**Clark** Patterson Lee
DESIGN PROFESSIONALS

March 7, 2013

Kim Kinsella
Town of Victor
Planning/Zoning Department
85 East Main Street
Victor, NY 14564

**Re: Pinnacle Athletic Campus**
**Traffic Impact Study Review**

Dear Ms. Kinsella:

Clark Patterson Lee (CPL) has evaluated the following materials submitted regarding the referenced project:

- Traffic Impact Study (TIS), prepared by Passero Associates, dated March 2013

The Applicant is proposing a mixed use development on 95 acres consisting of indoor recreational space, medical office building(s), and hotel(s) constructed in at least two phases. The TIS was progressed using an analysis of two phases, where Phase 1 included 90,000 SF of indoor recreation space with a completion date of 2014, and full build out to be completed by 2018. Under Phase 1, access to the site would be provided via Phillips Road, and under full build out a second access point on Main Street Fishers would also be provided. We offer the following comments:

1. We generally agree with the methodology within the TIS. The techniques used are consistent with industry standards. In fact, in some ways the TIS went beyond what would typically be provided. For example, to verify the number of trips that would be generated by the indoor recreational space as presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual, counts were taken at the Total Sports Experience (TSE) in the Town of Gates.

2. Trip Generation:

   Trip generation volume calculations were provided in Appendix E of the TIS. These volumes were presented in a table and the volumes in the table were used for subsequent calculations within the TIS, some of which are noted below. The values in this table had errors which were then carried through the TIS impacting the results and findings. These errors are:

   a. Recreational Community Center, under Phase 1 PM peak – The total trips reported as 124 with 25 exiting the site and 99 entering. The ITE manual does

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show 124 trips to be correct, however, it shows a distribution of 63% exiting and 37% entering, which would equate to 78 exiting and 46 entering. It may be possible that the TIS utilized the distribution for the TSE which was 75% entering and 25% exiting. However, if this were the case, the volumes would be 31 exiting and 93 which doesn't match the values in the table either.

b. Recreational Community Center, under full build out Phase 1 PM peak – Similar issue as noted in Comment 2.a. where 47 exiting and 110 entering trips should have been 99 exiting and 58 entering, or using the TSE distribution, 39 exiting and 118 entering.

c. Soccer complex – The trips generated are for 6 soccer fields. The ITE manual does not have a clear way of calculating a trip generation for this volume of soccer fields, i.e. there is no equation or graph. Additional information on how these trips were generated need to be provided before the volumes in the TIS can be verified.

d. Medical Office – The backup calculations for this land use were missing from the TIS. Base upon our examination of the ITE manual, utilizing the "average rate" provided, the number of trips should be 272. The number provided in the table is 50. Additional information on how these trips were generated need to be provided before the volumes in the TIS can be verified.

e. Hotel – The total number of trips calculated in the TIS is 122. The number presented in the table is 140. This should be modified.

3. Left Turn Lane Warrant Analysis:

The TIS notes that left turn warrant analysis calculations were performed at both site access drives on Phillips Road and Main Street Fishers, and that the calculations are provided in Appendix L. It is further noted that these calculations show a left turn lane is warranted for the Phillips Road entrance, but not the Main Street Fishers entrance. Appendix L contains only the calculations for Phillips Road. Without the backup calculation for Main Street Fishers, verification that no left turn lane is warranted was not possible. These calculations should be provided so that their findings can be verified.

4. Signal Warrant Analysis:

The TIS notes that of the unsignalized intersections studied, only the Phillips Road intersection with Route 251 has a leg that fails; the southbound left turn from Phillips Road to Route 251 fails under the full build out conditions in 2018. It is noted that a signal warrant analysis was performed and the calculations are provided in Appendix

M. The calculations show, and the TIS notes, that the intersection meets warrants for a signal upon full build out in 2018. The calculations also show that the intersection meets some of the warrants for a signal after Phase 1. The TIS does not go far enough as to recommend a traffic signal at this intersection as a mitigation measure.

As noted previously in this letter, there are some issues with the way the trip generation volumes were calculated, and the warrant analysis should be recalculated using the corrected trip generation volumes.

5. Level of Service:

The TIS shows that there are level of service (LOS) issues at two locations within the study area. One location is the intersection of Philips Road with Route 251 as described in Comment 4 above. The other location is at the intersection of Route 96 with Main Street Fishers. The TIS notes that due to several factors there is little that can be done to improve the LOS at this intersection. It is noted in the TIS that modifying Main Street Fishers from a two-lane section to a four-lane section between Phillips Road and Route 96 improves the function of this intersection, but does not go far enough as to recommend this as a mitigation measure.

As with other comments made herein, the LOS at these and the other intersections should be recalculated using the corrected trip generation volumes.

As noted, the errors in determining the number of trips generated by the proposed development were carried through subsequent calculations within the TIS. In addition there are a few items that do not have the backup calculations to substantiate the findings presented in the TIS. As a result, we are unable to determine the impacts of the proposed development on the surrounding roadway network.

This concludes our review of the material submitted. It is recommended that a copy of these comments be transmitted to the Applicant, the Applicant's representative and consultants.

Sincerely,

**Clark** Patterson Lee

Jennifer L. Michniewicz, PE, PTOE
Principal Associate

cc: Cathy Templar – Town of Victor
file

PASSERO ASSOCIATES
engineering architecture



March 14, 2013

Kim Kinsella
Town of Victor
Planning/Zoning Department
85 East Main Street
Victor, NY 14564

**Re: Pinnacle Athletic Club - Traffic Impact Study Review**
**Comment Letter of March 7, 2013 - Clark Patterson Lee**

Dear Ms. Kinsella:

We are in receipt of Clark Patterson Lee's comment letter, dated March 7, 2013 for the above referenced project. Our responses are in bold italics in the order received.

- Traffic Impact Study (TIS), prepared by Passero Associates, dated March 2013

The Applicant is proposing a mixed use development on 95 acres consisting of indoor recreational space, medical office building(s), and hotel(s) constructed in at least two phases. The TIS was progressed using an analysis of two phases, where Phase 1 included 90,000 SF of indoor recreation space with a completion date of 2014, and full build out to be completed by 2018. Under Phase 1, access to the site would be provided via Phillips Road, and under full build out a second access point on Main Street Fishers would also be provided. We offer the following comments:

1. We generally agree with the methodology within the TIS. The techniques used are consistent with industry standards. In fact, in some ways the TIS went beyond what would typically be provided. For example, to verify the number of trips that would be generated by the indoor recreational space as presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual, counts were taken at the Total Sports Experience (TSE) in the Town of Gates.
***Response: No response warranted.***

2. Trip Generation:

Trip generation volume calculations were provided in Appendix E of the TIS. These volumes were presented in a table and the volumes in the table were used for subsequent calculations within the TIS, some of which are noted below. The values in this table had errors which were then carried through the TIS impacting the results and findings. These errors are:

a. Recreational Community Center, under Phase 1 PM peak — The total trips reported as 124 with 25 exiting the site and 99 entering. The ITE manual does show 124 trips to be correct, however, it shows a distribution of 63% exiting and 37% entering, which would equate to 78 exiting and 46 entering. It may be possible that the TIS utilized the distribution for the TSE which was 75% entering and 25% exiting. However, if this were the case, the volumes would be 31 exiting and 93 which doesn't match the values in the table either.
***Response: The intent of the analysis was to use the distribution observed at TSE since it is the most comparable land use in the vicinity of the project. We note that there was a discrepancy between the 75%/25% observed at TSE and the 80%/20% used for the trip generations. We have updated the trip generations to utilize the 75%/25% distribution and revised the drawings, warrant analysis and LOS capacity analysis.***

b. Recreational Community Center, under full build out Phase 1 PM peak — Similar issue as noted in Comment 2.a. where 47 exiting and 110 entering trips should have been 99 exiting and 58 entering, or using the TSE distribution, 39 exiting and 118 entering.
***Response: The distribution was updated, please see the above response.***

c. Soccer complex — The trips generated are for 6 soccer fields. The ITE manual does not have a clear way of calculating a trip generation for this volume of soccer fields, i.e. there is no equation or graph. Additional information on how these trips were generated need to be provided before the volumes in the TIS can be verified.
***Response: The trip generation used for the soccer fields is ITE Land Use 488, Soccer Complex (See appendix E of the Pinnacle Athletic Center TIS). ITE conducted 3 studies with an average complex size of 10 fields. Using that information they determined an average rate of trips/field which is what was used for the purpose of this report. The range of rates for the 3 studies varied from 8.71 trips/field up to 24.88 trips/field. Since the Impact Study considered an average rate of 20.67 is on the high end of the distribution and though to be somewhat conservative.***



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d. Medical Office — The backup calculations for this land use were missing from the TIS. Base upon our examination of the ITE manual, utilizing the "average rate" provided, the number of trips should be 272. The number provided in the table is 50. Additional information on how these trips were generated need to be provided before the volumes in the TIS can be verified.
***Response: The calculations for the trip generations are provided at appendix E. A courtesy copy is also included with this letter. We determined the anticipated number of trips generated by the medical offices during the PM Peak Hour using ITE Land Use 720 - Medical Office, average rate. During the Saturday Peak Hour, we assumed a maximum number of 50 trips would be generated since most office spaces are closed during the weekend. We then utilized a Mixed Use Credit of 60% which assumes that 60% of the people coming to the medical office would also be using other facilities within the complex. In order to be slightly more conservative, we have re-run the analysis applying a 40% credit to the medical office building which increases the total number of trips projected. The purpose of the increase is to check the transportation network to see if minor fluctuations in the amount of generated traffic have any impact above our original findings. As shown, the warrants and LOS's analysis are not impacted by the increase.***

e. Hotel — The total number of trips calculated in the TIS is 122. The number presented in the table is 140. This should be modified.
***Response: The number of trips generated has been revised from 140 to 122 during the Saturday peak hour. Similarly to response 2d, the mixed use credit was reduced in our updated analysis in an effort to be more conservative.***

3. Left Turn Lane Warrant Analysis:

The TIS notes that left turn warrant analysis calculations were performed at both site access drives on Phillips Road and Main Street Fishers, and that the calculations are provided in Appendix L. It is further noted that these calculations show a left turn lane is warranted for the Phillips Road entrance, but not the Main Street Fishers entrance. Appendix L contains only the calculations for Phillips Road. Without the backup calculation for Main Street Fishers, verification that no left turn lane is warranted was not possible. These calculations should be provided so that their findings can be verified.
***Response: We have included the Left Turn Lane warrant analysis for Main Street Fishers with this letter.***



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4. Signal Warrant Analysis:

The TIS notes that of the unsignalized intersections studied, only the Phillips Road intersection with Route 251 has a leg that fails; the southbound left turn from Phillips Road to Route 251 fails under the full build out conditions in 2018. It is noted that a signal warrant analysis was performed and the calculations are provided in Appendix M. The calculations show, and the TIS notes, that the intersection meets warrants for a signal upon full build out in 2018. The calculations also show that the intersection meets some of the warrants for a signal after Phase 1. The TIS does not go far enough as to recommend a traffic signal at this intersection as a mitigation measure.

As noted previously in this letter, there are some issues with the way the trip generation volumes were calculated, and the warrant analysis should be recalculated using the corrected trip generation volumes.
***Response: The recalculated Signal Warrant Analysis is included with this response. As shown, the intersection only meets the four and eight hour warrants during full build out conditions and does not meet most other warrants. Furthermore, we suspect that during the PM peak hour many vehicles elect to travel southbound on Phillips Road and turn left on Route 251 in an effort to avoid the existing congestion at the intersection of Main Street Fishers and Route 96. If future improvements are made to that stretch of Main Street Fishers, it is likely that the existing and projected traffic volumes at 251 and Phillips will decrease as a result of re-distribution. Therefore, it is appropriate to re evaluate that intersection in the future for consideration of a traffic signal.***

5. Level of Service:

The TIS shows that there are level of service (LOS) issues at two locations within the study area. One location is the intersection of Philips Road with Route 251 as described in Comment 4 above. The other location is at the intersection of Route 96 with Main Street Fishers. The TIS notes that due to several factors there is little that can be done to improve the LOS at this intersection. It is noted in the TIS that modifying Main Street Fishers from a two-lane section to a four-lane section between Phillips Road and Route 96 improves the function of this intersection, but does not go far enough as to recommend this as a mitigation measure.

