
Approach Delay (s/veh)		34.1			21.0			6.1			15.3	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 21.0	Intersection LOS: C
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	791	97	339	692	329	89	76	475	405	96	124
v/c Ratio	0.34	0.84	0.17	0.62	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24
Control Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
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 (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
Queue Length 50th (ft)	32	219	0	58	177	0	28	18	0	71	21	0
Queue Length 95th (ft)	62	290	0	91	248	0	56	37	0	103	41	40
Internal Link Dist (ft)		801			579			351			514	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	355	984	571	567	1099	1583	535	707	1583	1253	924	507
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	0.28	0.80	0.17	0.60	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	728	89	312	637	303	82	70	437	373	88	114
Future Volume (veh/h)	93	728	89	312	637	303	82	70	437	373	88	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	101	791	97	339	692	0	89	76	0	405	96	124
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	2	2	2	2	2
Cap, veh/h	278	913	407	544	1042		615	879		1444	1096	489
Arrive On Green	0.06	0.26	0.26	0.10	0.29	0.00	0.14	0.25	0.00	0.20	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	101	791	97	339	692	0	89	76	0	405	96	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.7	19.1	4.4	6.3	15.4	0.0	2.9	1.5	0.0	6.3	1.7	5.3
Cycle Q Clear(g_c), s	3.7	19.1	4.4	6.3	15.4	0.0	2.9	1.5	0.0	6.3	1.7	5.3
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	278	913	407	544	1042		615	879		1444	1096	489
V/C Ratio(X)	0.36	0.87	0.24	0.62	0.66		0.14	0.09		0.28	0.09	0.25
Avail Cap(c_a), veh/h	400	987	440	636	1042		615	879		1444	1096	489
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	32.0	26.5	23.2	27.9	0.0	17.8	26.0	0.0	14.4	22.1	23.3
Incr Delay (d2), s/veh	0.8	7.8	0.3	1.5	1.6	0.0	0.5	0.2	0.0	0.5	0.2	1.2
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	1.6	9.0	1.7	2.6	6.6	0.0	1.2	0.6	0.0	2.5	0.7	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.0	39.7	26.8	24.7	29.5	0.0	18.3	26.2	0.0	14.9	22.3	24.6
LnGrp LOS	C	D	C	C	C		B	C		B	C	C
Approach Vol, veh/h		989			1031			165			625	
Approach Delay, s/veh		36.8			27.9			22.0			18.0	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.8	13.1	27.6	17.0	32.3	9.8	30.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	11.0	25.0	12.5	23.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	8.3	3.5	8.3	21.1	4.9	7.3	5.7	17.4
Green Ext Time (p_c), s	1.1	0.3	0.3	2.0	0.1	0.8	0.1	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	28.5
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1217		594			763
Travel Time (s)	27.7		13.5			17.3

Intersection Summary	
Area Type:	Other

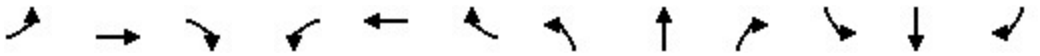
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	88	397	69	69	574
Future Vol, veh/h	0	88	397	69	69	574
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	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	2	2	2	2
Mvmt Flow	0	96	432	75	75	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	216	0	-	432	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	789	-	0	1124	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	789	-	-	1124	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.1	9	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	789	1124	-
HCM Lane V/C Ratio	-	0.121	0.067	-
HCM Control Delay (s/veh)	-	10.2	8.4	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	0.4	0.2	-



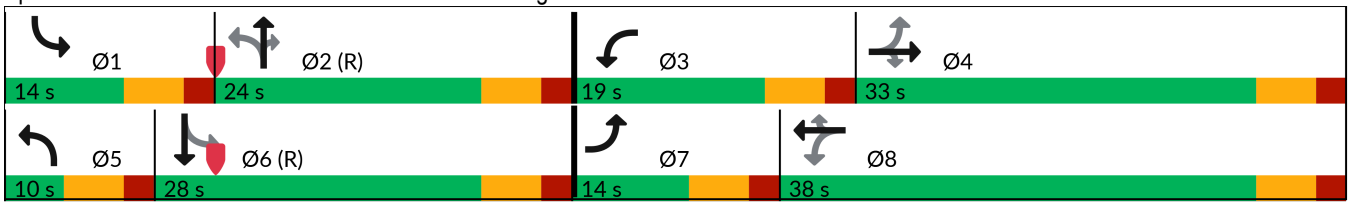
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		150	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3444	0
Flt Permitted	0.585			0.228			0.568			0.505		
Satd. Flow (perm)	1090	3539	1583	425	3539	1583	1058	3539	1583	1825	3444	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			228			306		27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		574			591			422			635	
Travel Time (s)		13.0			13.4			9.6			14.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	106	517	64	298	248	210	22	158	292	270	228
Future Volume (vph)	106	517	64	298	248	210	22	158	292	270	228
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0
Minimum Split (s)	11.0	33.0	33.0	11.0	37.0	37.0	10.0	29.0	29.0	10.0	29.0
Total Split (s)	14.0	33.0	33.0	19.0	38.0	38.0	10.0	24.0	24.0	14.0	28.0
Total Split (%)	15.6%	36.7%	36.7%	21.1%	42.2%	42.2%	11.1%	26.7%	26.7%	15.6%	31.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	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	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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.3	20.6	20.6	38.7	28.3	28.3	28.8	23.1	23.1	37.9	33.8
Actuated g/C Ratio	0.31	0.23	0.23	0.43	0.31	0.31	0.32	0.26	0.26	0.42	0.38
v/c Ratio	0.29	0.69	0.14	0.86	0.24	0.35	0.06	0.19	0.50	0.31	0.23
Control Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
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 (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
LOS	B	D	A	D	C	A	B	C	A	B	C
Approach Delay (s/veh)		29.8			25.2			15.1			19.4
Approach LOS		C			C			B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
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: 0.86	
Intersection Signal Delay (s/veh): 23.2	Intersection LOS: C
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

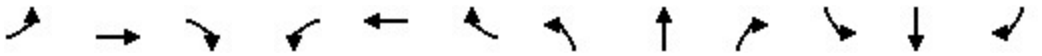




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	562	70	324	270	228	24	172	317	293	302
v/c Ratio	0.29	0.69	0.14	0.86	0.24	0.35	0.06	0.19	0.50	0.31	0.23
Control Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
Queue Length 50th (ft)	38	155	0	123	62	0	8	40	5	52	49
Queue Length 95th (ft)	62	193	0	#217	86	47	25	72	76	89	105
Internal Link Dist (ft)		494			511			342			555
Turn Bay Length (ft)	325		150	125		100	225		150	350	
Base Capacity (vph)	407	1061	602	377	1268	713	383	906	633	937	1311
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	0.28	0.53	0.12	0.86	0.21	0.32	0.06	0.19	0.50	0.31	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	517	64	298	248	210	22	158	292	270	228	50
Future Volume (veh/h)	106	517	64	298	248	210	22	158	292	270	228	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	115	562	70	324	270	228	24	172	317	293	248	54
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	2	2	2	2	2
Cap, veh/h	387	732	326	382	1002	447	441	1079	481	906	1057	226
Arrive On Green	0.07	0.21	0.21	0.14	0.28	0.28	0.02	0.30	0.30	0.08	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2912	623
Grp Volume(v), veh/h	115	562	70	324	270	228	24	172	317	293	150	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1758
Q Serve(g_s), s	4.5	13.4	3.3	12.6	5.3	10.9	0.8	3.2	15.7	5.0	5.3	5.4
Cycle Q Clear(g_c), s	4.5	13.4	3.3	12.6	5.3	10.9	0.8	3.2	15.7	5.0	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	387	732	326	382	1002	447	441	1079	481	906	645	638
V/C Ratio(X)	0.30	0.77	0.21	0.85	0.27	0.51	0.05	0.16	0.66	0.32	0.23	0.24
Avail Cap(c_a), veh/h	424	1066	476	382	1264	564	485	1079	481	939	645	638
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	33.7	29.7	23.6	25.1	27.1	20.9	22.9	27.3	18.0	19.9	20.0
Incr Delay (d2), s/veh	0.4	2.1	0.3	16.1	0.1	0.9	0.1	0.3	6.9	0.2	0.8	0.9
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	5.9	1.3	6.8	2.2	4.1	0.3	1.4	6.7	2.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.7	35.8	30.0	39.7	25.3	28.0	20.9	23.2	34.2	18.2	20.8	20.9
LnGrp LOS	C	D	C	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		747			822			513			595	
Approach Delay, s/veh		33.7			31.7			29.9			19.5	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	33.3	19.0	24.5	7.8	38.7	12.2	31.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	18.0	13.0	27.0	4.0	22.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	7.0	17.7	14.6	15.4	2.8	7.4	6.5	12.9
Green Ext Time (p_c), s	0.1	0.1	0.0	3.1	0.0	1.5	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



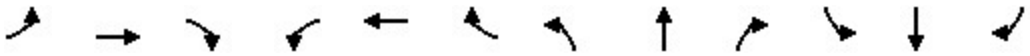
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1863	1583
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	412			603	542	
Travel Time (s)	9.4			13.7	12.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.2
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	342	155	622
Demand Flow Rate, veh/h	349	158	634
Vehicles Circulating, veh/h	306	349	1
Vehicles Exiting, veh/h	1	306	506
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.3	5.4	2.2
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	349	158	306	328
Cap Entry Lane, veh/h	1010	967	1378	1938
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	342	155	300	322
Cap Entry, veh/h	990	948	1351	1900
V/C Ratio	0.346	0.163	0.222	0.169
Control Delay, s/veh	7.3	5.4	4.5	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	1	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.934	
Flt Protected	0.950							0.998			0.998	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1859	0	0	1736	0
Flt Permitted	0.950							0.998			0.998	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1859	0	0	1736	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		603			706			1975			245	
Travel Time (s)		13.7			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

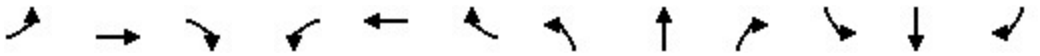
Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	0	1	0	0	11	3	83	0	11	122	129
Future Vol, veh/h	51	0	1	0	0	11	3	83	0	11	122	129
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	0	1	0	0	12	3	90	0	12	133	140

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	1	0	0	178	123	1	162	118	6
Stage 1	-	-	-	-	-	-	111	111	-	6	6	-
Stage 2	-	-	-	-	-	-	66	12	-	156	112	-
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	1607	-	-	1622	-	-	784	767	1084	803	772	1077
Stage 1	-	-	-	-	-	-	894	803	-	1016	891	-
Stage 2	-	-	-	-	-	-	944	886	-	846	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1622	-	-	545	741	1084	684	746	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	741	-	684	746	-
Stage 1	-	-	-	-	-	-	863	775	-	1016	891	-
Stage 2	-	-	-	-	-	-	699	886	-	722	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.18	0	10.64	11.09
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	731	1607	-	-	1622	-	-	875
HCM Lane V/C Ratio	0.128	0.034	-	-	-	-	-	0.326
HCM Control Delay (s/veh)	10.6	7.3	-	-	0	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996			0.996			0.995	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	1863	0	1770	1855	0	1863	1855	0	1863	1853	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	1863	0	1770	1855	0	1863	1855	0	1863	1853	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