As with other comments made herein, the LOS at these and the other intersections should be recalculated using the corrected trip generation volumes.
***Response: The LOS was recalculated and is included with this response. As shown the increase in trips generated does not change the LOS from the original study.***



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As noted, the errors in determining the number of trips generated by the proposed development were carried through subsequent calculations within the TIS. In addition, there are a few items that do not have the backup calculations to substantiate the findings presented in the TIS. As a result, we are unable to determine the impacts of the proposed development on the surrounding roadway network.
***Response: The attached documents include the requested backup information. Should you need anything further, please contact me directly.***

Attached please find revised:

- Trip Generations
- Traffic Diagrams
- Warrant Analysis
- LOS Analysis

**As explained above and as demonstrated in the appendices of this report, minor to moderate changes in the methodology and assumptions used to generate the traffic study do not change the findings or recommendations originally published.**

Please contact me directly if you have questions or require additional information. Thank you.

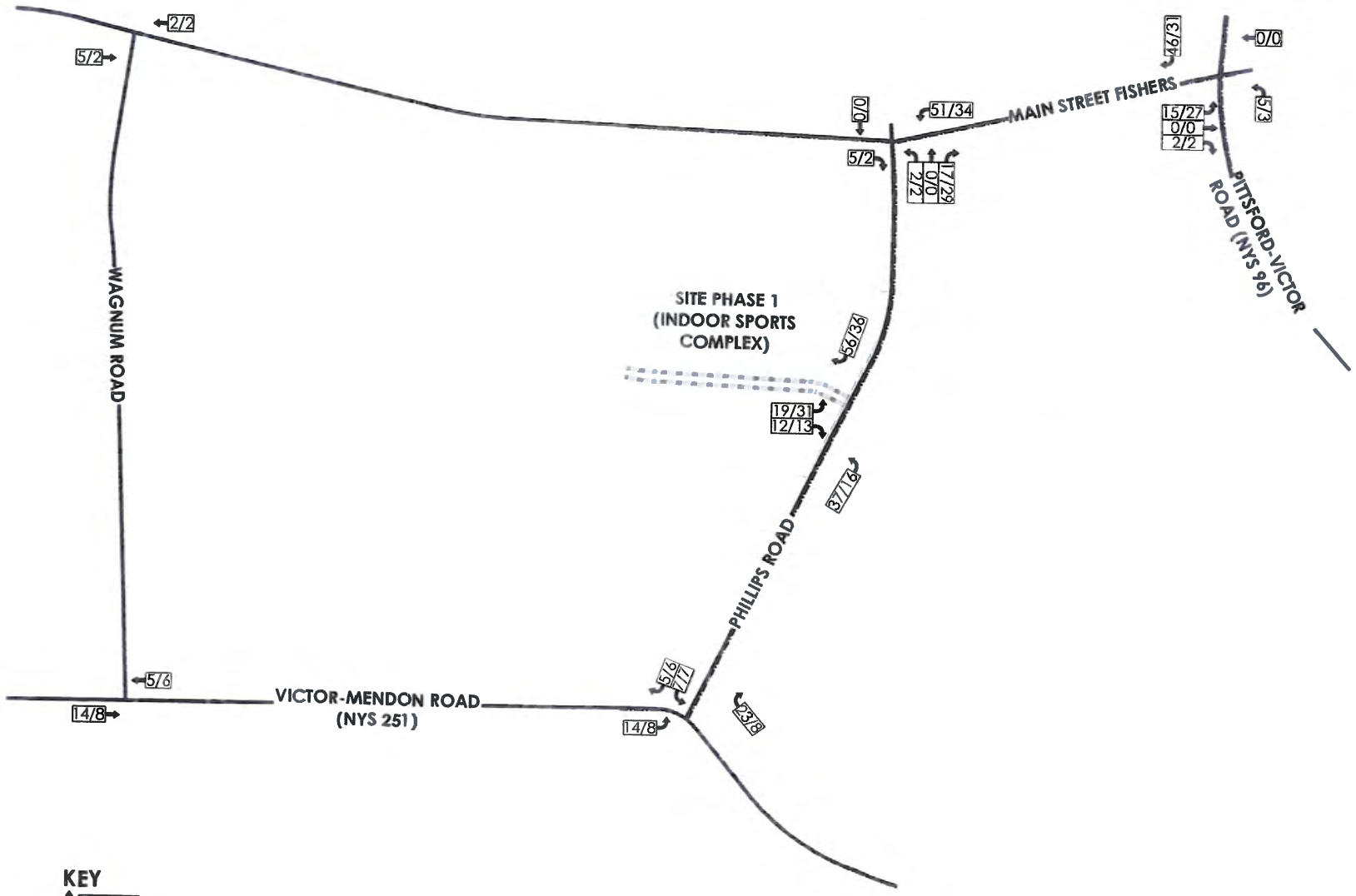
Sincerely,

Jess D. Sudol, PE, CPESC, CPSWQ
Associate & Project Manager

JDS/cmb
Enclosures

cc: Cathy Templar, Town of Victor
Jennifer Michniewicz
File

| Trip Generations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Phase 1 | ITE Land | | PM Peak Hour | | | SAT Peak Hour | | | Mixed Use Credit (MUC) adjustment |
| Use | Use | Size | Total Trips | Exiting | Entering | Total Trips | Exiting | Entering | |
| Recreational Community Center | 495 | 90,000 sf | 124 | 31 | 93 | 96 | 44 | 52 | |
| | | | | | | | | | |
| | | | | | | | | | |
| Overall | | | | | | | | | |
| Recreational Community Center | 495 | 135,000 sf | 157 | 39 | 118 | 144 | 66 | 78 | |
| Soccer Complex | 488 | 6 fields | 124 | 38 | 86 | 172 | 89 | 83 | |
| Medical Office (base) | 720 | 75,000 sf | 219 | 160 | 59 | 50 | 26 | 24 | |
| Medical Office (MUC Adjusted ) | 720 | 75,000 sf | 131 | 96 | 35 | 30 | 16 | 14 | 40% |
| Hotel (base) | 310 | 140 Rooms | 80 | 41 | 39 | 122 | 61 | 61 | |
| Hotel (MUC Adjusted) | 310 | 140 Rooms | 36 | 18 | 18 | 55 | 28 | 28 | 55% |
| | | | | | | | | | |
| | | | | | | | | | |
| Total | | | 448 | 192 | 257 | 401 | 199 | 203 | |




**KEY**

PM/SAT

PM PEAK HOUR: 4:30 TO 5:30

SATURDAY PEAK HOUR: 12:30-1:30

Traffic Study

# Pinnacle Athletic Campus

Drawn By: K. Waelder

Date: February 2013

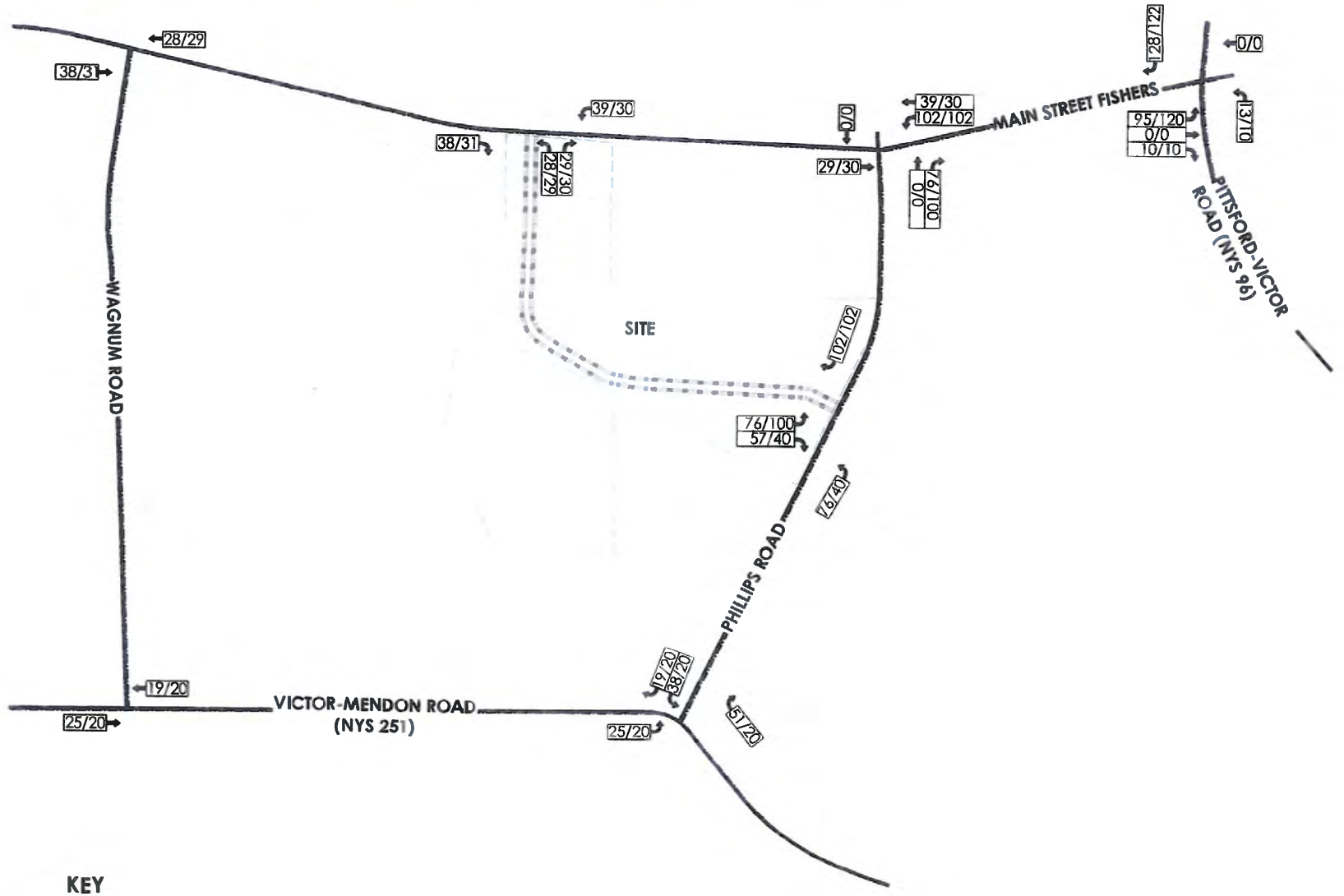
PASSERO ASSOCIATES
engineering architecture
224 West Main Street, Suite 100
Rochester, NY 14614

Client:
Pinnacle Athletic Campus
85 High Tech Drive
Rush, NY 14543
(585)359-9242

**FIGURE 8: SITE GENERATED TRIPS 2014**

Scale: N.T.S.

Sheet No: 8 of 11




Traffic Study

# Pinnacle Athletic Campus

Drawn By: K. Waelder

Date: February 2013

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engineering architecture
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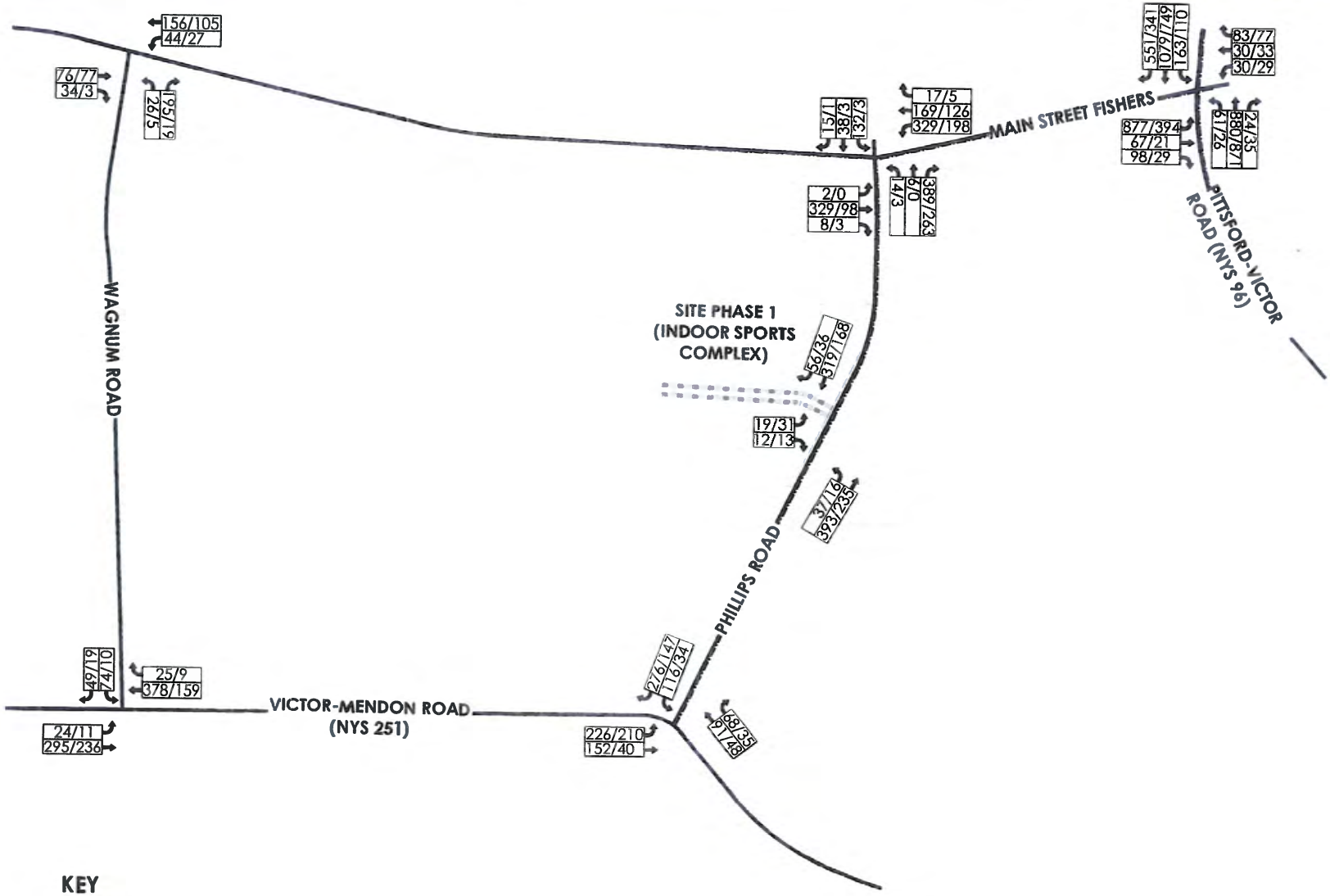
Client:
Pinnacle Athletic Campus
85 High Tech Drive
Rush, NY 14543
(585)359-9242

**FIGURE 9: SITE GENERATED TRIPS 2018**

Scale: N.T.S.

Sheet No: 9 of 11




Traffic Study

# Pinnacle Athletic Campus

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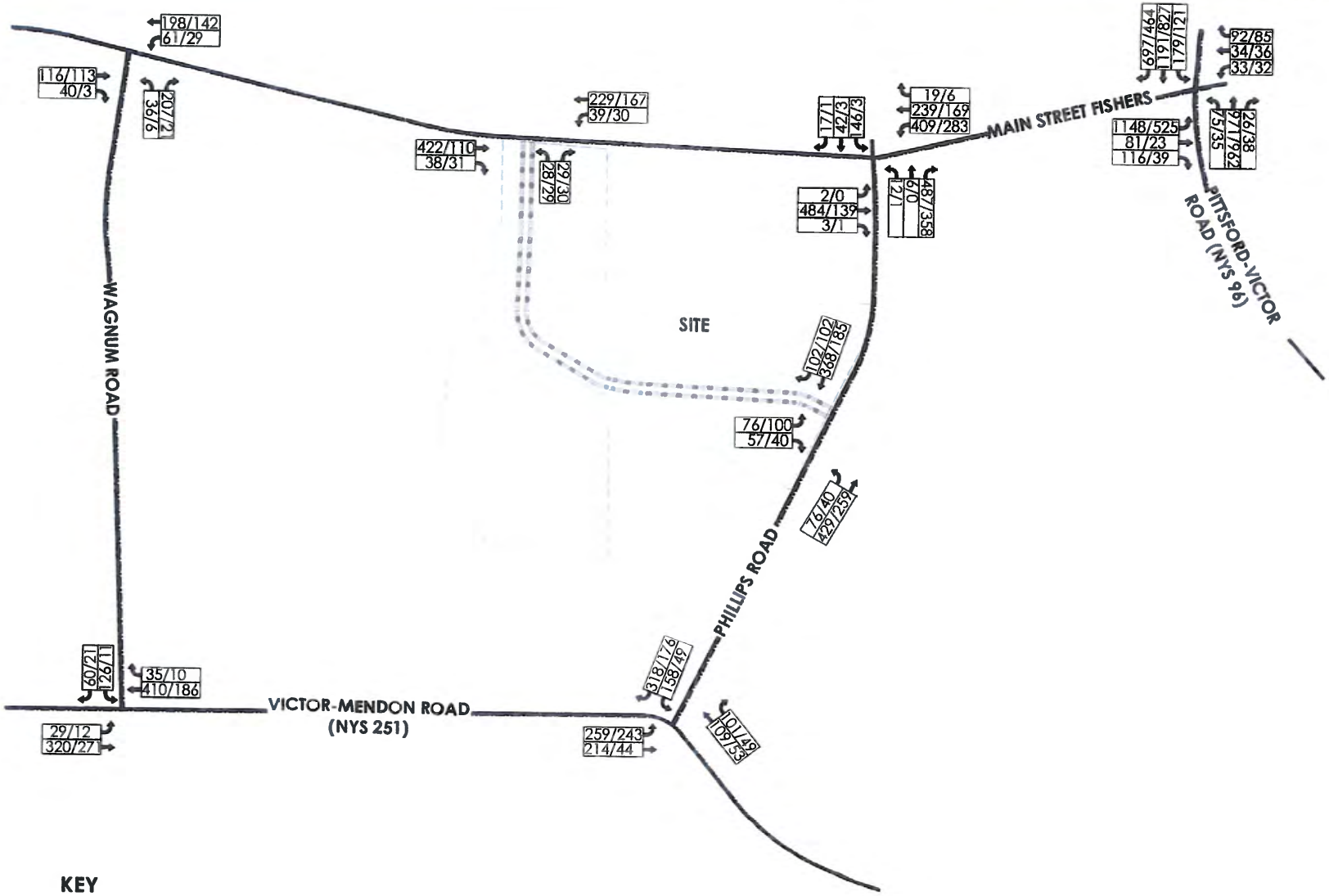
Rush, NY 14543
(585)359-9242

**FIGURE 10: DEVELOPED VOLUMES 2014 CONDITIONS AT 2.5% ANNUAL GROWTH RATE**

| Drawn By: | Date: | Scale: | Sheet No: |
|---|---|---|---|
| K. Waelder | February 2013 | N.T.S. | 10 of 11 |




**KEY**

PM/SAT

PM PEAK HOUR: 4:30 TO 5:30

SATURDAY PEAK HOUR: 12:30-1:30

NOTE: ASSUMES FULL BUILD OF LEHIGH CROSSING

Traffic Study

# Pinnacle Athletic Campus

Drawn By: K. Waelder

Date: February 2013

PASSERO ASSOCIATES
engineering architecture
224 West Main Street, Suite 100
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Client:
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85 High Tech Drive
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**FIGURE 11: PEAK HOUR VOLUMES 2018 CONDITIONS AT 2.5% YEAR ANNUAL GROWTH RATE**

Scale: N.T.S.

Sheet No: 11 of 11

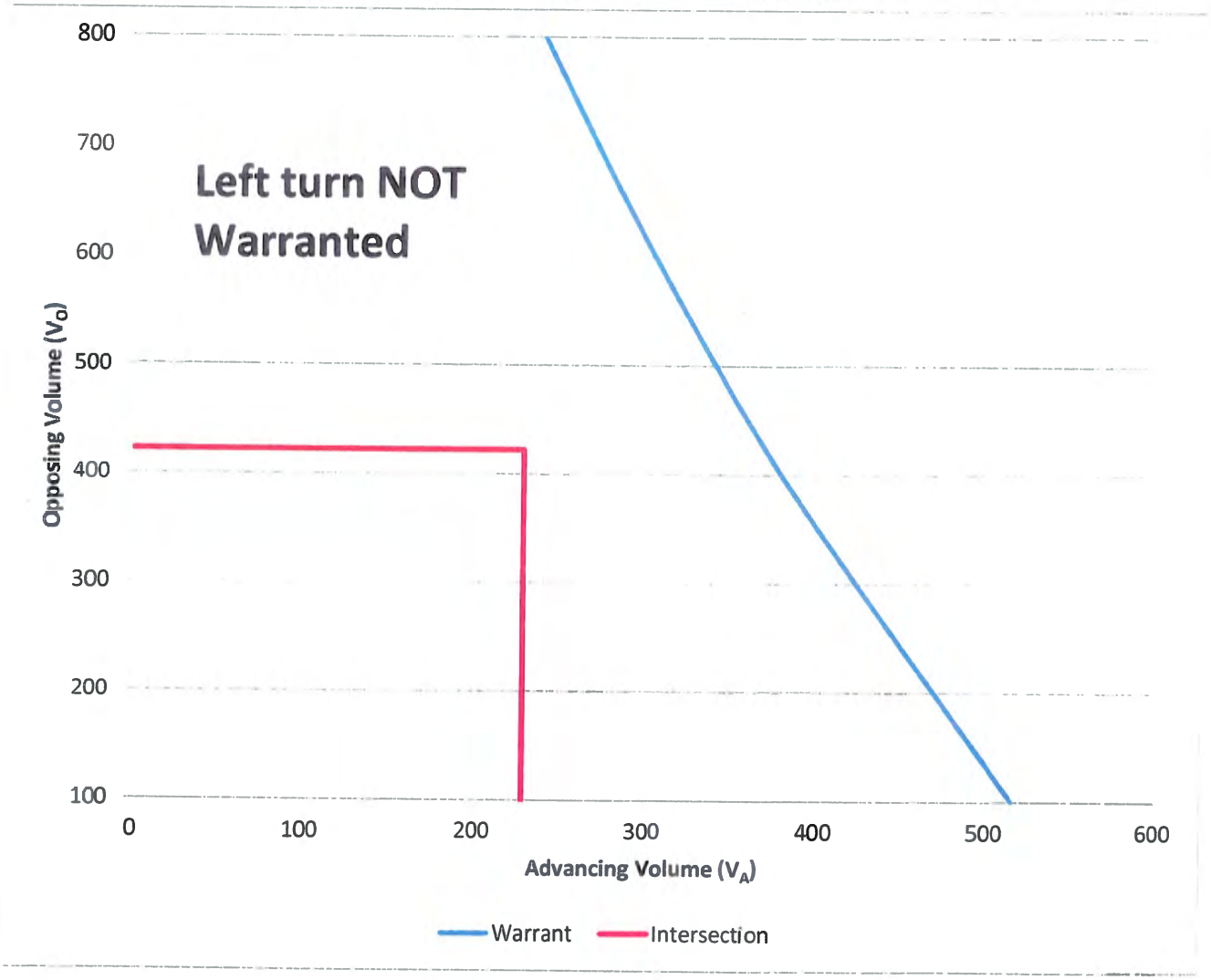
**Main Street Fishers and Pinnacle Entrance (2018 PM Conditions)**

| | |
|---|---|
| Major Approach | Main St Fishers |
| Approach | Westbound |
| Design Speed - MPH | 40 |
| Percent of left-turns in advancing volume ($V_A$), % | 12% |
| Advancing Volume ($V_A$), veh/h: | 229 |
| Opposing Volume ($V_O$), veh/h: | 422 |

| Opposing Volume (Veh/Hr) | Advancing Volume | | | |
|---|---|---|---|---|
| | Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
| 800 | 330 | 240 | 180 | 160 |
| 600 | 410 | 305 | 225 | 200 |
| 400 | 510 | 380 | 275 | 245 |
| 200 | 640 | 470 | 350 | 305 |
| 100 | 720 | 515 | 390 | 340 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 229 | 422 | 422 |
| Line 2 | 229 | 229 | 0 | 422 |

| | |
|---|---|
| Left Turn Value Entered into Table | 10% |
| Opposing Volume Entered into Table | 400 |
| Allowed Advancing Volume | 380 |
| Is a Left Turn Lane Warranted? | **No** |