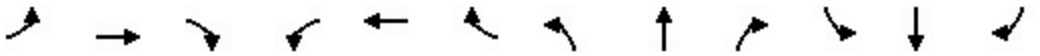
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	15	0	31	32	1	0	265	6	0	221	7
Future Vol, veh/h	3	15	0	31	32	1	0	265	6	0	221	7
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	150	-	-	150	-	-	0	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	16	0	34	35	1	0	288	7	0	240	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	549	539	244	540	539	291	248	0	0	295	0	0
Stage 1	244	244	-	291	291	-	-	-	-	-	-	-
Stage 2	305	295	-	248	248	-	-	-	-	-	-	-
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	446	449	795	453	449	748	1318	-	-	1267	-	-
Stage 1	760	704	-	717	671	-	-	-	-	-	-	-
Stage 2	704	669	-	756	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	449	795	436	449	748	1318	-	-	1267	-	-
Mov Cap-2 Maneuver	411	449	-	436	449	-	-	-	-	-	-	-
Stage 1	760	704	-	717	671	-	-	-	-	-	-	-
Stage 2	667	669	-	738	701	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.4	13.76	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	411	449	436	455	1267	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.036	0.077	0.079	-	-	-
HCM Control Delay (s/veh)	0	-	-	13.8	13.3	13.9	13.6	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0.3	0	-	-



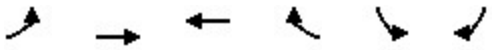
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.987			0.977			0.941			0.993	
Flt Protected		0.998			0.993			0.993			0.981	
Satd. Flow (prot)	0	3486	0	0	3434	0	0	3307	0	0	3448	0
Flt Permitted		0.998			0.993			0.993			0.981	
Satd. Flow (perm)	0	3486	0	0	3434	0	0	3307	0	0	3448	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	704	530	274	497
Demand Flow Rate, veh/h	717	541	280	507
Vehicles Circulating, veh/h	558	195	851	499
Vehicles Exiting, veh/h	448	936	424	237
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.6	5.3	8.2	7.2
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.471	0.529	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	337	380	254	287	132	148	238	269
Cap Entry Lane, veh/h	808	884	1128	1203	617	689	853	929
Entry HV Adj Factor	0.981	0.981	0.982	0.980	0.977	0.983	0.982	0.980
Flow Entry, veh/h	331	373	249	281	129	145	234	264
Cap Entry, veh/h	793	867	1107	1179	603	677	838	910
V/C Ratio	0.417	0.430	0.225	0.239	0.214	0.215	0.279	0.290
Control Delay, s/veh	9.8	9.4	5.3	5.2	8.7	7.8	7.3	7.0
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.996	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1770	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

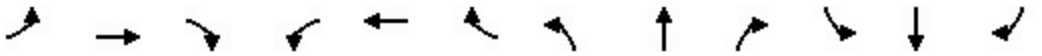
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	763	447	83	141	5
Future Vol, veh/h	8	763	447	83	141	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	150	-	-	150	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	2	2	2	2
Mvmt Flow	9	829	486	90	153	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	576	0	-	0	918	243
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	993	-	-	-	271	758
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	993	-	-	-	268	758
Mov Cap-2 Maneuver	-	-	-	-	268	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.09	0	34.63
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	993	-	-	-	275
HCM Lane V/C Ratio	0.009	-	-	-	0.578
HCM Control Delay (s/veh)	8.7	-	-	-	34.6
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.3



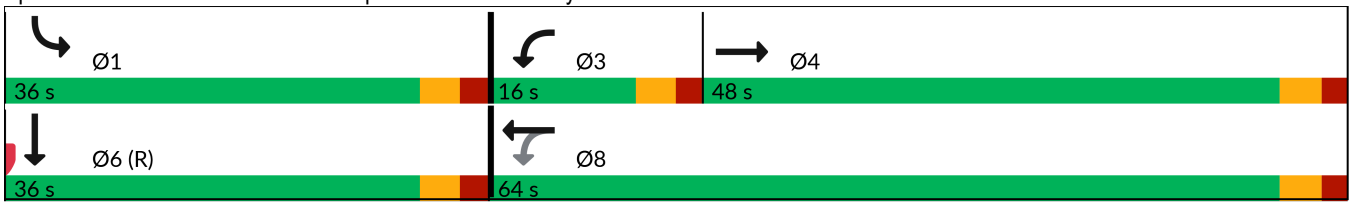
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		0
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.089						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	166	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			301									459
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			253			493			625	
Travel Time (s)		19.3			5.8			11.2			14.2	

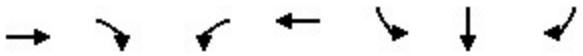
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1329	370	206	991	611	5	512
Future Volume (vph)	1329	370	206	991	611	5	512
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	48.0		16.0	64.0	36.0	36.0	
Total Split (%)	48.0%		16.0%	64.0%	36.0%	36.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	39.7	100.0	55.6	55.6	34.4	34.4	100.0
Actuated g/C Ratio	0.40	1.00	0.56	0.56	0.34	0.34	1.00
v/c Ratio	0.72	0.25	0.84	0.55	0.40	0.40	0.35
Control Delay (s/veh)	27.4	0.4	48.5	15.1	27.2	28.9	0.6
Queue Delay	0.0	0.0	0.0	38.6	0.0	0.0	0.0
Total Delay (s/veh)	27.4	0.4	48.5	53.7	27.2	28.9	0.6
LOS	C	A	D	D	C	C	A
Approach Delay (s/veh)	21.5			52.8		15.4	
Approach LOS	C			D		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 29.1	Intersection LOS: C
Intersection Capacity Utilization 112.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

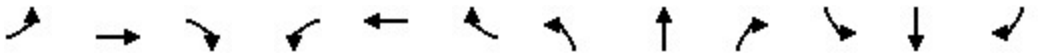




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1445	402	224	1077	445	224	557
v/c Ratio	0.72	0.25	0.84	0.55	0.40	0.40	0.35
Control Delay (s/veh)	27.4	0.4	48.5	15.1	27.2	28.9	0.6
Queue Delay	0.0	0.0	0.0	38.6	0.0	0.0	0.0
Total Delay (s/veh)	27.4	0.4	48.5	53.7	27.2	28.9	0.6
Queue Length 50th (ft)	271	0	87	208	120	121	0
Queue Length 95th (ft)	313	0	#210	250	173	203	0
Internal Link Dist (ft)	768			173		545	
Turn Bay Length (ft)							
Base Capacity (vph)	2186	1583	268	2088	1109	556	1583
Starvation Cap Reductn	0	0	0	1083	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.25	0.84	1.07	0.40	0.40	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1329	370	206	991	0	0	0	0	611	5	512
Future Volume (veh/h)	0	1329	370	206	991	0	0	0	0	611	5	512
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1445	0	224	1077	0				668	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1859		284	1812	0				2085	0	
Arrive On Green	0.00	0.36	0.00	0.10	0.51	0.00				0.39	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1445	0	224	1077	0				668	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	25.1	0.0	7.5	21.3	0.0				8.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	25.1	0.0	7.5	21.3	0.0				8.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1859		284	1812	0				2085	0	
V/C Ratio(X)	0.00	0.78		0.79	0.59	0.00				0.32	0.00	
Avail Cap(c_a), veh/h	0	2196		310	2097	0				2085	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.26	0.26	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	28.2	0.0	21.8	17.2	0.0				21.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	3.4	0.1	0.0				0.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	10.2	0.0	3.2	8.3	0.0				3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	29.7	0.0	25.2	17.3	0.0				21.3	0.0	0.0
LnGrp LOS		C		C	B					C		
Approach Vol, veh/h		1445			1301						668	
Approach Delay, s/veh		29.7			18.7						21.3	
Approach LOS		C			B						C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		14.6	41.4		44.0		56.0					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		11.0	43.0		31.0		59.0					
Max Q Clear Time (g_c+I1), s		9.5	27.1		10.7		23.3					
Green Ext Time (p_c), s		0.1	9.3		2.6		9.9					

Intersection Summary	
HCM 7th Control Delay, s/veh	23.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

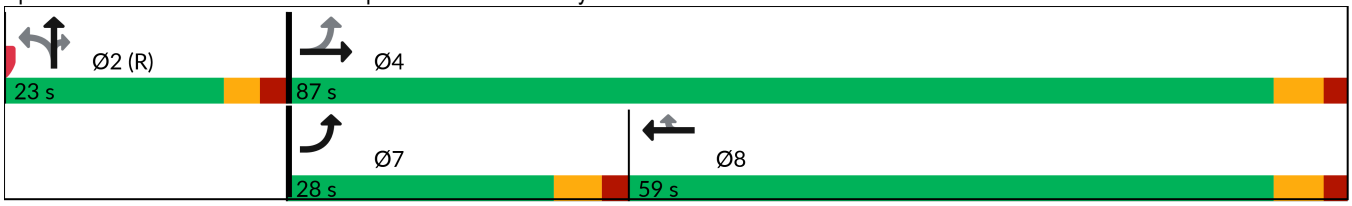
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.931	0.850		0.990	0.850			
Flt Protected	0.950						0.950	0.956				
Satd. Flow (prot)	3433	5085	0	0	3156	1441	1681	1604	1504	0	0	0
Flt Permitted	0.068						0.950	0.956				
Satd. Flow (perm)	246	5085	0	0	3156	1441	1681	1604	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					272	489		3	89			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		469			593			352			368	
Travel Time (s)		10.7			13.5			8.0			8.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	664	1321	809	1387	387	3	142
Future Volume (vph)	664	1321	809	1387	387	3	142
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	87.0	59.0	59.0	23.0	23.0	23.0
Total Split (%)	25.5%	79.1%	53.6%	53.6%	20.9%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	81.0	81.0	53.0	53.0	18.0	18.0	18.0
Actuated g/C Ratio	0.74	0.74	0.48	0.48	0.16	0.16	0.16
v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43
Control Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
LOS	D	A	D	B	E	E	C
Approach Delay (s/veh)		18.4	33.8			57.0	
Approach LOS		B	C			E	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay (s/veh): 30.0	Intersection LOS: C
Intersection Capacity Utilization 102.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.