**Main Street Fishers and Pinnacle Entrance (2018 Saturday Conditions)**

| | |
|---|---|
| Major Approach | Main St Fishers |
| Approach | Westbound |
| Design Speed - MPH | 40 |
| Percent of left-turns in advancing volume ($V_A$), % | 23% |
| Advancing Volume ($V_A$), veh/h: | 259 |
| Opposing Volume ($V_O$), veh/h: | 185 |

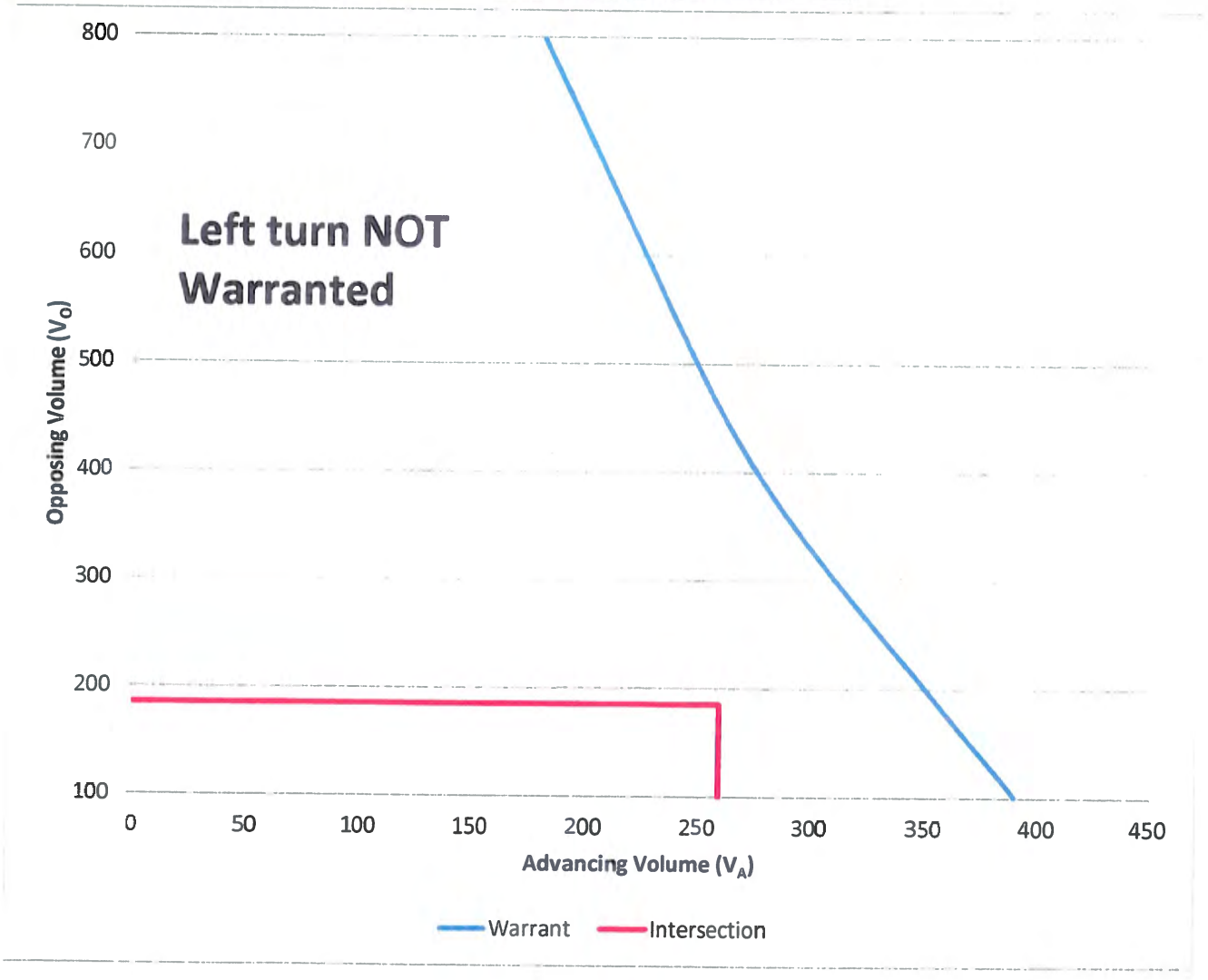
| Opposing Volume (Veh/Hr) | Advancing Volume | | | |
|---|---|---|---|---|
| | Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
| 800 | 330 | 240 | 180 | 160 |
| 600 | 410 | 305 | 225 | 200 |
| 400 | 510 | 380 | 275 | 245 |
| 200 | 640 | 470 | 350 | 305 |
| 100 | 720 | 515 | 390 | 340 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 259 | 185 | 185 |
| Line 2 | 259 | 259 | 0 | 185 |

Area Chart

0

| | |
|---|---|
| Left Turn Value Entered into Table | 20% |
| Opposing Volume Entered into Table | 200 |
| Allowed Advancing Volume | 350 |
| Is a Left Turn Lane Warranted? | **No** |



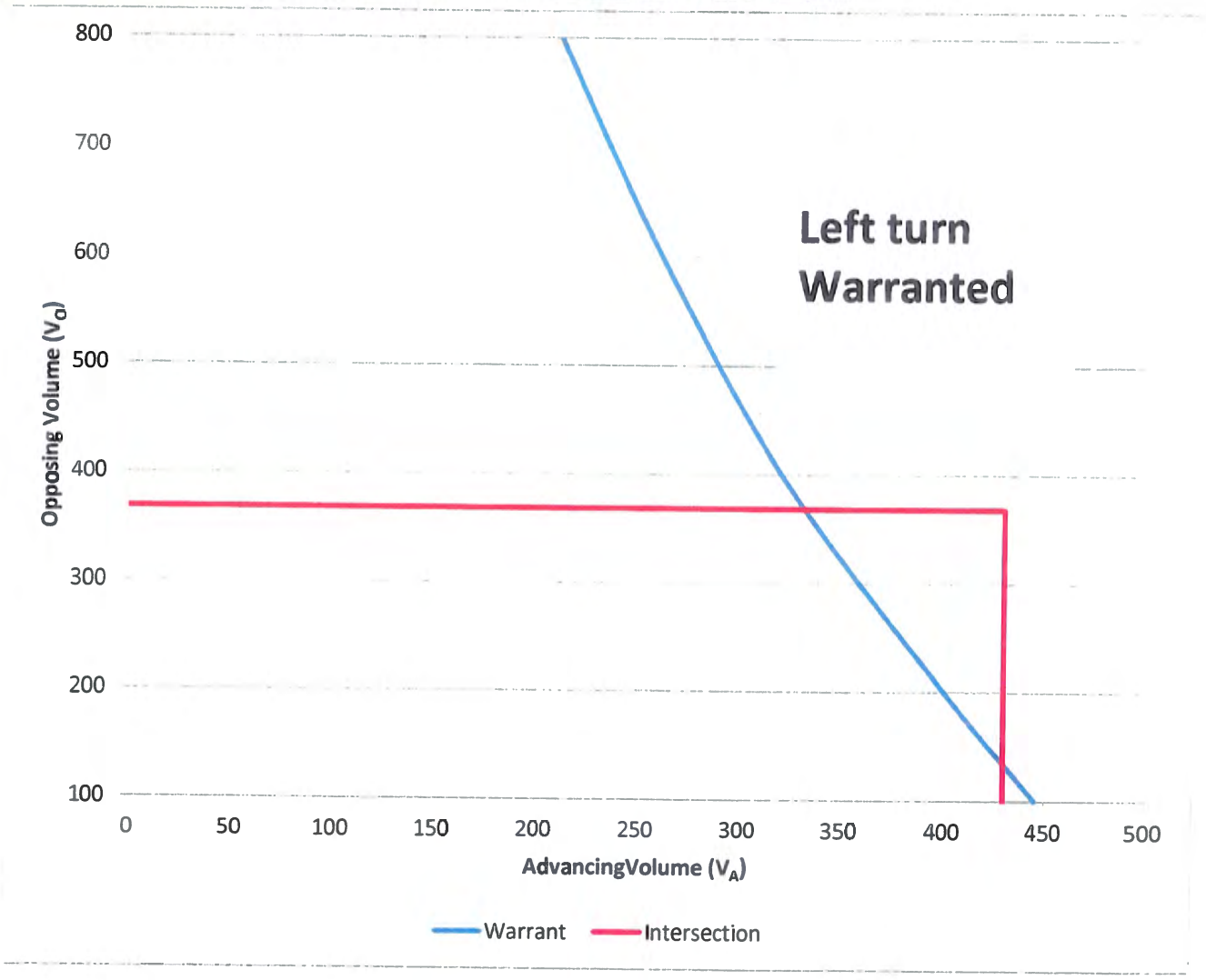
**Phillips Road and Pinnacle Entrance (2018 PM Conditions)**

| Major Approach | Phillips Road |
|---|---|
| Approach | Northbound |
| Design Speed - MPH | 50 |
| Percent of left-turns in advancing volume ($V_A$), % | 13% |
| Advancing Volume ($V_A$), veh/h: | 429 |
| Opposing Volume ($V_O$), veh/h: | 368 |

| Opposing Volume (Veh/Hr) | Advancing Volume | | | |
|---|---|---|---|---|
| | Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
| 800 | 280 | 210 | 165 | 135 |
| 600 | 350 | 260 | 195 | 170 |
| 400 | 430 | 320 | 240 | 210 |
| 200 | 550 | 400 | 300 | 270 |
| 100 | 615 | 445 | 335 | 295 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 429 | 368 | 368 |
| Line 2 | 429 | 429 | 0 | 368 |

| | |
|---|---|
| Left Turn Value Entered into Table | 10% |
| Opposing Volume Entered into Table | 400 |
| Allowed Advancing Volume | 320 |
| Is a Left Turn Lane Warranted? | **Yes** |



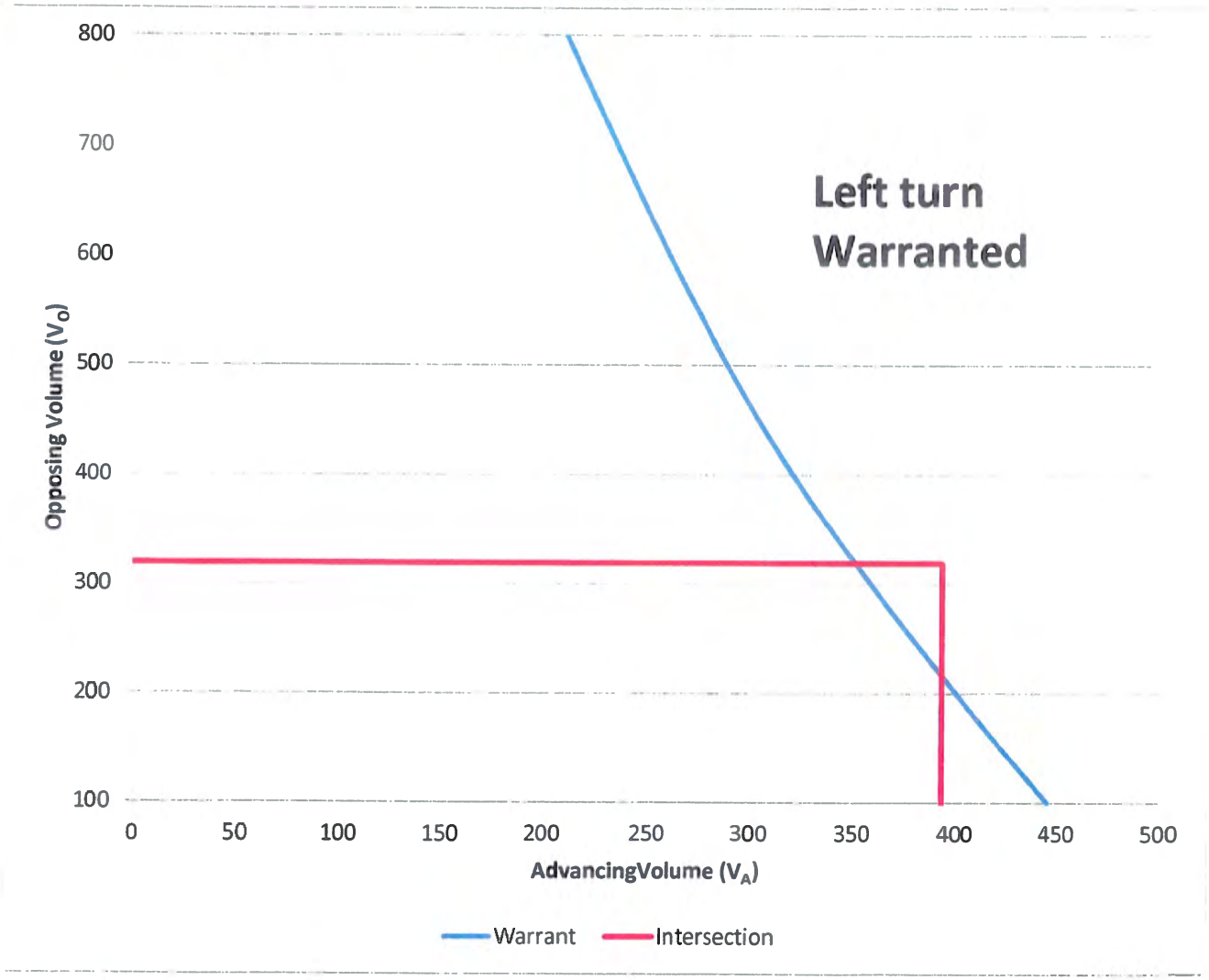
**Phillips Road and Pinnacle Entrance (2014 PM Conditions)**

| | |
|---|---|
| Major Approach | Phillips Road |
| Approach | Northbound |
| Design Speed - MPH | 50 |
| Percent of left-turns in advancing volume ($V_A$), % | 9% |
| Advancing Volume ($V_A$), veh/h: | 393 |
| Opposing Volume ($V_O$), veh/h: | 319 |

| Opposing Volume (Veh/Hr) | Advancing Volume Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
|---|---|---|---|---|
| 800 | 280 | 210 | 165 | 135 |
| 600 | 350 | 260 | 195 | 170 |
| 400 | 430 | 320 | 240 | 210 |
| 200 | 550 | 400 | 300 | 270 |
| 100 | 615 | 445 | 335 | 295 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 393 | 319 | 319 |
| Line 2 | 393 | 393 | 0 | 319 |

| | |
|---|---|
| Left Turn Value Entered into Table | 10% |
| Opposing Volume Entered into Table | 400 |
| Allowed Advancing Volume | 320 |
| Is a Left Turn Lane Warranted? | **Yes** |



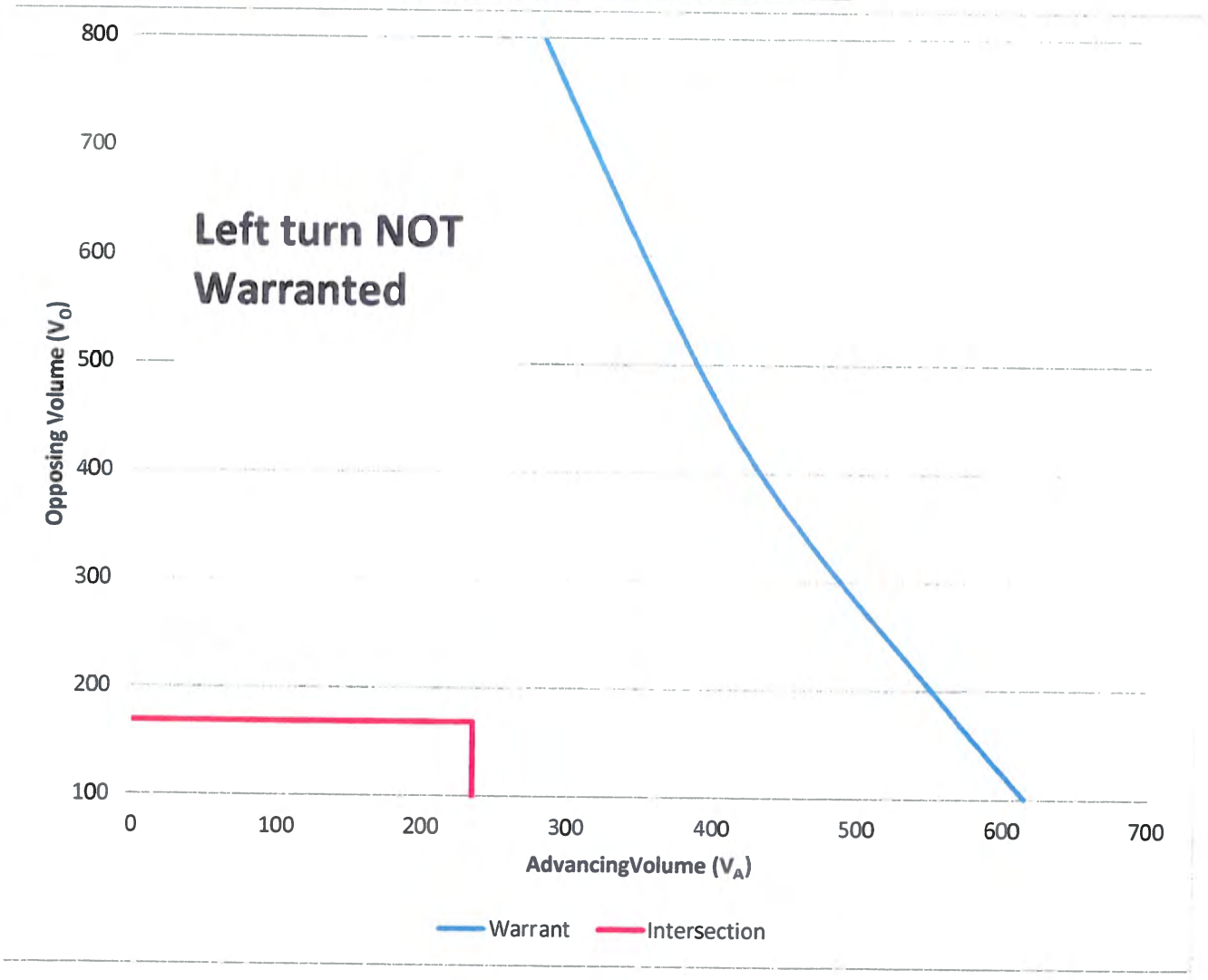
**Phillips Road and Pinnacle Entrance (2014 Saturday Conditions)**

| | |
|---|---|
| Major Approach | Phillips Road |
| Approach | Northbound |
| Design Speed - MPH | 50 |
| Percent of left-turns in advancing volume ($V_A$), % | 7% |
| Advancing Volume ($V_A$), veh/h: | 235 |
| Opposing Volume ($V_O$), veh/h: | 168 |

| Opposing Volume (Veh/Hr) | Advancing Volume Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
|---|---|---|---|---|
| 800 | 280 | 210 | 165 | 135 |
| 600 | 350 | 260 | 195 | 170 |
| 400 | 430 | 320 | 240 | 210 |
| 200 | 550 | 400 | 300 | 270 |
| 100 | 615 | 445 | 335 | 295 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 235 | 168 | 168 |
| Line 2 | 235 | 235 | 0 | 168 |

| | |
|---|---|
| Left Turn Value Entered into Table | 5% |
| Opposing Volume Entered into Table | 200 |
| Allowed Advancing Volume | 550 |
| Is a Left Turn Lane Warranted? | **No** |



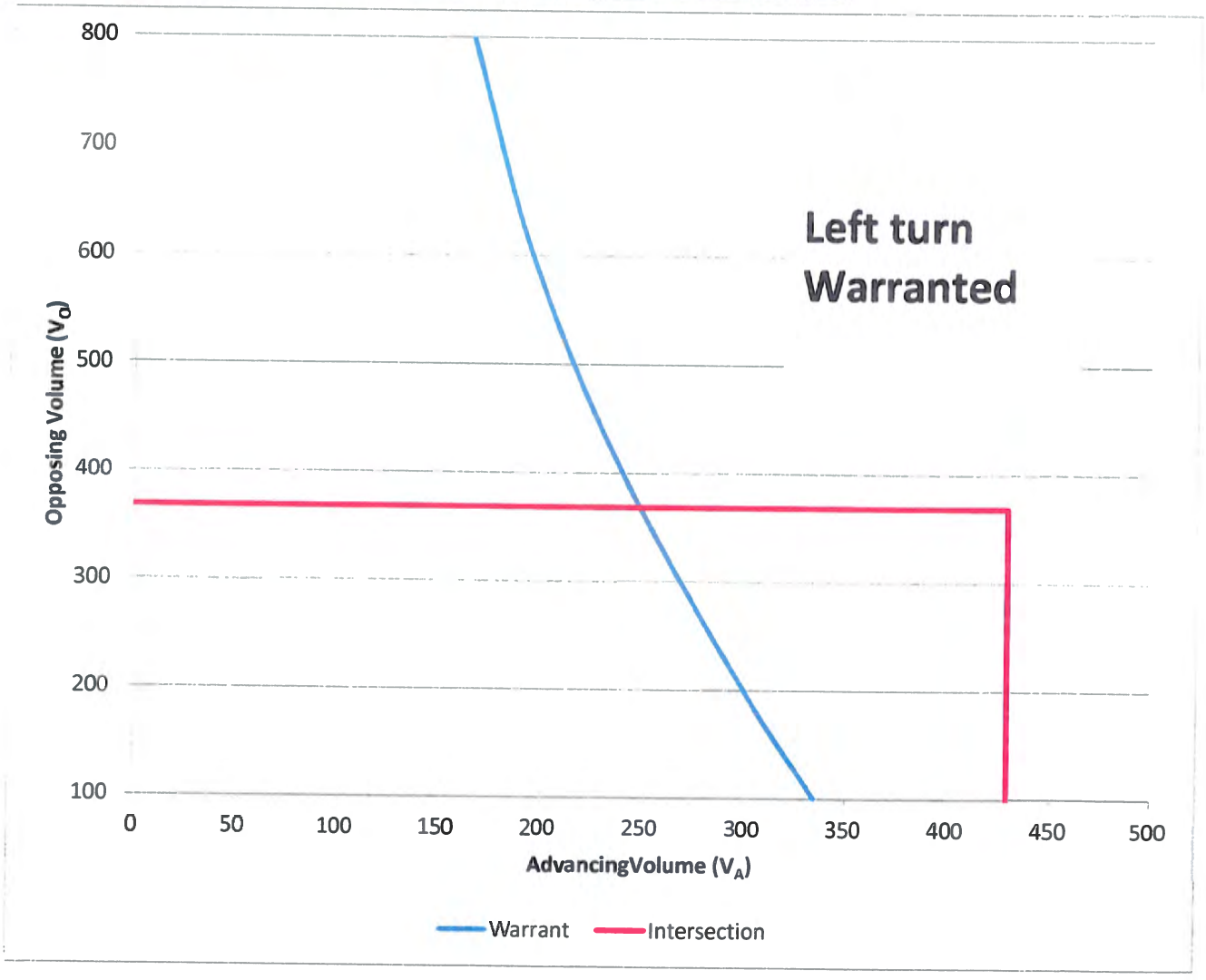
**Phillips Road and Pinnacle Entrance (2018 PM Conditions)**

| | |
|---|---|
| Major Approach | Phillips Road |
| Approach | Northbound |
| Design Speed - MPH | 50 |
| Percent of left-turns in advancing volume ($V_A$), % | 18% |
| Advancing Volume ($V_A$), veh/h: | 429 |
| Opposing Volume ($V_O$), veh/h: | 368 |

| Opposing Volume (Veh/Hr) | Advancing Volume Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
|---|---|---|---|---|
| 800 | 280 | 210 | 165 | 135 |
| 600 | 350 | 260 | 195 | 170 |
| 400 | 430 | 320 | 240 | 210 |
| 200 | 550 | 400 | 300 | 270 |
| 100 | 615 | 445 | 335 | 295 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 429 | 368 | 368 |
| Line 2 | 429 | 429 | 0 | 368 |

| | |
|---|---|
| Left Turn Value Entered into Table | 20% |
| Opposing Volume Entered into Table | 400 |
| Allowed Advancing Volume | 240 |
| Is a Left Turn Lane Warranted? | **Yes** |