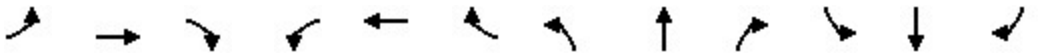




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	722	1436	1633	754	219	220	139
v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43
Control Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Length 50th (ft)	202	117	536	169	157	164	32
Queue Length 95th (ft)	#304	138	#737	385	#286	#309	95
Internal Link Dist (ft)		389	513			272	
Turn Bay Length (ft)							
Base Capacity (vph)	818	3744	1661	947	275	264	320
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



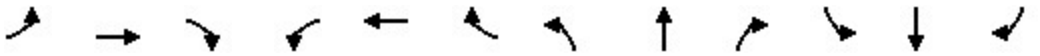
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	664	1321	0	0	809	1387	387	3	142	0	0	0
Future Volume (veh/h)	664	1321	0	0	809	1387	387	3	142	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	722	1436	0	0	879	1508	470	0	104			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	788	3700	0	0	901	1527	625	0	278			
Arrive On Green	0.19	0.72	0.00	0.00	0.48	0.48	0.18	0.00	0.18			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	722	1436	0	0	879	1508	470	0	104			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	18.1	11.9	0.0	0.0	50.5	51.7	13.8	0.0	6.4			
Cycle Q Clear(g_c), s	18.1	11.9	0.0	0.0	50.5	51.7	13.8	0.0	6.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	788	3700	0	0	901	1527	625	0	278			
V/C Ratio(X)	0.92	0.39	0.00	0.00	0.98	0.99	0.75	0.00	0.37			
Avail Cap(c_a), veh/h	828	3760	0	0	901	1527	625	0	278			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.3	5.8	0.0	0.0	27.9	28.2	43.1	0.0	40.0			
Incr Delay (d2), s/veh	14.5	0.1	0.0	0.0	24.0	20.0	8.2	0.0	3.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	3.7	0.0	0.0	27.5	22.8	6.8	0.0	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.8	5.9	0.0	0.0	51.9	48.1	51.2	0.0	43.8			
LnGrp LOS	D	A			D	D	D		D			
Approach Vol, veh/h		2158			2387			574				
Approach Delay, s/veh		20.6			49.5			49.9				
Approach LOS		C			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		24.3		85.7			26.7	59.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		81.0			22.0	53.0				
Max Q Clear Time (g_c+I1), s		15.8		13.9			20.1	53.7				
Green Ext Time (p_c), s		0.5		16.6			0.6	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	37.4
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



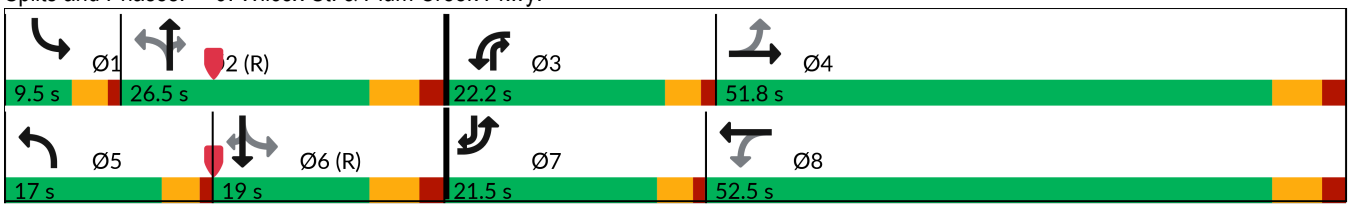
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.080			0.246			0.524			0.665		
Satd. Flow (perm)	149	3539	1583	458	5009	0	1894	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208		21				69			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	296	954	198	61	1369	577	133	42	78	91	208
Future Volume (vph)	296	954	198	61	1369	577	133	42	78	91	208
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
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	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	21.5	51.8		22.2	52.5	17.0	26.5	22.2	9.5	19.0	21.5
Total Split (%)	19.5%	47.1%		20.2%	47.7%	15.5%	24.1%	20.2%	8.6%	17.3%	19.5%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	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)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	69.0	57.9	110.0	54.5	45.5	33.0	23.4	36.4	20.9	13.2	36.7
Actuated g/C Ratio	0.63	0.53	1.00	0.50	0.41	0.30	0.21	0.33	0.19	0.12	0.33
v/c Ratio	0.92	0.56	0.14	0.21	0.79	0.82	0.37	0.08	0.32	0.44	0.38
Control Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
LOS	E	B	A	B	C	D	D	A	C	D	B
Approach Delay (s/veh)		23.4			30.3		41.8			28.5	
Approach LOS		C			C		D			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
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: 0.92	
Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.



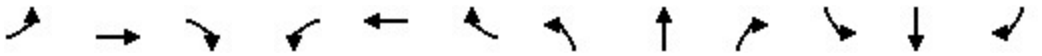


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	1037	215	66	1652	627	145	46	85	99	226
v/c Ratio	0.92	0.56	0.14	0.21	0.79	0.82	0.37	0.08	0.32	0.44	0.38
Control Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Length 50th (ft)	194	147	0	16	355	197	91	0	45	66	59
Queue Length 95th (ft)	m#349	176	m0	33	416	#279	154	15	85	121	125
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	351	1862	1583	490	2129	761	396	724	262	224	601
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	0.92	0.56	0.14	0.13	0.78	0.82	0.37	0.06	0.32	0.44	0.38

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	296	954	198	61	1369	151	577	133	42	78	91	208
Future Volume (veh/h)	296	954	198	61	1369	151	577	133	42	78	91	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	322	1037	0	66	1488	164	627	145	46	85	99	226
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	2	2	2	2	2
Cap, veh/h	345	1729		345	1799	198	801	453	446	362	325	499
Arrive On Green	0.28	0.97	0.00	0.04	0.39	0.39	0.12	0.24	0.24	0.05	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	4668	514	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	322	1037	0	66	1085	567	627	145	46	85	99	226
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1778	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.2	2.1	0.0	2.4	31.6	31.7	13.0	7.0	2.4	4.3	5.1	12.5
Cycle Q Clear(g_c), s	13.2	2.1	0.0	2.4	31.6	31.7	13.0	7.0	2.4	4.3	5.1	12.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	1729		345	1312	685	801	453	446	362	325	499
V/C Ratio(X)	0.93	0.60		0.19	0.83	0.83	0.78	0.32	0.10	0.23	0.30	0.45
Avail Cap(c_a), veh/h	378	1729		570	1439	752	801	453	446	362	325	499
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)	0.69	0.69	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	21.5	0.8	0.0	18.9	30.5	30.5	34.2	34.2	29.2	34.8	39.6	30.1
Incr Delay (d2), s/veh	22.1	0.4	0.0	0.3	3.8	7.1	5.1	1.9	0.5	0.3	2.4	3.0
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	6.1	0.4	0.0	1.0	13.3	14.6	2.3	3.4	1.0	1.9	2.6	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.6	1.2	0.0	19.2	34.3	37.6	39.3	36.1	29.7	35.1	42.0	33.1
LnGrp LOS	D	A		B	C	D	D	D	C	D	D	C
Approach Vol, veh/h		1359			1718			818			410	
Approach Delay, s/veh		11.2			34.8			38.2			35.7	
Approach LOS		B			C			D			D	

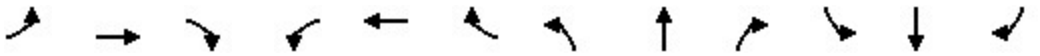
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	32.6	8.3	59.5	17.0	25.1	19.5	48.4
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.5	20.5	18.2	45.8	13.0	13.0	17.5	46.5
Max Q Clear Time (g_c+I1), s	6.3	9.0	4.4	4.1	15.0	14.5	15.2	33.7
Green Ext Time (p_c), s	0.0	0.6	0.1	9.7	0.0	0.0	0.2	8.7

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



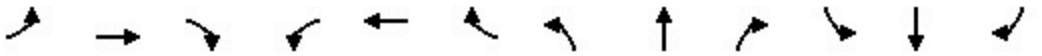
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.936			0.984			0.912			0.957	
Flt Protected		0.974			0.958			0.997			0.990	
Satd. Flow (prot)	0	1698	0	0	1756	0	0	3218	0	0	3353	0
Flt Permitted		0.974			0.958			0.997			0.990	
Satd. Flow (perm)	0	1698	0	0	1756	0	0	3218	0	0	3353	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			449			796			760	
Travel Time (s)		14.4			10.2			18.1			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	209	278	708	273
Demand Flow Rate, veh/h	213	284	722	279
Vehicles Circulating, veh/h	449	409	168	289
Vehicles Exiting, veh/h	119	481	494	404
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	6.5	6.0	4.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	R	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.411	0.589	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	213	284	297	425	131	148
Cap Entry Lane, veh/h	970	1003	1157	1231	1035	1111
Entry HV Adj Factor	0.981	0.979	0.980	0.981	0.980	0.978
Flow Entry, veh/h	209	278	291	417	128	145
Cap Entry, veh/h	951	982	1133	1208	1014	1087
V/C Ratio	0.220	0.283	0.257	0.345	0.127	0.133
Control Delay, s/veh	5.9	6.5	5.6	6.3	4.7	4.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	2	0	0



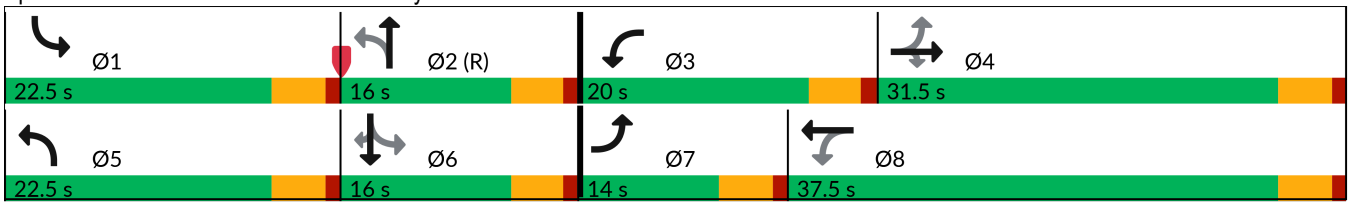
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.193			0.206			0.692			0.666		
Satd. Flow (perm)	360	3539	1583	744	3539	1583	1289	3539	1583	2407	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			676			265			182
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			632			431			590	
Travel Time (s)		20.0			14.4			9.8			13.4	

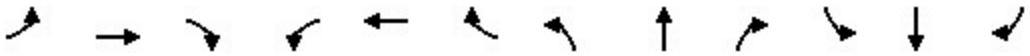
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	643	76	225	653	626	107	124	599	457	87	138
Future Volume (vph)	235	643	76	225	653	626	107	124	599	457	87	138
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.5	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.5	9.5	22.5		22.5	17.0		22.5	17.0	17.0
Total Split (s)	14.0	31.5	31.5	20.0	37.5		22.5	16.0		22.5	16.0	16.0
Total Split (%)	15.6%	35.0%	35.0%	22.2%	41.7%		25.0%	17.8%		25.0%	17.8%	17.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	35.1	25.6	25.6	34.7	25.4	90.0	37.1	11.5	90.0	37.1	11.5	11.5
Actuated g/C Ratio	0.39	0.28	0.28	0.39	0.28	1.00	0.41	0.13	1.00	0.41	0.13	0.13
v/c Ratio	0.88	0.69	0.14	0.43	0.71	0.43	0.17	0.30	0.41	0.39	0.21	0.42
Control Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
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 (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
LOS	D	C	A	B	C	A	B	D	A	B	D	A
Approach Delay (s/veh)		33.9			17.1			8.3			17.8	
Approach LOS		C			B			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 19.4	Intersection LOS: B
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