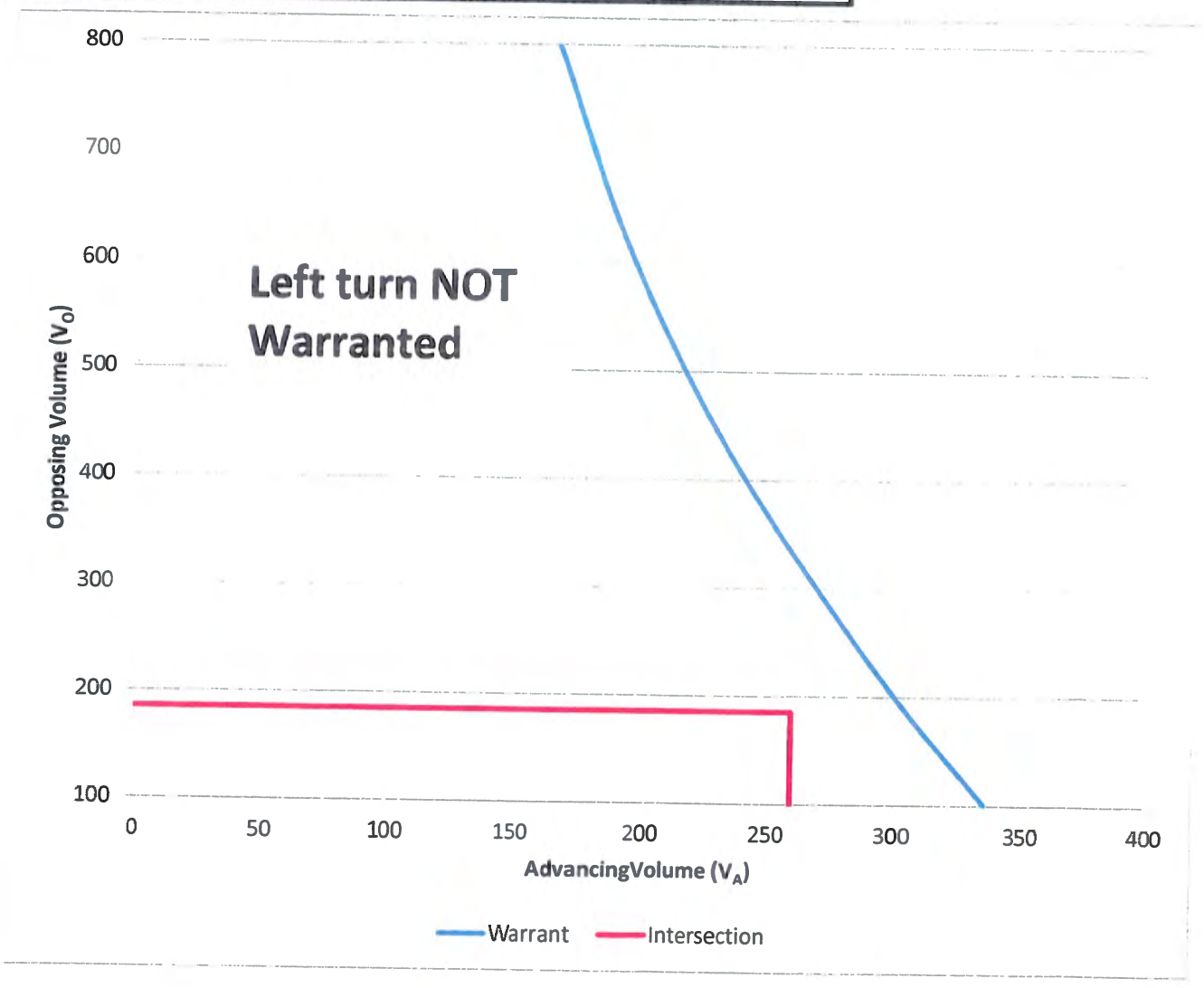
**Phillips Road and Pinnacle Entrance (2018 Saturday Conditions)**

| | |
|---|---|
| Major Approach | Phillips Road |
| Approach | Northbound |
| Design Speed - MPH | 50 |
| Percent of left-turns in advancing volume ($V_A$), % | 15% |
| Advancing Volume ($V_A$), veh/h: | 259 |
| Opposing Volume ($V_O$), veh/h: | 185 |

| Opposing Volume (Veh/Hr) | Advancing Volume | | | |
|---|---|---|---|---|
| | Left Turns 5% | Left Turns 10% | Left Turns 20% | Left Turns 30% |
| 800 | 280 | 210 | 165 | 135 |
| 600 | 350 | 260 | 195 | 170 |
| 400 | 430 | 320 | 240 | 210 |
| 200 | 550 | 400 | 300 | 270 |
| 100 | 615 | 445 | 335 | 295 |

| Warrant Plot | | | | |
|---|---|---|---|---|
| Line 1 | 0 | 259 | 185 | 185 |
| Line 2 | 259 | 259 | 0 | 185 |

| | |
|---|---|
| Left Turn Value Entered into Table | 20% |
| Opposing Volume Entered into Table | 200 |
| Allowed Advancing Volume | 300 |
| Is a Left Turn Lane Warranted? | **No** |



## 2014 NYS 251 and Phillips Road Signal Warrant

| | Existing Fluctuation in Artery Volumes | | Full Development Volume | Hourly Fluctuation traffic on Wangum Road (from Route 251 Data) | Hourly Volumes Exiting Phillips Road |
|---|---|---|---|---|---|
| | NYSDOT Count | Hourly Fluctuation | | | |
| Hour | Two-Way | Two-Way | Total | Exiting | Total |
| 12:00AM | 25 | 0.29% | 28 | 0.29% | 11 |
| 1:00AM | 14 | 0.16% | 16 | 0.16% | 6 |
| 2:00AM | 6 | 0.07% | 7 | 0.07% | 3 |
| 3:00AM | 8 | 0.09% | 9 | 0.09% | 4 |
| 4:00AM | 28 | 0.33% | 32 | 0.33% | 13 |
| 5:00AM | 112 | 1.30% | 127 | 1.30% | 50 |
| 6:00AM | 427 | 4.96% | 484 | 4.96% | 191 |
| 7:00AM | 779 | 9.05% | 883 | 9.05% | 349 |
| 8:00AM | 677 | 7.87% | 767 | 7.87% | 303 |
| 9:00AM | 494 | 5.74% | 560 | 5.74% | 221 |
| 10:00AM | 460 | 5.35% | 521 | 5.35% | 206 |
| 11:00AM | 502 | 5.83% | 569 | 5.83% | 225 |
| 12:00PM | 586 | 6.81% | 664 | 6.81% | 263 |
| 1:00PM | 525 | 6.10% | 595 | 6.10% | 235 |
| 2:00PM | 529 | 6.15% | 599 | 6.15% | 237 |
| 3:00PM | 661 | 7.68% | 749 | 7.68% | 296 |
| 4:00PM | 749 | 8.71% | 849 | 8.71% | 336 |
| 5:00PM | 775 | 9.01% | 878 | 9.01% | 347 |
| 6:00PM | 469 | 5.45% | 531 | 5.45% | 210 |
| 7:00PM | 284 | 3.30% | 322 | 3.30% | 127 |
| 8:00PM | 220 | 2.56% | 249 | 2.56% | 99 |
| 9:00PM | 151 | 1.75% | 171 | 1.75% | 68 |
| 10:00PM | 82 | 0.95% | 93 | 0.95% | 37 |
| 11:00PM | 41 | 0.48% | 46 | 0.48% | 18 |
| Totals | 8604 | 100.00% | 9747 | 100.00% | 3856 |

**Warrant 1: Times meeting 8-hour Requirements - 6 Hours: Not warranted**

**Warrant 2: Times meeting 4-hour Requirements - 4 Hours: Use engineering judgement**

**Warrant 3: Times meeting Peak hour Warrant Requirements: Not Warranted**

**Warrant 4: Pedestrian Volume: Not Warranteed (not enough pedestrians)**

**Warrant 5: School Crossing: Not Warranted (no schoolchildren crossing)**

**Warrant 6: Coordinated Signal System: Not Warranted (few additional signals in area)**

**Warrant 7: Crash Experience: Not warranted (less than 5 crashes in 12-month period)**

**Warrant 8: Roadway network: Potential Warrant, requires more study and judgement**

**Warrant 9: Intersection near a grade crossing: Not warranted (no crossing nearby)**

2018 NYS 251 and Phillips Road Signal Warrant

| | Existing Fluctuation in Artery Volumes | | Full Development Volume | Hourly Fluctuation traffic on Wangum Road (from Route 251 Data) | Hourly Volumes Exiting Phillips Road |
|---|---|---|---|---|---|
| | NYSDOT Count | Hourly Fluctuation | | | |
| Hour | Two-Way | Two-Way | Total | Exiting | Total |
| 12:00AM | 25 | 0.29% | 31 | 0.29% | 14 |
| 1:00AM | 14 | 0.16% | 18 | 0.16% | 8 |
| 2:00AM | 6 | 0.07% | 8 | 0.07% | 3 |
| 3:00AM | 8 | 0.09% | 10 | 0.09% | 4 |
| 4:00AM | 28 | 0.33% | 35 | 0.33% | 15 |
| 5:00AM | 112 | 1.30% | 140 | 1.30% | 61 |
| 6:00AM | 427 | 4.96% | 535 | 4.96% | 231 |
| 7:00AM | 779 | 9.05% | 976 | 9.05% | 421 |
| 8:00AM | 677 | 7.87% | 848 | 7.87% | 366 |
| 9:00AM | 494 | 5.74% | 619 | 5.74% | 267 |
| 10:00AM | 460 | 5.35% | 577 | 5.35% | 249 |
| 11:00AM | 502 | 5.83% | 629 | 5.83% | 272 |
| 12:00PM | 586 | 6.81% | 734 | 6.81% | 317 |
| 1:00PM | 525 | 6.10% | 658 | 6.10% | 284 |
| 2:00PM | 529 | 6.15% | 663 | 6.15% | 286 |
| 3:00PM | 661 | 7.68% | 828 | 7.68% | 358 |
| 4:00PM | 749 | 8.71% | 939 | 8.71% | 405 |
| 5:00PM | 775 | 9.01% | 971 | 9.01% | 419 |
| 6:00PM | 469 | 5.45% | 588 | 5.45% | 254 |
| 7:00PM | 284 | 3.30% | 356 | 3.30% | 154 |
| 8:00PM | 220 | 2.56% | 276 | 2.56% | 119 |
| 9:00PM | 151 | 1.75% | 189 | 1.75% | 82 |
| 10:00PM | 82 | 0.95% | 103 | 0.95% | 44 |
| 11:00PM | 41 | 0.48% | 51 | 0.48% | 22 |
| Totals | 8604 | 100.00% | 10783 | 100.00% | 4655 |

Warrant 1: Times meeting 8-hour Requirements - 10 Hours: Use engineering judgment

Warrant 2: Times meeting 4-hour Requirements - 5 Hours: Use engineering judgement

Warrant 3: Times meeting Peak hour Warrant Requirements: Not Warranted

Warrant 4: Pedestrian Volume: Not Warranteed

Warrant 5: School Crossing: Not Warranted (no schoolchildren crossing)

Warrant 6: Coordinated Signal System: Not Warranted (few additional signals in area)

Warrant 7: Crash Experience: Not warranted (less than 5 crashes in 12-month period)

Warrant 8: Roadway network: Potential Warrant, requires more study and judgement

Warrant 9: Intersection near a grade crossing: Not warranted

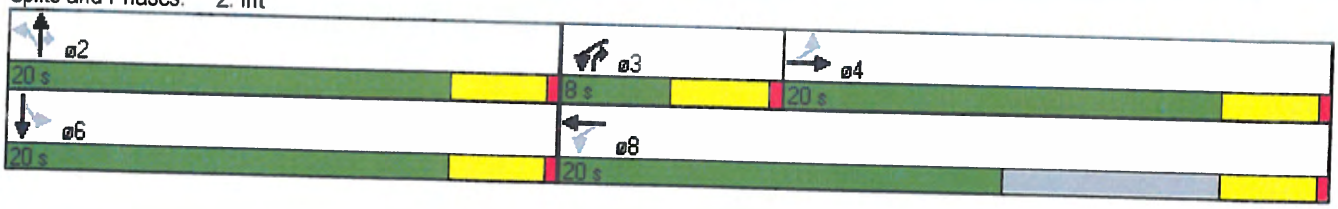
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 139 | 1 | 283 | 169 | 6 | 1 | 0 | 358 | 3 | 3 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 85 | | 0 | 0 | | 0 | 150 | | 400 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 50 | | 25 | 25 | | 25 | 100 | | 200 | 200 | | 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 |
| Frt | | 0.999 | | | 0.995 | | | | 0.850 | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1861 | 0 | 1770 | 1853 | 0 | 1770 | 1863 | 1583 | 1770 | 1792 | 0 |
| Flt Permitted | 0.637 | | | 0.440 | | | 0.755 | | | 0.757 | | |
| Satd. Flow (perm) | 1187 | 1861 | 0 | 820 | 1853 | 0 | 1406 | 1863 | 1583 | 1410 | 1792 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 6 | | | | 611 | | 1 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2061 | | | 2089 | | | 1611 | | | 403 | |
| Travel Time (s) | | 46.8 | | | 47.5 | | | 36.6 | | | 9.2 | |
| 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 |
| Adj. Flow (vph) | 1 | 151 | 1 | 308 | 184 | 7 | 1 | 0 | 389 | 3 | 3 | 1 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 1 | 152 | 0 | 308 | 191 | 0 | 1 | 0 | 389 | 3 | 4 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway 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 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | | | pm+pt | | | Perm | | pm+ov | Perm | | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | 3 | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | |
| Detector Phase | 4 | 4 | | 3 | 8 | | 2 | 2 | 3 | 6 | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 20.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | 8.0 | 20.0 | 20.0 | |
| Total Split (s) | 20.0 | 20.0 | 0.0 | 8.0 | 20.0 | 0.0 | 20.0 | 20.0 | 8.0 | 20.0 | 20.0 | 0.0 |
| Total Split (%) | 41.7% | 41.7% | 0.0% | 16.7% | 41.7% | 0.0% | 41.7% | 41.7% | 16.7% | 41.7% | 41.7% | 0.0% |
| Maximum Green (s) | 16.0 | 16.0 | | 4.0 | 16.0 | | 16.0 | 16.0 | 4.0 | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | | | | | Lead | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | None | C-Max | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 9.2 | 9.2 | | 15.6 | 15.6 | | 24.4 | | 33.6 | 24.4 | 24.4 | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.32 | 0.32 | | 0.51 | | 0.70 | 0.51 | 0.51 | |
| v/c Ratio | 0.00 | 0.43 | | 0.87 | 0.31 | | 0.00 | | 0.30 | 0.00 | 0.00 | |
| Control Delay | 14.0 | 20.0 | | 39.1 | 11.7 | | 8.0 | | 0.6 | 8.0 | 7.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 14.0 | 20.0 | | 39.1 | 11.7 | | 8.0 | | 0.6 | 8.0 | 7.5 | |
| LOS | B | C | | D | B | | A | | A | A | A | |
| Approach Delay | | 20.0 | | | 28.6 | | | | | | 7.7 | |
| Approach LOS | | B | | | C | | | | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 48
Actuated Cycle Length: 48
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 42.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Int



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 525 | 23 | 39 | 32 | 36 | 85 | 34 | 962 | 38 | 1 | 121 | 827 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 500 | | 500 | 100 | | 0 | 350 | | 0 | | 335 | |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | | 1 | |
| Taper Length (ft) | 100 | | 100 | 25 | | 25 | 100 | | 25 | | 100 | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 |
| Frt | | | 0.850 | | 0.895 | | | 0.994 | | | | |
| Flt Protected | 0.950 | 0.956 | | 0.950 | | | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1681 | 1692 | 1583 | 1770 | 1667 | 0 | 1770 | 3518 | 0 | 0 | 1770 | 3539 |
| Flt Permitted | 0.950 | 0.956 | | 0.950 | | | 0.317 | | | | 0.106 | |
| Satd. Flow (perm) | 1681 | 1692 | 1583 | 1770 | 1667 | 0 | 590 | 3518 | 0 | 0 | 197 | 3539 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | |
| Satd. Flow (RTOR) | | | 42 | | 91 | | | 4 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | | 30 |
| Link Distance (ft) | | 2089 | | | 533 | | | 1966 | | | | 1119 |
| Travel Time (s) | | 47.5 | | | 12.1 | | | 44.7 | | | | 25.4 |
| 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 |
| Adj. Flow (vph) | 571 | 25 | 42 | 35 | 39 | 92 | 37 | 1046 | 41 | 1 | 132 | 899 |
| Shared Lane Traffic (%) | 48% | | | | | | | | | | | |
| Lane Group Flow (vph) | 297 | 299 | 42 | 35 | 131 | 0 | 37 | 1087 | 0 | 0 | 133 | 899 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | R NA | Left | Left |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | | 12 |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | | 0 |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | | 16 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway 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 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 9 | 15 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Left | Thru |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | | 20 | 20 | 6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | | 94 |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | | 6 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | | 0.0 |
| Turn Type | Split | | Perm | Split | | | Perm | | | custom | pm+pt | |
| Protected Phases | 4 | 4 | | 8 | 8 | | | 2 | | | 1 | 6 |
| Permitted Phases | | | 4 | | | | 2 | | | 1 | 6 | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | | 2 | 2 | | 1 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Volume (vph) | 464 |
| Ideal Flow (vphpl) | 1900 |
| Storage Length (ft) | 335 |
| Storage Lanes | 1 |
| Taper Length (ft) | 100 |
| Lane Util. Factor | 1.00 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | |
| Satd. Flow (perm) | 1583 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 504 |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Peak Hour Factor | 0.92 |
| Adj. Flow (vph) | 504 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 504 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(ft) | |
| Link Offset(ft) | |
| Crosswalk Width(ft) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.00 |
| Turning Speed (mph) | 9 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (ft) | 20 |
| Trailing Detector (ft) | 0 |
| Detector 1 Position(ft) | 0 |
| Detector 1 Size(ft) | 20 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(ft) | |
| Detector 2 Size(ft) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | pm+ov |
| Protected Phases | 4 |
| Permitted Phases | 6 |
| Detector Phase | 4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 4.0 | 6.0 |
| Minimum Split (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | | 20.0 | 20.0 | | 8.0 | 8.0 | 20.0 |
| Total Split (s) | 37.0 | 37.0 | 37.0 | 11.0 | 11.0 | 0.0 | 38.0 | 38.0 | 0.0 | 14.0 | 14.0 | 52.0 |
| Total Split (%) | 37.0% | 37.0% | 37.0% | 11.0% | 11.0% | 0.0% | 38.0% | 38.0% | 0.0% | 14.0% | 14.0% | 52.0% |
| Maximum Green (s) | 33.0 | 33.0 | 33.0 | 7.0 | 7.0 | | 34.0 | 34.0 | | 10.0 | 10.0 | 48.0 |
| 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) | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | 0.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | None | None | None | | C-Max | C-Max | | None | None | C-Max |
| Walk Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | | | | 5.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 | | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | | | 0 |
| Act Effct Green (s) | 26.8 | 26.8 | 26.8 | 6.9 | 6.9 | | 41.6 | 41.6 | | | 54.3 | 54.3 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.27 | 0.07 | 0.07 | | 0.42 | 0.42 | | | 0.54 | 0.54 |
| v/c Ratio | 0.66 | 0.66 | 0.09 | 0.28 | 0.66 | | 0.15 | 0.74 | | | 0.55 | 0.47 |
| Control Delay | 39.1 | 39.0 | 7.8 | 50.2 | 33.1 | | 24.3 | 30.4 | | | 22.8 | 16.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 39.1 | 39.0 | 7.8 | 50.2 | 33.1 | | 24.3 | 30.4 | | | 22.8 | 16.2 |
| LOS | D | D | A | D | C | | C | C | | | C | B |
| Approach Delay | | 37.0 | | | 36.7 | | | 30.2 | | | | 11.7 |
| Approach LOS | | D | | | D | | | C | | | | B |

**Intersection Summary**

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 23.6 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Int

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 6.0 |
| Minimum Split (s) | 20.0 |
| Total Split (s) | 37.0 |
| Total Split (%) | 37.0% |
| Maximum Green (s) | 33.0 |
| Yellow Time (s) | 3.5 |
| All-Red Time (s) | 0.5 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 4.0 |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | None |
| Walk Time (s) | 5.0 |
| Flash Dont Walk (s) | 11.0 |
| Pedestrian Calls (#/hr) | 0 |
| Act Effct Green (s) | 85.1 |
| Actuated g/C Ratio | 0.85 |
| v/c Ratio | 0.35 |
| Control Delay | 0.8 |
| Queue Delay | 0.0 |
| Total Delay | 0.8 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |

| Intersection Summary |
|---|

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 113 | 3 | 29 | 142 | 6 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.997 | | | | 0.896 | |
| Flt Protected | | | | 0.991 | 0.988 | |
| Satd. Flow (prot) | 1857 | 0 | 0 | 1846 | 1649 | 0 |
| Flt Permitted | | | | 0.991 | 0.988 | |
| Satd. Flow (perm) | 1857 | 0 | 0 | 1846 | 1649 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 570 | | | 2713 | 4217 | |
| Travel Time (s) | 13.0 | | | 61.7 | 95.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 123 | 3 | 32 | 154 | 7 | 23 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 126 | 0 | 0 | 186 | 30 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 25.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 243 | 44 | 53 | 49 | 49 | 176 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | | 0 | 300 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | 25 | 100 | 25 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.936 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1770 | 1863 | 1744 | 0 | 1770 | 1583 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1770 | 1863 | 1744 | 0 | 1770 | 1583 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 3517 | 740 | | 2246 | |
| Travel Time (s) | | 79.9 | 16.8 | | 51.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 264 | 48 | 58 | 53 | 53 | 191 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 264 | 48 | 111 | 0 | 53 | 191 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 30.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 12 | 271 | 186 | 10 | 11 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.993 | | 0.911 | |
| Flt Protected | | 0.998 | | | 0.983 | |
| Satd. Flow (prot) | 0 | 1859 | 1850 | 0 | 1668 | 0 |
| Flt Permitted | | 0.998 | | | 0.983 | |
| Satd. Flow (perm) | 0 | 1859 | 1850 | 0 | 1668 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 439 | 3517 | | 4217 | |
| Travel Time (s) | | 10.0 | 79.9 | | 95.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 13 | 295 | 202 | 11 | 12 | 23 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 308 | 213 | 0 | 35 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization | 34.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 90 | 36 | 37 | 259 | 185 | 93 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.955 | |
| Flt Protected | 0.950 | | | 0.994 | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1852 | 1779 | 0 |
| Flt Permitted | 0.950 | | | 0.994 | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 1852 | 1779 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 448 | | | 2246 | 1611 | |
| Travel Time (s) | 10.2 | | | 51.0 | 36.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 98 | 39 | 40 | 282 | 201 | 101 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 98 | 39 | 0 | 322 | 302 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 46.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 110 | 31 | 30 | 167 | 29 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.970 | | | | 0.931 | |
| Flt Protected | | | | 0.992 | 0.976 | |
| Satd. Flow (prot) | 1807 | 0 | 0 | 1848 | 1693 | 0 |
| Flt Permitted | | | | 0.992 | 0.976 | |
| Satd. Flow (perm) | 1807 | 0 | 0 | 1848 | 1693 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 2713 | | | 2061 | 452 | |
| Travel Time (s) | 61.7 | | | 46.8 | 10.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 120 | 34 | 33 | 182 | 32 | 33 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 154 | 0 | 0 | 215 | 65 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization | 31.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