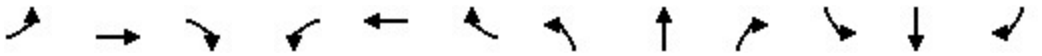




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	255	699	83	245	710	680	116	135	651	497	95	150
v/c Ratio	0.88	0.69	0.14	0.43	0.71	0.43	0.17	0.30	0.41	0.39	0.21	0.42
Control Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
Queue Length 50th (ft)	93	187	0	42	191	0	36	37	0	87	25	0
Queue Length 95th (ft)	#189	223	0	54	222	0	80	65	0	144	48	35
Internal Link Dist (ft)		801			552			351			510	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	289	1104	619	788	1297	1583	667	452	1583	1283	452	361
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	0.88	0.63	0.13	0.31	0.55	0.43	0.17	0.30	0.41	0.39	0.21	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	643	76	225	653	626	107	124	599	457	87	138
Future Volume (veh/h)	235	643	76	225	653	626	107	124	599	457	87	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	255	699	83	245	710	0	116	135	0	497	95	150
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	2	2	2	2	2
Cap, veh/h	319	1001	447	575	906		684	851		1361	851	379
Arrive On Green	0.11	0.28	0.28	0.08	0.26	0.00	0.20	0.24	0.00	0.20	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	255	699	83	245	710	0	116	135	0	497	95	150
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	9.5	15.8	3.6	4.6	16.7	0.0	3.5	2.7	0.0	8.5	1.9	7.2
Cycle Q Clear(g_c), s	9.5	15.8	3.6	4.6	16.7	0.0	3.5	2.7	0.0	8.5	1.9	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	319	1001	447	575	906		684	851		1361	851	379
V/C Ratio(X)	0.80	0.70	0.19	0.43	0.78		0.17	0.16		0.37	0.11	0.40
Avail Cap(c_a), veh/h	319	1066	476	897	1303		684	851		1361	851	379
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	28.9	24.5	22.7	31.2	0.0	15.2	27.1	0.0	16.6	26.7	28.8
Incr Delay (d2), s/veh	13.4	1.9	0.2	0.5	2.0	0.0	0.5	0.4	0.0	0.8	0.3	3.1
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	5.1	6.8	1.3	1.9	7.2	0.0	1.5	1.2	0.0	3.4	0.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	30.8	24.7	23.2	33.2	0.0	15.7	27.5	0.0	17.3	27.0	31.8
LnGrp LOS	D	C	C	C	C		B	C		B	C	C
Approach Vol, veh/h		1037			955			251			742	
Approach Delay, s/veh		31.9			30.7			22.0			21.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.0	11.6	29.9	22.5	26.0	14.0	27.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	11.5	15.5	27.0	18.0	11.5	9.5	33.0
Max Q Clear Time (g_c+I1), s	10.5	4.7	6.6	17.8	5.5	9.2	11.5	18.7
Green Ext Time (p_c), s	1.2	0.3	0.5	3.4	0.2	0.2	0.0	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1182		590			796
Travel Time (s)	26.9		13.4			18.1

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	1021	29	29	725
Future Vol, veh/h	0	190	1021	29	29	725
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	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	2	2	2	2
Mvmt Flow	0	207	1110	32	32	788

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	555	0	-	1110	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	475	-	0	625	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	475	-	-	625	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.27	0	0.43
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	475	625	-
HCM Lane V/C Ratio	-	0.434	0.05	-
HCM Control Delay (s/veh)	-	18.3	11.1	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	2.2	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.938	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1747	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	459			949	427	
Travel Time (s)	10.4			21.6	16.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	0	0	45	50	42
Future Vol, veh/h	39	0	0	45	50	42
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	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	0	0	49	54	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	126	77	100	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	49	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	869	984	1493	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	869	984	1493	-	-	-
Mov Cap-2 Maneuver	869	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.36	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1493	-	869	-	-	-
HCM Lane V/C Ratio	-	-	0.049	-	-	-
HCM Control Delay (s/veh)	0	-	9.4	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.877	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1634	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1634	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	466			465	949	
Travel Time (s)	10.6			10.6	21.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	0	0	7	5	45
Future Vol, veh/h	38	0	0	7	5	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	0	0	8	5	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	38	30	54	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	8	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	975	1045	1551	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	975	1045	1551	-	-	-
Mov Cap-2 Maneuver	975	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	1015	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.86	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1551	-	975	-	-	-
HCM Lane V/C Ratio	-	-	0.042	-	-	-
HCM Control Delay (s/veh)	0	-	8.9	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.865	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1611	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			351	193	
Travel Time (s)	10.2			8.0	4.4	

Intersection Summary	
Area Type:	Other

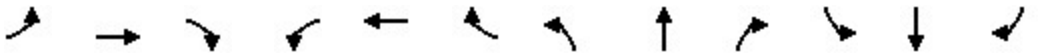
Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	112	323	177	0	0	79
Future Vol, veh/h	112	323	177	0	0	79
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	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	351	192	0	0	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	428	43	86	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	584	1027	1510	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	510	1027	1510	-	-	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.33	7.73	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1510	-	510	1027	-	-
HCM Lane V/C Ratio	0.127	-	0.239	0.342	-	-
HCM Control Delay (s/veh)	7.7	0	14.3	10.3	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	1.5	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.971			0.988			0.917			0.910	
Flt Protected		0.967			0.964			0.981			0.984	
Satd. Flow (prot)	0	1749	0	0	1774	0	0	1676	0	0	1668	0
Flt Permitted		0.967			0.964			0.981			0.984	
Satd. Flow (perm)	0	1749	0	0	1774	0	0	1676	0	0	1668	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		527			459			945			208	
Travel Time (s)		12.0			10.4			21.5			4.7	

Intersection Summary	
Area Type:	Other

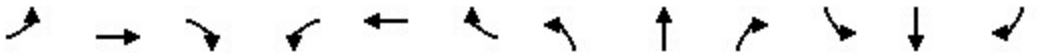
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	8	19	31	7	4	16	0	25	6	0	13
Future Vol, veh/h	62	8	19	31	7	4	16	0	25	6	0	13
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	9	21	34	8	4	17	0	27	7	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	29	0	0	229	233	19	221	241	10
Stage 1	-	-	-	-	-	-	154	154	-	77	77	-
Stage 2	-	-	-	-	-	-	75	79	-	143	164	-
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	1607	-	-	1584	-	-	726	667	1059	735	660	1072
Stage 1	-	-	-	-	-	-	849	770	-	932	831	-
Stage 2	-	-	-	-	-	-	934	829	-	859	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1584	-	-	671	625	1059	671	618	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	625	-	671	618	-
Stage 1	-	-	-	-	-	-	812	737	-	912	813	-
Stage 2	-	-	-	-	-	-	902	811	-	802	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	5.11	5.4	9.39	9.09
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	864	1099	-	-	1238	-	-	902
HCM Lane V/C Ratio	0.052	0.042	-	-	0.021	-	-	0.023
HCM Control Delay (s/veh)	9.4	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.860			0.925			0.972			0.892	
Flt Protected	0.950			0.950				0.964			0.994	
Satd. Flow (prot)	1770	1602	0	1770	1723	0	0	1745	0	0	1652	0
Flt Permitted	0.950			0.950				0.964			0.994	
Satd. Flow (perm)	1770	1602	0	1770	1723	0	0	1745	0	0	1652	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			466			280			945	
Travel Time (s)		10.4			10.6			6.4			21.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	11	156	18	20	20	71	5	19	11	9	79
Future Vol, veh/h	138	11	156	18	20	20	71	5	19	11	9	79
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	150	12	170	20	22	22	77	5	21	12	10	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	182	0	0	463	479	97	386	553	33
Stage 1	-	-	-	-	-	-	397	397	-	72	72	-
Stage 2	-	-	-	-	-	-	66	83	-	315	482	-
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	1565	-	-	1394	-	-	510	486	960	572	441	1041
Stage 1	-	-	-	-	-	-	629	604	-	938	835	-
Stage 2	-	-	-	-	-	-	945	826	-	696	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1565	-	-	1394	-	-	408	433	960	493	393	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	433	-	493	393	-
Stage 1	-	-	-	-	-	-	569	546	-	925	823	-
Stage 2	-	-	-	-	-	-	845	815	-	610	500	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.41	2.36	15.02	10.07
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	462	1565	-	-	1394	-	-	818
HCM Lane V/C Ratio	0.223	0.096	-	-	0.014	-	-	0.132
HCM Control Delay (s/veh)	15	7.5	-	-	7.6	-	-	10.1
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0	-	-	0.5



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.965	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1798	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1798	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			427	522	
Travel Time (s)	9.0			9.5	6.7	

Intersection Summary	
Area Type:	Other

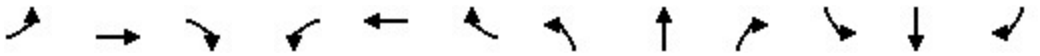
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	85	92	32
Future Vol, veh/h	2	0	0	85	92	32
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	2	2	2	2
Mvmt Flow	2	0	0	92	100	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	210	117	135	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	92	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	779	935	1450	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	779	935	1450	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.64	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1450	-	779	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s/veh)	0	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



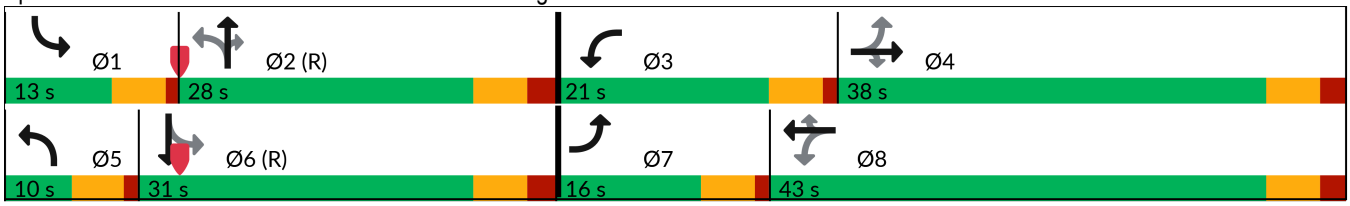
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		100	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3327	0
Flt Permitted	0.477			0.262			0.542			0.532		
Satd. Flow (perm)	889	3539	1583	488	3539	1583	1010	3539	1583	1923	3327	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			264			378		139	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			556			458			666	
Travel Time (s)		14.5			12.6			10.4			15.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	63	427	53	306	443	243	72	235	404	277	193
Future Volume (vph)	63	427	53	306	443	243	72	235	404	277	193
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	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	5.0
Minimum Split (s)	10.0	38.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0
Total Split (s)	16.0	38.0	38.0	21.0	43.0	43.0	10.0	28.0	28.0	13.0	31.0
Total Split (%)	16.0%	38.0%	38.0%	21.0%	43.0%	43.0%	10.0%	28.0%	28.0%	13.0%	31.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.8	19.1	19.1	40.7	29.1	29.1	41.7	32.7	32.7	47.4	37.5
Actuated g/C Ratio	0.28	0.19	0.19	0.41	0.29	0.29	0.42	0.33	0.33	0.47	0.38
v/c Ratio	0.22	0.69	0.14	0.83	0.47	0.41	0.16	0.22	0.57	0.28	0.26
Control Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
LOS	B	D	A	D	C	A	B	C	A	B	B
Approach Delay (s/veh)		35.9			27.6			15.6			15.5
Approach LOS		D			C			B			B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 23.7	Intersection LOS: C
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

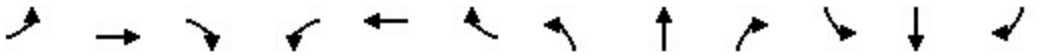




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	464	58	333	482	264	78	255	439	301	349
v/c Ratio	0.22	0.69	0.14	0.83	0.47	0.41	0.16	0.22	0.57	0.28	0.26
Control Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Length 50th (ft)	26	145	0	150	135	0	26	62	27	53	48
Queue Length 95th (ft)	48	186	0	#223	176	56	57	106	132	88	94
Internal Link Dist (ft)		560			476			378			586
Turn Bay Length (ft)	325		100	125		100	225		150	350	
Base Capacity (vph)	373	1132	603	403	1309	752	481	1158	772	1071	1333
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	0.18	0.41	0.10	0.83	0.37	0.35	0.16	0.22	0.57	0.28	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	427	53	306	443	243	72	235	404	277	193	128
Future Volume (veh/h)	63	427	53	306	443	243	72	235	404	277	193	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	68	464	58	333	482	264	78	255	439	301	210	139
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	2	2	2	2	2
Cap, veh/h	275	620	277	402	1033	461	492	1321	589	869	838	530
Arrive On Green	0.04	0.17	0.17	0.16	0.29	0.29	0.04	0.37	0.37	0.07	0.40	0.40
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2089	1321
Grp Volume(v), veh/h	68	464	58	333	482	264	78	255	439	301	177	172
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1633
Q Serve(g_s), s	3.1	12.4	3.1	14.8	11.1	14.2	2.7	4.9	24.1	5.3	6.6	7.0
Cycle Q Clear(g_c), s	3.1	12.4	3.1	14.8	11.1	14.2	2.7	4.9	24.1	5.3	6.6	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	275	620	277	402	1033	461	492	1321	589	869	713	655
V/C Ratio(X)	0.25	0.75	0.21	0.83	0.47	0.57	0.16	0.19	0.75	0.35	0.25	0.26
Avail Cap(c_a), veh/h	393	1137	507	402	1315	586	502	1321	589	891	713	655
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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	39.2	35.4	27.2	29.1	30.2	17.9	21.3	27.3	17.0	19.9	20.0
Incr Delay (d2), s/veh	0.5	1.8	0.4	13.6	0.3	1.1	0.1	0.3	8.3	0.2	0.8	1.0
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	1.4	5.5	1.2	7.7	4.7	5.5	1.1	2.1	10.2	2.1	2.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.2	41.0	35.7	40.7	29.4	31.3	18.1	21.6	35.6	17.2	20.7	21.0
LnGrp LOS	C	D	D	D	C	C	B	C	D	B	C	C
Approach Vol, veh/h		590			1079			772			650	
Approach Delay, s/veh		39.5			33.4			29.2			19.2	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	43.2	21.0	23.5	9.4	46.1	9.4	35.1
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	8.0	22.0	16.0	32.0	5.0	25.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	7.3	26.1	16.8	14.4	4.7	9.0	5.1	16.2
Green Ext Time (p_c), s	0.1	0.0	0.0	3.1	0.0	1.8	0.1	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	30.5
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



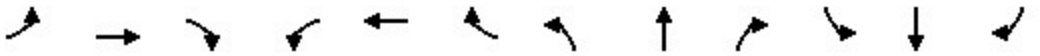
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.952			0.999		
Satd. Flow (prot)	1773	0	0	1861	1863	1583
Flt Permitted	0.952			0.999		
Satd. Flow (perm)	1773	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			616	519	
Travel Time (s)	9.5			14.0	11.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	5.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	444	291	622
Demand Flow Rate, veh/h	453	297	634
Vehicles Circulating, veh/h	278	452	4
Vehicles Exiting, veh/h	4	279	745
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.4	8.1	1.9
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	453	297	278	356
Cap Entry Lane, veh/h	1039	870	1374	1938
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	444	291	273	349
Cap Entry, veh/h	1019	853	1347	1900
V/C Ratio	0.436	0.341	0.202	0.184
Control Delay, s/veh	8.4	8.1	4.4	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	2	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.936	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1863	0	0	1742	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1863	0	0	1742	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			675			1975			245	
Travel Time (s)		14.0			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

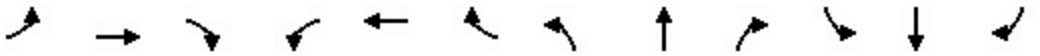
Intersection	
Int Delay, s/veh	11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	0	1	0	0	18	1	143	0	7	132	126
Future Vol, veh/h	98	0	1	0	0	18	1	143	0	7	132	126
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	0	1	0	0	20	1	155	0	8	143	137

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	1	0	0	285	233	1	301	224	10
Stage 1	-	-	-	-	-	-	214	214	-	10	10	-
Stage 2	-	-	-	-	-	-	72	20	-	291	214	-
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	1597	-	-	1622	-	-	667	667	1084	652	675	1072
Stage 1	-	-	-	-	-	-	789	726	-	1011	887	-
Stage 2	-	-	-	-	-	-	938	879	-	717	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1622	-	-	426	623	1084	464	630	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	623	-	464	630	-
Stage 1	-	-	-	-	-	-	736	677	-	1011	887	-
Stage 2	-	-	-	-	-	-	686	879	-	516	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.34	0	12.75	12.38
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	621	1597	-	-	1622	-	-	774
HCM Lane V/C Ratio	0.252	0.067	-	-	-	-	-	0.372
HCM Control Delay (s/veh)	12.7	7.4	-	-	0	-	-	12.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0.2	-	-	0	-	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.973			0.998			0.993	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1812	0	1863	1859	0	1770	1850	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	1863	0	1770	1812	0	1863	1859	0	1770	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

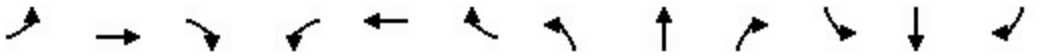
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	38	0	73	21	5	0	238	3	4	189	9
Future Vol, veh/h	11	38	0	73	21	5	0	238	3	4	189	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	150	-	-	150	-	-	0	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	41	0	79	23	5	0	259	3	4	205	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	489	481	210	495	484	260	215	0	0	262	0	0
Stage 1	219	219	-	260	260	-	-	-	-	-	-	-
Stage 2	270	262	-	235	224	-	-	-	-	-	-	-
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	489	485	830	485	483	778	1355	-	-	1302	-	-
Stage 1	783	722	-	745	693	-	-	-	-	-	-	-
Stage 2	736	692	-	768	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	461	483	830	442	481	778	1355	-	-	1302	-	-
Mov Cap-2 Maneuver	461	483	-	442	481	-	-	-	-	-	-	-
Stage 1	781	719	-	745	693	-	-	-	-	-	-	-
Stage 2	706	692	-	722	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.12	14.24	0	0.15
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	461	483	442	519	1302	-	-
HCM Lane V/C Ratio	-	-	-	0.026	0.086	0.18	0.054	0.003	-	-
HCM Control Delay (s/veh)	0	-	-	13	13.2	14.9	12.3	7.8	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.6	0.2	0	-	-



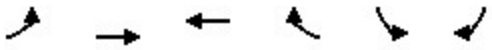
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Ped Bike Factor												
Frt		0.981			0.965			0.972			0.982	
Flt Protected		0.998			0.994			0.993			0.987	
Satd. Flow (prot)	0	3465	0	0	3395	0	0	3416	0	0	3430	0
Flt Permitted		0.998			0.994			0.993			0.987	
Satd. Flow (perm)	0	3465	0	0	3395	0	0	3416	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	535	717	428	417
Demand Flow Rate, veh/h	545	731	437	425
Vehicles Circulating, veh/h	462	373	593	619
Vehicles Exiting, veh/h	582	657	414	485
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	7.6	7.4	7.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.471	0.529	0.469	0.531	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	256	289	344	387	205	232	200	225
Cap Entry Lane, veh/h	883	959	958	1034	782	858	764	839
Entry HV Adj Factor	0.982	0.981	0.979	0.982	0.982	0.978	0.980	0.982
Flow Entry, veh/h	251	284	337	380	201	227	196	221
Cap Entry, veh/h	867	941	938	1015	768	839	748	824
V/C Ratio	0.290	0.301	0.359	0.374	0.262	0.270	0.262	0.268
Control Delay, s/veh	7.3	7.0	7.8	7.5	7.7	7.2	7.8	7.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	2	2	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.995	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1768	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

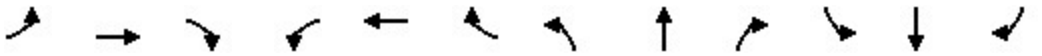
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	657	691	131	114	5
Future Vol, veh/h	8	657	691	131	114	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	150	-	-	150	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	2	2	2	2
Mvmt Flow	9	714	751	142	124	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	893	0	-	0	1126	376
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	374	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	755	-	-	-	199	622
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	755	-	-	-	196	622
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.12	0	49.86
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	755	-	-	-	202
HCM Lane V/C Ratio	0.012	-	-	-	0.639
HCM Control Delay (s/veh)	9.8	-	-	-	49.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	3.8



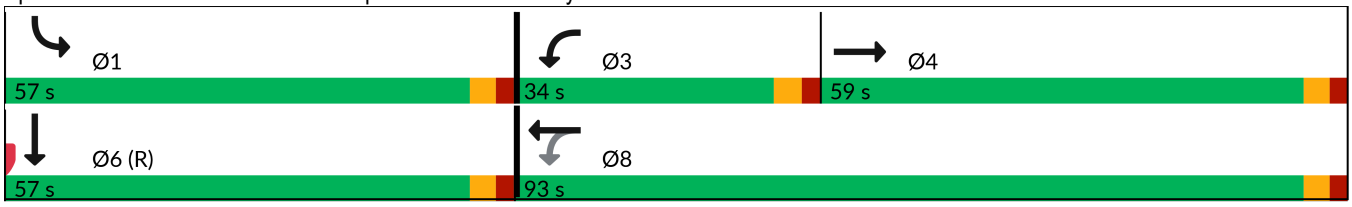
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.069						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	129	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188									234
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		795			334			493			625	
Travel Time (s)		18.1			7.6			11.2			14.2	

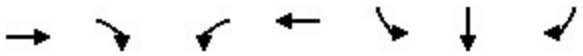
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1378	360	334	967	1181	5	481
Future Volume (vph)	1378	360	334	967	1181	5	481
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	59.0		34.0	93.0	57.0	57.0	
Total Split (%)	39.3%		22.7%	62.0%	38.0%	38.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	52.7	150.0	86.0	86.0	54.0	54.0	150.0
Actuated g/C Ratio	0.35	1.00	0.57	0.57	0.36	0.36	1.00
v/c Ratio	0.84	0.25	0.95	0.52	0.74	0.74	0.33
Control Delay (s/veh)	49.7	0.4	69.8	17.9	47.2	51.7	0.6
Queue Delay	4.3	0.0	46.4	5.7	51.4	56.2	0.0
Total Delay (s/veh)	53.9	0.4	116.1	23.6	98.6	107.8	0.6
LOS	D	A	F	C	F	F	A
Approach Delay (s/veh)	42.8			47.4		72.5	
Approach LOS	D			D		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 54.6	Intersection LOS: D
Intersection Capacity Utilization 120.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

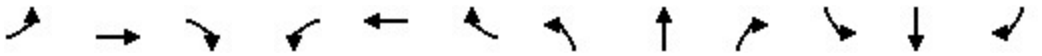




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1498	391	363	1051	860	429	523
v/c Ratio	0.84	0.25	0.95	0.52	0.74	0.74	0.33
Control Delay (s/veh)	49.7	0.4	69.8	17.9	47.2	51.7	0.6
Queue Delay	4.3	0.0	46.4	5.7	51.4	56.2	0.0
Total Delay (s/veh)	53.9	0.4	116.1	23.6	98.6	107.8	0.6
Queue Length 50th (ft)	486	0	285	224	411	409	0
Queue Length 95th (ft)	548	0	m#347	m265	498	563	0
Internal Link Dist (ft)	715			254		545	
Turn Bay Length (ft)							175
Base Capacity (vph)	1830	1583	391	2076	1158	580	1583
Starvation Cap Reductn	0	0	73	955	0	0	0
Spillback Cap Reductn	259	0	0	0	500	250	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.25	1.14	0.94	1.31	1.30	0.33

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1378	360	334	967	0	0	0	0	1181	5	481
Future Volume (veh/h)	0	1378	360	334	967	0	0	0	0	1181	5	481
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1498	0	363	1051	0				1288	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1719		383	1941	0				2068	0	
Arrive On Green	0.00	0.34	0.00	0.23	0.73	0.00				0.39	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1498	0	363	1051	0				1288	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	41.3	0.0	24.1	20.0	0.0				29.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	41.3	0.0	24.1	20.0	0.0				29.2	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1719		383	1941	0				2068	0	
V/C Ratio(X)	0.00	0.87		0.95	0.54	0.00				0.62	0.00	
Avail Cap(c_a), veh/h	0	1838		414	2085	0				2068	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.32	0.32	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	46.7	0.0	40.3	12.0	0.0				37.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.7	0.0	13.7	0.1	0.0				0.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	18.2	0.0	14.4	6.6	0.0				12.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	51.3	0.0	54.1	12.1	0.0				37.7	0.0	0.0
LnGrp LOS		D		D	B					D		
Approach Vol, veh/h		1498			1414						1288	
Approach Delay, s/veh		51.3			22.9						37.7	
Approach LOS		D			C						D	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		31.4	55.5		63.1		86.9					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		29.0	54.0		52.0		88.0					
Max Q Clear Time (g_c+I1), s		26.1	43.3		31.2		22.0					
Green Ext Time (p_c), s		0.4	7.2		5.6		10.4					

Intersection Summary	
HCM 7th Control Delay, s/veh	37.6
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

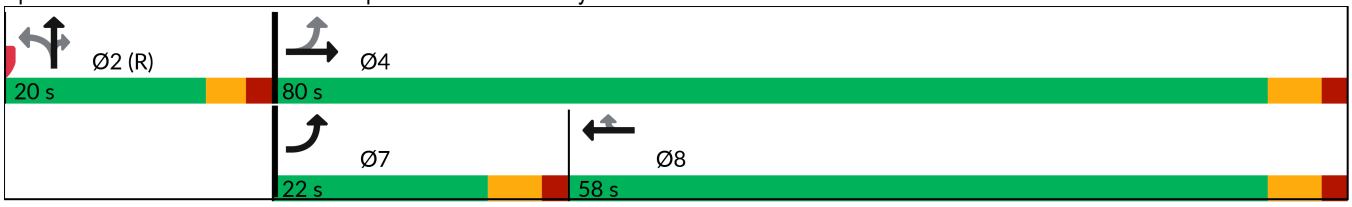
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.942	0.850		0.987	0.850			
Flt Protected	0.950						0.950	0.956				
Satd. Flow (prot)	3433	5085	0	0	3194	1441	1681	1599	1504	0	0	0
Flt Permitted	0.069						0.950	0.956				
Satd. Flow (perm)	249	5085	0	0	3194	1441	1681	1599	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					183	531		4	98			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		469			542			502			457	
Travel Time (s)		10.7			12.3			11.4			10.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	590	1929	973	1350	343	1	149
Future Volume (vph)	590	1929	973	1350	343	1	149
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	80.0	58.0	58.0	20.0	20.0	20.0
Total Split (%)	22.0%	80.0%	58.0%	58.0%	20.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	74.0	74.0	52.0	52.0	15.0	15.0	15.0
Actuated g/C Ratio	0.74	0.74	0.52	0.52	0.15	0.15	0.15
v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47
Control Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
LOS	D	A	D	B	E	E	C
Approach Delay (s/veh)		16.2	32.6			52.0	
Approach LOS		B	C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 26.7	Intersection LOS: C
Intersection Capacity Utilization 97.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.

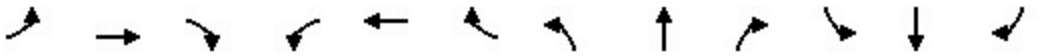




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	641	2097	1733	792	198	192	146
v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47
Control Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Length 50th (ft)	156	181	534	131	129	128	28
Queue Length 95th (ft)	#262	212	#742	345	#248	#254	91
Internal Link Dist (ft)		389	462			422	
Turn Bay Length (ft)							150
Base Capacity (vph)	693	3762	1748	1004	252	243	308
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



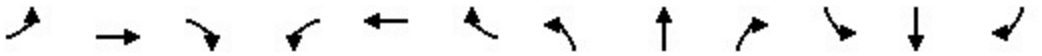
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	1929	0	0	973	1350	343	1	149	0	0	0
Future Volume (veh/h)	590	1929	0	0	973	1350	343	1	149	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	641	2097	0	0	1058	1467	424	0	108			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	697	3779	0	0	973	1648	534	0	238			
Arrive On Green	0.16	0.74	0.00	0.00	0.52	0.52	0.15	0.00	0.15			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	641	2097	0	0	1058	1467	424	0	108			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	14.0	18.1	0.0	0.0	52.0	41.3	11.5	0.0	6.2			
Cycle Q Clear(g_c), s	14.0	18.1	0.0	0.0	52.0	41.3	11.5	0.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	697	3779	0	0	973	1648	534	0	238			
V/C Ratio(X)	0.92	0.55	0.00	0.00	1.09	0.89	0.79	0.00	0.45			
Avail Cap(c_a), veh/h	697	3779	0	0	973	1648	534	0	238			
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.9	5.7	0.0	0.0	24.0	21.4	41.0	0.0	38.8			
Incr Delay (d2), s/veh	17.5	0.2	0.0	0.0	55.8	6.5	11.5	0.0	6.1			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.6	5.2	0.0	0.0	36.2	15.7	5.8	0.0	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	5.9	0.0	0.0	79.8	27.9	52.5	0.0	44.9			
LnGrp LOS	D	A			F	C	D		D			
Approach Vol, veh/h		2738			2525			532				
Approach Delay, s/veh		16.3			49.6			51.0				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		20.0		80.0			22.0	58.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		15.0		74.0			16.0	52.0				
Max Q Clear Time (g_c+I1), s		13.5		20.1			16.0	54.0				
Green Ext Time (p_c), s		0.4		30.2			0.0	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	34.0
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



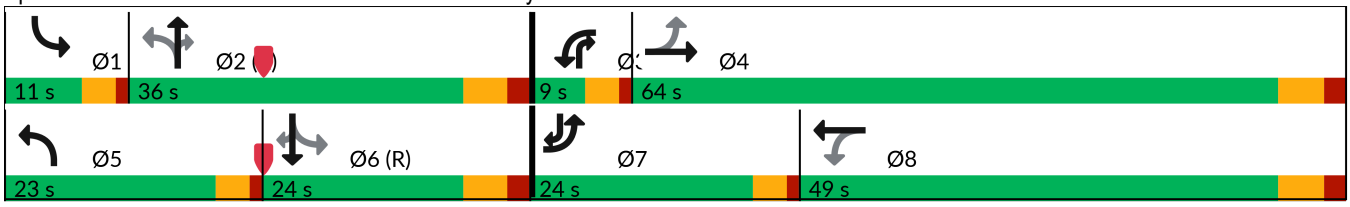
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.085			0.093			0.460			0.638		
Satd. Flow (perm)	158	3539	1583	173	5009	0	1662	1863	1583	1188	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			227		18				100			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			907			941			491	
Travel Time (s)		14.3			20.6			21.4			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	354	1574	195	83	1245	691	175	74	221	132	338
Future Volume (vph)	354	1574	195	83	1245	691	175	74	221	132	338
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
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	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	24.0	64.0		9.0	49.0	23.0	36.0	9.0	11.0	24.0	24.0
Total Split (%)	20.0%	53.3%		7.5%	40.8%	19.2%	30.0%	7.5%	9.2%	20.0%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	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)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	69.0	58.0	120.0	50.0	43.0	43.0	30.0	41.0	27.0	18.0	44.0
Actuated g/C Ratio	0.58	0.48	1.00	0.42	0.36	0.36	0.25	0.34	0.23	0.15	0.37
v/c Ratio	1.07	1.00	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57
Control Delay (s/veh)	102.2	53.2	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Delay	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	89.8	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
LOS	F	F	A	D	D	D	D	A	E	D	C
Approach Delay (s/veh)		83.7			39.8		39.3			41.0	
Approach LOS		F			D		D			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: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay (s/veh): 57.7	Intersection LOS: E
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.



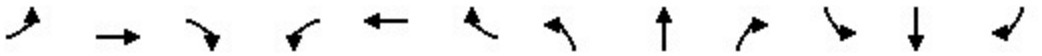


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	385	1711	212	90	1504	743	190	80	240	143	367
v/c Ratio	1.07	1.00	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57
Control Delay (s/veh)	102.2	53.2	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Delay	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	89.8	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Length 50th (ft)	~278	~678	0	30	383	241	123	0	137	103	164
Queue Length 95th (ft)	#476	#865	0	#87	446	#313	195	23	#248	172	265
Internal Link Dist (ft)		549			827		861			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	359	1710	1583	138	1806	875	465	606	301	279	643
Starvation Cap Reductn	0	220	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	1.07	1.15	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	1574	195	83	1245	139	691	175	74	221	132	338
Future Volume (veh/h)	354	1574	195	83	1245	139	691	175	74	221	132	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	385	1711	0	90	1353	151	743	190	80	240	143	367
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	1718		135	1670	186	805	468	462	330	281	502
Arrive On Green	0.17	0.48	0.00	0.04	0.36	0.36	0.16	0.25	0.25	0.06	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	4661	520	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	385	1711	0	90	988	516	743	190	80	240	143	367
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1777	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	19.5	57.6	0.0	3.8	31.5	31.5	19.0	10.2	4.5	7.0	8.4	18.0
Cycle Q Clear(g_c), s	19.5	57.6	0.0	3.8	31.5	31.5	19.0	10.2	4.5	7.0	8.4	18.0
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	1718		135	1220	637	805	468	462	330	281	502
V/C Ratio(X)	0.99	1.00		0.67	0.81	0.81	0.92	0.41	0.17	0.73	0.51	0.73
Avail Cap(c_a), veh/h	390	1718		135	1220	637	805	468	462	330	281	502
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)	0.23	0.23	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	33.6	30.9	0.0	30.5	34.8	34.8	37.4	37.6	31.7	44.7	46.9	36.5
Incr Delay (d2), s/veh	18.6	9.5	0.0	11.7	4.2	7.8	16.2	2.6	0.8	7.8	6.5	9.1
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	8.1	25.9	0.0	2.1	13.6	14.8	3.9	5.0	1.8	4.1	4.4	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.2	40.4	0.0	42.1	39.0	42.6	53.6	40.2	32.5	52.5	53.4	45.5
LnGrp LOS	D	D		D	D	D	D	D	C	D	D	D
Approach Vol, veh/h		2096			1594			1013			750	
Approach Delay, s/veh		42.6			40.3			49.4			49.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.0	9.0	64.0	23.0	24.0	24.0	49.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	7.0	30.0	5.0	58.0	19.0	18.0	20.0	43.0
Max Q Clear Time (g_c+I1), s	9.0	12.2	5.8	59.6	21.0	20.0	21.5	33.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	6.4

Intersection Summary	
HCM 7th Control Delay, s/veh	44.1
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] 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												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.951			0.988			0.907			0.952	
Flt Protected		0.969			0.956			0.994			0.989	
Satd. Flow (prot)	0	1717	0	0	1759	0	0	3191	0	0	3332	0
Flt Permitted		0.969			0.956			0.994			0.989	
Satd. Flow (perm)	0	1717	0	0	1759	0	0	3191	0	0	3332	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			526			834			760	
Travel Time (s)		14.4			12.0			19.0			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	134	465	683	283
Demand Flow Rate, veh/h	137	474	697	289
Vehicles Circulating, veh/h	629	353	151	510
Vehicles Exiting, veh/h	170	495	615	317
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.1	8.6	5.8	5.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	R	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.382	0.618	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	137	474	266	431	136	153
Cap Entry Lane, veh/h	832	1052	1175	1249	844	921
Entry HV Adj Factor	0.978	0.981	0.979	0.981	0.979	0.982
Flow Entry, veh/h	134	465	260	423	133	150
Cap Entry, veh/h	814	1032	1150	1226	827	904
V/C Ratio	0.165	0.451	0.226	0.345	0.161	0.166
Control Delay, s/veh	6.1	8.6	5.2	6.2	6.0	5.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	2	1	2	1	1

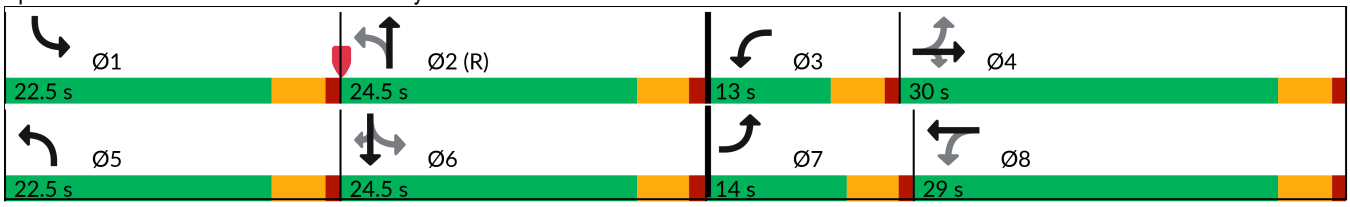
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		0	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.185			0.172			0.633			0.647		
Satd. Flow (perm)	345	3539	1583	622	3539	1583	1179	3539	1583	2338	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			127			564			226			225
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			681			475			543	
Travel Time (s)		20.0			15.5			10.8			12.3	

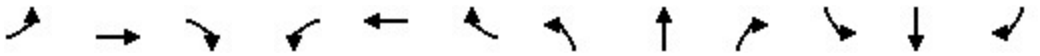
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	713	89	312	623	519	82	153	437	585	173	207
Future Volume (vph)	180	713	89	312	623	519	82	153	437	585	173	207
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	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	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	14.0	30.0	30.0	13.0	29.0		22.5	24.5		22.5	24.5	24.5
Total Split (%)	15.6%	33.3%	33.3%	14.4%	32.2%		25.0%	27.2%		25.0%	27.2%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	33.4	24.1	24.1	31.8	23.3	90.0	39.4	20.0	90.0	39.4	20.0	20.0
Actuated g/C Ratio	0.37	0.27	0.27	0.35	0.26	1.00	0.44	0.22	1.00	0.44	0.22	0.22
v/c Ratio	0.71	0.82	0.19	0.70	0.74	0.36	0.14	0.21	0.30	0.51	0.24	0.43
Control Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
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 (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
LOS	C	D	A	C	D	A	B	C	A	B	C	A
Approach Delay (s/veh)		34.6			21.1			8.7			16.9	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 21.3	Intersection LOS: C
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

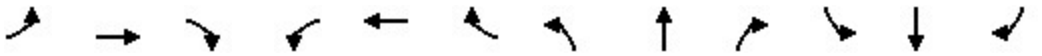




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	196	775	97	339	677	564	89	166	475	636	188	225
v/c Ratio	0.71	0.82	0.19	0.70	0.74	0.36	0.14	0.21	0.30	0.51	0.24	0.43
Control Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
Queue Length 50th (ft)	70	212	0	61	182	0	27	40	0	115	46	0
Queue Length 95th (ft)	#137	281	22	90	244	0	53	68	0	157	76	57
Internal Link Dist (ft)		801			601			395			463	
Turn Bay Length (ft)	250		250	250			250			250		150
Base Capacity (vph)	279	1002	539	485	963	1583	643	786	1583	1259	786	526
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	0.70	0.77	0.18	0.70	0.70	0.36	0.14	0.21	0.30	0.51	0.24	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	713	89	312	623	519	82	153	437	585	173	207
Future Volume (veh/h)	180	713	89	312	623	519	82	153	437	585	173	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870
Adj Flow Rate, veh/h	196	775	97	339	677	0	89	166	0	636	188	225
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	2	2	2	2	2
Cap, veh/h	316	909	406	544	881		639	889		1356	889	397
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.00	0.20	0.25	0.00	0.20	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	196	775	97	339	677	0	89	166	0	636	188	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	7.2	18.7	4.4	6.4	15.9	0.0	2.6	3.3	0.0	11.2	3.8	11.2
Cycle Q Clear(g_c), s	7.2	18.7	4.4	6.4	15.9	0.0	2.6	3.3	0.0	11.2	3.8	11.2
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	316	909	406	544	881		639	889		1356	889	397
V/C Ratio(X)	0.62	0.85	0.24	0.62	0.77		0.14	0.19		0.47	0.21	0.57
Avail Cap(c_a), veh/h	322	1007	449	546	967		639	889		1356	889	397
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	31.9	26.5	24.0	31.5	0.0	14.4	26.5	0.0	16.8	26.7	29.5
Incr Delay (d2), s/veh	3.5	6.6	0.3	2.2	3.5	0.0	0.5	0.5	0.0	1.2	0.5	5.8
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	3.2	8.6	1.7	2.7	7.1	0.0	1.1	1.4	0.0	4.4	1.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.8	38.5	26.8	26.2	34.9	0.0	14.9	27.0	0.0	17.9	27.3	35.3
LnGrp LOS	C	D	C	C	C		B	C		B	C	D
Approach Vol, veh/h		1068			1016			255			1049	
Approach Delay, s/veh		35.3			32.0			22.8			23.3	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	27.0	13.0	27.5	22.5	27.0	13.7	26.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	20.0	8.5	25.5	18.0	20.0	9.5	24.5
Max Q Clear Time (g_c+I1), s	13.2	5.3	8.4	20.7	4.6	13.2	9.2	17.9
Green Ext Time (p_c), s	1.2	0.8	0.0	2.4	0.1	1.1	0.0	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1179		543			834
Travel Time (s)	26.8		12.3			19.0

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	88	786	69	69	964
Future Vol, veh/h	0	88	786	69	69	964
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	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	2	2	2	2
Mvmt Flow	0	96	854	75	75	1048

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	427	0	-	854	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	576	-	0	781	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	576	-	-	781	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.49	0	0.67
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	576	781	-
HCM Lane V/C Ratio	-	0.166	0.096	-
HCM Control Delay (s/veh)	-	12.5	10.1	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.6	0.3	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.931	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1734	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1734	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			976	429	
Travel Time (s)	8.3			22.2	13.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	0	0	74	53	55
Future Vol, veh/h	57	0	0	74	53	55
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	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	0	0	80	58	60

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	168	88	117	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	822	971	1471	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	971	1471	-	-	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.73	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1471	-	822	-	-	-
HCM Lane V/C Ratio	-	-	0.075	-	-	-
HCM Control Delay (s/veh)	0	-	9.7	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.893	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1663	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1663	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	369			602	976	
Travel Time (s)	8.4			13.7	22.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	0	0	8	11	42
Future Vol, veh/h	66	0	0	8	11	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	0	0	9	12	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	43	35	58	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	967	1038	1547	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1038	1547	-	-	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1014	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.02	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1547	-	967	-	-	-
HCM Lane V/C Ratio	-	-	0.074	-	-	-
HCM Control Delay (s/veh)	0	-	9	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.865	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1611	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			315	249	
Travel Time (s)	12.0			7.2	5.7	

Intersection Summary	
Area Type:	Other

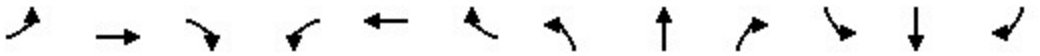
Intersection	
Int Delay, s/veh	12.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	162	286	315	0	0	113
Future Vol, veh/h	162	286	315	0	0	113
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	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	176	311	342	0	0	123

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	746	61	123	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	381	1004	1464	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	292	1004	1464	-	-	-
Mov Cap-2 Maneuver	292	-	-	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	501	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.96	8.21	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1464	-	292	1004	-	-
HCM Lane V/C Ratio	0.234	-	0.603	0.31	-	-
HCM Control Delay (s/veh)	8.2	0	34.5	10.2	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.9	-	3.6	1.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.975			0.903			0.877	
Flt Protected		0.970			0.974			0.986			0.996	
Satd. Flow (prot)	0	1753	0	0	1769	0	0	1659	0	0	1627	0
Flt Permitted		0.970			0.974			0.986			0.996	
Satd. Flow (perm)	0	1753	0	0	1769	0	0	1659	0	0	1627	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		513			367			973			210	
Travel Time (s)		11.7			8.3			22.1			4.8	

Intersection Summary	
Area Type:	Other

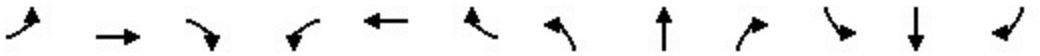
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	15	20	29	16	10	13	0	33	3	0	29
Future Vol, veh/h	56	15	20	29	16	10	13	0	33	3	0	29
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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	16	22	32	17	11	14	0	36	3	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	38	0	0	229	240	27	224	246	23
Stage 1	-	-	-	-	-	-	149	149	-	86	86	-
Stage 2	-	-	-	-	-	-	80	91	-	138	160	-
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	1585	-	-	1572	-	-	726	661	1048	732	657	1054
Stage 1	-	-	-	-	-	-	854	774	-	922	824	-
Stage 2	-	-	-	-	-	-	928	819	-	865	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1585	-	-	1572	-	-	663	622	1048	665	618	1054
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	622	-	665	618	-
Stage 1	-	-	-	-	-	-	820	744	-	903	807	-
Stage 2	-	-	-	-	-	-	882	803	-	803	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	4.53	3.87	9.23	8.73
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	900	994	-	-	881	-	-	999
HCM Lane V/C Ratio	0.056	0.038	-	-	0.02	-	-	0.035
HCM Control Delay (s/veh)	9.2	7.4	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.869			0.935			0.973			0.887	
Flt Protected	0.950			0.950				0.964			0.994	
Satd. Flow (prot)	1770	1619	0	1770	1742	0	0	1747	0	0	1642	0
Flt Permitted	0.950			0.950				0.964			0.994	
Satd. Flow (perm)	1770	1619	0	1770	1742	0	0	1747	0	0	1642	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		525			369			345			973	
Travel Time (s)		11.9			8.4			7.8			22.1	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	113	20	138	16	19	15	137	9	37	19	8	144
Future Vol, veh/h	113	20	138	16	19	15	137	9	37	19	8	144
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	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	22	150	17	21	16	149	10	40	21	9	157

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	37	0	0	172	0	0	402	414	97	336	481	29
Stage 1	-	-	-	-	-	-	342	342	-	64	64	-
Stage 2	-	-	-	-	-	-	60	72	-	272	417	-
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	1574	-	-	1405	-	-	559	529	960	618	485	1046
Stage 1	-	-	-	-	-	-	673	638	-	947	842	-
Stage 2	-	-	-	-	-	-	952	835	-	734	591	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1574	-	-	1405	-	-	425	481	960	529	441	1046
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	481	-	529	441	-
Stage 1	-	-	-	-	-	-	620	588	-	936	831	-
Stage 2	-	-	-	-	-	-	791	825	-	637	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.12	2.43	17.62	10.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	482	1574	-	-	1405	-	-	892
HCM Lane V/C Ratio	0.413	0.078	-	-	0.012	-	-	0.208
HCM Control Delay (s/veh)	17.6	7.5	-	-	7.6	-	-	10.1
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2	0.3	-	-	0	-	-	0.8



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.974	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1814	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	343			429	418	
Travel Time (s)	7.8			9.8	9.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	131	108	26
Future Vol, veh/h	13	0	0	131	108	26
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	2	2	2	2
Mvmt Flow	14	0	0	142	117	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	274	132	146	0	-	0
Stage 1	132	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	716	918	1436	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	716	918	1436	-	-	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1436	-	716	-	-
HCM Lane V/C Ratio	-	-	0.02	-	-
HCM Control Delay (s/veh)	0	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

APPENDIX “D”

INTERNAL TRIP CAPTURE WORKSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Brickyard (HKS Project No. 200726)	**Organization:**	HKS
Project Location:	Castle Rock, Colorado	**Performed By:**	MEK
Scenario Description:	Build-Out	**Date:**	6/20/2025
Analysis Year:	2027 & 2045	**Checked By:**	MEK
Analysis Period:	**AM Street Peak Hour**	**Date:**	6/20/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710, 720	56	KSF	135	111	24
Retail	822,850	23.5	KSF	69	41	28
Restaurant	932	23	KSF	219	120	99
Cinema/Entertainment	437	64	Lanes	95	90	5
Residential	221	384	DU	157	36	121
Hotel	310	123	Rooms	54	30	24
All Other Land Uses[2]	495	145	KSF	277	183	94
				1,006	611	395

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	15	0	0	0
Retail	4		4	0	1	0
Restaurant	16	3		0	2	1
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	24	0		0
Hotel	3	2	2	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,006	611	395
Internal Capture Percentage	17%	14%	22%
External Vehicle-Trips[5]	832	524	308
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	23%	92%
Retail	32%	32%
Restaurant	38%	22%
Cinema/Entertainment	0%	0%
Residential	8%	22%
Hotel	3%	29%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Brickyard (HKS Project No. 200726)
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	111	111	1.00	24	24
Retail	1.00	41	41	1.00	28	28
Restaurant	1.00	120	120	1.00	99	99
Cinema/Entertainment	1.00	90	90	1.00	5	5
Residential	1.00	36	36	1.00	121	121
Hotel	1.00	30	30	1.00	24	24

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	15	0	0	0
Retail	8		4	0	4	0
Restaurant	31	14		0	4	3
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	24	0		0
Hotel	18	3	2	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	28	0	0	0
Retail	4		60	0	1	0
Restaurant	16	3		0	2	1
Cinema/Entertainment	0	0	0		0	0
Residential	3	7	24	0		0
Hotel	3	2	7	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	25	86	111	86	0	0
Retail	13	28	41	28	0	0
Restaurant	45	75	120	75	0	0
Cinema/Entertainment	0	90	90	90	0	0
Residential	3	33	36	33	0	0
Hotel	1	29	30	29	0	0
All Other Land Uses[3]	0	183	183	183	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	22	2	24	2	0	0
Retail	9	19	28	19	0	0
Restaurant	22	77	99	77	0	0
Cinema/Entertainment	0	5	5	5	0	0
Residential	27	94	121	94	0	0
Hotel	7	17	24	17	0	0
All Other Land Uses[3]	0	94	94	94	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Brickyard (HKS Project No. 200726)	**Organization:**	HKS
Project Location:	Castle Rock, Colorado	**Performed By:**	MEK
Scenario Description:	Build-Out	**Date:**	6/20/2025
Analysis Year:	2027 & 2045	**Checked By:**	MEK
Analysis Period:	**PM Street Peak Hour**	**Date:**	6/20/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710, 720	56	KSF	176	46	130
Retail	822,850	23.5	KSF	235	118	117
Restaurant	932	23	KSF	207	126	81
Cinema/Entertainment	437	64	Lanes	133	86	47
Residential	221	384	DU	150	92	58
Hotel	310	123	Rooms	63	32	31
All Other Land Uses[2]	495	145	KSF	345	162	183
				1,309	662	647

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	3	0	3	0
Retail	2		34	5	30	5
Restaurant	2	33		6	15	6
Cinema/Entertainment	1	5	4		4	0
Residential	2	12	12	0		2
Hotel	0	2	6	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,309	662	647
Internal Capture Percentage	31%	31%	31%
External Vehicle-Trips[5]	903	459	444
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	15%	12%
Retail	52%	65%
Restaurant	47%	77%
Cinema/Entertainment	13%	30%
Residential	57%	48%
Hotel	41%	26%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Brickyard (HKS Project No. 200726)
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	46	46	1.00	130	130
Retail	1.00	118	118	1.00	117	117
Restaurant	1.00	126	126	1.00	81	81
Cinema/Entertainment	1.00	86	86	1.00	47	47
Residential	1.00	92	92	1.00	58	58
Hotel	1.00	32	32	1.00	31	31

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		26	5	0	3	0
Retail	2		34	5	30	6
Restaurant	2	33		6	15	6
Cinema/Entertainment	1	10	15		4	1
Residential	2	24	12	0		2
Hotel	0	5	21	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	3	1	4	0
Retail	14		37	22	42	5
Restaurant	14	59		28	15	23
Cinema/Entertainment	3	5	4		4	0
Residential	26	12	18	0		4
Hotel	0	2	6	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	39	46	39	0	0
Retail	61	57	118	57	0	0
Restaurant	59	67	126	67	0	0
Cinema/Entertainment	11	75	86	75	0	0
Residential	52	40	92	40	0	0
Hotel	13	19	32	19	0	0
All Other Land Uses[3]	0	162	162	162	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	15	115	130	115	0	0
Retail	76	41	117	41	0	0
Restaurant	62	19	81	19	0	0
Cinema/Entertainment	14	33	47	33	0	0
Residential	28	30	58	30	0	0
Hotel	8	23	31	23	0	0
All Other Land Uses[3]	0	183	183	183	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development			
Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Office	0.0%	0.0%
	To Retail	28.0%	20.0%
	To Restaurant	63.0%	4.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	1.0%	2.0%
	To Hotel	0.0%	0.0%
From RETAIL	To Office	29.0%	2.0%
	To Retail	0.0%	0.0%
	To Restaurant	13.0%	29.0%
	To Cinema/Entertainment	0.0%	4.0%
	To Residential	14.0%	26.0%
	To Hotel	0.0%	5.0%
From RESTAURANT	To Office	31.0%	3.0%
	To Retail	14.0%	41.0%
	To Restaurant	0.0%	0.0%
	To Cinema/Entertainment	0.0%	8.0%
	To Residential	4.0%	18.0%
	To Hotel	3.0%	7.0%
From CINEMA/ENTERTAINMENT	To Office	0.0%	2.0%
	To Retail	0.0%	21.0%
	To Restaurant	0.0%	31.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	8.0%
	To Hotel	0.0%	2.0%
From RESIDENTIAL	To Office	2.0%	4.0%
	To Retail	1.0%	42.0%
	To Restaurant	20.0%	21.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	0.0%
	To Hotel	0.0%	3.0%
From HOTEL	To Office	75.0%	0.0%
	To Retail	14.0%	16.0%
	To Restaurant	9.0%	68.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	2.0%
	To Hotel	0.0%	0.0%

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development			
Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Office	0.0%	0.0%
	From Retail	4.0%	31.0%
	From Restaurant	14.0%	30.0%
	From Cinema/Entertainment	0.0%	6.0%
	From Residential	3.0%	57.0%
	From Hotel	3.0%	0.0%
To RETAIL	From Office	32.0%	8.0%
	From Retail	0.0%	0.0%
	From Restaurant	8.0%	50.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	17.0%	10.0%
	From Hotel	4.0%	2.0%
To RESTAURANT	From Office	23.0%	2.0%
	From Retail	50.0%	29.0%
	From Restaurant	0.0%	0.0%
	From Cinema/Entertainment	0.0%	3.0%
	From Residential	20.0%	14.0%
	From Hotel	6.0%	5.0%
To CINEMA/ENTERTAINMENT	From Office	0.0%	1.0%
	From Retail	0.0%	26.0%
	From Restaurant	0.0%	32.0%
	From Cinema/Entertainment	0.0%	0.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To RESIDENTIAL	From Office	0.0%	4.0%
	From Retail	2.0%	46.0%
	From Restaurant	5.0%	16.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To HOTEL	From Office	0.0%	0.0%
	From Retail	0.0%	17.0%
	From Restaurant	4.0%	71.0%
	From Cinema/Entertainment	0.0%	1.0%
	From Residential	0.0%	12.0%
	From Hotel	0.0%	0.0%