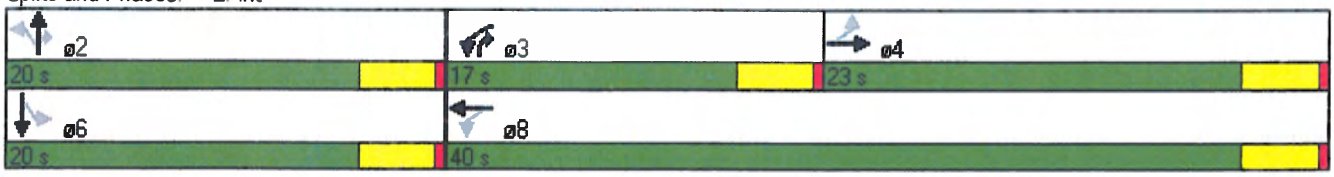
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 2 | 484 | 3 | 409 | 239 | 19 | 12 | 6 | 487 | 146 | 42 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 85 | | 0 | 0 | | 0 | 150 | | 400 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 50 | | 25 | 25 | | 25 | 100 | | 200 | 200 | | 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 |
| Frt | | 0.999 | | | 0.989 | | | | 0.850 | | 0.958 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1861 | 0 | 1770 | 1842 | 0 | 1770 | 1863 | 1583 | 1770 | 1785 | 0 |
| Flt Permitted | 0.587 | | | 0.177 | | | 0.715 | | | 0.753 | | |
| Satd. Flow (perm) | 1093 | 1861 | 0 | 330 | 1842 | 0 | 1332 | 1863 | 1583 | 1403 | 1785 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 12 | | | | 121 | | 18 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2535 | | | 2089 | | | 1773 | | | 403 | |
| Travel Time (s) | | 57.6 | | | 47.5 | | | 40.3 | | | 9.2 | |
| 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 |
| Adj. Flow (vph) | 2 | 526 | 3 | 445 | 260 | 21 | 13 | 7 | 529 | 159 | 46 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 2 | 529 | 0 | 445 | 281 | 0 | 13 | 7 | 529 | 159 | 64 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway 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 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | | | pm+pt | | | Perm | | pm+ov | Perm | | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | 3 | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | |
| Detector Phase | 4 | 4 | | 3 | 8 | | 2 | 2 | 3 | 6 | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 20.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | 8.0 | 20.0 | 20.0 | |
| Total Split (s) | 23.0 | 23.0 | 0.0 | 17.0 | 40.0 | 0.0 | 20.0 | 20.0 | 17.0 | 20.0 | 20.0 | 0.0 |
| Total Split (%) | 38.3% | 38.3% | 0.0% | 28.3% | 66.7% | 0.0% | 33.3% | 33.3% | 28.3% | 33.3% | 33.3% | 0.0% |
| Maximum Green (s) | 19.0 | 19.0 | | 13.0 | 36.0 | | 16.0 | 16.0 | 13.0 | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | | | | | Lead | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | None | C-Max | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 18.6 | 18.6 | | 35.4 | 35.4 | | 16.6 | 16.6 | 33.4 | 16.6 | 16.6 | |
| Actuated g/C Ratio | 0.31 | 0.31 | | 0.59 | 0.59 | | 0.28 | 0.28 | 0.56 | 0.28 | 0.28 | |
| v/c Ratio | 0.01 | 0.92 | | 0.89 | 0.26 | | 0.04 | 0.01 | 0.57 | 0.41 | 0.13 | |
| Control Delay | 14.0 | 44.2 | | 34.6 | 6.2 | | 16.8 | 16.3 | 9.4 | 22.0 | 13.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 14.0 | 44.2 | | 34.6 | 6.2 | | 16.8 | 16.3 | 9.4 | 22.0 | 13.9 | |
| LOS | B | D | | C | A | | B | B | A | C | B | |
| Approach Delay | | 44.1 | | | 23.6 | | | 9.7 | | | 19.7 | |
| Approach LOS | | D | | | C | | | A | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 24.8 Intersection LOS: C
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Int



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1148 | 81 | 116 | 33 | 34 | 92 | 75 | 971 | 26 | 2 | 179 | 1191 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 500 | | 500 | 100 | | 0 | 350 | | 0 | | 335 | |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | | 1 | |
| Taper Length (ft) | 100 | | 100 | 25 | | 25 | 100 | | 25 | | 100 | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 |
| Frt | | | 0.850 | | 0.891 | | | 0.996 | | | | |
| Flt Protected | 0.950 | 0.958 | | 0.950 | | | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1681 | 1695 | 1583 | 1770 | 1660 | 0 | 1770 | 3525 | 0 | 0 | 1770 | 3539 |
| Flt Permitted | 0.950 | 0.958 | | 0.950 | | | 0.118 | | | | 0.105 | |
| Satd. Flow (perm) | 1681 | 1695 | 1583 | 1770 | 1660 | 0 | 220 | 3525 | 0 | 0 | 196 | 3539 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | |
| Satd. Flow (RTOR) | | | 119 | | 95 | | | 3 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | | 30 |
| Link Distance (ft) | | 2089 | | | 533 | | | 1966 | | | | 1119 |
| Travel Time (s) | | 47.5 | | | 12.1 | | | 44.7 | | | | 25.4 |
| 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 |
| Adj. Flow (vph) | 1248 | 88 | 126 | 36 | 37 | 100 | 82 | 1055 | 28 | 2 | 195 | 1295 |
| Shared Lane Traffic (%) | 47% | | | | | | | | | | | |
| Lane Group Flow (vph) | 661 | 675 | 126 | 36 | 137 | 0 | 82 | 1083 | 0 | 0 | 197 | 1295 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | R NA | Left | Left |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | | 12 |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | | 0 |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | | 16 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway 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 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 9 | 15 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Left | Thru |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | | 20 | 20 | 6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | | 94 |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | | 6 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | | 0.0 |
| Turn Type | Split | | Perm | Split | | | Perm | | | custom | pm+pt | |
| Protected Phases | 4 | 4 | | 8 | 8 | | | 2 | | | 1 | 6 |
| Permitted Phases | | | 4 | | | | 2 | | | 1 | 6 | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | | 2 | 2 | | 1 | 1 | 6 |

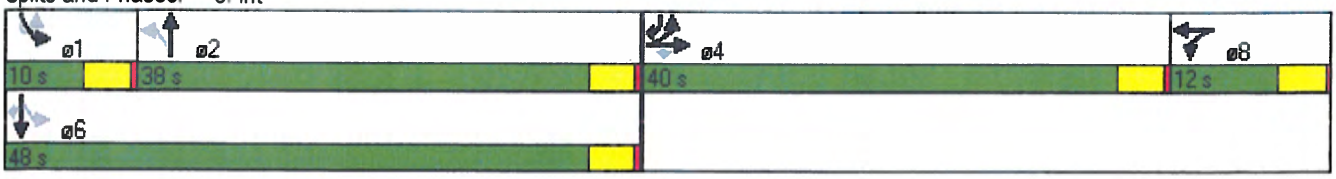
| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Volume (vph) | 697 |
| Ideal Flow (vphpl) | 1900 |
| Storage Length (ft) | 335 |
| Storage Lanes | 1 |
| Taper Length (ft) | 100 |
| Lane Util. Factor | 1.00 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | |
| Satd. Flow (perm) | 1583 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 604 |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Peak Hour Factor | 0.92 |
| Adj. Flow (vph) | 758 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 758 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(ft) | |
| Link Offset(ft) | |
| Crosswalk Width(ft) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.00 |
| Turning Speed (mph) | 9 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (ft) | 20 |
| Trailing Detector (ft) | 0 |
| Detector 1 Position(ft) | 0 |
| Detector 1 Size(ft) | 20 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(ft) | |
| Detector 2 Size(ft) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | pm+ov |
| Protected Phases | 4 |
| Permitted Phases | 6 |
| Detector Phase | 4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 4.0 | 6.0 |
| Minimum Split (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | | 20.0 | 20.0 | | 8.0 | 8.0 | 20.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 12.0 | 12.0 | 0.0 | 38.0 | 38.0 | 0.0 | 10.0 | 10.0 | 48.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 12.0% | 12.0% | 0.0% | 38.0% | 38.0% | 0.0% | 10.0% | 10.0% | 48.0% |
| Maximum Green (s) | 36.0 | 36.0 | 36.0 | 8.0 | 8.0 | | 34.0 | 34.0 | | 6.0 | 6.0 | 44.0 |
| 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) | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | 0.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | None | None | None | | C-Max | C-Max | | None | None | C-Max |
| Walk Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | | | | 5.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 | | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | | | 0 |
| Act Effct Green (s) | 36.0 | 36.0 | 36.0 | 7.3 | 7.3 | | 34.0 | 34.0 | | | 44.7 | 44.7 |
| Actuated g/C Ratio | 0.36 | 0.36 | 0.36 | 0.07 | 0.07 | | 0.34 | 0.34 | | | 0.45 | 0.45 |
| v/c Ratio | 1.09 | 1.11 | 0.20 | 0.28 | 0.66 | | 1.09 | 0.90 | | | 1.02 | 0.82 |
| Control Delay | 96.5 | 101.1 | 5.5 | 49.2 | 32.1 | | 168.3 | 43.1 | | | 94.9 | 29.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 96.5 | 101.1 | 5.5 | 49.2 | 32.1 | | 168.3 | 43.1 | | | 94.9 | 29.6 |
| LOS | F | F | A | D | C | | F | D | | | F | C |
| Approach Delay | | 90.8 | | | 35.7 | | | 51.9 | | | | 25.9 |
| Approach LOS | | F | | | D | | | D | | | | C |

**Intersection Summary**

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 51.0 Intersection LOS: D
Intersection Capacity Utilization 92.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Int



| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 6.0 |
| Minimum Split (s) | 20.0 |
| Total Split (s) | 40.0 |
| Total Split (%) | 40.0% |
| Maximum Green (s) | 36.0 |
| Yellow Time (s) | 3.5 |
| All-Red Time (s) | 0.5 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 4.0 |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | None |
| Walk Time (s) | 5.0 |
| Flash Dont Walk (s) | 11.0 |
| Pedestrian Calls (#/hr) | 0 |
| Act Effct Green (s) | 84.7 |
| Actuated g/C Ratio | 0.85 |
| v/c Ratio | 0.53 |
| Control Delay | 1.8 |
| Queue Delay | 0.0 |
| Total Delay | 1.8 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |

| Intersection Summary |
|---|

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 116 | 40 | 61 | 198 | 36 | 207 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.966 | | | | 0.885 | |
| Flt Protected | | | | 0.988 | 0.993 | |
| Satd. Flow (prot) | 1799 | 0 | 0 | 1840 | 1637 | 0 |
| Flt Permitted | | | | 0.988 | 0.993 | |
| Satd. Flow (perm) | 1799 | 0 | 0 | 1840 | 1637 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 570 | | | 2239 | 4217 | |
| Travel Time (s) | 13.0 | | | 50.9 | 95.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 126 | 43 | 66 | 215 | 39 | 225 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 169 | 0 | 0 | 281 | 264 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 47.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 259 | 214 | 109 | 101 | 158 | 318 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | | 0 | 300 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | 25 | 100 | 25 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.935 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1770 | 1863 | 1742 | 0 | 1770 | 1583 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1770 | 1863 | 1742 | 0 | 1770 | 1583 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 3517 | 792 | | 2085 | |
| Travel Time (s) | | 79.9 | 18.0 | | 47.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 282 | 233 | 118 | 110 | 172 | 346 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 282 | 233 | 228 | 0 | 172 | 346 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 45.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 29 | 320 | 410 | 35 | 126 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.989 | | 0.957 | |
| Flt Protected | | 0.996 | | | 0.967 | |
| Satd. Flow (prot) | 0 | 1855 | 1842 | 0 | 1724 | 0 |
| Flt Permitted | | 0.996 | | | 0.967 | |
| Satd. Flow (perm) | 0 | 1855 | 1842 | 0 | 1724 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 439 | 3517 | | 4217 | |
| Travel Time (s) | | 10.0 | 79.9 | | 95.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 32 | 348 | 446 | 38 | 137 | 65 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 380 | 484 | 0 | 202 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 58.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 88 | 66 | 49 | 429 | 368 | 66 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.979 | |
| Flt Protected | 0.950 | | | 0.995 | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1853 | 1824 | 0 |
| Flt Permitted | 0.950 | | | 0.995 | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 1853 | 1824 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 819 | | | 2085 | 1773 | |
| Travel Time (s) | 18.6 | | | 47.4 | 40.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 96 | 72 | 53 | 466 | 400 | 72 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 96 | 72 | 0 | 519 | 472 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 63.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 422 | 38 | 39 | 229 | 28 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.989 | | | | 0.930 | |
| Flt Protected | | | | 0.993 | 0.976 | |
| Satd. Flow (prot) | 1842 | 0 | 0 | 1850 | 1691 | 0 |
| Flt Permitted | | | | 0.993 | 0.976 | |
| Satd. Flow (perm) | 1842 | 0 | 0 | 1850 | 1691 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 2239 | | | 2535 | 743 | |
| Travel Time (s) | 50.9 | | | 57.6 | 16.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 459 | 41 | 42 | 249 | 30 | 32 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 500 | 0 | 0 | 291 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 52.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |