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TRAFFIC IMPACT ANALYSIS **for**

CBD BLOOMFIELD DEVELOPER URBAN RENEWAL, LLC

Proposed Mixed-Use Residential Development

Tax Map 11, Block 244; Lots 10, 10X, 15, 41, 42 & 46

Bloomfield Avenue (CR 506S)

Bloomfield Township

Essex County, New Jersey

A blue ink signature of Paul B. Goings, written in a cursive style, positioned above a horizontal line.

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Revised: November 18, 2024
June 12, 2024

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Atlantic TPD, LLC (ATDE) has prepared this Traffic Impact Analysis to support the application to Bloomfield Township for the redevelopment of a former school with a 6-story, mixed-use multifamily residential development.

CURRENT CONDITION

The approximately 2.2-acre property in question is located along northbound Bloomfield Avenue (CR 506S), between the signalized intersection with Liberty Street and the unsignalized intersection with Park Street, with 2 separate frontages along southbound State Street, as shown on the **Figure 1** in the **Appendix**.

The site is primarily occupied by the former Sacred Heart School, fronting along Bloomfield Avenue (CR 506S). The school is affiliated with Sacred Heart Roman Catholic Church, located at the northeast corner of the All-Way STOP intersection of State Street and Liberty Street. The site is also occupied by Nardiello Hall, which is also affiliated with the Church, and a single-family home, both located along State Street.

Access to the site is provided at 3 driveways along Bloomfield Avenue, 2 of which are not in current use, serving the former Sacred Heart School; 2 driveways along State Street, serving Nardiello Hall, and a 3rd driveway along State Street, serving the former Sacred Heart School.

PROPOSED CONDITION

It is proposed to remove all existing site features and to redevelop the property with a mixed-use building and accessory parking. The ground floor Bloomfield Avenue (CR 506S) frontage would be occupied by 4,289 square feet of community space, for use by Sacred Heart Church, and a residential lobby.

The balance of the ground floor and the entirety of the second floor would be occupied by residential parking. The upper 4 stories of the building would

be occupied by 200 multifamily dwelling units: 26 studio units; 131 1-bedroom units; and 43 2-bedroom units.

Vehicular access to the proposed building would be provided at 2 locations: 1 driveway along Bloomfield Avenue (CR 506S), which would directly access the ground floor parking level, where left-turn egress would be prohibited; and 1 driveway along the northerly State Street frontage, which would provide access to a small at-grade parking lot and to the ground floor parking level.

The area to the south along State Street, from which Nardiello Hall would be removed, would be reconstructed as a parking lot for the use of Sacred Heart Church, in connection with the proposed community space. This lot would be served by 1 driveway along State Street.

A walkway is proposed along the south side of the building, connecting the parking area to Bloomfield Avenue. The proposed walkway would also tie into a sidewalk connection running along the at-grade residential lot.

The total number of driveways serving the property would be reduced from 6 to 3, with 2 driveways being eliminated along Bloomfield Avenue (CR 506S) and left-turn egress being eliminated along Bloomfield Avenue (CR 506S).

SCOPE OF STUDY

This study has been prepared to evaluate potential traffic impacts associated with the redevelopment of the site with the proposed mixed-use development. Accordingly, this analysis includes the following:

- A review of existing roadway and traffic conditions in the vicinity of the site, including roadway geometrics and traffic volumes;
- Projection of the additional site-generated traffic by the proposed project;
- An analysis of future roadway and site driveway operations;

- An evaluation of the Site Plan focusing on access, on-site circulation, and parking supply; and
- Recommendations and conclusions.

EXISTING TRAFFIC CONDITIONS

SUBJECT PROPERTY

The subject property is located along northbound Bloomfield Avenue (CR 506S) in Bloomfield Township, Essex County, New Jersey. The subject property has the following characteristics:

- Consists of approximately 2.2 acres.
- Designated as Lots 10, 10X, 15, 41, 42 and 46 in Block 244.
- Is developed with Sacred Heart School, Nardiello Hall and a single-family home.
- The property is located in the Redevelopment Plan for Block 244, Lots 10, 15, 41, 42 and 46 redevelopment zone, where multi-family residential and non-residential event space are permitted uses.
- Has frontage along northbound Bloomfield Avenue (CR 506S) to the west and southbound State Street to the east.
- Land uses in the site vicinity are primarily commercial and multifamily residential in nature along the Bloomfield Avenue (CR 506S) corridor.
- The site is located approximately 4/10 of a mile north of NJ Transit's Bloomfield Station, along the Montclair-Boonton line.
- The municipal boundary separating Bloomfield Township from Glen Ridge Borough runs along the site's Bloomfield Avenue (CR 506S) frontage.

ROADWAY NETWORK

The subject property has frontage along Bloomfield Avenue (CR 506S) and State Street. The following is a description of the adjacent roadway network:

Bloomfield Avenue (CR 506S)

- Classified as an Urban Principal Arterial under Essex County jurisdiction.
- Generally, carries 2 travel lanes plus a parking lane in each direction.

- Is designated an east-west roadway, but generally runs north-south along the site frontage.
- Meets Liberty Street at a signalized "T" intersection to the south of the site; meets Clark Street at an unsignalized "T" intersection along the site frontage; and meets Park Street at an unsignalized "T" intersection to the north of the site.
- Sidewalks are provided on both sides of the roadway.
- Has a posted speed limit of 25 miles per hour along the site frontage.
- Is served by NJ Transit's 11, 27, 28 and 34 bus routes.
- Serves an Average Annual Daily Traffic (AADT) of approximately 23,000 vehicles based on 2017 NJDOT data.

State Street

- Classified as a local road under Bloomfield Township jurisdiction.
- Runs one-way, northbound, in the block between Bloomfield Avenue (CR 506S) and Liberty Street, where 1 travel lane is provided and metered parking is provided on the east side of the road, only.
- To the north of Liberty Street, carries 1 lane in each direction and metered parking is provided on the west side of the road, only.
- Meets Liberty Street at an All-Way STOP controlled intersection to the south of the site; and meets Park Street at an unsignalized intersection to the north of the site, where a flashing signal is provided.
- Sidewalks are provided on both sides of the roadway.
- A speed limit is not posted and is assumed to be 25 miles per hour in the vicinity of the site.

EXISTING TRAFFIC VOLUMES

To examine the existing traffic demand at the project site, traffic counts were conducted during the weekday morning, weekday evening and Saturday midday periods at the following intersections:

- › Bloomfield Avenue (CR 506) & Park Street
- › Bloomfield Avenue (CR 506) & Clark Street
- › Bloomfield Avenue (CR 506) & Liberty Street (signalized)
- › State Street & Park Street
- › State Street & Liberty Street

Specifically, vehicle turning movement counts were conducted while local schools were in session during the following dates and times in 2024:

- › Saturday, May 4, 2024, from 11:00 am to 2:00 pm
- › Tuesday, May 7, 2024, from 7:00 am to 9:00 am
- › Tuesday, May 7, 2024, from 4:00 pm to 7:00 pm

PEAK HOURS

The results of the traffic counts indicate there are distinct hours during the periods of study when site traffic generation experiences its highest level. Based on the traffic count information, the respective weekday morning, weekday evening and Saturday midday peak hours occurred from:

- › Tuesday, 7:30 am to 8:30 am
- › Tuesday, 5:00 pm to 6:00 pm
- › Saturday, 1:00 pm to 2:00 pm

The vehicle turning movement count summaries are provided in the **Appendix**. The existing weekday morning, weekday evening and Saturday midday peak hour traffic volumes of the study intersections are summarized on **Figure 2** in the **Appendix**.

In the existing condition the site was found to generate 21 weekday morning peak hour trips, 24 weekday evening peak hour trips, and 5 Saturday midday peak hour trips.

PROPOSED DEVELOPMENT TRAFFIC CHARACTERISTICS

Traffic projections for the proposed Mixed-use residential development were prepared using industry-standard data published by the Institute of Transportation Engineers (ITE) in the 11th Edition of the *Trip Generation Manual*.

Specifically, peak hour trips generated by the proposed 200 dwelling unit multifamily residential development and the 4,289 square foot Sacred Heart Church community space were calculated using the *Close to Rail Transit* subcategory of ITE Land Use Code 221: "*Multifamily Housing (Mid-Rise)*" and ITE Land Use Code 560: "*Church*," respectively.

The use of the *Close to Rail Transit* subcategory is appropriate, given the proximity of the site to the Bloomfield commuter rail station. However, the ITE does not have *Close to Rail Transit* data available for the Saturday midday peak hour. The weekday evening peak hour data was therefore used for the Saturday midday calculations.

Table 1, below, summarizes the site-generated traffic due to the proposed development, compared to the existing trip generation observed during the study peak hours. The ITE trip generation summary printouts are provided in the **Appendix**.

Table 1
ITE Trip Generation Comparison
Existing Uses vs Proposed Mixed-Use Residential

| Land Use | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | | Saturday MD Peak Hour | | |
|---------------------------------|----------------------|------|-------|----------------------|------|-------|-----------------------|------|-------|
| | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| Existing Uses (Observed) | 14 | 7 | 21 | 12 | 12 | 24 | 2 | 3 | 5 |
| Proposed 200-Unit Multifamily | 23 | 40 | 63 | 38 | 20 | 58 | 38 | 20 | 58 |
| 4,289 SF Church Community Space | 2 | 1 | 3 | 3 | 3 | 6 | 7 | 5 | 12 |
| Difference | +11 | +34 | +45 | +29 | +11 | +40 | +43 | +22 | +65 |

The proposed project is calculated to result in fewer than 100 additional peak hour trips, as well as fewer than 100 total peak hour trips. An increase of fewer than 100 peak hour trips is not considered "significant" by the ITE and NJDOT.

However, in order to provide a conservative and complete analysis, a detailed analysis of traffic conditions has been conducted.

TRIP DISTRIBUTION

The site-generated trips attributed to the proposed residential use were assigned to the proposed Bloomfield Avenue driveway and proposed northerly State Street driveway. Site generated trips attributed to the Sacred Heart Church community space were assigned to the southerly State Street driveway.

The residential and church trip distributions are illustrated on **Figure 3** and **Figure 4** in the **Appendix**, respectively. **Figure 5** in the **Appendix** depicts the resulting distributed project-generated peak hour trips.

BACKGROUND TRAFFIC GROWTH

It is anticipated that the proposed development will be completed within 2 years of this study. Over that period, it is conservatively assumed that background traffic on the roadways adjacent to the site will increase.

In order to provide a conservative analysis, and to account for unknown developments that may occur nearby, the existing observed traffic volumes were increased by an annual growth rate of 2.00%, which is the rate NJDOT publishes for Essex County Urban Principal Arterial roadways, for traffic planning purposes.

The resulting Future Base traffic volumes are shown on **Figure 6** in the **Appendix**.

OTHER AREA DEVELOPMENTS

Bloomfield Township Planning was contacted to determine if there are any specific approved developments in the vicinity of the site which could impact traffic conditions on the adjacent roadway network. The following adjacent area developments were identified and are considered in this TIA:

- **11-13 Broad Street (Block 574, Lot 19)**
Proposed mixed-use development, consisting of 125-unit mid-rise multifamily and 6,500 square foot ground floor retail. Traffic volumes associated with this development are summarized on **Figure 7** in the **Appendix**.
- **668 Bloomfield Avenue (Block 226, Lots 18 & 28)**
Proposed 30-unit mid-rise multifamily residential. The traffic volumes associated with this development are summarized on **Figure 8** in the **Appendix**.

In addition to these projects, the Township also identified a proposed cannabis dispensary at 324 Broad Street. However, that site is located approximately 1 mile to the north and west of the subject property, where it does not appear that it would generate traffic at the study intersections.

The total adjacent area development traffic volumes are summarized on **Figure 9** in the **Appendix**.

FUTURE NO-BUILD TRAFFIC VOLUMES

The future-without-the-project, or No-Build, traffic volumes were established by combining the future Base traffic volumes (**Figure 6**) and the adjacent area development traffic volumes (**Figure 9**). The future No-Build traffic volumes are summarized on **Figure 10** in the **Appendix**.

FUTURE BUILD TRAFFIC VOLUMES

The future Build traffic volumes were calculated by adding the additional site-generated traffic volumes associated with the proposed Raising Cane's restaurant (**Figure 5**) to the future No-Build traffic (**Figure 10**) volumes. The Build traffic volumes as shown on **Figure 11** in the **Appendix**.

ANALYSIS OF FUTURE TRAFFIC VOLUMES

A Volume/Capacity and Level of Service Analysis was conducted for the future No-Build and Build weekday morning, weekday evening and Saturday midday peak hour traffic networks using Synchro 12 Software. Level of Service descriptions are provided in the **Appendix**.

For the analyses, ATDE obtained the Essex County traffic signal timing directive for the intersection of Bloomfield Avenue (CR 506S) and Liberty Street, which is provided in the **Appendix**. The results of the No-Build and Build Synchro analyses are summarized in **Table 2**, on the following page. Printouts of the results are provided in the **Appendix**.

In comparison to the No-Build analyses, the Build analyses show minor increases in average delay and 95th percentile queue lengths at the study locations. No-Build Levels of Service (LOS) are maintained in the Build condition, with 2 minor exceptions.

In the weekday morning park hour, the westbound right-turn from Liberty Street to Bloomfield Avenue (CR 506S) is calculated to degrade from a marginal Level of Service C to a marginal Level of Service D. The change is

minor in nature, as the average delay is calculated to increase by only 1 second.

Table 2
Delay, Level of Service, 95th Percentile Queue Comparison
No-Build vs Build Condition

| Intersection | Lane Group | AM Peak Hour | | | | | | PM Peak Hour | | | | | | SAT Peak Hour | | | | | |
|--|------------|--------------|-----|------|-------|-----|------|--------------|-----|------|-------|-----|------|---------------|-----|------|-------|-----|------|
| | | No-Build | | | Build | | | No-Build | | | Build | | | No-Build | | | Build | | |
| | | Del. | LOS | Q95 | Del. | LOS | Q95 | Del. | LOS | Q95 | Del. | LOS | Q95 | Del. | LOS | Q95 | Del. | LOS | Q95 |
| Bloomfield Ave (CR-506S) @Strip Retail Ingress, Park St | WB: LTR | 28.9 | D | 74' | 30.2 | D | 76' | 26.9 | D | 58' | 27.7 | D | 60' | 27.6 | D | 62' | 29.1 | D | 67' |
| | NB: LTR | 10.0 | B | 5' | 10.0 | B | 5' | 10.6 | B | 5' | 10.7 | B | 5' | 10.2 | B | 7' | 10.3 | B | 7' |
| | SB: LTR | 10.2 | B | 2' | 10.3 | B | 2' | 9.5 | A | 7' | 9.5 | A | 7' | 9.4 | A | 2' | 9.4 | A | 5' |
| | Overall | 3.2 | A | | 3.4 | A | | 3.2 | A | | 3.3 | A | | 3.4 | A | | 3.6 | A | |
| Bloomfield Ave (CR-506S) @Site Dwy | WB: R | 17.2 | C | 0' | 11.9 | B | 2' | 16.0 | C | 0' | 10.8 | B | 0' | 0.0 | A | 0' | 10.7 | B | 0' |
| | SB: LT | 10.0 | A | 0' | 10.1 | B | 0' | 9.1 | A | 0' | 9.2 | A | 0' | 0.0 | A | 0' | 9.2 | A | 0' |
| | Overall | 0.1 | A | | 0.2 | A | | 0.0 | A | | 0.2 | A | | 0.0 | A | | 0.2 | A | |
| Bloomfield Ave (CR-506S) @Clark St | EB: LR | 59.1 | F | 127' | 61.7 | F | 131' | 34.5 | D | 92' | 35.5 | E | 94' | 28.9 | D | 58' | 29.8 | D | 58' |
| | NB: LT | 10.3 | B | 7' | 10.3 | B | 7' | 10.5 | B | 5' | 10.5 | B | 5' | 9.9 | A | 2' | 10.0 | A | 2' |
| | Overall | 5.9 | A | | 6.1 | A | | 3.9 | A | | 4.0 | A | | 2.6 | A | | 2.7 | A | |
| Bloomfield Ave (CR-506S) @Liberty St | WB: L | 66.6 | E | 173' | 71.0 | E | 184' | 61.2 | E | 145' | 63.1 | E | 151' | 34.1 | C | 91' | 34.3 | C | 96' |
| | R | 33.7 | C | 99' | 35.1 | D | 102' | 29.5 | C | 67' | 30.6 | C | 68' | 9.5 | A | 36' | 9.6 | A | 36' |
| | NB: TR | 4.6 | A | 104' | 4.6 | A | 104' | 4.2 | A | 78' | 4.3 | A | 79' | 5.1 | A | 86' | 5.1 | A | 88' |
| | SB: LT | 6.3 | A | 154' | 6.3 | A | 154' | 6.8 | A | 194' | 6.9 | A | 195' | 6.4 | A | 145' | 6.4 | A | 146' |
| | Overall | 13.2 | B | | 14.1 | B | | 11.6 | B | | 12.1 | B | | 7.5 | A | | 7.6 | A | |
| State St @Park St | EB: LTR | 17.2 | C | 18' | 14.2 | B | 14' | 11.5 | B | 14' | 11.5 | B | 14' | 10.9 | B | 12' | 11.0 | B | 12' |
| | WB: LTR | 21.7 | C | 99' | 16.5 | C | 74' | 12.1 | B | 23' | 12.4 | B | 25' | 11.1 | B | 14' | 11.4 | B | 16' |
| | NB: LTR | 7.7 | A | 0' | 7.7 | A | 0' | 7.4 | A | 0' | 7.4 | A | 0' | 7.5 | A | 0' | 7.6 | A | 0' |
| | SB: LTR | 7.7 | A | 2' | 7.4 | A | 2' | 7.5 | A | 0' | 7.5 | A | 0' | 7.9 | A | 0' | 7.9 | A | 0' |
| | Overall | 11.0 | B | | 10.3 | B | | 6.4 | A | | 6.7 | A | | 6.1 | A | | 6.3 | A | |
| State St @Northern Site Dwy | EB: LR | 10.0 | A | 0' | 10.4 | B | 2' | 9.6 | A | 0' | 9.5 | A | 2' | 0.0 | A | 0' | 9.2 | A | 2' |
| | NB: LT | 0.0 | A | 0' | 7.7 | A | 0' | 7.4 | A | 0' | 7.5 | A | 0' | 0.0 | A | 0' | 7.4 | A | 0' |
| | Overall | 0.1 | A | | 0.7 | A | | 0.3 | A | | 0.6 | A | | 0.0 | A | | 0.8 | A | |
| State St @Southern Site Dwy | EB: LR | 0.0 | A | 0' | 10.4 | B | 0' | 9.4 | A | 0' | 9.4 | A | 0' | 8.9 | A | 0' | 9.3 | A | 0' |
| | NB: LT | 7.5 | A | 0' | 7.6 | A | 0' | 7.4 | A | 0' | 7.4 | A | 0' | 7.4 | A | 0' | 7.4 | A | 0' |
| | Overall | 0.2 | A | | 0.1 | A | | 0.3 | A | | 0.2 | A | | 3.4 | A | | 0.4 | A | |
| State St @Liberty St | EB: LT | 9.7 | A | 18' | 9.8 | A | 18' | 10.0 | A | 28' | 10.1 | B | 30' | 8.7 | A | 14' | 8.8 | A | 14' |
| | WB: TR | 11.1 | B | 44' | 11.2 | B | 41' | 9.3 | A | 21' | 9.4 | A | 21' | 8.5 | A | 14' | 8.6 | A | 14' |
| | NB: LTR | 9.9 | A | 23' | 10.0 | A | 23' | 9.3 | A | 21' | 9.4 | A | 23' | 8.6 | A | 18' | 8.7 | A | 18' |
| | SB: LTR | 10.0 | A | 25' | 10.3 | B | 28' | 9.0 | A | 16' | 9.0 | A | 16' | 8.0 | A | 9' | 8.1 | A | 12' |
| | Overall | 10.3 | B | | 10.5 | B | | 9.5 | A | | 9.5 | A | | 8.5 | A | | 8.6 | A | |

In the weekday evening peak hour, the eastbound movement from Clark Street to Bloomfield Avenue (CR 506S) is calculated to degrade from a marginal Level of Service D to a marginal Level of Service E. The change is minor in nature, as the average delay is calculated to increase by only 1 second.

The analysis of the proposed Bloomfield Avenue (CR 506S) driveway in particular shows good Levels of Service A, B and C.

GAP STUDY

Bloomfield Avenue (CR 506S) is under the jurisdiction of Essex County. Based on discussion with Essex County Planning, the provision of left-turn ingress at the Bloomfield Avenue (CR 506S) driveway requires a supporting Gap Analysis.

A gap study was therefore conducted in order to determine whether peak hour traffic flows on Bloomfield Avenue (CR 506S) can accommodate the proposed site ingress traffic, including left-turning traffic. The gap study data is provided in the **Appendix**.

Generally gaps occur randomly in traffic; but tend to develop with a more regular pattern at locations that are upstream and downstream of traffic signals. Observation of actual gaps in traffic takes the nature of the flows and platooning effects into account.

The gap study was conducted at the location of the proposed Bloomfield Avenue (CR 506S) site driveway, during the weekday morning, weekday evening and Saturday midday peak hours per methodology detailed in the ITE **Traffic Engineering Handbook**, 7th Edition.

A MioVision camera unit was utilized to collect peak period traffic data on the following dates and times, which are the peak hours determined within this report:

- Tuesday, October 22, 2024, 7:30 am to 8:30 am
- Tuesday, October 22, 2024, 5:00 pm to 6:00 pm
- Saturday, October 22, 2024, 1:00 am to 2:00 pm

Each peak hour of traffic of data was analyzed to time each two-way gap in adjacent traffic flow, which accommodate left turns. Turns were then tallied in terms of critical gap (minimum time for 1 vehicle to turn) and follow-up gap (shorter, conservatively-derived, subsequent interval that may accommodate a second, third, fourth, etc. vehicle turn) to determine the number of vehicle turns that could be made in the peak hour.

The critical gap and follow-up gap durations are published by the Transportation Research Board (TRB) in the **Highway Capacity Manual** (HCM), 6th Edition. For the left-turn, the times to cross two lanes were used.

Table 3, below, shows the critical and follow up gap durations used in the analysis, the resulting peak hour left-turn capacities, and the peak hour demand. The tallied peak hour gap observation sheets are provided in the **Appendix**.

Table 3
Critical and Follow-Up Gaps (seconds) and
Peak Hour Turns at Bloomfield Avenue (CR 506S) Site Driveway

| Gap Analysis | Two Way (Left-Turn) | |
|--------------------|---------------------|---------------|
| | Critical Gap | Follow-Up Gap |
| Gap Duration (s) | 7.5 | 3.5 |
| Peak Hour Turns | Capacity | Demand * |
| Weekday Morning | 109 | 13 |
| Weekday Evening | 82 | 21 |
| Saturday Afternoon | 74 | 21 |

* Peak hour right-turn and left turn entry volume

The gap capacity to make two-way left-turns exceeds the conservative left and right-turn demand by a minimum factor of 3.5. **Based on this conservative analysis, the anticipated site traffic would be well-accommodated by traffic flow on Bloomfield Avenue (CR 506S).**

SITE ACCESS AND CIRCULATION

An evaluation has been made of the Site Layout Plan for the proposed mixed-use project, prepared by Bohler, dated June 12, 2024. In particular, the evaluation focuses on-site access, on-site circulation, and parking supply. The following items address the design characteristics:

Site Access

- › In the existing condition the site is served by 6 driveways: 3 on Bloomfield Avenue (CR 506S) and 3 on State Street
- › In the proposed condition access would be reduced to 3 driveways: 1 on Bloomfield Avenue and 2 on State Street. In addition, left-turn egress would be prohibited at the Bloomfield Avenue (CR 506S) driveway.
- › Based on discussion with Essex County, the provision of left-turn entry at the Bloomfield Avenue (CR 506S) driveway requires a supporting Gap Analysis, which has been completed.
- › The reduction in the number of driveways, particularly along the busy Bloomfield Avenue corridor, is a safety benefit to the travelling public.

Parking

- › New Jersey Residential Site Improvement Standards (RSIS) require 1.8 parking stalls per studio or 1-bedroom unit; and 2.0 parking stalls per 2-bedroom unit. 369 stalls are required for the proposed (26) studio units, (131) 1-bedroom units, and (43) 2-bedroom units.
- › The Redevelopment Plan for the subject property specifies 1.4 parking stalls required per dwelling unit, or 280 stalls for the total 200 proposed dwelling units.
- › An additional 6 stalls per 1,000 square feet are required for the proposed Sacred Heart Church community space, which is classified as "commercial/event" space. 26 spaces are required for the proposed 4,289 square feet.
- › Thus, 395 total stalls would be required per the RSIS standard, and 306 stalls would be required per the Redevelopment Plan.

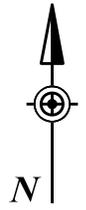
- The RSIS recognizes that reduced standards may be considered by land use boards when justified by local conditions. As the Township has adopted a reduced standard in the Redevelopment Plan, the application of that standard is justified. On this basis, 306 parking stalls are required.
- A total of 354 parking stalls are proposed, including a 30-stall credit (10% of 306 required stalls) for 43 proposed EV charging parking stalls, satisfying the requirement for 306 stalls.
- 324 actual physical parking stalls are proposed:
 - ▷ 280 stalls would be located in the parking levels of the building and in the residential at-grade lot, meeting the residential requirement of the Redevelopment Plan.
 - ▷ 44 stalls are proposed in the at-grade lot for Sacred Heart Church community space use, exceeding the 26 stalls required.
- A total of 43 EV charging stalls are required where 43 are proposed, satisfying the requirement. 3 of the EV charging stalls would be ADA-compliant.
- A mix of standard (9' wide and 18' long) and compact (8.5' wide and 15' or 16' long) stalls are proposed. Per Township Code, up to 20% of required stalls may be compact, or 62 stalls.
- The plan proposes 73 compact stalls, requiring a variance for 11 compact stalls. The variance is justified based on 354 stalls being proposed where 306 stalls are required.
- (1) 19' x 49.8' loading space is proposed.
- The Redevelopment Plan requires 8 outdoor bicycle parking spaces and 20 indoor bicycle parking spaces. There are 8 outdoor bicycle parking spaces and 20 indoor bicycle parking spaces proposed.

It has been determined from the conduct of a detailed traffic study that the proposed redevelopment of the subject property with a mixed-use residential development **would not significantly impact traffic conditions** in the vicinity of the site.

The project would result in the net elimination of 2 Bloomfield Avenue (CR 506S) driveways and 1 State Street driveway. A gap study was conducted, and it was found that the peak hour gap capacity for left-turns exceeds the conservative left and right-turn entry demand by a minimum factor of 3.5.

The proposed parking supply would provide 355 parking stalls and is calculated to be more than sufficient based on the parking requirements set forth in the Township Code and in the Redevelopment Plan.

The project would additionally meet the bicycle parking requirements and provide ADA-compliant sidewalk connectivity between the Bloomfield Avenue (CR 506S) frontage and the State Street frontage.



SITE

PARK STREET

BLOOMFIELD AVENUE (CR 506S)

CLARK STREET

STATE STREET

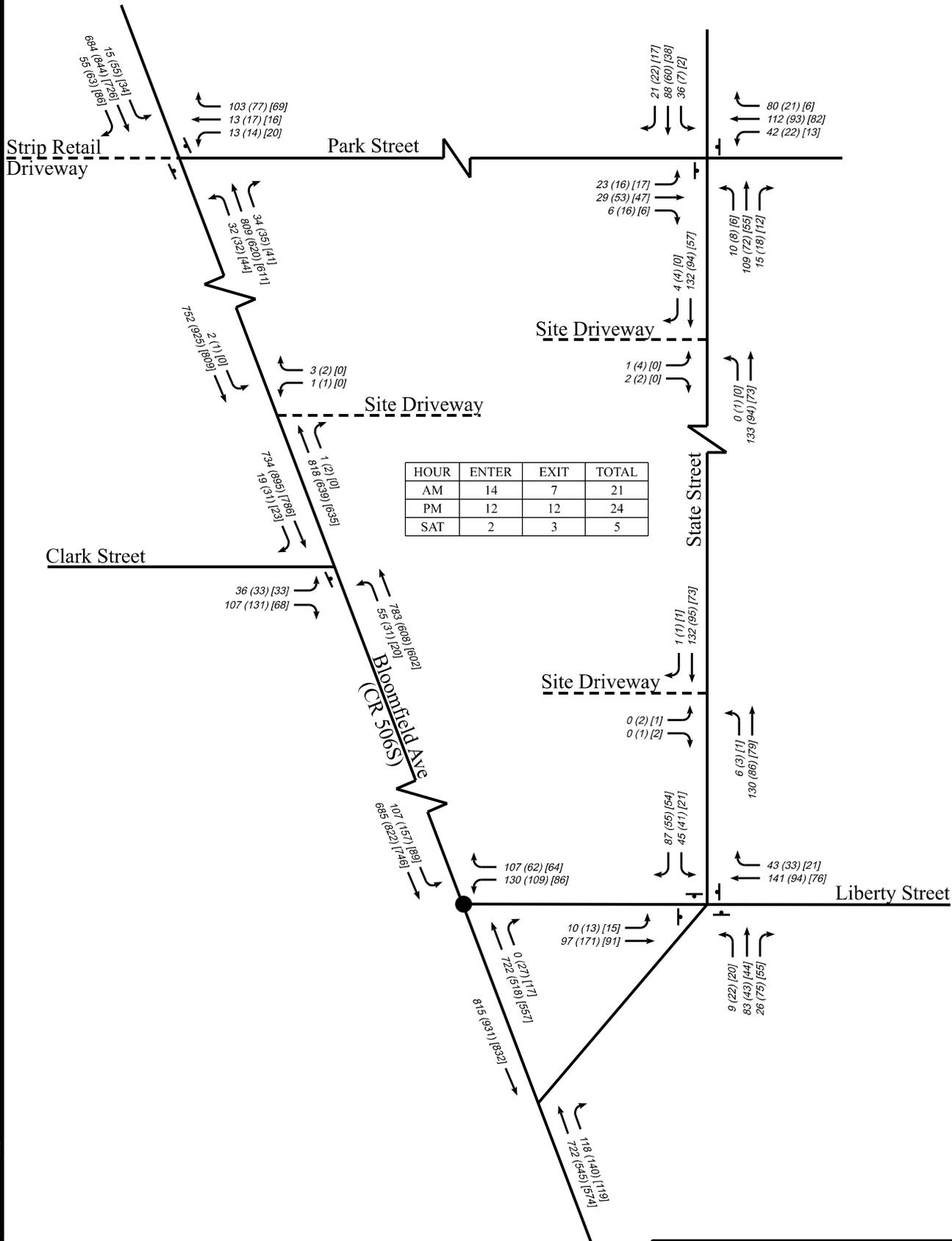
LIBERTY STREET

**ATLANTIC
TRAFFIC+DESIGN**

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FIGURE 1

**SITE LOCATION MAP
PROPOSED RESIDENTIAL DEVELOPMENT
BLOOMFIELD, NEW JERSEY**



- KEY:**
- STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - EXISTING ROADWAY
 - - - EXISTING DRIVEWAY

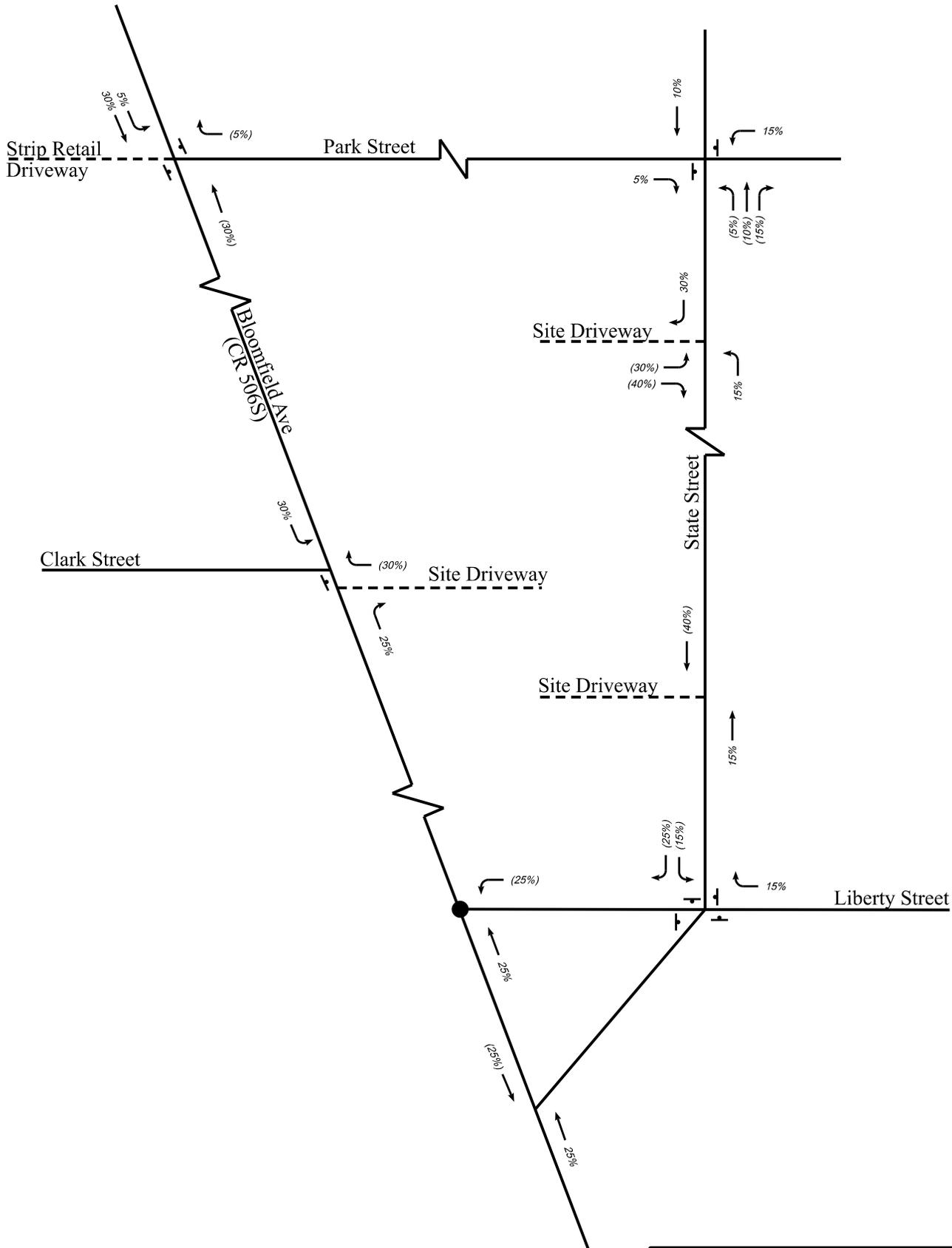
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FIGURE 2

EXISTING TRAFFIC VOLUMES
AM (PM) [SAT] PEAK HOUR VOLUMES

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 11/17/2024 3:38:45 PM 36.18.11



KEY:

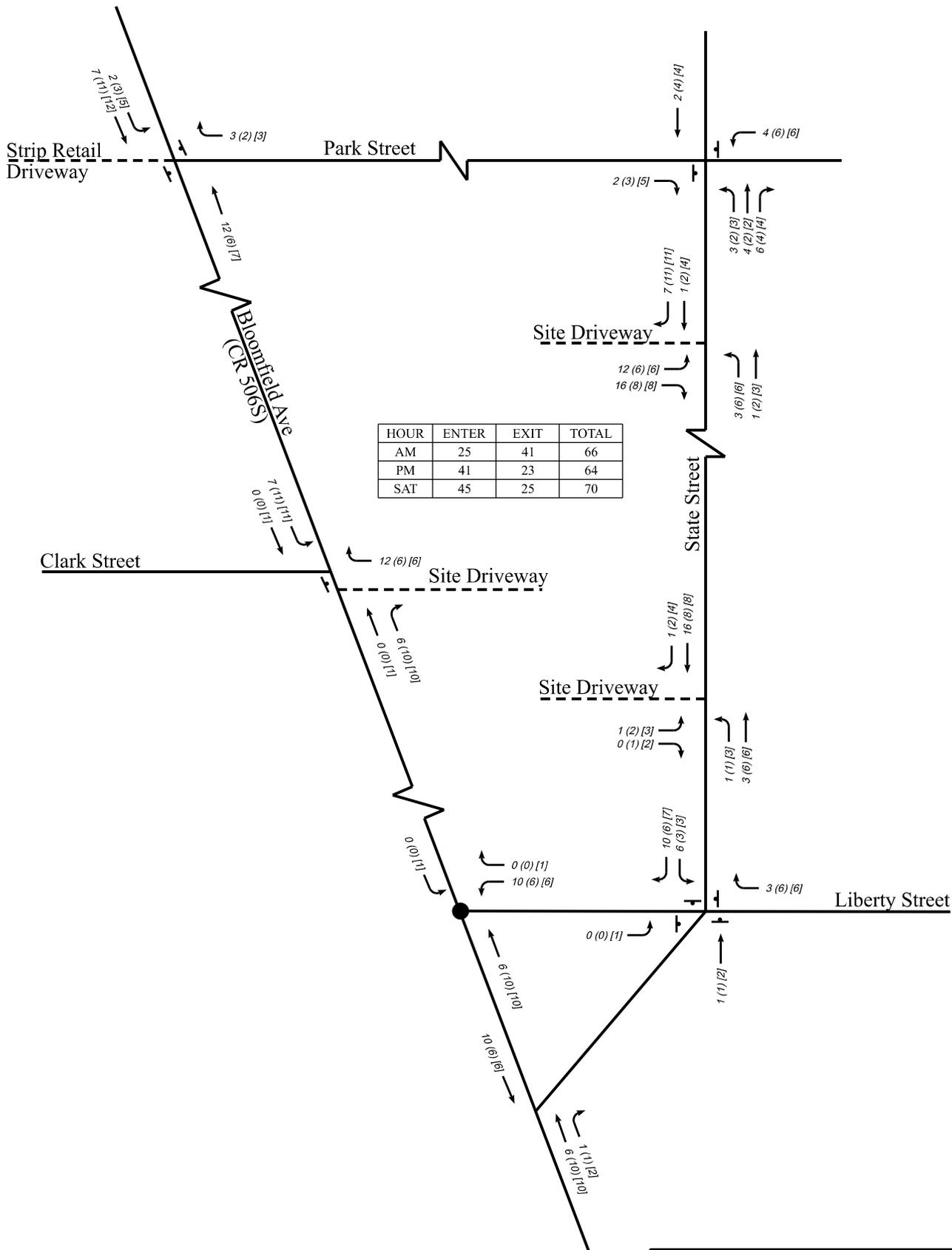
-  STOP CONTROLLED
-  SIGNALIZED INTERSECTION
-  EXISTING ROADWAY
-  EXISTING DRIVEWAY

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FIGURE 3

PROJECT-GENERATED NEW TRIP DISTRIBUTION
(MULTIFAMILY RESIDENTIAL)
ENTER (EXIT) DISTRIBUTION



| HOUR | ENTER | EXIT | TOTAL |
|------|-------|------|-------|
| AM | 25 | 41 | 66 |
| PM | 41 | 23 | 64 |
| SAT | 45 | 25 | 70 |

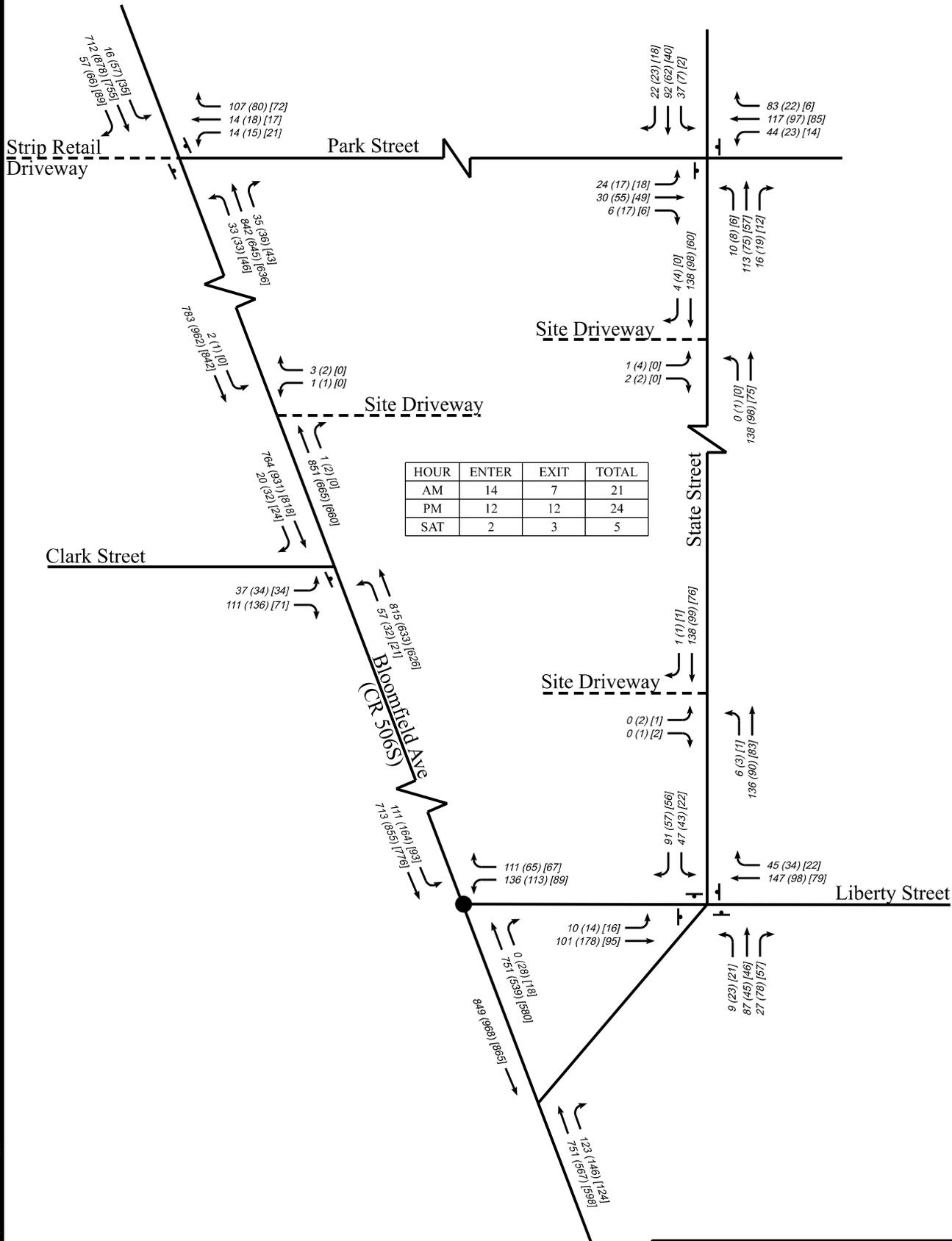
- KEY:**
- +— STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - EXISTING ROADWAY
 - - - EXISTING DRIVEWAY

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FIGURE 5

PROJECT-GENERATED NEW TRAFFIC VOLUMES
AM (PM) [SAT] PEAK HOUR VOLUMES



- KEY:**
- STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - EXISTING ROADWAY
 - - - EXISTING DRIVEWAY



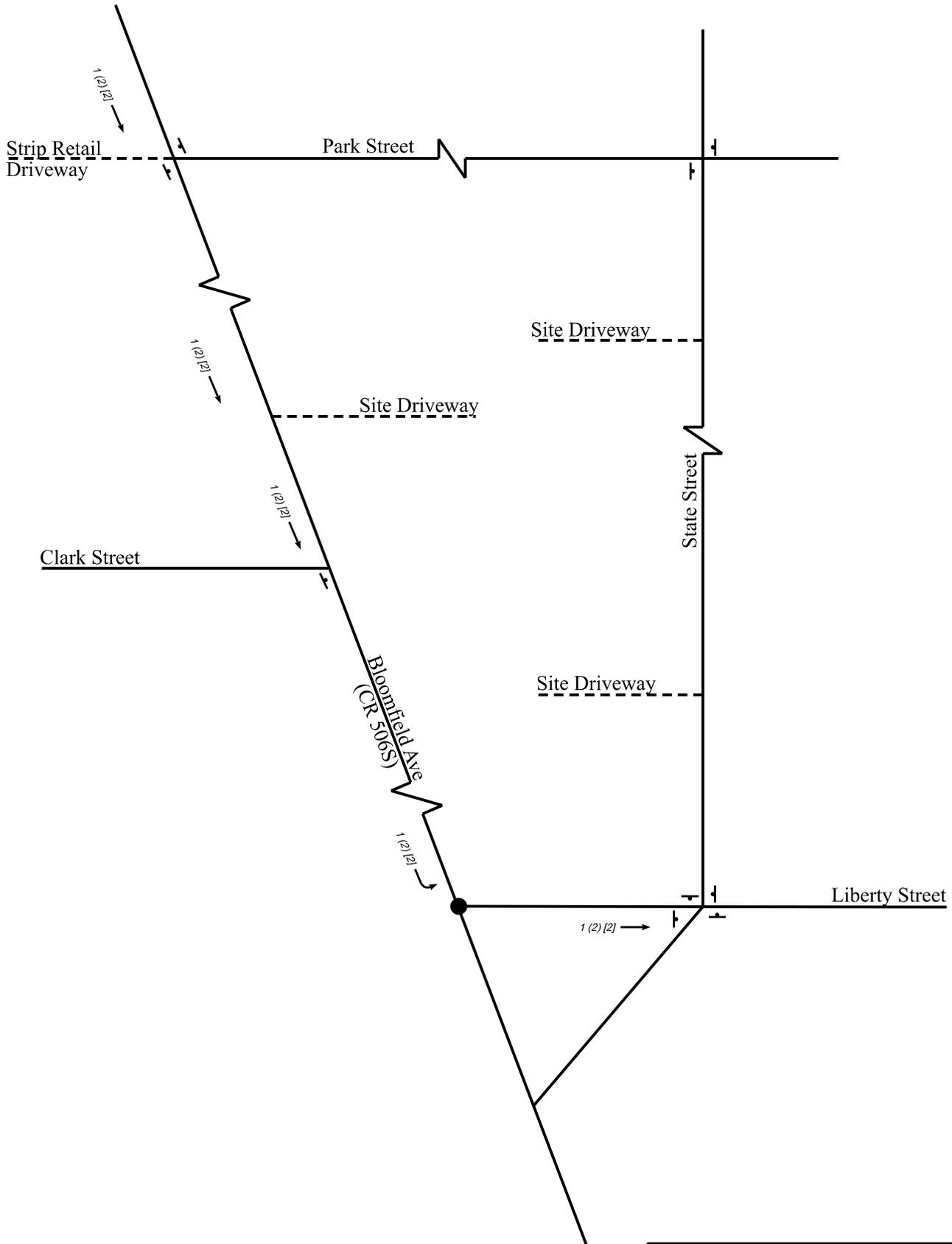
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FIGURE 6

FUTURE BASE TRAFFIC VOLUMES
AM (PM) [SAT PEAK HOUR VOLUMES]

c:\pwworking\proj\ect\w\se\tpd-c5\cv23202626\5x11\Figures_Seed.dgn
 11/2/2024 3:36:47 PM 308



KEY:

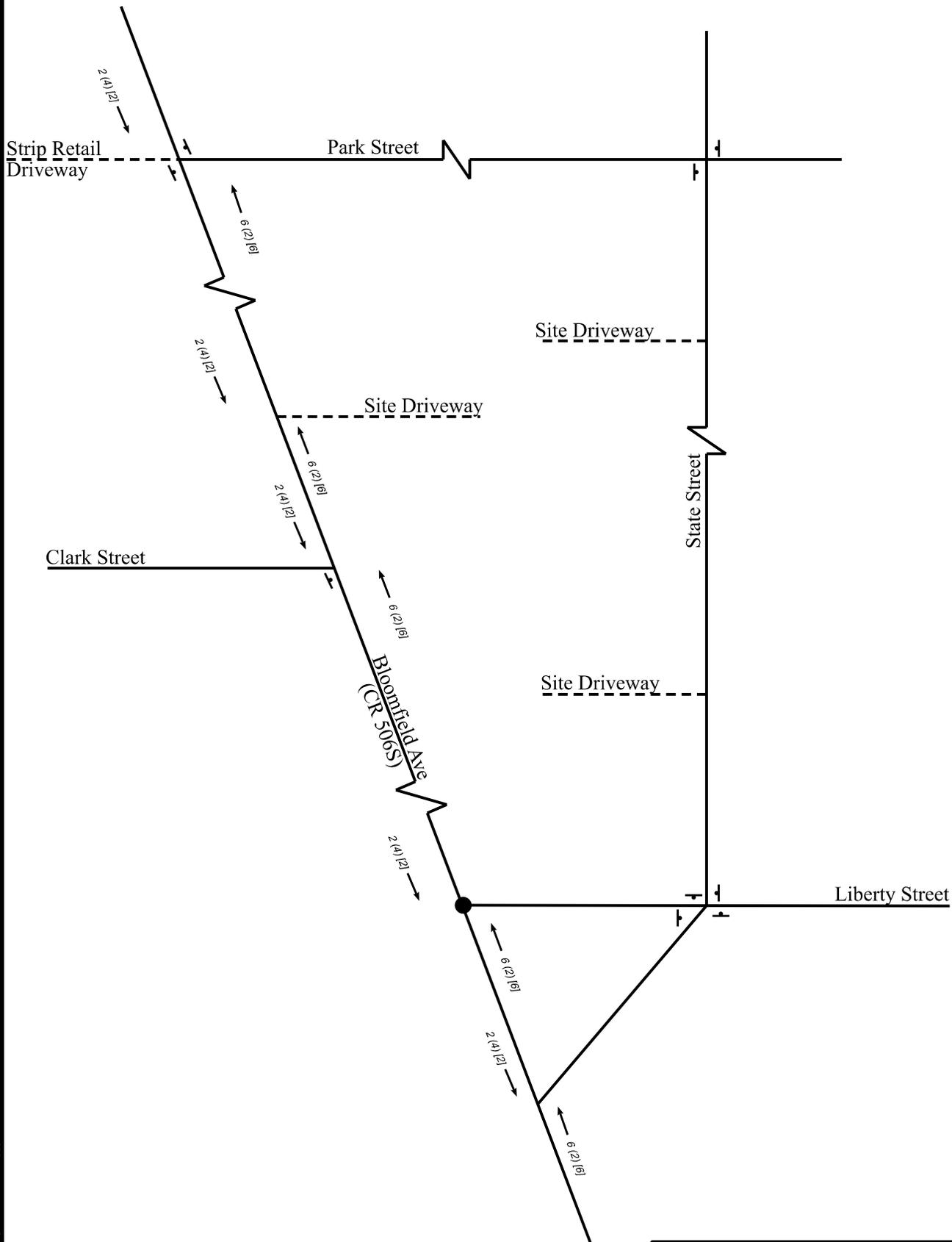
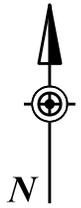
-  STOP CONTROLLED
-  SIGNALIZED INTERSECTION
-  EXISTING ROADWAY
-  EXISTING DRIVEWAY

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FIGURE 7

11-13 BROAD STREET ADJACENT AREA
DEVELOPMENT TRAFFIC VOLUMES
AM (PM) [SAT] PEAK HOUR VOLUMES



KEY:

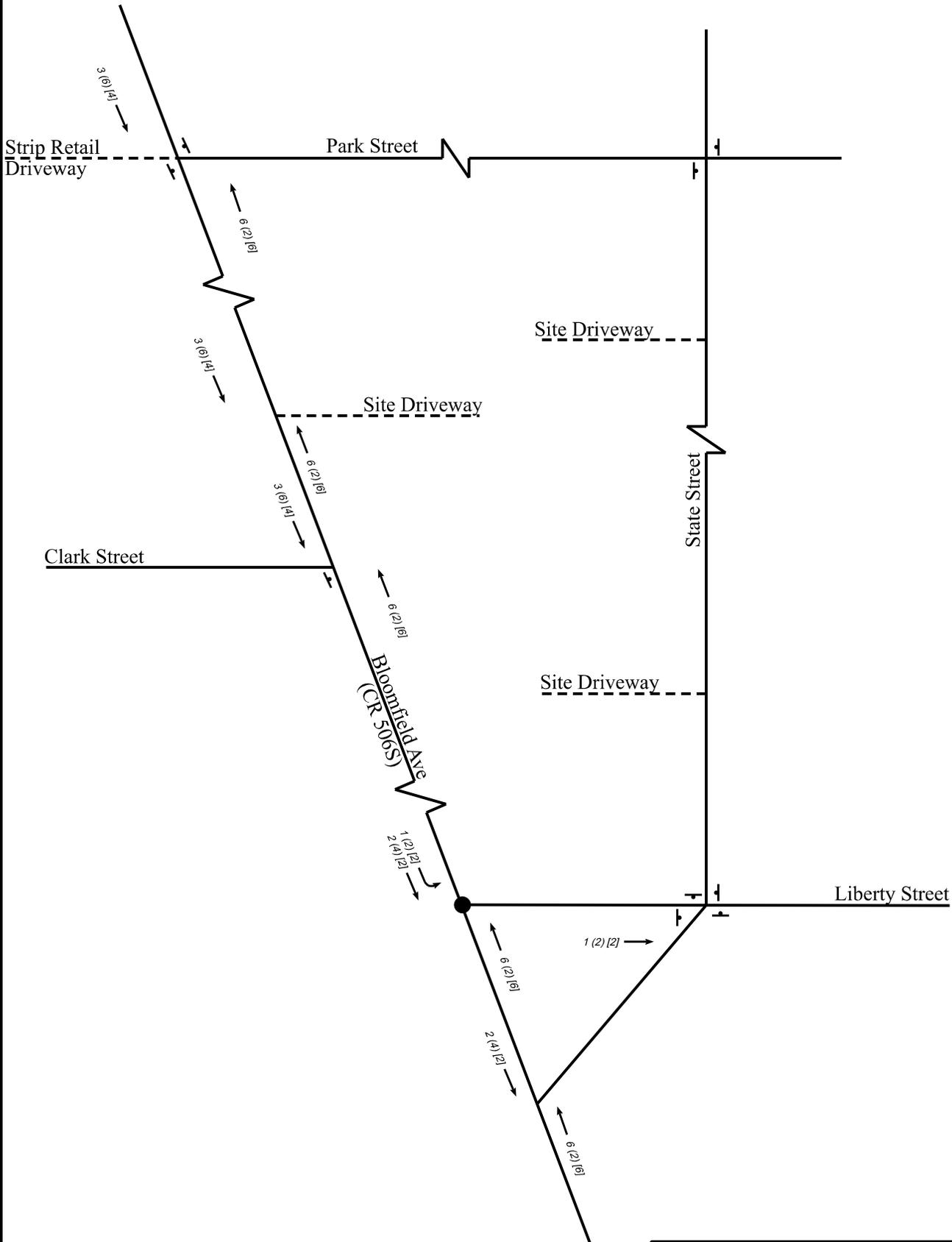
-  STOP CONTROLLED
-  SIGNALIZED INTERSECTION
-  EXISTING ROADWAY
-  EXISTING DRIVEWAY

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FIGURE 8

668 BLOOMFIELD AVENUE ADJACENT AREA
DEVELOPMENT TRAFFIC VOLUMES
AM (PM) [SAT] PEAK HOUR VOLUMES



KEY:

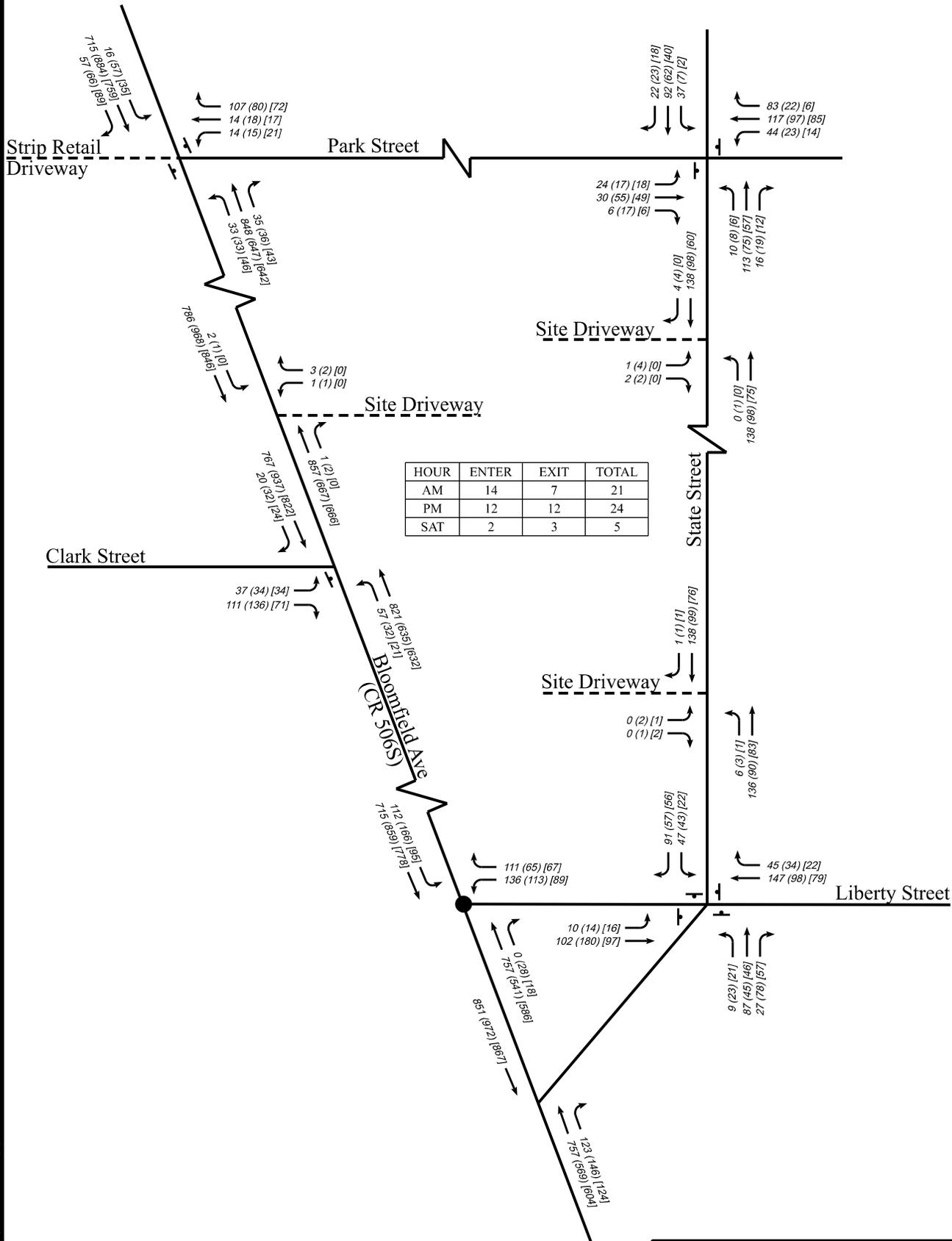
-  STOP CONTROLLED
-  SIGNALIZED INTERSECTION
-  EXISTING ROADWAY
-  EXISTING DRIVEWAY

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FIGURE 9

TOTAL ADJACENT AREA
DEVELOPMENT TRAFFIC VOLUMES
AM (PM) [SAT] PEAK HOUR VOLUMES



| HOUR | ENTER | EXIT | TOTAL |
|------|-------|------|-------|
| AM | 14 | 7 | 21 |
| PM | 12 | 12 | 24 |
| SAT | 2 | 3 | 5 |

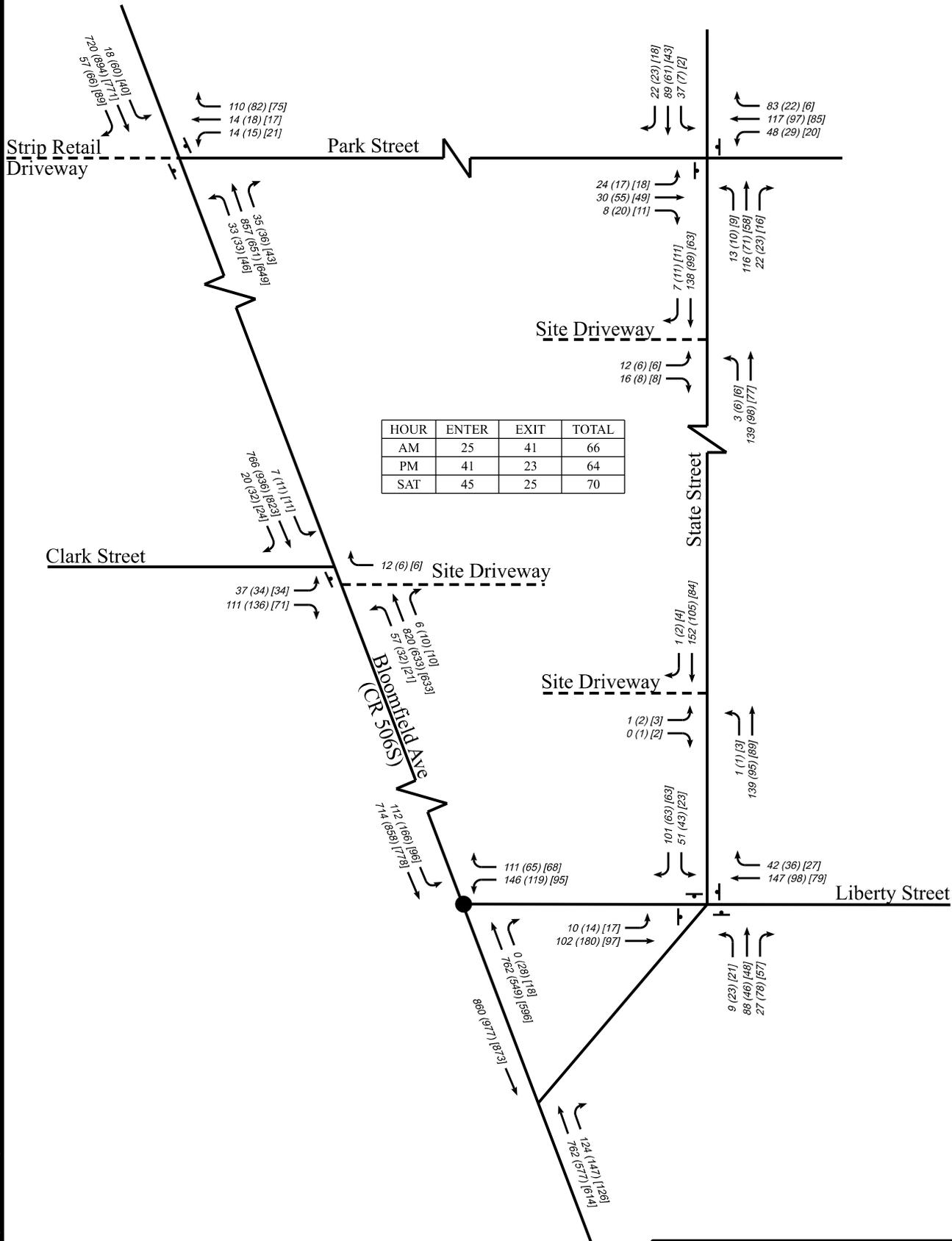
- KEY:**
- STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - EXISTING ROADWAY
 - - - EXISTING DRIVEWAY

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FIGURE 10

FUTURE NO-BUILD TRAFFIC VOLUMES
AM (PM) [SAT PEAK HOUR VOLUMES]



| HOUR | ENTER | EXIT | TOTAL |
|------|-------|------|-------|
| AM | 25 | 41 | 66 |
| PM | 41 | 23 | 64 |
| SAT | 45 | 25 | 70 |

- KEY:**
- STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - EXISTING ROADWAY
 - - - EXISTING DRIVEWAY

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FIGURE 11

FUTURE BUILD TRAFFIC VOLUMES
AM (PM) [SAT PEAK HOUR VOLUMES]

B | Turning Movement Count Summary

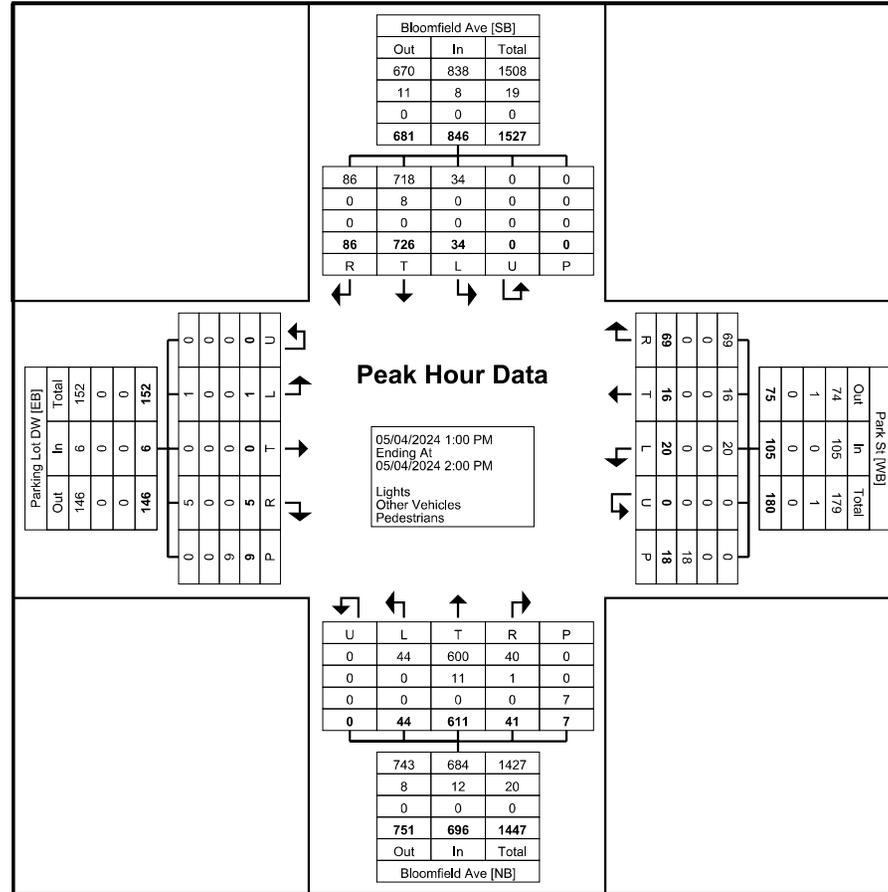
Turning Movement Data

| Start Time | Parking Lot DW Eastbound | | | | | | Park St Westbound | | | | | | Bloomfield Ave Northbound | | | | | | Bloomfield Ave Southbound | | | | | | Int. Total |
|---------------|--------------------------|------|------|-------|------|------------|-------------------|------|------|-------|------|------------|---------------------------|------|------|-------|------|------------|---------------------------|------|------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 11:00 AM | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 29 | 5 | 31 | 0 | 8 | 163 | 2 | 0 | 173 | 0 | 8 | 184 | 14 | 0 | 206 | 411 |
| 11:15 AM | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 3 | 3 | 26 | 3 | 32 | 0 | 12 | 151 | 9 | 0 | 172 | 0 | 7 | 156 | 14 | 0 | 177 | 382 |
| 11:30 AM | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 6 | 4 | 27 | 2 | 37 | 0 | 8 | 156 | 5 | 0 | 169 | 0 | 7 | 182 | 15 | 0 | 204 | 411 |
| 11:45 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 2 | 17 | 2 | 20 | 0 | 8 | 127 | 5 | 1 | 140 | 0 | 7 | 160 | 20 | 0 | 187 | 347 |
| Hourly Total | 0 | 0 | 0 | 3 | 9 | 3 | 0 | 12 | 9 | 99 | 12 | 120 | 0 | 36 | 597 | 21 | 1 | 654 | 0 | 29 | 682 | 63 | 0 | 774 | 1551 |
| 12:00 PM | 0 | 1 | 0 | 1 | 4 | 2 | 0 | 4 | 7 | 22 | 1 | 33 | 0 | 7 | 208 | 8 | 0 | 223 | 0 | 5 | 166 | 21 | 1 | 192 | 450 |
| 12:15 PM | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 5 | 5 | 28 | 2 | 38 | 0 | 10 | 137 | 6 | 1 | 153 | 0 | 3 | 176 | 12 | 2 | 191 | 383 |
| 12:30 PM | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 4 | 17 | 3 | 23 | 0 | 14 | 163 | 11 | 1 | 188 | 0 | 8 | 196 | 13 | 0 | 217 | 429 |
| 12:45 PM | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 3 | 3 | 15 | 5 | 21 | 0 | 16 | 169 | 5 | 0 | 190 | 0 | 2 | 172 | 14 | 0 | 188 | 401 |
| Hourly Total | 0 | 1 | 0 | 5 | 10 | 6 | 0 | 14 | 19 | 82 | 11 | 115 | 0 | 47 | 677 | 30 | 2 | 754 | 0 | 18 | 710 | 60 | 3 | 788 | 1663 |
| 1:00 PM | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 7 | 4 | 15 | 6 | 26 | 0 | 8 | 146 | 8 | 4 | 162 | 0 | 10 | 156 | 19 | 0 | 185 | 374 |
| 1:15 PM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 5 | 3 | 15 | 4 | 23 | 0 | 10 | 139 | 10 | 2 | 159 | 0 | 9 | 194 | 19 | 0 | 222 | 406 |
| 1:30 PM | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 6 | 25 | 7 | 34 | 0 | 11 | 161 | 15 | 0 | 187 | 0 | 5 | 192 | 23 | 0 | 220 | 443 |
| 1:45 PM | 0 | 0 | 0 | 1 | 5 | 1 | 0 | 5 | 3 | 14 | 1 | 22 | 0 | 15 | 165 | 8 | 1 | 188 | 0 | 10 | 184 | 25 | 0 | 219 | 430 |
| Hourly Total | 0 | 1 | 0 | 5 | 9 | 6 | 0 | 20 | 16 | 69 | 18 | 105 | 0 | 44 | 611 | 41 | 7 | 696 | 0 | 34 | 726 | 86 | 0 | 846 | 1653 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 3 | 15 | 0 | 22 | 0 | 10 | 114 | 13 | 0 | 137 | 0 | 3 | 111 | 6 | 0 | 120 | 279 |
| 7:15 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 7 | 24 | 0 | 34 | 0 | 9 | 136 | 10 | 0 | 155 | 0 | 9 | 147 | 13 | 1 | 169 | 358 |
| 7:30 AM | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 2 | 4 | 34 | 3 | 40 | 1 | 9 | 222 | 8 | 0 | 240 | 0 | 1 | 149 | 15 | 4 | 165 | 447 |
| 7:45 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 4 | 27 | 2 | 37 | 0 | 8 | 221 | 7 | 1 | 236 | 0 | 2 | 204 | 10 | 3 | 216 | 489 |
| Hourly Total | 0 | 0 | 1 | 1 | 8 | 2 | 0 | 15 | 18 | 100 | 5 | 133 | 1 | 36 | 693 | 38 | 1 | 768 | 0 | 15 | 611 | 44 | 8 | 670 | 1573 |
| 8:00 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 19 | 1 | 24 | 0 | 7 | 180 | 8 | 2 | 195 | 0 | 7 | 166 | 15 | 0 | 188 | 407 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 23 | 2 | 28 | 0 | 8 | 186 | 11 | 6 | 205 | 0 | 5 | 165 | 15 | 0 | 185 | 418 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 14 | 1 | 26 | 0 | 8 | 193 | 8 | 1 | 209 | 0 | 10 | 198 | 12 | 0 | 220 | 455 |
| 8:45 AM | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 7 | 4 | 19 | 3 | 30 | 0 | 11 | 219 | 7 | 3 | 237 | 0 | 5 | 144 | 16 | 0 | 165 | 433 |
| Hourly Total | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 16 | 17 | 75 | 7 | 108 | 0 | 34 | 778 | 34 | 12 | 846 | 0 | 27 | 673 | 58 | 0 | 758 | 1713 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:45 PM | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 11 | 0 | 0 | 12 | 0 | 1 | 21 | 2 | 0 | 24 | 37 |
| Hourly Total | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 11 | 0 | 0 | 12 | 0 | 1 | 21 | 2 | 0 | 24 | 37 |
| 4:00 PM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 4 | 12 | 3 | 22 | 0 | 8 | 143 | 7 | 1 | 158 | 0 | 6 | 210 | 23 | 0 | 239 | 419 |
| 4:15 PM | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 3 | 0 | 11 | 0 | 14 | 0 | 7 | 140 | 5 | 1 | 152 | 0 | 3 | 240 | 12 | 1 | 255 | 422 |
| 4:30 PM | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 4 | 2 | 13 | 2 | 19 | 0 | 8 | 145 | 11 | 0 | 164 | 0 | 9 | 218 | 9 | 0 | 236 | 419 |
| 4:45 PM | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 7 | 15 | 3 | 27 | 0 | 7 | 126 | 9 | 6 | 142 | 0 | 4 | 262 | 10 | 4 | 276 | 445 |
| Hourly Total | 0 | 0 | 0 | 1 | 24 | 1 | 0 | 18 | 13 | 51 | 8 | 82 | 0 | 30 | 554 | 32 | 8 | 616 | 0 | 22 | 930 | 54 | 5 | 1006 | 1705 |
| 5:00 PM | 0 | 1 | 0 | 0 | 11 | 1 | 0 | 8 | 6 | 24 | 2 | 38 | 0 | 6 | 161 | 5 | 1 | 172 | 0 | 16 | 206 | 20 | 2 | 242 | 453 |
| 5:15 PM | 0 | 0 | 1 | 0 | 5 | 1 | 0 | 2 | 2 | 19 | 4 | 23 | 0 | 6 | 143 | 8 | 0 | 157 | 0 | 12 | 213 | 19 | 0 | 244 | 425 |
| 5:30 PM | 0 | 0 | 1 | 1 | 5 | 2 | 0 | 3 | 4 | 21 | 5 | 28 | 0 | 11 | 150 | 10 | 2 | 171 | 0 | 10 | 201 | 17 | 0 | 228 | 429 |
| 5:45 PM | 0 | 1 | 1 | 1 | 12 | 3 | 0 | 1 | 5 | 13 | 10 | 19 | 0 | 9 | 166 | 12 | 0 | 187 | 0 | 17 | 224 | 7 | 0 | 248 | 457 |
| Hourly Total | 0 | 2 | 3 | 2 | 33 | 7 | 0 | 14 | 17 | 77 | 21 | 108 | 0 | 32 | 620 | 35 | 3 | 687 | 0 | 55 | 844 | 63 | 2 | 962 | 1764 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|-----|-------|-------|-------|-------|-------|-----|-------|-------|------|-------|------|-------|------|------|------|-------|------|-----|-------|------|------|-------|------|-------|
| 6:00 PM | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 4 | 5 | 13 | 6 | 22 | 0 | 13 | 143 | 6 | 1 | 162 | 0 | 8 | 155 | 17 | 0 | 180 | 364 |
| 6:15 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 7 | 17 | 3 | 26 | 0 | 3 | 145 | 6 | 2 | 154 | 0 | 7 | 181 | 10 | 0 | 198 | 378 |
| 6:30 PM | 0 | 0 | 1 | 1 | 3 | 2 | 0 | 1 | 4 | 11 | 6 | 16 | 0 | 10 | 150 | 3 | 0 | 163 | 0 | 8 | 167 | 17 | 0 | 192 | 373 |
| 6:45 PM | 0 | 2 | 1 | 1 | 3 | 4 | 0 | 2 | 3 | 16 | 4 | 21 | 0 | 5 | 127 | 7 | 2 | 139 | 0 | 8 | 143 | 11 | 0 | 162 | 326 |
| Hourly Total | 0 | 2 | 2 | 2 | 18 | 6 | 0 | 9 | 19 | 57 | 19 | 85 | 0 | 31 | 565 | 22 | 5 | 618 | 0 | 31 | 646 | 55 | 0 | 732 | 1441 |
| Grand Total | 0 | 6 | 6 | 21 | 118 | 33 | 0 | 118 | 128 | 610 | 102 | 856 | 1 | 291 | 5106 | 253 | 39 | 5651 | 0 | 232 | 5843 | 485 | 18 | 6560 | 13100 |
| Approach % | 0.0 | 18.2 | 18.2 | 63.6 | - | - | 0.0 | 13.8 | 15.0 | 71.3 | - | - | 0.0 | 5.1 | 90.4 | 4.5 | - | - | 0.0 | 3.5 | 89.1 | 7.4 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.2 | - | 0.3 | 0.0 | 0.9 | 1.0 | 4.7 | - | 6.5 | 0.0 | 2.2 | 39.0 | 1.9 | - | 43.1 | 0.0 | 1.8 | 44.6 | 3.7 | - | 50.1 | - |
| Lights | 0 | 6 | 6 | 21 | - | 33 | 0 | 118 | 128 | 609 | - | 855 | 1 | 289 | 4989 | 245 | - | 5524 | 0 | 232 | 5723 | 483 | - | 6438 | 12850 |
| % Lights | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 99.8 | - | 99.9 | 100.0 | 99.3 | 97.7 | 96.8 | - | 97.8 | - | 100.0 | 97.9 | 99.6 | - | 98.1 | 98.1 |
| Other Vehicles | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | - | 1 | 0 | 2 | 117 | 8 | - | 127 | 0 | 0 | 120 | 2 | - | 122 | 250 |
| % Other Vehicles | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.2 | - | 0.1 | 0.0 | 0.7 | 2.3 | 3.2 | - | 2.2 | - | 0.0 | 2.1 | 0.4 | - | 1.9 | 1.9 |
| Pedestrians | - | - | - | - | 118 | - | - | - | - | - | 102 | - | - | - | - | - | 39 | - | - | - | - | - | 18 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Turning Movement Peak Hour Data (1:00 PM)

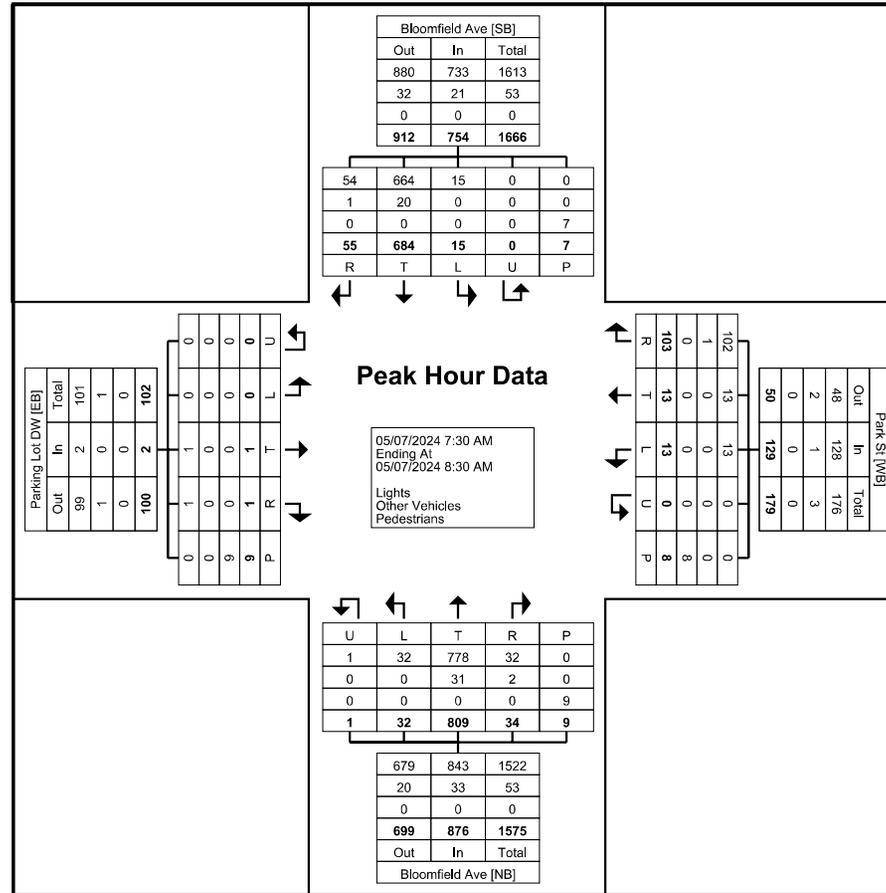
| Start Time | Parking Lot DW Eastbound | | | | | | Park St Westbound | | | | | | Bloomfield Ave Northbound | | | | | | Bloomfield Ave Southbound | | | | | | Int. Total |
|------------------|--------------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 1:00 PM | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 7 | 4 | 15 | 6 | 26 | 0 | 8 | 146 | 8 | 4 | 162 | 0 | 10 | 156 | 19 | 0 | 185 | 374 |
| 1:15 PM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 5 | 3 | 15 | 4 | 23 | 0 | 10 | 139 | 10 | 2 | 159 | 0 | 9 | 194 | 19 | 0 | 222 | 406 |
| 1:30 PM | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 6 | 25 | 7 | 34 | 0 | 11 | 161 | 15 | 0 | 187 | 0 | 5 | 192 | 23 | 0 | 220 | 443 |
| 1:45 PM | 0 | 0 | 0 | 1 | 5 | 1 | 0 | 5 | 3 | 14 | 1 | 22 | 0 | 15 | 165 | 8 | 1 | 188 | 0 | 10 | 184 | 25 | 0 | 219 | 430 |
| Total | 0 | 1 | 0 | 5 | 9 | 6 | 0 | 20 | 16 | 69 | 18 | 105 | 0 | 44 | 611 | 41 | 7 | 696 | 0 | 34 | 726 | 86 | 0 | 846 | 1653 |
| Approach % | 0.0 | 16.7 | 0.0 | 83.3 | - | - | 0.0 | 19.0 | 15.2 | 65.7 | - | - | 0.0 | 6.3 | 87.8 | 5.9 | - | - | 0.0 | 4.0 | 85.8 | 10.2 | - | - | - |
| Total % | 0.0 | 0.1 | 0.0 | 0.3 | - | 0.4 | 0.0 | 1.2 | 1.0 | 4.2 | - | 6.4 | 0.0 | 2.7 | 37.0 | 2.5 | - | 42.1 | 0.0 | 2.1 | 43.9 | 5.2 | - | 51.2 | - |
| PHF | 0.000 | 0.250 | 0.000 | 0.625 | - | 0.750 | 0.000 | 0.714 | 0.667 | 0.690 | - | 0.772 | 0.000 | 0.733 | 0.926 | 0.683 | - | 0.926 | 0.000 | 0.850 | 0.936 | 0.860 | - | 0.953 | 0.933 |
| Lights | 0 | 1 | 0 | 5 | - | 6 | 0 | 20 | 16 | 69 | - | 105 | 0 | 44 | 600 | 40 | - | 684 | 0 | 34 | 718 | 86 | - | 838 | 1633 |
| % Lights | - | 100.0 | - | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 98.2 | 97.6 | - | 98.3 | - | 100.0 | 98.9 | 100.0 | - | 99.1 | 98.8 |
| Other Vehicles | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 11 | 1 | - | 12 | 0 | 0 | 8 | 0 | - | 8 | 20 |
| % Other Vehicles | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 1.8 | 2.4 | - | 1.7 | - | 0.0 | 1.1 | 0.0 | - | 0.9 | 1.2 |
| Pedestrians | - | - | - | - | 9 | - | - | - | - | - | 18 | - | - | - | - | - | 7 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |



Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (7:30 AM)

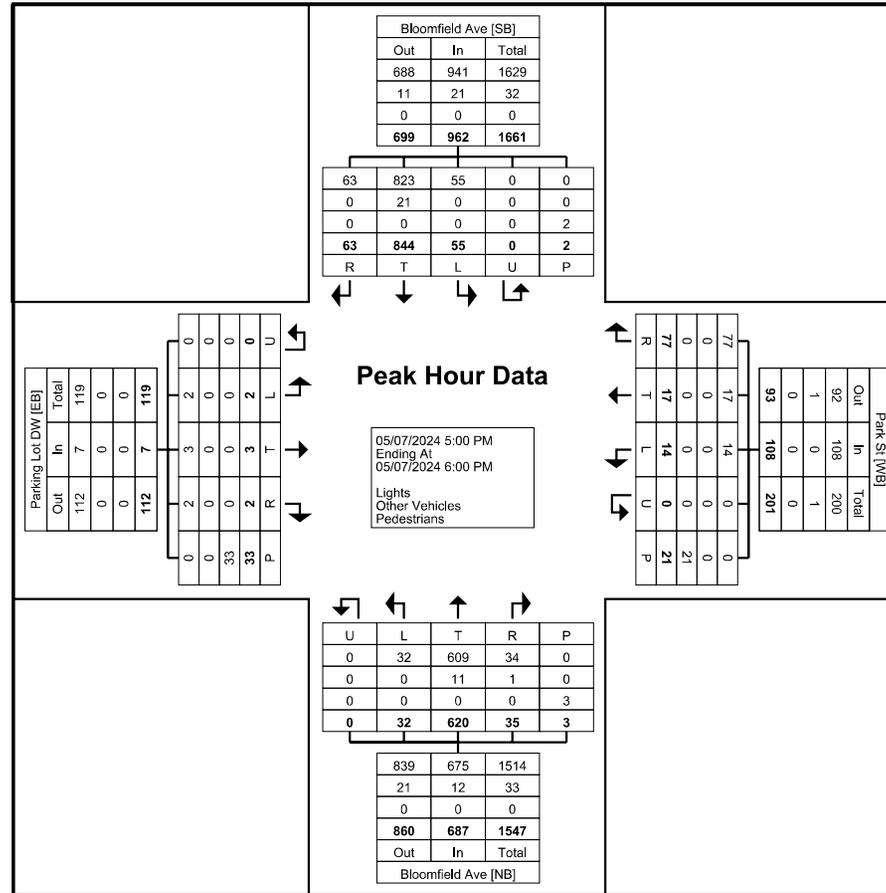
| Start Time | Parking Lot DW Eastbound | | | | | | Park St Westbound | | | | | | Bloomfield Ave Northbound | | | | | | Bloomfield Ave Southbound | | | | | | Int. Total |
|------------------|--------------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:30 AM | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 2 | 4 | 34 | 3 | 40 | 1 | 9 | 222 | 8 | 0 | 240 | 0 | 1 | 149 | 15 | 4 | 165 | 447 |
| 7:45 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 4 | 27 | 2 | 37 | 0 | 8 | 221 | 7 | 1 | 236 | 0 | 2 | 204 | 10 | 3 | 216 | 489 |
| 8:00 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 19 | 1 | 24 | 0 | 7 | 180 | 8 | 2 | 195 | 0 | 7 | 166 | 15 | 0 | 188 | 407 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 23 | 2 | 28 | 0 | 8 | 186 | 11 | 6 | 205 | 0 | 5 | 165 | 15 | 0 | 185 | 418 |
| Total | 0 | 0 | 1 | 1 | 9 | 2 | 0 | 13 | 13 | 103 | 8 | 129 | 1 | 32 | 809 | 34 | 9 | 876 | 0 | 15 | 684 | 55 | 7 | 754 | 1761 |
| Approach % | 0.0 | 0.0 | 50.0 | 50.0 | - | - | 0.0 | 10.1 | 10.1 | 79.8 | - | - | 0.1 | 3.7 | 92.4 | 3.9 | - | - | 0.0 | 2.0 | 90.7 | 7.3 | - | - | - |
| Total % | 0.0 | 0.0 | 0.1 | 0.1 | - | 0.1 | 0.0 | 0.7 | 0.7 | 5.8 | - | 7.3 | 0.1 | 1.8 | 45.9 | 1.9 | - | 49.7 | 0.0 | 0.9 | 38.8 | 3.1 | - | 42.8 | - |
| PHF | 0.000 | 0.000 | 0.250 | 0.250 | - | 0.250 | 0.000 | 0.542 | 0.813 | 0.757 | - | 0.806 | 0.250 | 0.889 | 0.911 | 0.773 | - | 0.913 | 0.000 | 0.536 | 0.838 | 0.917 | - | 0.873 | 0.900 |
| Lights | 0 | 0 | 1 | 1 | - | 2 | 0 | 13 | 13 | 102 | - | 128 | 1 | 32 | 778 | 32 | - | 843 | 0 | 15 | 664 | 54 | - | 733 | 1706 |
| % Lights | - | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 99.0 | - | 99.2 | 100.0 | 100.0 | 96.2 | 94.1 | - | 96.2 | - | 100.0 | 97.1 | 98.2 | - | 97.2 | 96.9 |
| Other Vehicles | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | - | 1 | 0 | 0 | 31 | 2 | - | 33 | 0 | 0 | 20 | 1 | - | 21 | 55 |
| % Other Vehicles | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 1.0 | - | 0.8 | 0.0 | 0.0 | 3.8 | 5.9 | - | 3.8 | - | 0.0 | 2.9 | 1.8 | - | 2.8 | 3.1 |
| Pedestrians | - | - | - | - | 9 | - | - | - | - | - | 8 | - | - | - | - | - | 9 | - | - | - | - | - | 7 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (5:00 PM)

| Start Time | Parking Lot DW Eastbound | | | | | | Park St Westbound | | | | | | Bloomfield Ave Northbound | | | | | | Bloomfield Ave Southbound | | | | | | Int. Total |
|------------------|--------------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|-------|------------|---------------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 5:00 PM | 0 | 1 | 0 | 0 | 11 | 1 | 0 | 8 | 6 | 24 | 2 | 38 | 0 | 6 | 161 | 5 | 1 | 172 | 0 | 16 | 206 | 20 | 2 | 242 | 453 |
| 5:15 PM | 0 | 0 | 1 | 0 | 5 | 1 | 0 | 2 | 2 | 19 | 4 | 23 | 0 | 6 | 143 | 8 | 0 | 157 | 0 | 12 | 213 | 19 | 0 | 244 | 425 |
| 5:30 PM | 0 | 0 | 1 | 1 | 5 | 2 | 0 | 3 | 4 | 21 | 5 | 28 | 0 | 11 | 150 | 10 | 2 | 171 | 0 | 10 | 201 | 17 | 0 | 228 | 429 |
| 5:45 PM | 0 | 1 | 1 | 1 | 12 | 3 | 0 | 1 | 5 | 13 | 10 | 19 | 0 | 9 | 166 | 12 | 0 | 187 | 0 | 17 | 224 | 7 | 0 | 248 | 457 |
| Total | 0 | 2 | 3 | 2 | 33 | 7 | 0 | 14 | 17 | 77 | 21 | 108 | 0 | 32 | 620 | 35 | 3 | 687 | 0 | 55 | 844 | 63 | 2 | 962 | 1764 |
| Approach % | 0.0 | 28.6 | 42.9 | 28.6 | - | - | 0.0 | 13.0 | 15.7 | 71.3 | - | - | 0.0 | 4.7 | 90.2 | 5.1 | - | - | 0.0 | 5.7 | 87.7 | 6.5 | - | - | - |
| Total % | 0.0 | 0.1 | 0.2 | 0.1 | - | 0.4 | 0.0 | 0.8 | 1.0 | 4.4 | - | 6.1 | 0.0 | 1.8 | 35.1 | 2.0 | - | 38.9 | 0.0 | 3.1 | 47.8 | 3.6 | - | 54.5 | - |
| PHF | 0.000 | 0.500 | 0.750 | 0.500 | - | 0.583 | 0.000 | 0.438 | 0.708 | 0.802 | - | 0.711 | 0.000 | 0.727 | 0.934 | 0.729 | - | 0.918 | 0.000 | 0.809 | 0.942 | 0.788 | - | 0.970 | 0.965 |
| Lights | 0 | 2 | 3 | 2 | - | 7 | 0 | 14 | 17 | 77 | - | 108 | 0 | 32 | 609 | 34 | - | 675 | 0 | 55 | 823 | 63 | - | 941 | 1731 |
| % Lights | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 98.2 | 97.1 | - | 98.3 | - | 100.0 | 97.5 | 100.0 | - | 97.8 | 98.1 |
| Other Vehicles | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 11 | 1 | - | 12 | 0 | 0 | 21 | 0 | - | 21 | 33 |
| % Other Vehicles | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 1.8 | 2.9 | - | 1.7 | - | 0.0 | 2.5 | 0.0 | - | 2.2 | 1.9 |
| Pedestrians | - | - | - | - | 33 | - | - | - | - | - | 21 | - | - | - | - | - | 3 | - | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

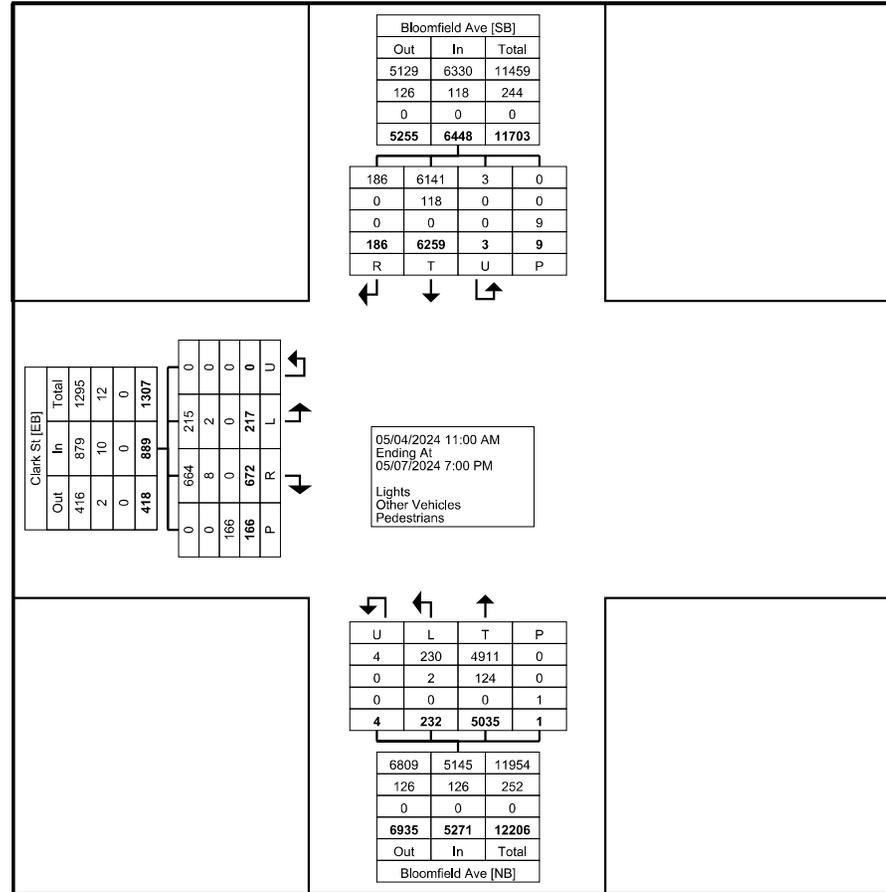


Turning Movement Peak Hour Data Plot (5:00 PM)

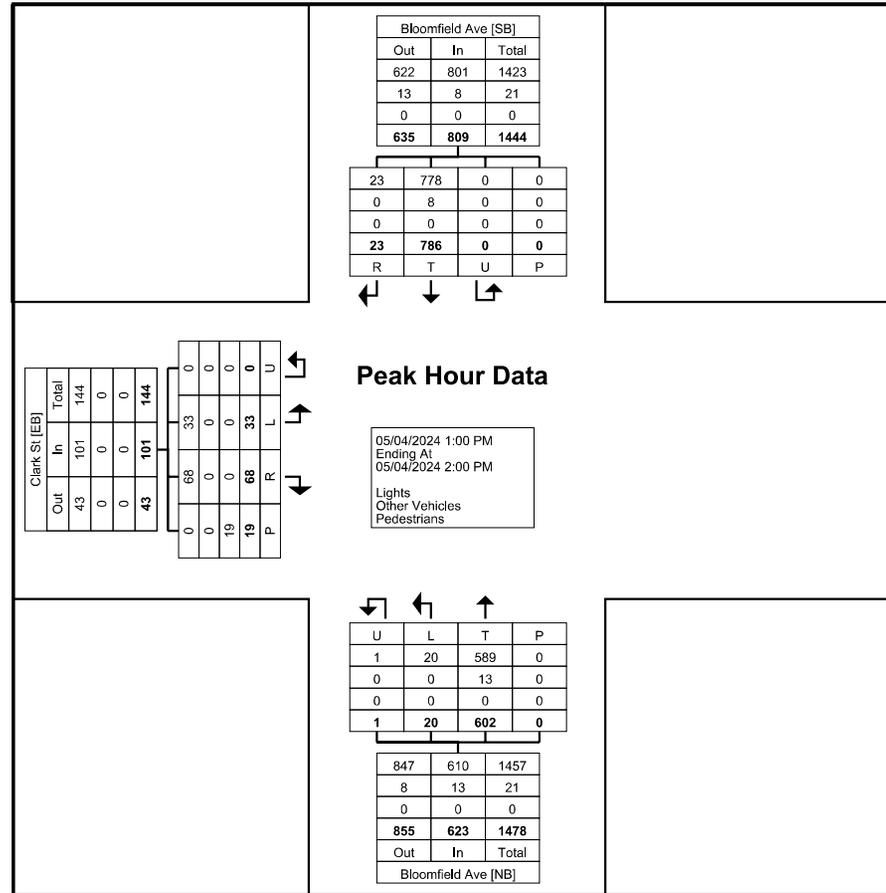
Turning Movement Data

| Start Time | Clark St Eastbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | | Int. Total |
|---------------|-----------------------|------|-------|------|------------|------------------------------|------|------|------|------------|------------------------------|------|-------|------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | |
| 11:00 AM | 0 | 6 | 20 | 5 | 26 | 0 | 8 | 157 | 1 | 165 | 0 | 199 | 1 | 0 | 200 | 391 |
| 11:15 AM | 0 | 3 | 15 | 5 | 18 | 1 | 7 | 153 | 0 | 161 | 0 | 169 | 7 | 0 | 176 | 355 |
| 11:30 AM | 0 | 4 | 14 | 3 | 18 | 1 | 5 | 150 | 0 | 156 | 0 | 189 | 7 | 0 | 196 | 370 |
| 11:45 AM | 0 | 5 | 16 | 13 | 21 | 0 | 4 | 124 | 0 | 128 | 1 | 169 | 3 | 0 | 173 | 322 |
| Hourly Total | 0 | 18 | 65 | 26 | 83 | 2 | 24 | 584 | 1 | 610 | 1 | 726 | 18 | 0 | 745 | 1438 |
| 12:00 PM | 0 | 6 | 20 | 5 | 26 | 0 | 3 | 205 | 0 | 208 | 0 | 180 | 5 | 0 | 185 | 419 |
| 12:15 PM | 0 | 8 | 20 | 3 | 28 | 0 | 5 | 132 | 0 | 137 | 1 | 188 | 8 | 0 | 197 | 362 |
| 12:30 PM | 0 | 12 | 23 | 3 | 35 | 0 | 4 | 159 | 0 | 163 | 1 | 211 | 5 | 0 | 217 | 415 |
| 12:45 PM | 0 | 4 | 16 | 3 | 20 | 0 | 2 | 171 | 0 | 173 | 0 | 186 | 7 | 0 | 193 | 386 |
| Hourly Total | 0 | 30 | 79 | 14 | 109 | 0 | 14 | 667 | 0 | 681 | 2 | 765 | 25 | 0 | 792 | 1582 |
| 1:00 PM | 0 | 9 | 20 | 3 | 29 | 0 | 5 | 142 | 0 | 147 | 0 | 183 | 6 | 0 | 189 | 365 |
| 1:15 PM | 0 | 6 | 21 | 5 | 27 | 0 | 2 | 140 | 0 | 142 | 0 | 210 | 5 | 0 | 215 | 384 |
| 1:30 PM | 0 | 6 | 18 | 4 | 24 | 1 | 6 | 162 | 0 | 169 | 0 | 203 | 6 | 0 | 209 | 402 |
| 1:45 PM | 0 | 12 | 9 | 7 | 21 | 0 | 7 | 158 | 0 | 165 | 0 | 190 | 6 | 0 | 196 | 382 |
| Hourly Total | 0 | 33 | 68 | 19 | 101 | 1 | 20 | 602 | 0 | 623 | 0 | 786 | 23 | 0 | 809 | 1533 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7:00 AM | 0 | 8 | 7 | 2 | 15 | 0 | 4 | 115 | 0 | 119 | 0 | 126 | 0 | 0 | 126 | 260 |
| 7:15 AM | 0 | 11 | 15 | 2 | 26 | 1 | 9 | 134 | 0 | 144 | 0 | 158 | 2 | 1 | 160 | 330 |
| 7:30 AM | 0 | 13 | 30 | 4 | 43 | 0 | 8 | 206 | 0 | 214 | 0 | 165 | 3 | 1 | 168 | 425 |
| 7:45 AM | 0 | 8 | 30 | 4 | 38 | 0 | 18 | 219 | 0 | 237 | 0 | 211 | 9 | 1 | 220 | 495 |
| Hourly Total | 0 | 40 | 82 | 12 | 122 | 1 | 39 | 674 | 0 | 714 | 0 | 660 | 14 | 3 | 674 | 1510 |
| 8:00 AM | 0 | 4 | 25 | 2 | 29 | 0 | 14 | 176 | 0 | 190 | 0 | 181 | 3 | 0 | 184 | 403 |
| 8:15 AM | 0 | 11 | 22 | 1 | 33 | 0 | 15 | 182 | 0 | 197 | 0 | 177 | 4 | 2 | 181 | 411 |
| 8:30 AM | 0 | 9 | 22 | 1 | 31 | 0 | 20 | 186 | 0 | 206 | 0 | 202 | 7 | 0 | 209 | 446 |
| 8:45 AM | 0 | 3 | 11 | 6 | 14 | 0 | 15 | 231 | 0 | 246 | 0 | 171 | 6 | 0 | 177 | 437 |
| Hourly Total | 0 | 27 | 80 | 10 | 107 | 0 | 64 | 775 | 0 | 839 | 0 | 731 | 20 | 2 | 751 | 1697 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 20 | 1 | 0 | 21 | 28 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 20 | 1 | 0 | 21 | 28 |
| 4:00 PM | 0 | 2 | 27 | 4 | 29 | 0 | 4 | 138 | 0 | 142 | 0 | 231 | 4 | 2 | 235 | 406 |
| 4:15 PM | 0 | 3 | 26 | 13 | 29 | 0 | 7 | 140 | 0 | 147 | 0 | 244 | 7 | 0 | 251 | 427 |
| 4:30 PM | 0 | 8 | 21 | 4 | 29 | 0 | 3 | 151 | 0 | 154 | 0 | 230 | 7 | 1 | 237 | 420 |
| 4:45 PM | 0 | 6 | 20 | 4 | 26 | 0 | 5 | 121 | 0 | 126 | 0 | 272 | 10 | 0 | 282 | 434 |
| Hourly Total | 0 | 19 | 94 | 25 | 113 | 0 | 19 | 550 | 0 | 569 | 0 | 977 | 28 | 3 | 1005 | 1687 |
| 5:00 PM | 0 | 8 | 32 | 8 | 40 | 0 | 9 | 153 | 0 | 162 | 0 | 212 | 11 | 1 | 223 | 425 |
| 5:15 PM | 0 | 8 | 35 | 7 | 43 | 0 | 5 | 141 | 0 | 146 | 0 | 230 | 8 | 0 | 238 | 427 |
| 5:30 PM | 0 | 7 | 37 | 6 | 44 | 0 | 9 | 150 | 0 | 159 | 0 | 224 | 4 | 0 | 228 | 431 |
| 5:45 PM | 0 | 10 | 27 | 11 | 37 | 0 | 8 | 164 | 0 | 172 | 0 | 229 | 8 | 0 | 237 | 446 |
| Hourly Total | 0 | 33 | 131 | 32 | 164 | 0 | 31 | 608 | 0 | 639 | 0 | 895 | 31 | 1 | 926 | 1729 |
| 6:00 PM | 0 | 2 | 26 | 16 | 28 | 0 | 10 | 147 | 0 | 157 | 0 | 168 | 10 | 0 | 178 | 363 |

| | | | | | | | | | | | | | | | | |
|------------------|-----|------|------|-------|------|-------|------|------|-------|------|-------|------|-------|-------|------|-------|
| 6:15 PM | 0 | 4 | 18 | 6 | 22 | 0 | 4 | 146 | 0 | 150 | 0 | 200 | 6 | 0 | 206 | 378 |
| 6:30 PM | 0 | 6 | 16 | 4 | 22 | 0 | 3 | 150 | 0 | 153 | 0 | 173 | 7 | 0 | 180 | 355 |
| 6:45 PM | 0 | 5 | 13 | 2 | 18 | 0 | 4 | 125 | 0 | 129 | 0 | 158 | 3 | 0 | 161 | 308 |
| Hourly Total | 0 | 17 | 73 | 28 | 90 | 0 | 21 | 568 | 0 | 589 | 0 | 699 | 26 | 0 | 725 | 1404 |
| Grand Total | 0 | 217 | 672 | 166 | 889 | 4 | 232 | 5035 | 1 | 5271 | 3 | 6259 | 186 | 9 | 6448 | 12608 |
| Approach % | 0.0 | 24.4 | 75.6 | - | - | 0.1 | 4.4 | 95.5 | - | - | 0.0 | 97.1 | 2.9 | - | - | - |
| Total % | 0.0 | 1.7 | 5.3 | - | 7.1 | 0.0 | 1.8 | 39.9 | - | 41.8 | 0.0 | 49.6 | 1.5 | - | 51.1 | - |
| Lights | 0 | 215 | 664 | - | 879 | 4 | 230 | 4911 | - | 5145 | 3 | 6141 | 186 | - | 6330 | 12354 |
| % Lights | - | 99.1 | 98.8 | - | 98.9 | 100.0 | 99.1 | 97.5 | - | 97.6 | 100.0 | 98.1 | 100.0 | - | 98.2 | 98.0 |
| Other Vehicles | 0 | 2 | 8 | - | 10 | 0 | 2 | 124 | - | 126 | 0 | 118 | 0 | - | 118 | 254 |
| % Other Vehicles | - | 0.9 | 1.2 | - | 1.1 | 0.0 | 0.9 | 2.5 | - | 2.4 | 0.0 | 1.9 | 0.0 | - | 1.8 | 2.0 |
| Pedestrians | - | - | - | 166 | - | - | - | - | 1 | - | - | - | - | 9 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |



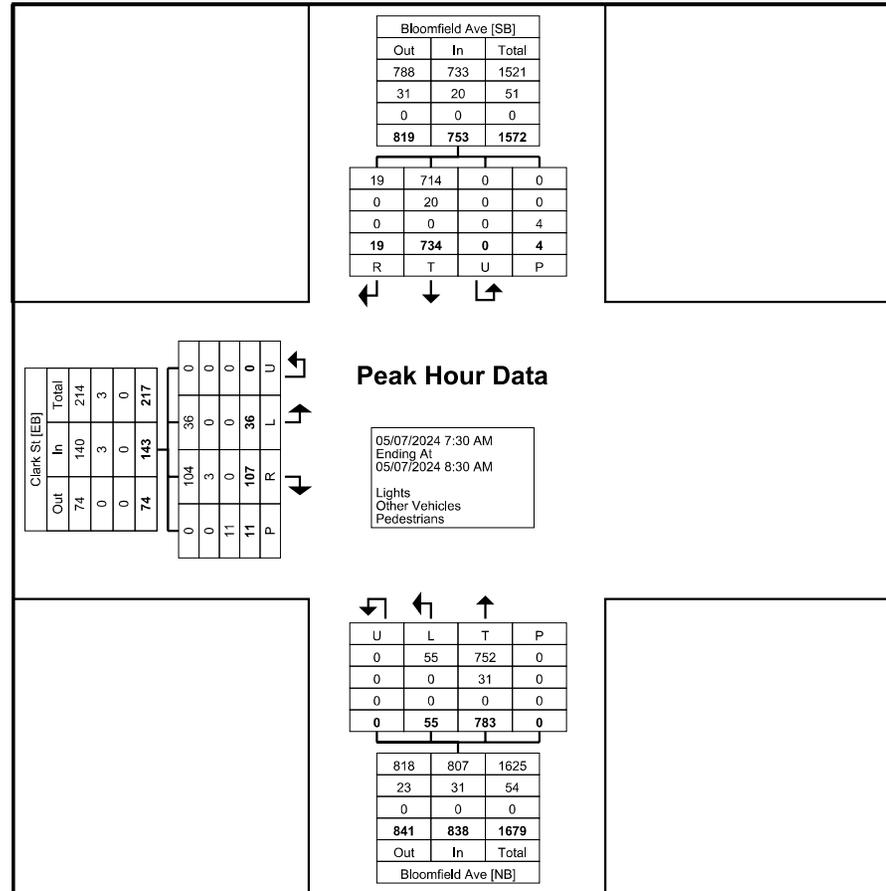
Turning Movement Data Plot



Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (7:30 AM)

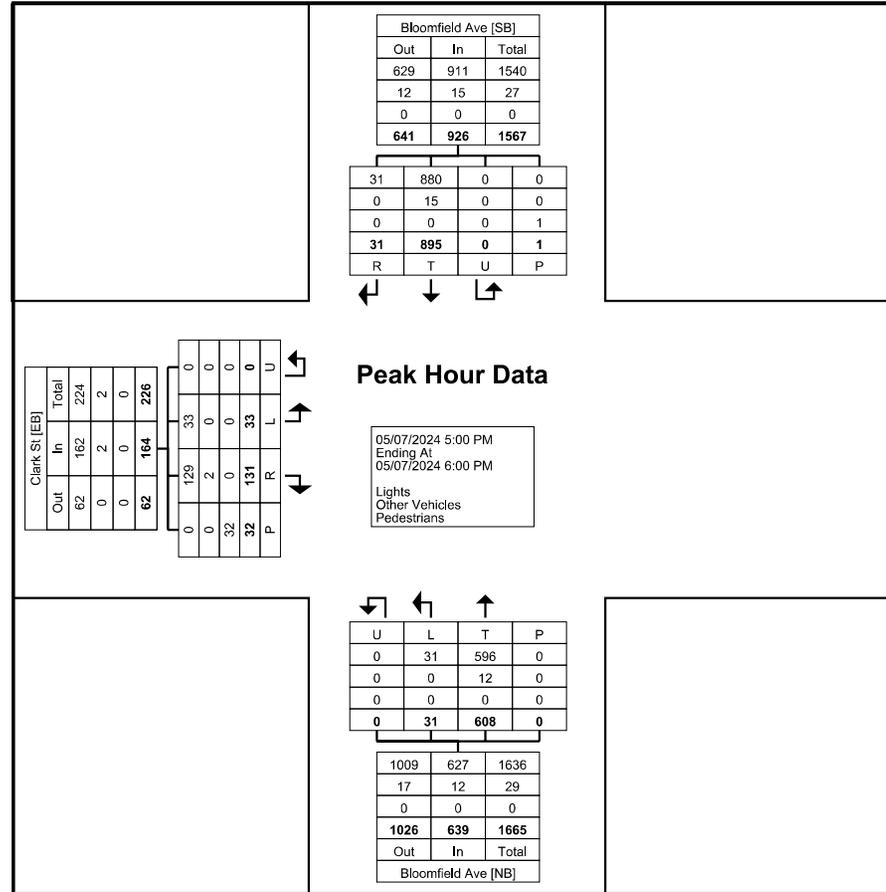
| Start Time | Clark St Eastbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | Int. Total | |
|------------------|-----------------------|-------|-------|-------|------------|------------------------------|-------|-------|------|------------|------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | | App. Total |
| 7:30 AM | 0 | 13 | 30 | 4 | 43 | 0 | 8 | 206 | 0 | 214 | 0 | 165 | 3 | 1 | 168 | 425 |
| 7:45 AM | 0 | 8 | 30 | 4 | 38 | 0 | 18 | 219 | 0 | 237 | 0 | 211 | 9 | 1 | 220 | 495 |
| 8:00 AM | 0 | 4 | 25 | 2 | 29 | 0 | 14 | 176 | 0 | 190 | 0 | 181 | 3 | 0 | 184 | 403 |
| 8:15 AM | 0 | 11 | 22 | 1 | 33 | 0 | 15 | 182 | 0 | 197 | 0 | 177 | 4 | 2 | 181 | 411 |
| Total | 0 | 36 | 107 | 11 | 143 | 0 | 55 | 783 | 0 | 838 | 0 | 734 | 19 | 4 | 753 | 1734 |
| Approach % | 0.0 | 25.2 | 74.8 | - | - | 0.0 | 6.6 | 93.4 | - | - | 0.0 | 97.5 | 2.5 | - | - | - |
| Total % | 0.0 | 2.1 | 6.2 | - | 8.2 | 0.0 | 3.2 | 45.2 | - | 48.3 | 0.0 | 42.3 | 1.1 | - | 43.4 | - |
| PHF | 0.000 | 0.692 | 0.892 | - | 0.831 | 0.000 | 0.764 | 0.894 | - | 0.884 | 0.000 | 0.870 | 0.528 | - | 0.856 | 0.876 |
| Lights | 0 | 36 | 104 | - | 140 | 0 | 55 | 752 | - | 807 | 0 | 714 | 19 | - | 733 | 1680 |
| % Lights | - | 100.0 | 97.2 | - | 97.9 | - | 100.0 | 96.0 | - | 96.3 | - | 97.3 | 100.0 | - | 97.3 | 96.9 |
| Other Vehicles | 0 | 0 | 3 | - | 3 | 0 | 0 | 31 | - | 31 | 0 | 20 | 0 | - | 20 | 54 |
| % Other Vehicles | - | 0.0 | 2.8 | - | 2.1 | - | 0.0 | 4.0 | - | 3.7 | - | 2.7 | 0.0 | - | 2.7 | 3.1 |
| Pedestrians | - | - | - | 11 | - | - | - | - | 0 | - | - | - | - | 4 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (5:00 PM)

| Start Time | Clark St Eastbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | Int. Total | |
|------------------|-----------------------|-------|-------|-------|------------|------------------------------|-------|-------|------|------------|------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | | App. Total |
| 5:00 PM | 0 | 8 | 32 | 8 | 40 | 0 | 9 | 153 | 0 | 162 | 0 | 212 | 11 | 1 | 223 | 425 |
| 5:15 PM | 0 | 8 | 35 | 7 | 43 | 0 | 5 | 141 | 0 | 146 | 0 | 230 | 8 | 0 | 238 | 427 |
| 5:30 PM | 0 | 7 | 37 | 6 | 44 | 0 | 9 | 150 | 0 | 159 | 0 | 224 | 4 | 0 | 228 | 431 |
| 5:45 PM | 0 | 10 | 27 | 11 | 37 | 0 | 8 | 164 | 0 | 172 | 0 | 229 | 8 | 0 | 237 | 446 |
| Total | 0 | 33 | 131 | 32 | 164 | 0 | 31 | 608 | 0 | 639 | 0 | 895 | 31 | 1 | 926 | 1729 |
| Approach % | 0.0 | 20.1 | 79.9 | - | - | 0.0 | 4.9 | 95.1 | - | - | 0.0 | 96.7 | 3.3 | - | - | - |
| Total % | 0.0 | 1.9 | 7.6 | - | 9.5 | 0.0 | 1.8 | 35.2 | - | 37.0 | 0.0 | 51.8 | 1.8 | - | 53.6 | - |
| PHF | 0.000 | 0.825 | 0.885 | - | 0.932 | 0.000 | 0.861 | 0.927 | - | 0.929 | 0.000 | 0.973 | 0.705 | - | 0.973 | 0.969 |
| Lights | 0 | 33 | 129 | - | 162 | 0 | 31 | 596 | - | 627 | 0 | 880 | 31 | - | 911 | 1700 |
| % Lights | - | 100.0 | 98.5 | - | 98.8 | - | 100.0 | 98.0 | - | 98.1 | - | 98.3 | 100.0 | - | 98.4 | 98.3 |
| Other Vehicles | 0 | 0 | 2 | - | 2 | 0 | 0 | 12 | - | 12 | 0 | 15 | 0 | - | 15 | 29 |
| % Other Vehicles | - | 0.0 | 1.5 | - | 1.2 | - | 0.0 | 2.0 | - | 1.9 | - | 1.7 | 0.0 | - | 1.6 | 1.7 |
| Pedestrians | - | - | - | 32 | - | - | - | - | 0 | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

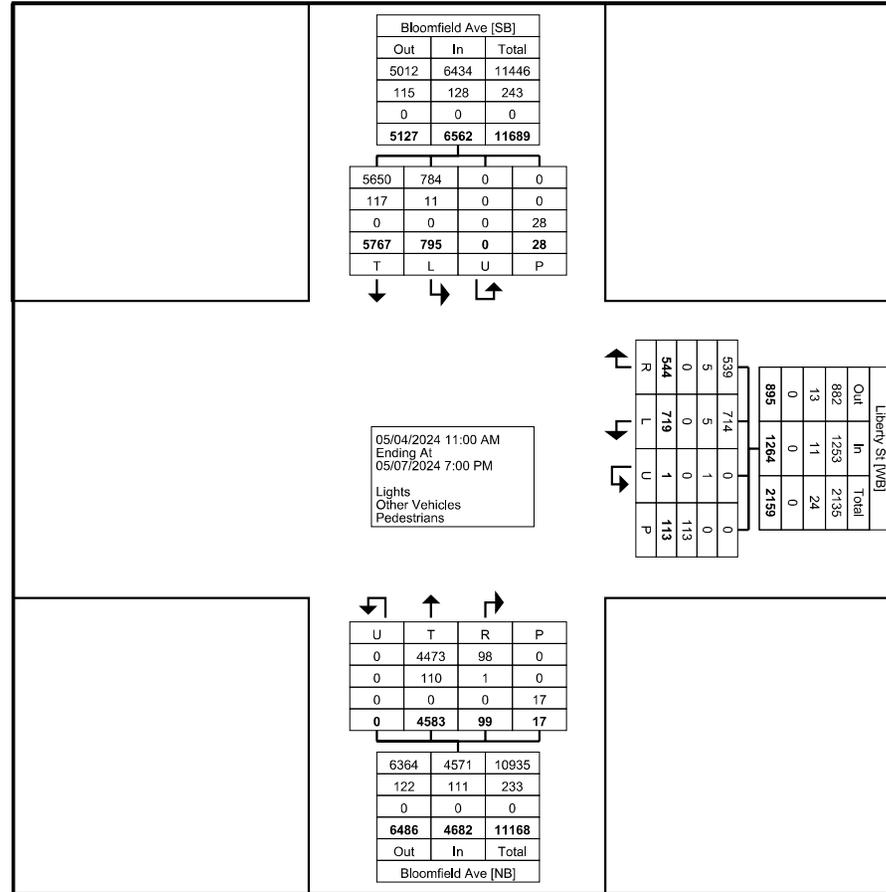


Turning Movement Peak Hour Data Plot (5:00 PM)

Turning Movement Data

| Start Time | Liberty St Westbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | | Int. Total |
|---------------|-------------------------|------|-------|------|------------|------------------------------|------|-------|------|------------|------------------------------|------|------|------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | |
| 11:00 AM | 0 | 21 | 11 | 3 | 32 | 0 | 150 | 4 | 0 | 154 | 0 | 20 | 185 | 0 | 205 | 391 |
| 11:15 AM | 0 | 17 | 18 | 2 | 35 | 0 | 139 | 1 | 0 | 140 | 0 | 13 | 143 | 0 | 156 | 331 |
| 11:30 AM | 0 | 18 | 15 | 6 | 33 | 0 | 140 | 3 | 1 | 143 | 0 | 25 | 164 | 1 | 189 | 365 |
| 11:45 AM | 0 | 29 | 23 | 3 | 52 | 0 | 104 | 1 | 0 | 105 | 0 | 16 | 160 | 7 | 176 | 333 |
| Hourly Total | 0 | 85 | 67 | 14 | 152 | 0 | 533 | 9 | 1 | 542 | 0 | 74 | 652 | 8 | 726 | 1420 |
| 12:00 PM | 0 | 23 | 16 | 9 | 39 | 0 | 196 | 4 | 2 | 200 | 0 | 20 | 175 | 0 | 195 | 434 |
| 12:15 PM | 0 | 24 | 17 | 3 | 41 | 0 | 123 | 3 | 0 | 126 | 0 | 25 | 177 | 0 | 202 | 369 |
| 12:30 PM | 0 | 14 | 14 | 10 | 28 | 0 | 153 | 1 | 5 | 154 | 0 | 12 | 222 | 0 | 234 | 416 |
| 12:45 PM | 0 | 19 | 19 | 2 | 38 | 0 | 158 | 2 | 2 | 160 | 0 | 20 | 172 | 0 | 192 | 390 |
| Hourly Total | 0 | 80 | 66 | 24 | 146 | 0 | 630 | 10 | 9 | 640 | 0 | 77 | 746 | 0 | 823 | 1609 |
| 1:00 PM | 0 | 21 | 12 | 3 | 33 | 0 | 133 | 4 | 0 | 137 | 0 | 21 | 172 | 0 | 193 | 363 |
| 1:15 PM | 0 | 21 | 13 | 3 | 34 | 0 | 130 | 3 | 0 | 133 | 0 | 21 | 198 | 0 | 219 | 386 |
| 1:30 PM | 0 | 18 | 18 | 8 | 36 | 0 | 144 | 5 | 1 | 149 | 0 | 22 | 198 | 0 | 220 | 405 |
| 1:45 PM | 0 | 20 | 16 | 3 | 36 | 0 | 150 | 5 | 0 | 155 | 0 | 22 | 180 | 0 | 202 | 393 |
| Hourly Total | 0 | 80 | 59 | 17 | 139 | 0 | 557 | 17 | 1 | 574 | 0 | 86 | 748 | 0 | 834 | 1547 |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 7:00 AM | 0 | 12 | 11 | 0 | 23 | 0 | 111 | 3 | 2 | 114 | 0 | 8 | 132 | 0 | 140 | 277 |
| 7:15 AM | 1 | 21 | 21 | 0 | 43 | 0 | 116 | 1 | 1 | 117 | 0 | 7 | 153 | 2 | 160 | 320 |
| 7:30 AM | 0 | 33 | 26 | 0 | 59 | 0 | 188 | 0 | 2 | 188 | 0 | 24 | 192 | 1 | 216 | 463 |
| 7:45 AM | 0 | 43 | 32 | 0 | 75 | 0 | 184 | 0 | 0 | 184 | 0 | 27 | 155 | 3 | 182 | 441 |
| Hourly Total | 1 | 109 | 90 | 0 | 200 | 0 | 599 | 4 | 5 | 603 | 0 | 66 | 632 | 6 | 698 | 1501 |
| 8:00 AM | 0 | 25 | 24 | 1 | 49 | 0 | 166 | 0 | 0 | 166 | 0 | 33 | 184 | 0 | 217 | 432 |
| 8:15 AM | 0 | 21 | 18 | 1 | 39 | 0 | 184 | 0 | 0 | 184 | 0 | 23 | 154 | 1 | 177 | 400 |
| 8:30 AM | 0 | 23 | 26 | 1 | 49 | 0 | 176 | 2 | 0 | 178 | 0 | 23 | 187 | 1 | 210 | 437 |
| 8:45 AM | 0 | 26 | 32 | 1 | 58 | 0 | 203 | 4 | 0 | 207 | 0 | 25 | 132 | 0 | 157 | 422 |
| Hourly Total | 0 | 95 | 100 | 4 | 195 | 0 | 729 | 6 | 0 | 735 | 0 | 104 | 657 | 2 | 761 | 1691 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:45 PM | 0 | 2 | 1 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 4 | 3 | 0 | 7 | 13 |
| Hourly Total | 0 | 2 | 1 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 4 | 3 | 0 | 7 | 13 |
| 4:00 PM | 0 | 23 | 12 | 2 | 35 | 0 | 125 | 2 | 0 | 127 | 0 | 31 | 217 | 0 | 248 | 410 |
| 4:15 PM | 0 | 16 | 16 | 3 | 32 | 0 | 125 | 2 | 0 | 127 | 0 | 35 | 207 | 0 | 242 | 401 |
| 4:30 PM | 0 | 21 | 17 | 1 | 38 | 0 | 131 | 4 | 0 | 135 | 0 | 28 | 192 | 1 | 220 | 393 |
| 4:45 PM | 0 | 24 | 13 | 0 | 37 | 0 | 103 | 2 | 0 | 105 | 0 | 35 | 227 | 0 | 262 | 404 |
| Hourly Total | 0 | 84 | 58 | 6 | 142 | 0 | 484 | 10 | 0 | 494 | 0 | 129 | 843 | 1 | 972 | 1608 |
| 5:00 PM | 0 | 18 | 12 | 5 | 30 | 0 | 141 | 8 | 0 | 149 | 0 | 29 | 217 | 6 | 246 | 425 |
| 5:15 PM | 0 | 23 | 17 | 5 | 40 | 0 | 123 | 5 | 0 | 128 | 0 | 47 | 202 | 0 | 249 | 417 |
| 5:30 PM | 0 | 39 | 13 | 2 | 52 | 0 | 137 | 6 | 0 | 143 | 0 | 44 | 211 | 1 | 255 | 450 |
| 5:45 PM | 0 | 25 | 18 | 7 | 43 | 0 | 117 | 8 | 0 | 125 | 0 | 37 | 192 | 3 | 229 | 397 |

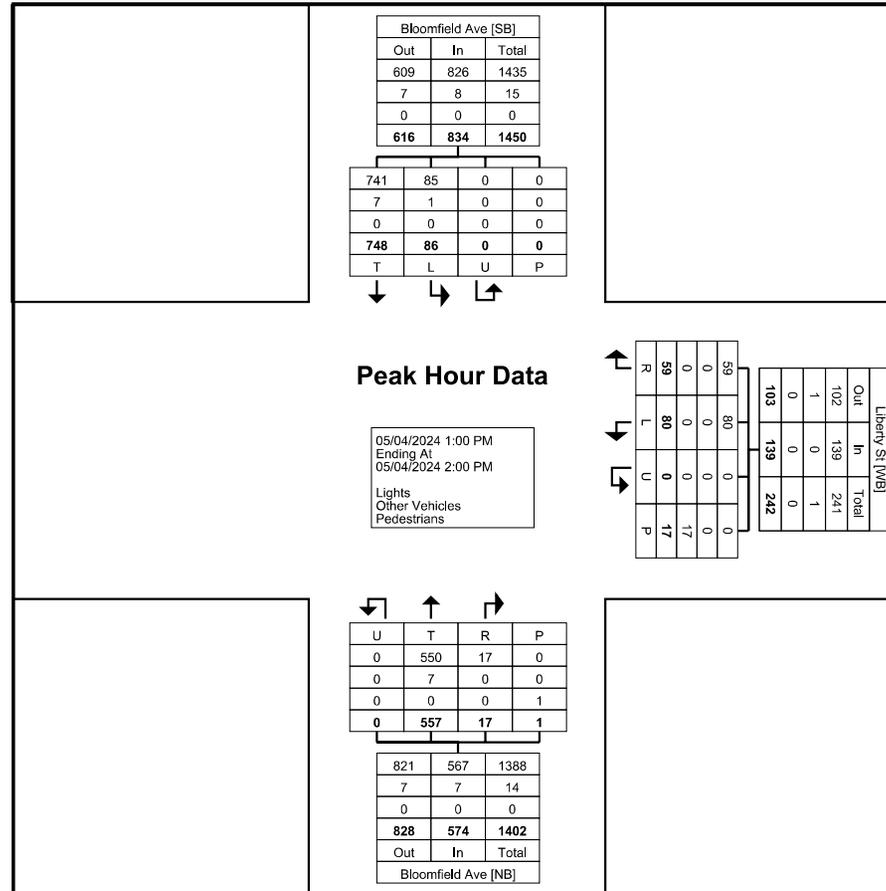
| | | | | | | | | | | | | | | | | |
|------------------|-------|------|------|-------|------|-----|------|------|-------|------|-----|------|------|-------|------|-------|
| Hourly Total | 0 | 105 | 60 | 19 | 165 | 0 | 518 | 27 | 0 | 545 | 0 | 157 | 822 | 10 | 979 | 1689 |
| 6:00 PM | 0 | 23 | 18 | 10 | 41 | 0 | 136 | 4 | 0 | 140 | 0 | 42 | 161 | 0 | 203 | 384 |
| 6:15 PM | 0 | 18 | 3 | 2 | 21 | 0 | 140 | 3 | 0 | 143 | 0 | 18 | 180 | 0 | 198 | 362 |
| 6:30 PM | 0 | 21 | 11 | 10 | 32 | 0 | 135 | 3 | 0 | 138 | 0 | 22 | 170 | 1 | 192 | 362 |
| 6:45 PM | 0 | 17 | 11 | 7 | 28 | 0 | 119 | 6 | 1 | 125 | 0 | 16 | 152 | 0 | 168 | 321 |
| Hourly Total | 0 | 79 | 43 | 29 | 122 | 0 | 530 | 16 | 1 | 546 | 0 | 98 | 663 | 1 | 761 | 1429 |
| Grand Total | 1 | 719 | 544 | 113 | 1264 | 0 | 4583 | 99 | 17 | 4682 | 0 | 795 | 5767 | 28 | 6562 | 12508 |
| Approach % | 0.1 | 56.9 | 43.0 | - | - | 0.0 | 97.9 | 2.1 | - | - | 0.0 | 12.1 | 87.9 | - | - | - |
| Total % | 0.0 | 5.7 | 4.3 | - | 10.1 | 0.0 | 36.6 | 0.8 | - | 37.4 | 0.0 | 6.4 | 46.1 | - | 52.5 | - |
| Lights | 0 | 714 | 539 | - | 1253 | 0 | 4473 | 98 | - | 4571 | 0 | 784 | 5650 | - | 6434 | 12258 |
| % Lights | 0.0 | 99.3 | 99.1 | - | 99.1 | - | 97.6 | 99.0 | - | 97.6 | - | 98.6 | 98.0 | - | 98.0 | 98.0 |
| Other Vehicles | 1 | 5 | 5 | - | 11 | 0 | 110 | 1 | - | 111 | 0 | 11 | 117 | - | 128 | 250 |
| % Other Vehicles | 100.0 | 0.7 | 0.9 | - | 0.9 | - | 2.4 | 1.0 | - | 2.4 | - | 1.4 | 2.0 | - | 2.0 | 2.0 |
| Pedestrians | - | - | - | 113 | - | - | - | - | 17 | - | - | - | - | 28 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |



Turning Movement Data Plot

Turning Movement Peak Hour Data (1:00 PM)

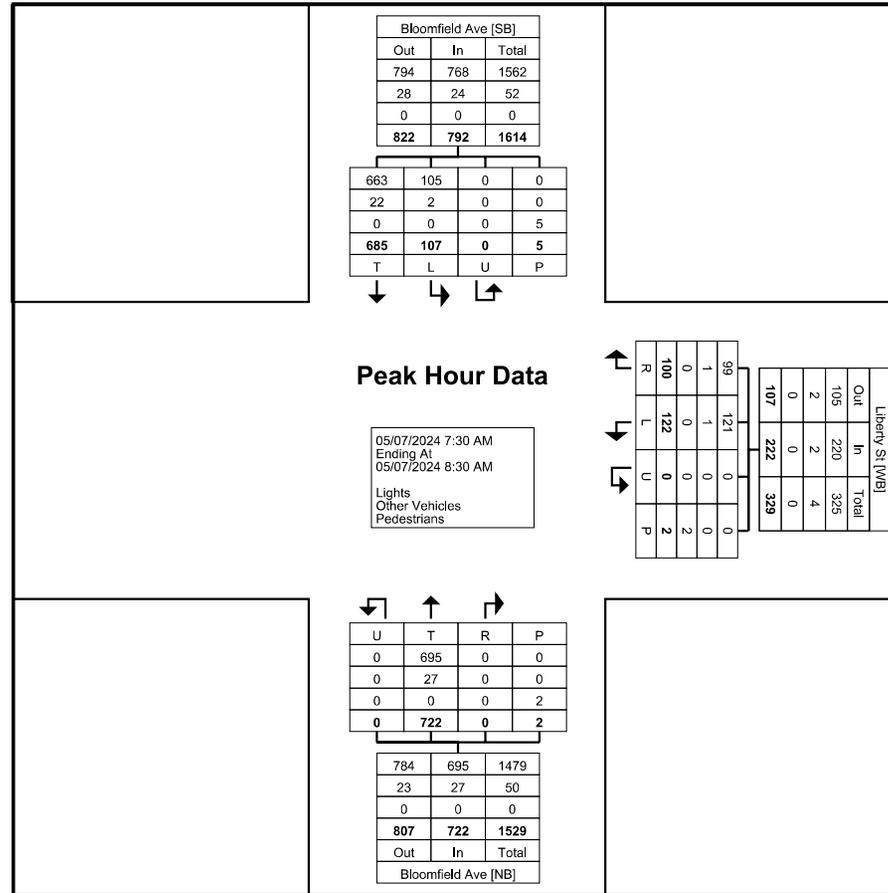
| Start Time | Liberty St Westbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | | Int. Total |
|------------------|-------------------------|-------|-------|-------|------------|------------------------------|-------|-------|-------|------------|------------------------------|-------|-------|------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | |
| 1:00 PM | 0 | 21 | 12 | 3 | 33 | 0 | 133 | 4 | 0 | 137 | 0 | 21 | 172 | 0 | 193 | 363 |
| 1:15 PM | 0 | 21 | 13 | 3 | 34 | 0 | 130 | 3 | 0 | 133 | 0 | 21 | 198 | 0 | 219 | 386 |
| 1:30 PM | 0 | 18 | 18 | 8 | 36 | 0 | 144 | 5 | 1 | 149 | 0 | 22 | 198 | 0 | 220 | 405 |
| 1:45 PM | 0 | 20 | 16 | 3 | 36 | 0 | 150 | 5 | 0 | 155 | 0 | 22 | 180 | 0 | 202 | 393 |
| Total | 0 | 80 | 59 | 17 | 139 | 0 | 557 | 17 | 1 | 574 | 0 | 86 | 748 | 0 | 834 | 1547 |
| Approach % | 0.0 | 57.6 | 42.4 | - | - | 0.0 | 97.0 | 3.0 | - | - | 0.0 | 10.3 | 89.7 | - | - | - |
| Total % | 0.0 | 5.2 | 3.8 | - | 9.0 | 0.0 | 36.0 | 1.1 | - | 37.1 | 0.0 | 5.6 | 48.4 | - | 53.9 | - |
| PHF | 0.000 | 0.952 | 0.819 | - | 0.965 | 0.000 | 0.928 | 0.850 | - | 0.926 | 0.000 | 0.977 | 0.944 | - | 0.948 | 0.955 |
| Lights | 0 | 80 | 59 | - | 139 | 0 | 550 | 17 | - | 567 | 0 | 85 | 741 | - | 826 | 1532 |
| % Lights | - | 100.0 | 100.0 | - | 100.0 | - | 98.7 | 100.0 | - | 98.8 | - | 98.8 | 99.1 | - | 99.0 | 99.0 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 0 | 7 | 0 | - | 7 | 0 | 1 | 7 | - | 8 | 15 |
| % Other Vehicles | - | 0.0 | 0.0 | - | 0.0 | - | 1.3 | 0.0 | - | 1.2 | - | 1.2 | 0.9 | - | 1.0 | 1.0 |
| Pedestrians | - | - | - | 17 | - | - | - | - | 1 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |



Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Liberty St Westbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | | Int. Total |
|------------------|-------------------------|-------|-------|-------|------------|------------------------------|-------|-------|-------|------------|------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | |
| 7:30 AM | 0 | 33 | 26 | 0 | 59 | 0 | 188 | 0 | 2 | 188 | 0 | 24 | 192 | 1 | 216 | 463 |
| 7:45 AM | 0 | 43 | 32 | 0 | 75 | 0 | 184 | 0 | 0 | 184 | 0 | 27 | 155 | 3 | 182 | 441 |
| 8:00 AM | 0 | 25 | 24 | 1 | 49 | 0 | 166 | 0 | 0 | 166 | 0 | 33 | 184 | 0 | 217 | 432 |
| 8:15 AM | 0 | 21 | 18 | 1 | 39 | 0 | 184 | 0 | 0 | 184 | 0 | 23 | 154 | 1 | 177 | 400 |
| Total | 0 | 122 | 100 | 2 | 222 | 0 | 722 | 0 | 2 | 722 | 0 | 107 | 685 | 5 | 792 | 1736 |
| Approach % | 0.0 | 55.0 | 45.0 | - | - | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 13.5 | 86.5 | - | - | - |
| Total % | 0.0 | 7.0 | 5.8 | - | 12.8 | 0.0 | 41.6 | 0.0 | - | 41.6 | 0.0 | 6.2 | 39.5 | - | 45.6 | - |
| PHF | 0.000 | 0.709 | 0.781 | - | 0.740 | 0.000 | 0.960 | 0.000 | - | 0.960 | 0.000 | 0.811 | 0.892 | - | 0.912 | 0.937 |
| Lights | 0 | 121 | 99 | - | 220 | 0 | 695 | 0 | - | 695 | 0 | 105 | 663 | - | 768 | 1683 |
| % Lights | - | 99.2 | 99.0 | - | 99.1 | - | 96.3 | - | - | 96.3 | - | 98.1 | 96.8 | - | 97.0 | 96.9 |
| Other Vehicles | 0 | 1 | 1 | - | 2 | 0 | 27 | 0 | - | 27 | 0 | 2 | 22 | - | 24 | 53 |
| % Other Vehicles | - | 0.8 | 1.0 | - | 0.9 | - | 3.7 | - | - | 3.7 | - | 1.9 | 3.2 | - | 3.0 | 3.1 |
| Pedestrians | - | - | - | 2 | - | - | - | - | 2 | - | - | - | - | 5 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (5:00 PM)

| Start Time | Liberty St Westbound | | | | | Bloomfield Ave Northbound | | | | | Bloomfield Ave Southbound | | | | Int. Total | |
|------------------|-------------------------|-------|-------|-------|------------|------------------------------|-------|-------|------|------------|------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | | App. Total |
| 5:00 PM | 0 | 18 | 12 | 5 | 30 | 0 | 141 | 8 | 0 | 149 | 0 | 29 | 217 | 6 | 246 | 425 |
| 5:15 PM | 0 | 23 | 17 | 5 | 40 | 0 | 123 | 5 | 0 | 128 | 0 | 47 | 202 | 0 | 249 | 417 |
| 5:30 PM | 0 | 39 | 13 | 2 | 52 | 0 | 137 | 6 | 0 | 143 | 0 | 44 | 211 | 1 | 255 | 450 |
| 5:45 PM | 0 | 25 | 18 | 7 | 43 | 0 | 117 | 8 | 0 | 125 | 0 | 37 | 192 | 3 | 229 | 397 |
| Total | 0 | 105 | 60 | 19 | 165 | 0 | 518 | 27 | 0 | 545 | 0 | 157 | 822 | 10 | 979 | 1689 |
| Approach % | 0.0 | 63.6 | 36.4 | - | - | 0.0 | 95.0 | 5.0 | - | - | 0.0 | 16.0 | 84.0 | - | - | - |
| Total % | 0.0 | 6.2 | 3.6 | - | 9.8 | 0.0 | 30.7 | 1.6 | - | 32.3 | 0.0 | 9.3 | 48.7 | - | 58.0 | - |
| PHF | 0.000 | 0.673 | 0.833 | - | 0.793 | 0.000 | 0.918 | 0.844 | - | 0.914 | 0.000 | 0.835 | 0.947 | - | 0.960 | 0.938 |
| Lights | 0 | 104 | 59 | - | 163 | 0 | 506 | 26 | - | 532 | 0 | 156 | 806 | - | 962 | 1657 |
| % Lights | - | 99.0 | 98.3 | - | 98.8 | - | 97.7 | 96.3 | - | 97.6 | - | 99.4 | 98.1 | - | 98.3 | 98.1 |
| Other Vehicles | 0 | 1 | 1 | - | 2 | 0 | 12 | 1 | - | 13 | 0 | 1 | 16 | - | 17 | 32 |
| % Other Vehicles | - | 1.0 | 1.7 | - | 1.2 | - | 2.3 | 3.7 | - | 2.4 | - | 0.6 | 1.9 | - | 1.7 | 1.9 |
| Pedestrians | - | - | - | 19 | - | - | - | - | 0 | - | - | - | - | 10 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

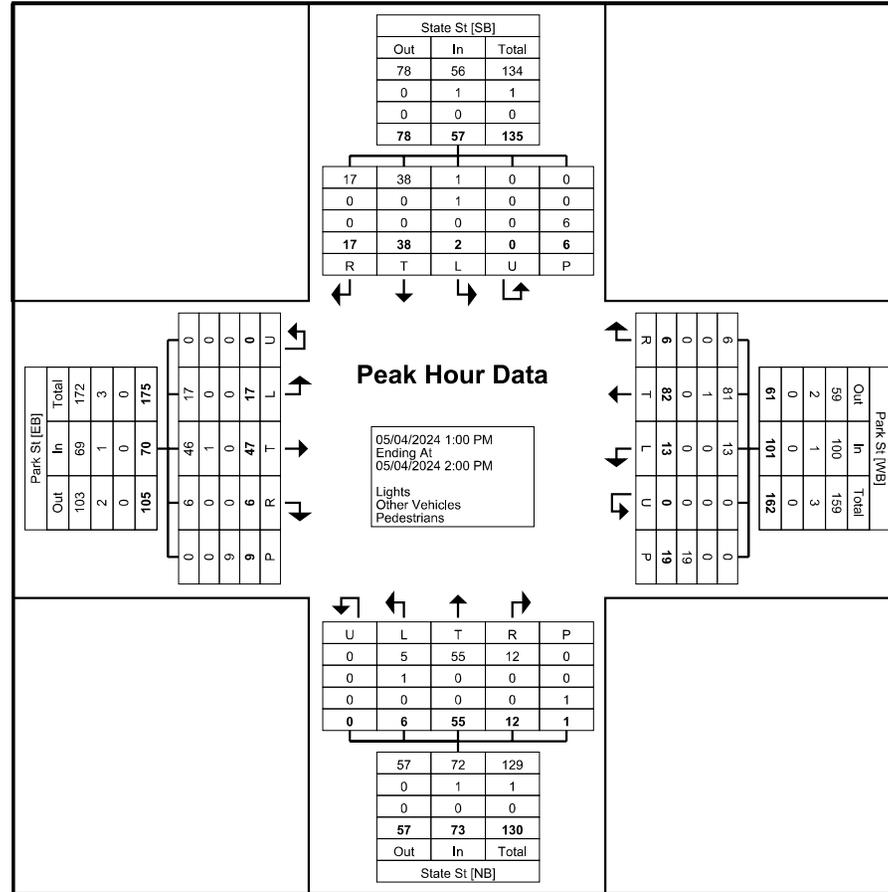
Turning Movement Data

| Start Time | Park St Eastbound | | | | | | Park St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|---------------|-------------------|------|------|-------|------|------------|-------------------|------|------|-------|------|------------|---------------------|------|------|-------|------|------------|---------------------|------|------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 11:00 AM | 0 | 1 | 4 | 1 | 1 | 6 | 0 | 1 | 25 | 2 | 6 | 28 | 0 | 1 | 21 | 4 | 2 | 26 | 0 | 2 | 13 | 3 | 1 | 18 | 78 |
| 11:15 AM | 0 | 3 | 14 | 2 | 2 | 19 | 0 | 4 | 34 | 2 | 0 | 40 | 0 | 1 | 9 | 2 | 3 | 12 | 0 | 0 | 13 | 8 | 0 | 21 | 92 |
| 11:30 AM | 0 | 1 | 8 | 0 | 1 | 9 | 0 | 7 | 31 | 2 | 3 | 40 | 0 | 2 | 18 | 6 | 1 | 26 | 0 | 2 | 5 | 6 | 2 | 13 | 88 |
| 11:45 AM | 0 | 0 | 10 | 3 | 2 | 13 | 0 | 12 | 21 | 1 | 4 | 34 | 0 | 1 | 11 | 1 | 4 | 13 | 0 | 2 | 8 | 2 | 1 | 12 | 72 |
| Hourly Total | 0 | 5 | 36 | 6 | 6 | 47 | 0 | 24 | 111 | 7 | 13 | 142 | 0 | 5 | 59 | 13 | 10 | 77 | 0 | 6 | 39 | 19 | 4 | 64 | 330 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12:45 PM | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 8 | 1 | 2 | 9 | 0 | 0 | 4 | 2 | 0 | 6 | 0 | 1 | 3 | 0 | 0 | 4 | 21 |
| Hourly Total | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 8 | 1 | 2 | 9 | 0 | 0 | 4 | 2 | 0 | 6 | 0 | 1 | 3 | 0 | 0 | 4 | 21 |
| 1:00 PM | 0 | 4 | 9 | 2 | 0 | 15 | 0 | 2 | 23 | 1 | 5 | 26 | 0 | 2 | 19 | 2 | 0 | 23 | 0 | 0 | 9 | 5 | 0 | 14 | 78 |
| 1:15 PM | 0 | 3 | 15 | 3 | 4 | 21 | 0 | 3 | 15 | 2 | 6 | 20 | 0 | 1 | 15 | 2 | 1 | 18 | 0 | 1 | 9 | 2 | 2 | 12 | 71 |
| 1:30 PM | 0 | 4 | 10 | 0 | 4 | 14 | 0 | 5 | 23 | 2 | 5 | 30 | 0 | 1 | 8 | 4 | 0 | 13 | 0 | 0 | 6 | 4 | 3 | 10 | 67 |
| 1:45 PM | 0 | 6 | 13 | 1 | 1 | 20 | 0 | 3 | 21 | 1 | 3 | 25 | 0 | 2 | 13 | 4 | 0 | 19 | 0 | 1 | 14 | 6 | 1 | 21 | 85 |
| Hourly Total | 0 | 17 | 47 | 6 | 9 | 70 | 0 | 13 | 82 | 6 | 19 | 101 | 0 | 6 | 55 | 12 | 1 | 73 | 0 | 2 | 38 | 17 | 6 | 57 | 301 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6:00 AM | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 1 | 3 | 1 | 0 | 5 | 0 | 0 | 4 | 0 | 1 | 4 | 0 | 0 | 2 | 3 | 1 | 5 | 19 |
| 6:15 AM | 0 | 1 | 7 | 0 | 1 | 8 | 0 | 1 | 4 | 1 | 0 | 6 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 2 | 18 |
| 6:30 AM | 0 | 1 | 7 | 1 | 0 | 9 | 0 | 1 | 10 | 1 | 1 | 12 | 0 | 0 | 5 | 2 | 0 | 7 | 0 | 0 | 8 | 0 | 2 | 8 | 36 |
| 6:45 AM | 0 | 2 | 3 | 1 | 0 | 6 | 0 | 5 | 12 | 2 | 3 | 19 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 6 | 4 | 0 | 10 | 43 |
| Hourly Total | 0 | 4 | 22 | 2 | 1 | 28 | 0 | 8 | 29 | 5 | 4 | 42 | 0 | 0 | 19 | 2 | 1 | 21 | 0 | 0 | 17 | 8 | 3 | 25 | 116 |
| 7:00 AM | 0 | 4 | 10 | 2 | 1 | 16 | 0 | 5 | 16 | 6 | 2 | 27 | 0 | 2 | 11 | 4 | 2 | 17 | 0 | 5 | 9 | 2 | 4 | 16 | 76 |
| 7:15 AM | 0 | 4 | 14 | 2 | 3 | 20 | 0 | 8 | 36 | 18 | 8 | 62 | 0 | 1 | 20 | 4 | 1 | 25 | 0 | 9 | 15 | 6 | 1 | 30 | 137 |
| 7:30 AM | 0 | 5 | 6 | 1 | 7 | 12 | 0 | 18 | 34 | 33 | 6 | 85 | 0 | 2 | 40 | 5 | 2 | 47 | 0 | 17 | 20 | 9 | 8 | 46 | 190 |
| 7:45 AM | 0 | 5 | 4 | 1 | 6 | 10 | 0 | 14 | 26 | 27 | 9 | 67 | 0 | 4 | 33 | 5 | 4 | 42 | 0 | 11 | 35 | 8 | 4 | 54 | 173 |
| Hourly Total | 0 | 18 | 34 | 6 | 17 | 58 | 0 | 45 | 112 | 84 | 25 | 241 | 0 | 9 | 104 | 18 | 9 | 131 | 0 | 42 | 79 | 25 | 17 | 146 | 576 |
| 8:00 AM | 0 | 6 | 11 | 2 | 4 | 19 | 0 | 5 | 21 | 12 | 6 | 38 | 0 | 3 | 24 | 1 | 2 | 28 | 0 | 6 | 16 | 2 | 3 | 24 | 109 |
| 8:15 AM | 0 | 7 | 8 | 2 | 1 | 17 | 0 | 5 | 31 | 8 | 8 | 44 | 0 | 1 | 12 | 4 | 2 | 17 | 0 | 2 | 17 | 2 | 2 | 21 | 99 |
| 8:30 AM | 0 | 3 | 15 | 2 | 3 | 20 | 0 | 1 | 31 | 12 | 5 | 44 | 0 | 1 | 17 | 2 | 3 | 20 | 0 | 4 | 15 | 4 | 1 | 23 | 107 |
| 8:45 AM | 0 | 1 | 11 | 2 | 0 | 14 | 0 | 10 | 24 | 8 | 4 | 42 | 0 | 1 | 15 | 4 | 5 | 20 | 0 | 5 | 14 | 5 | 2 | 24 | 100 |
| Hourly Total | 0 | 17 | 45 | 8 | 8 | 70 | 0 | 21 | 107 | 40 | 23 | 168 | 0 | 6 | 68 | 11 | 12 | 85 | 0 | 17 | 62 | 13 | 8 | 92 | 415 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:45 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 |
| Hourly Total | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 |
| 4:00 PM | 0 | 1 | 8 | 3 | 2 | 12 | 0 | 7 | 20 | 1 | 1 | 28 | 0 | 1 | 7 | 1 | 2 | 9 | 0 | 3 | 19 | 8 | 0 | 30 | 79 |
| 4:15 PM | 0 | 4 | 3 | 2 | 2 | 9 | 0 | 7 | 14 | 4 | 2 | 25 | 0 | 1 | 15 | 2 | 1 | 18 | 0 | 1 | 6 | 3 | 1 | 10 | 62 |
| 4:30 PM | 0 | 5 | 12 | 2 | 3 | 19 | 0 | 4 | 20 | 4 | 2 | 28 | 0 | 2 | 13 | 1 | 2 | 16 | 0 | 7 | 9 | 4 | 4 | 20 | 83 |
| 4:45 PM | 0 | 1 | 11 | 2 | 3 | 14 | 0 | 7 | 23 | 5 | 5 | 35 | 0 | 1 | 12 | 3 | 5 | 16 | 0 | 3 | 14 | 5 | 3 | 22 | 87 |
| Hourly Total | 0 | 11 | 34 | 9 | 10 | 54 | 0 | 25 | 77 | 14 | 10 | 116 | 0 | 5 | 47 | 7 | 10 | 59 | 0 | 14 | 48 | 20 | 8 | 82 | 311 |
| 5:00 PM | 0 | 4 | 9 | 2 | 4 | 15 | 0 | 3 | 24 | 3 | 6 | 30 | 0 | 4 | 33 | 1 | 2 | 38 | 0 | 1 | 16 | 6 | 1 | 23 | 106 |
| 5:15 PM | 0 | 2 | 14 | 3 | 4 | 19 | 0 | 4 | 23 | 7 | 2 | 34 | 0 | 2 | 7 | 2 | 3 | 11 | 0 | 2 | 12 | 4 | 3 | 18 | 82 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|-----|-------|------|------|-------|------|-------|------|------|------|-------|------|-----|------|------|------|-------|------|-----|------|------|-------|-------|------|------|
| 5:30 PM | 0 | 5 | 14 | 3 | 2 | 22 | 1 | 6 | 22 | 3 | 4 | 32 | 0 | 2 | 16 | 7 | 2 | 25 | 0 | 2 | 15 | 6 | 0 | 23 | 102 |
| 5:45 PM | 0 | 5 | 16 | 8 | 1 | 29 | 0 | 9 | 24 | 8 | 3 | 41 | 0 | 0 | 16 | 8 | 0 | 24 | 0 | 2 | 17 | 6 | 3 | 25 | 119 |
| Hourly Total | 0 | 16 | 53 | 16 | 11 | 85 | 1 | 22 | 93 | 21 | 15 | 137 | 0 | 8 | 72 | 18 | 7 | 98 | 0 | 7 | 60 | 22 | 7 | 89 | 409 |
| 6:00 PM | 0 | 1 | 11 | 4 | 1 | 16 | 0 | 10 | 21 | 4 | 11 | 35 | 0 | 1 | 16 | 3 | 8 | 20 | 0 | 3 | 7 | 3 | 1 | 13 | 84 |
| 6:15 PM | 0 | 1 | 11 | 2 | 0 | 14 | 0 | 2 | 23 | 5 | 1 | 30 | 0 | 0 | 13 | 4 | 0 | 17 | 0 | 0 | 5 | 4 | 1 | 9 | 70 |
| 6:30 PM | 0 | 4 | 9 | 2 | 1 | 15 | 0 | 6 | 16 | 0 | 5 | 22 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 16 | 6 | 3 | 22 | 74 |
| 6:45 PM | 0 | 3 | 8 | 3 | 5 | 14 | 1 | 7 | 19 | 2 | 7 | 29 | 0 | 2 | 7 | 2 | 2 | 11 | 0 | 0 | 8 | 6 | 0 | 14 | 68 |
| Hourly Total | 0 | 9 | 39 | 11 | 7 | 59 | 1 | 25 | 79 | 11 | 24 | 116 | 0 | 3 | 51 | 9 | 10 | 63 | 0 | 3 | 36 | 19 | 5 | 58 | 296 |
| Grand Total | 0 | 98 | 312 | 64 | 69 | 474 | 2 | 183 | 700 | 189 | 135 | 1074 | 0 | 42 | 479 | 92 | 60 | 613 | 0 | 92 | 383 | 143 | 58 | 618 | 2779 |
| Approach % | 0.0 | 20.7 | 65.8 | 13.5 | - | - | 0.2 | 17.0 | 65.2 | 17.6 | - | - | 0.0 | 6.9 | 78.1 | 15.0 | - | - | 0.0 | 14.9 | 62.0 | 23.1 | - | - | - |
| Total % | 0.0 | 3.5 | 11.2 | 2.3 | - | 17.1 | 0.1 | 6.6 | 25.2 | 6.8 | - | 38.6 | 0.0 | 1.5 | 17.2 | 3.3 | - | 22.1 | 0.0 | 3.3 | 13.8 | 5.1 | - | 22.2 | - |
| Lights | 0 | 98 | 309 | 63 | - | 470 | 2 | 180 | 694 | 182 | - | 1058 | 0 | 40 | 464 | 90 | - | 594 | 0 | 91 | 375 | 143 | - | 609 | 2731 |
| % Lights | - | 100.0 | 99.0 | 98.4 | - | 99.2 | 100.0 | 98.4 | 99.1 | 96.3 | - | 98.5 | - | 95.2 | 96.9 | 97.8 | - | 96.9 | - | 98.9 | 97.9 | 100.0 | - | 98.5 | 98.3 |
| Other Vehicles | 0 | 0 | 3 | 1 | - | 4 | 0 | 3 | 6 | 7 | - | 16 | 0 | 2 | 15 | 2 | - | 19 | 0 | 1 | 8 | 0 | - | 9 | 48 |
| % Other Vehicles | - | 0.0 | 1.0 | 1.6 | - | 0.8 | 0.0 | 1.6 | 0.9 | 3.7 | - | 1.5 | - | 4.8 | 3.1 | 2.2 | - | 3.1 | - | 1.1 | 2.1 | 0.0 | - | 1.5 | 1.7 |
| Pedestrians | - | - | - | - | 69 | - | - | - | - | - | 135 | - | - | - | - | - | 60 | - | - | - | - | - | 58 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Turning Movement Peak Hour Data (1:00 PM)

| Start Time | Park St Eastbound | | | | | | Park St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|-------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 1:00 PM | 0 | 4 | 9 | 2 | 0 | 15 | 0 | 2 | 23 | 1 | 5 | 26 | 0 | 2 | 19 | 2 | 0 | 23 | 0 | 0 | 9 | 5 | 0 | 14 | 78 |
| 1:15 PM | 0 | 3 | 15 | 3 | 4 | 21 | 0 | 3 | 15 | 2 | 6 | 20 | 0 | 1 | 15 | 2 | 1 | 18 | 0 | 1 | 9 | 2 | 2 | 12 | 71 |
| 1:30 PM | 0 | 4 | 10 | 0 | 4 | 14 | 0 | 5 | 23 | 2 | 5 | 30 | 0 | 1 | 8 | 4 | 0 | 13 | 0 | 0 | 6 | 4 | 3 | 10 | 67 |
| 1:45 PM | 0 | 6 | 13 | 1 | 1 | 20 | 0 | 3 | 21 | 1 | 3 | 25 | 0 | 2 | 13 | 4 | 0 | 19 | 0 | 1 | 14 | 6 | 1 | 21 | 85 |
| Total | 0 | 17 | 47 | 6 | 9 | 70 | 0 | 13 | 82 | 6 | 19 | 101 | 0 | 6 | 55 | 12 | 1 | 73 | 0 | 2 | 38 | 17 | 6 | 57 | 301 |
| Approach % | 0.0 | 24.3 | 67.1 | 8.6 | - | - | 0.0 | 12.9 | 81.2 | 5.9 | - | - | 0.0 | 8.2 | 75.3 | 16.4 | - | - | 0.0 | 3.5 | 66.7 | 29.8 | - | - | - |
| Total % | 0.0 | 5.6 | 15.6 | 2.0 | - | 23.3 | 0.0 | 4.3 | 27.2 | 2.0 | - | 33.6 | 0.0 | 2.0 | 18.3 | 4.0 | - | 24.3 | 0.0 | 0.7 | 12.6 | 5.6 | - | 18.9 | - |
| PHF | 0.000 | 0.708 | 0.783 | 0.500 | - | 0.833 | 0.000 | 0.650 | 0.891 | 0.750 | - | 0.842 | 0.000 | 0.750 | 0.724 | 0.750 | - | 0.793 | 0.000 | 0.500 | 0.679 | 0.708 | - | 0.679 | 0.885 |
| Lights | 0 | 17 | 46 | 6 | - | 69 | 0 | 13 | 81 | 6 | - | 100 | 0 | 5 | 55 | 12 | - | 72 | 0 | 1 | 38 | 17 | - | 56 | 297 |
| % Lights | - | 100.0 | 97.9 | 100.0 | - | 98.6 | - | 100.0 | 98.8 | 100.0 | - | 99.0 | - | 83.3 | 100.0 | 100.0 | - | 98.6 | - | 50.0 | 100.0 | 100.0 | - | 98.2 | 98.7 |
| Other Vehicles | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 4 |
| % Other Vehicles | - | 0.0 | 2.1 | 0.0 | - | 1.4 | - | 0.0 | 1.2 | 0.0 | - | 1.0 | - | 16.7 | 0.0 | 0.0 | - | 1.4 | - | 50.0 | 0.0 | 0.0 | - | 1.8 | 1.3 |
| Pedestrians | - | - | - | - | 9 | - | - | - | - | - | 19 | - | - | - | - | - | 1 | - | - | - | - | - | 6 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



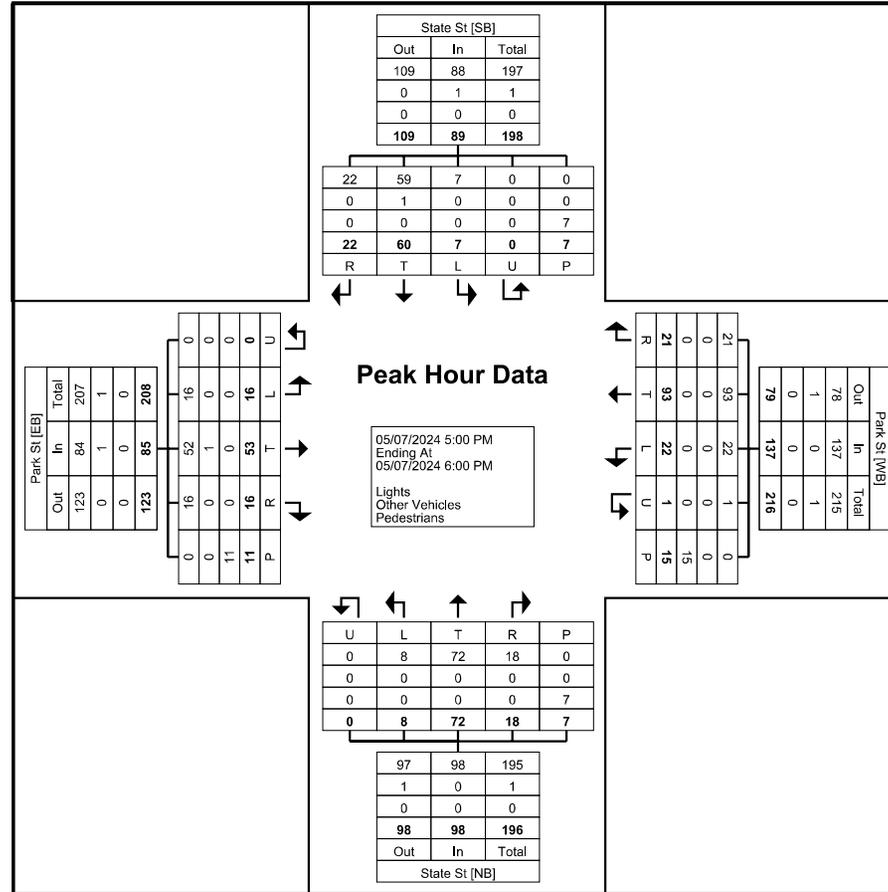
Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Park St Eastbound | | | | | | Park St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|-------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:30 AM | 0 | 5 | 6 | 1 | 7 | 12 | 0 | 18 | 34 | 33 | 6 | 85 | 0 | 2 | 40 | 5 | 2 | 47 | 0 | 17 | 20 | 9 | 8 | 46 | 190 |
| 7:45 AM | 0 | 5 | 4 | 1 | 6 | 10 | 0 | 14 | 26 | 27 | 9 | 67 | 0 | 4 | 33 | 5 | 4 | 42 | 0 | 11 | 35 | 8 | 4 | 54 | 173 |
| 8:00 AM | 0 | 6 | 11 | 2 | 4 | 19 | 0 | 5 | 21 | 12 | 6 | 38 | 0 | 3 | 24 | 1 | 2 | 28 | 0 | 6 | 16 | 2 | 3 | 24 | 109 |
| 8:15 AM | 0 | 7 | 8 | 2 | 1 | 17 | 0 | 5 | 31 | 8 | 8 | 44 | 0 | 1 | 12 | 4 | 2 | 17 | 0 | 2 | 17 | 2 | 2 | 21 | 99 |
| Total | 0 | 23 | 29 | 6 | 18 | 58 | 0 | 42 | 112 | 80 | 29 | 234 | 0 | 10 | 109 | 15 | 10 | 134 | 0 | 36 | 88 | 21 | 17 | 145 | 571 |
| Approach % | 0.0 | 39.7 | 50.0 | 10.3 | - | - | 0.0 | 17.9 | 47.9 | 34.2 | - | - | 0.0 | 7.5 | 81.3 | 11.2 | - | - | 0.0 | 24.8 | 60.7 | 14.5 | - | - | - |
| Total % | 0.0 | 4.0 | 5.1 | 1.1 | - | 10.2 | 0.0 | 7.4 | 19.6 | 14.0 | - | 41.0 | 0.0 | 1.8 | 19.1 | 2.6 | - | 23.5 | 0.0 | 6.3 | 15.4 | 3.7 | - | 25.4 | - |
| PHF | 0.000 | 0.821 | 0.659 | 0.750 | - | 0.763 | 0.000 | 0.583 | 0.824 | 0.606 | - | 0.688 | 0.000 | 0.625 | 0.681 | 0.750 | - | 0.713 | 0.000 | 0.529 | 0.629 | 0.583 | - | 0.671 | 0.751 |
| Lights | 0 | 23 | 28 | 5 | - | 56 | 0 | 41 | 110 | 78 | - | 229 | 0 | 9 | 103 | 14 | - | 126 | 0 | 36 | 84 | 21 | - | 141 | 552 |
| % Lights | - | 100.0 | 96.6 | 83.3 | - | 96.6 | - | 97.6 | 98.2 | 97.5 | - | 97.9 | - | 90.0 | 94.5 | 93.3 | - | 94.0 | - | 100.0 | 95.5 | 100.0 | - | 97.2 | 96.7 |
| Other Vehicles | 0 | 0 | 1 | 1 | - | 2 | 0 | 1 | 2 | 2 | - | 5 | 0 | 1 | 6 | 1 | - | 8 | 0 | 0 | 4 | 0 | - | 4 | 19 |
| % Other Vehicles | - | 0.0 | 3.4 | 16.7 | - | 3.4 | - | 2.4 | 1.8 | 2.5 | - | 2.1 | - | 10.0 | 5.5 | 6.7 | - | 6.0 | - | 0.0 | 4.5 | 0.0 | - | 2.8 | 3.3 |
| Pedestrians | - | - | - | - | 18 | - | - | - | - | - | 29 | - | - | - | - | - | 10 | - | - | - | - | - | 17 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Turning Movement Peak Hour Data (5:00 PM)

| Start Time | Park St Eastbound | | | | | | Park St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|-------------------|-------|-------|-------|-------|------------|-------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 5:00 PM | 0 | 4 | 9 | 2 | 4 | 15 | 0 | 3 | 24 | 3 | 6 | 30 | 0 | 4 | 33 | 1 | 2 | 38 | 0 | 1 | 16 | 6 | 1 | 23 | 106 |
| 5:15 PM | 0 | 2 | 14 | 3 | 4 | 19 | 0 | 4 | 23 | 7 | 2 | 34 | 0 | 2 | 7 | 2 | 3 | 11 | 0 | 2 | 12 | 4 | 3 | 18 | 82 |
| 5:30 PM | 0 | 5 | 14 | 3 | 2 | 22 | 1 | 6 | 22 | 3 | 4 | 32 | 0 | 2 | 16 | 7 | 2 | 25 | 0 | 2 | 15 | 6 | 0 | 23 | 102 |
| 5:45 PM | 0 | 5 | 16 | 8 | 1 | 29 | 0 | 9 | 24 | 8 | 3 | 41 | 0 | 0 | 16 | 8 | 0 | 24 | 0 | 2 | 17 | 6 | 3 | 25 | 119 |
| Total | 0 | 16 | 53 | 16 | 11 | 85 | 1 | 22 | 93 | 21 | 15 | 137 | 0 | 8 | 72 | 18 | 7 | 98 | 0 | 7 | 60 | 22 | 7 | 89 | 409 |
| Approach % | 0.0 | 18.8 | 62.4 | 18.8 | - | - | 0.7 | 16.1 | 67.9 | 15.3 | - | - | 0.0 | 8.2 | 73.5 | 18.4 | - | - | 0.0 | 7.9 | 67.4 | 24.7 | - | - | - |
| Total % | 0.0 | 3.9 | 13.0 | 3.9 | - | 20.8 | 0.2 | 5.4 | 22.7 | 5.1 | - | 33.5 | 0.0 | 2.0 | 17.6 | 4.4 | - | 24.0 | 0.0 | 1.7 | 14.7 | 5.4 | - | 21.8 | - |
| PHF | 0.000 | 0.800 | 0.828 | 0.500 | - | 0.733 | 0.250 | 0.611 | 0.969 | 0.656 | - | 0.835 | 0.000 | 0.500 | 0.545 | 0.563 | - | 0.645 | 0.000 | 0.875 | 0.882 | 0.917 | - | 0.890 | 0.859 |
| Lights | 0 | 16 | 52 | 16 | - | 84 | 1 | 22 | 93 | 21 | - | 137 | 0 | 8 | 72 | 18 | - | 98 | 0 | 7 | 59 | 22 | - | 88 | 407 |
| % Lights | - | 100.0 | 98.1 | 100.0 | - | 98.8 | 100.0 | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 98.3 | 100.0 | - | 98.9 | 99.5 |
| Other Vehicles | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 2 |
| % Other Vehicles | - | 0.0 | 1.9 | 0.0 | - | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 1.7 | 0.0 | - | 1.1 | 0.5 |
| Pedestrians | - | - | - | - | 11 | - | - | - | - | - | 15 | - | - | - | - | - | 7 | - | - | - | - | - | 7 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

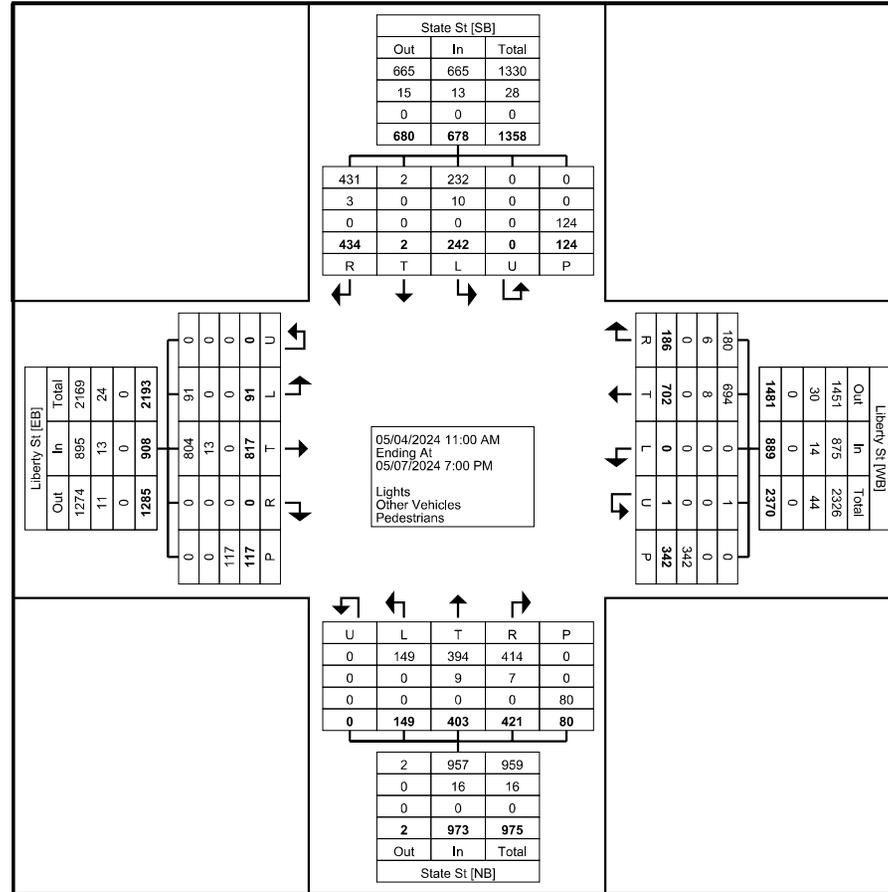


Turning Movement Peak Hour Data Plot (5:00 PM)

Turning Movement Data

| Start Time | Liberty St Eastbound | | | | | | Liberty St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|---------------|----------------------|------|------|-------|------|------------|----------------------|------|------|-------|------|------------|---------------------|------|------|-------|------|------------|---------------------|------|------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 11:00 AM | 0 | 9 | 15 | 0 | 3 | 24 | 0 | 0 | 15 | 4 | 13 | 19 | 0 | 7 | 13 | 8 | 6 | 28 | 0 | 7 | 0 | 11 | 12 | 18 | 89 |
| 11:15 AM | 0 | 1 | 13 | 0 | 9 | 14 | 0 | 0 | 14 | 4 | 12 | 18 | 0 | 6 | 10 | 17 | 1 | 33 | 0 | 6 | 0 | 15 | 7 | 21 | 86 |
| 11:30 AM | 0 | 6 | 23 | 0 | 3 | 29 | 0 | 0 | 23 | 3 | 13 | 26 | 0 | 5 | 14 | 11 | 2 | 30 | 0 | 4 | 0 | 3 | 3 | 7 | 92 |
| 11:45 AM | 0 | 0 | 17 | 0 | 5 | 17 | 0 | 0 | 25 | 1 | 33 | 26 | 0 | 9 | 14 | 17 | 7 | 40 | 0 | 9 | 0 | 16 | 9 | 25 | 108 |
| Hourly Total | 0 | 16 | 68 | 0 | 20 | 84 | 0 | 0 | 77 | 12 | 71 | 89 | 0 | 27 | 51 | 53 | 16 | 131 | 0 | 26 | 0 | 45 | 31 | 71 | 375 |
| 12:00 PM | 0 | 5 | 19 | 0 | 9 | 24 | 0 | 0 | 9 | 4 | 16 | 13 | 0 | 5 | 20 | 16 | 4 | 41 | 0 | 6 | 0 | 19 | 6 | 25 | 103 |
| 12:15 PM | 0 | 7 | 21 | 0 | 2 | 28 | 0 | 0 | 19 | 1 | 19 | 20 | 0 | 11 | 13 | 13 | 0 | 37 | 0 | 10 | 0 | 16 | 11 | 26 | 111 |
| 12:30 PM | 0 | 1 | 12 | 0 | 1 | 13 | 1 | 0 | 13 | 3 | 16 | 17 | 0 | 6 | 11 | 11 | 2 | 28 | 0 | 2 | 0 | 8 | 8 | 10 | 68 |
| 12:45 PM | 0 | 3 | 19 | 0 | 5 | 22 | 0 | 0 | 22 | 6 | 16 | 28 | 0 | 6 | 12 | 19 | 1 | 37 | 0 | 5 | 0 | 12 | 6 | 17 | 104 |
| Hourly Total | 0 | 16 | 71 | 0 | 17 | 87 | 1 | 0 | 63 | 14 | 67 | 78 | 0 | 28 | 56 | 59 | 7 | 143 | 0 | 23 | 0 | 55 | 31 | 78 | 386 |
| 1:00 PM | 0 | 5 | 21 | 0 | 1 | 26 | 0 | 0 | 19 | 6 | 10 | 25 | 0 | 3 | 18 | 13 | 0 | 34 | 0 | 4 | 0 | 13 | 1 | 17 | 102 |
| 1:15 PM | 0 | 4 | 20 | 0 | 0 | 24 | 0 | 0 | 15 | 2 | 22 | 17 | 0 | 7 | 9 | 16 | 2 | 32 | 0 | 5 | 0 | 12 | 11 | 17 | 90 |
| 1:30 PM | 0 | 3 | 24 | 0 | 2 | 27 | 0 | 0 | 24 | 8 | 14 | 32 | 0 | 5 | 6 | 14 | 2 | 25 | 0 | 4 | 0 | 11 | 6 | 15 | 99 |
| 1:45 PM | 0 | 3 | 26 | 0 | 2 | 29 | 0 | 0 | 18 | 5 | 18 | 23 | 0 | 5 | 11 | 12 | 1 | 28 | 0 | 8 | 0 | 18 | 1 | 26 | 106 |
| Hourly Total | 0 | 15 | 91 | 0 | 5 | 106 | 0 | 0 | 76 | 21 | 64 | 97 | 0 | 20 | 44 | 55 | 5 | 119 | 0 | 21 | 0 | 54 | 19 | 75 | 397 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7:00 AM | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 15 | 5 | 3 | 20 | 0 | 1 | 12 | 4 | 4 | 17 | 0 | 8 | 0 | 8 | 1 | 16 | 66 |
| 7:15 AM | 0 | 1 | 10 | 0 | 5 | 11 | 0 | 0 | 26 | 6 | 6 | 32 | 0 | 2 | 17 | 4 | 3 | 23 | 0 | 11 | 0 | 16 | 3 | 27 | 93 |
| 7:30 AM | 0 | 2 | 23 | 0 | 4 | 25 | 0 | 0 | 34 | 18 | 9 | 52 | 0 | 0 | 28 | 7 | 1 | 35 | 0 | 10 | 0 | 26 | 1 | 36 | 148 |
| 7:45 AM | 0 | 3 | 26 | 0 | 0 | 29 | 0 | 0 | 50 | 10 | 5 | 60 | 0 | 1 | 30 | 9 | 4 | 40 | 0 | 16 | 1 | 29 | 3 | 46 | 175 |
| Hourly Total | 0 | 6 | 72 | 0 | 9 | 78 | 0 | 0 | 125 | 39 | 23 | 164 | 0 | 4 | 87 | 24 | 12 | 115 | 0 | 45 | 1 | 79 | 8 | 125 | 482 |
| 8:00 AM | 0 | 4 | 29 | 0 | 0 | 33 | 0 | 0 | 29 | 9 | 4 | 38 | 0 | 1 | 14 | 6 | 1 | 21 | 0 | 10 | 0 | 18 | 2 | 28 | 120 |
| 8:15 AM | 0 | 1 | 19 | 0 | 5 | 20 | 0 | 0 | 28 | 6 | 6 | 34 | 0 | 1 | 11 | 4 | 4 | 16 | 0 | 9 | 0 | 14 | 2 | 23 | 93 |
| 8:30 AM | 0 | 1 | 25 | 0 | 0 | 26 | 0 | 0 | 31 | 6 | 8 | 37 | 0 | 2 | 13 | 10 | 3 | 25 | 0 | 4 | 0 | 12 | 0 | 16 | 104 |
| 8:45 AM | 0 | 6 | 24 | 0 | 2 | 30 | 0 | 0 | 32 | 3 | 2 | 35 | 0 | 6 | 11 | 5 | 0 | 22 | 0 | 6 | 0 | 17 | 4 | 23 | 110 |
| Hourly Total | 0 | 12 | 97 | 0 | 7 | 109 | 0 | 0 | 120 | 24 | 20 | 144 | 0 | 10 | 49 | 25 | 8 | 84 | 0 | 29 | 0 | 61 | 8 | 90 | 427 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:45 PM | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 8 |
| Hourly Total | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 8 |
| 4:00 PM | 0 | 0 | 33 | 0 | 2 | 33 | 0 | 0 | 17 | 3 | 6 | 20 | 0 | 3 | 8 | 10 | 6 | 21 | 0 | 13 | 0 | 15 | 2 | 28 | 102 |
| 4:15 PM | 0 | 0 | 38 | 0 | 10 | 38 | 0 | 0 | 22 | 7 | 10 | 29 | 0 | 5 | 6 | 9 | 1 | 20 | 0 | 8 | 0 | 8 | 5 | 16 | 103 |
| 4:30 PM | 0 | 2 | 30 | 0 | 2 | 32 | 0 | 0 | 24 | 5 | 9 | 29 | 0 | 5 | 10 | 21 | 0 | 36 | 0 | 7 | 0 | 11 | 3 | 18 | 115 |
| 4:45 PM | 0 | 5 | 33 | 0 | 0 | 38 | 0 | 0 | 21 | 5 | 8 | 26 | 0 | 3 | 11 | 19 | 3 | 33 | 0 | 11 | 0 | 12 | 0 | 23 | 120 |
| Hourly Total | 0 | 7 | 134 | 0 | 14 | 141 | 0 | 0 | 84 | 20 | 33 | 104 | 0 | 16 | 35 | 59 | 10 | 110 | 0 | 39 | 0 | 46 | 10 | 85 | 440 |
| 5:00 PM | 0 | 4 | 33 | 0 | 25 | 37 | 0 | 0 | 16 | 12 | 15 | 28 | 0 | 4 | 13 | 18 | 6 | 35 | 0 | 8 | 1 | 10 | 4 | 19 | 119 |
| 5:15 PM | 0 | 3 | 48 | 0 | 3 | 51 | 0 | 0 | 29 | 7 | 4 | 36 | 0 | 3 | 3 | 17 | 3 | 23 | 0 | 9 | 0 | 13 | 1 | 22 | 132 |
| 5:30 PM | 0 | 4 | 46 | 0 | 1 | 50 | 0 | 0 | 26 | 9 | 6 | 35 | 0 | 9 | 12 | 20 | 1 | 41 | 0 | 8 | 0 | 15 | 1 | 23 | 149 |
| 5:45 PM | 0 | 2 | 44 | 0 | 0 | 46 | 0 | 0 | 23 | 5 | 6 | 28 | 0 | 6 | 15 | 20 | 4 | 41 | 0 | 16 | 0 | 17 | 1 | 33 | 148 |
| Hourly Total | 0 | 13 | 171 | 0 | 29 | 184 | 0 | 0 | 94 | 33 | 31 | 127 | 0 | 22 | 43 | 75 | 14 | 140 | 0 | 41 | 1 | 55 | 7 | 97 | 548 |

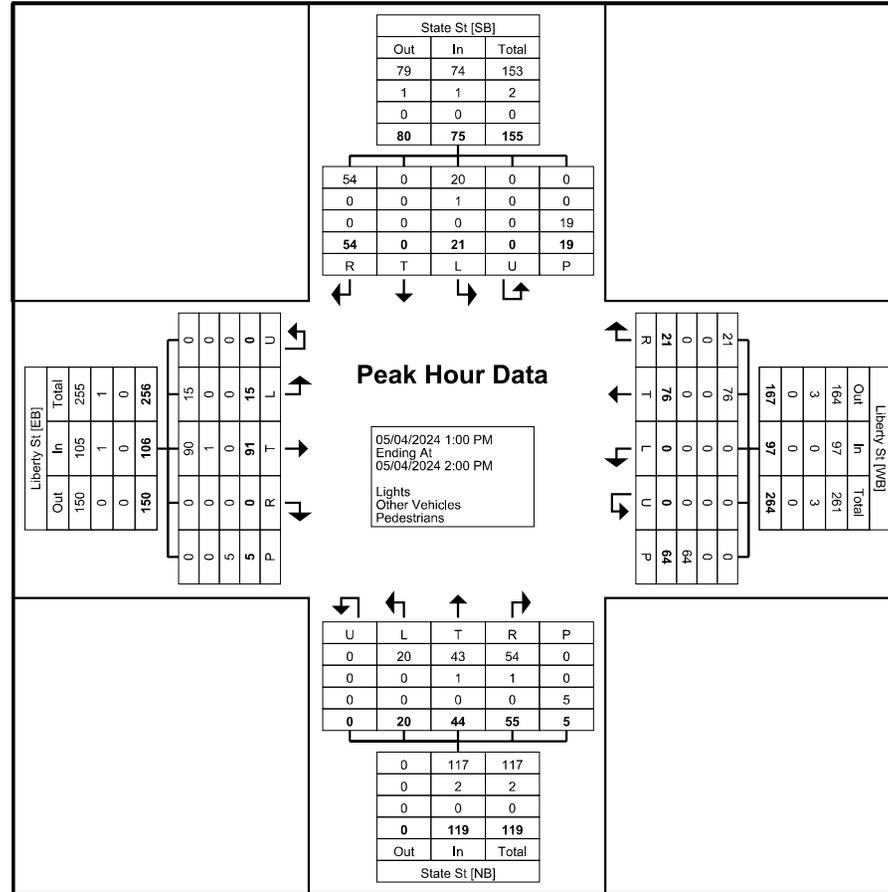
| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|-----|-------|------|-----|-------|------|-------|-----|------|------|-------|------|-----|-------|------|------|-------|------|-----|------|-------|------|-------|------|------|
| 6:00 PM | 0 | 3 | 43 | 0 | 4 | 46 | 0 | 0 | 17 | 7 | 7 | 24 | 0 | 10 | 10 | 21 | 2 | 41 | 0 | 2 | 0 | 17 | 3 | 19 | 130 |
| 6:15 PM | 0 | 2 | 20 | 0 | 8 | 22 | 0 | 0 | 12 | 3 | 10 | 15 | 0 | 2 | 10 | 10 | 3 | 22 | 0 | 3 | 0 | 6 | 5 | 9 | 68 |
| 6:30 PM | 0 | 1 | 26 | 0 | 1 | 27 | 0 | 0 | 19 | 4 | 9 | 23 | 0 | 5 | 9 | 16 | 2 | 30 | 0 | 10 | 0 | 7 | 2 | 17 | 97 |
| 6:45 PM | 0 | 0 | 20 | 0 | 3 | 20 | 0 | 0 | 14 | 9 | 7 | 23 | 0 | 4 | 9 | 23 | 1 | 36 | 0 | 3 | 0 | 8 | 0 | 11 | 90 |
| Hourly Total | 0 | 6 | 109 | 0 | 16 | 115 | 0 | 0 | 62 | 23 | 33 | 85 | 0 | 21 | 38 | 70 | 8 | 129 | 0 | 18 | 0 | 38 | 10 | 56 | 385 |
| Grand Total | 0 | 91 | 817 | 0 | 117 | 908 | 1 | 0 | 702 | 186 | 342 | 889 | 0 | 149 | 403 | 421 | 80 | 973 | 0 | 242 | 2 | 434 | 124 | 678 | 3448 |
| Approach % | 0.0 | 10.0 | 90.0 | 0.0 | - | - | 0.1 | 0.0 | 79.0 | 20.9 | - | - | 0.0 | 15.3 | 41.4 | 43.3 | - | - | 0.0 | 35.7 | 0.3 | 64.0 | - | - | - |
| Total % | 0.0 | 2.6 | 23.7 | 0.0 | - | 26.3 | 0.0 | 0.0 | 20.4 | 5.4 | - | 25.8 | 0.0 | 4.3 | 11.7 | 12.2 | - | 28.2 | 0.0 | 7.0 | 0.1 | 12.6 | - | 19.7 | - |
| Lights | 0 | 91 | 804 | 0 | - | 895 | 1 | 0 | 694 | 180 | - | 875 | 0 | 149 | 394 | 414 | - | 957 | 0 | 232 | 2 | 431 | - | 665 | 3392 |
| % Lights | - | 100.0 | 98.4 | - | - | 98.6 | 100.0 | - | 98.9 | 96.8 | - | 98.4 | - | 100.0 | 97.8 | 98.3 | - | 98.4 | - | 95.9 | 100.0 | 99.3 | - | 98.1 | 98.4 |
| Other Vehicles | 0 | 0 | 13 | 0 | - | 13 | 0 | 0 | 8 | 6 | - | 14 | 0 | 0 | 9 | 7 | - | 16 | 0 | 10 | 0 | 3 | - | 13 | 56 |
| % Other Vehicles | - | 0.0 | 1.6 | - | - | 1.4 | 0.0 | - | 1.1 | 3.2 | - | 1.6 | - | 0.0 | 2.2 | 1.7 | - | 1.6 | - | 4.1 | 0.0 | 0.7 | - | 1.9 | 1.6 |
| Pedestrians | - | - | - | - | 117 | - | - | - | - | - | 342 | - | - | - | - | - | 80 | - | - | - | - | - | 124 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Data Plot

Turning Movement Peak Hour Data (1:00 PM)

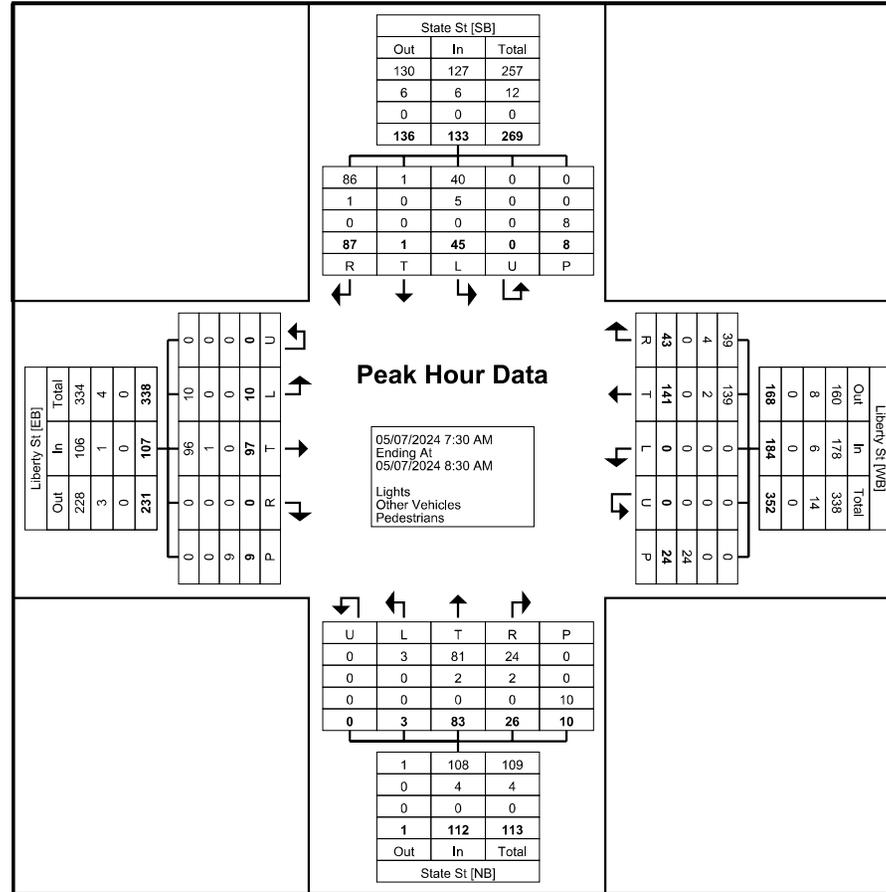
| Start Time | Liberty St Eastbound | | | | | | Liberty St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|----------------------|-------|-------|-------|-------|------------|----------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 1:00 PM | 0 | 5 | 21 | 0 | 1 | 26 | 0 | 0 | 19 | 6 | 10 | 25 | 0 | 3 | 18 | 13 | 0 | 34 | 0 | 4 | 0 | 13 | 1 | 17 | 102 |
| 1:15 PM | 0 | 4 | 20 | 0 | 0 | 24 | 0 | 0 | 15 | 2 | 22 | 17 | 0 | 7 | 9 | 16 | 2 | 32 | 0 | 5 | 0 | 12 | 11 | 17 | 90 |
| 1:30 PM | 0 | 3 | 24 | 0 | 2 | 27 | 0 | 0 | 24 | 8 | 14 | 32 | 0 | 5 | 6 | 14 | 2 | 25 | 0 | 4 | 0 | 11 | 6 | 15 | 99 |
| 1:45 PM | 0 | 3 | 26 | 0 | 2 | 29 | 0 | 0 | 18 | 5 | 18 | 23 | 0 | 5 | 11 | 12 | 1 | 28 | 0 | 8 | 0 | 18 | 1 | 26 | 106 |
| Total | 0 | 15 | 91 | 0 | 5 | 106 | 0 | 0 | 76 | 21 | 64 | 97 | 0 | 20 | 44 | 55 | 5 | 119 | 0 | 21 | 0 | 54 | 19 | 75 | 397 |
| Approach % | 0.0 | 14.2 | 85.8 | 0.0 | - | - | 0.0 | 0.0 | 78.4 | 21.6 | - | - | 0.0 | 16.8 | 37.0 | 46.2 | - | - | 0.0 | 28.0 | 0.0 | 72.0 | - | - | - |
| Total % | 0.0 | 3.8 | 22.9 | 0.0 | - | 26.7 | 0.0 | 0.0 | 19.1 | 5.3 | - | 24.4 | 0.0 | 5.0 | 11.1 | 13.9 | - | 30.0 | 0.0 | 5.3 | 0.0 | 13.6 | - | 18.9 | - |
| PHF | 0.000 | 0.750 | 0.875 | 0.000 | - | 0.914 | 0.000 | 0.000 | 0.792 | 0.656 | - | 0.758 | 0.000 | 0.714 | 0.611 | 0.859 | - | 0.875 | 0.000 | 0.656 | 0.000 | 0.750 | - | 0.721 | 0.936 |
| Lights | 0 | 15 | 90 | 0 | - | 105 | 0 | 0 | 76 | 21 | - | 97 | 0 | 20 | 43 | 54 | - | 117 | 0 | 20 | 0 | 54 | - | 74 | 393 |
| % Lights | - | 100.0 | 98.9 | - | - | 99.1 | - | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 97.7 | 98.2 | - | 98.3 | - | 95.2 | - | 100.0 | - | 98.7 | 99.0 |
| Other Vehicles | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 1 | - | 2 | 0 | 1 | 0 | 0 | - | 1 | 4 |
| % Other Vehicles | - | 0.0 | 1.1 | - | - | 0.9 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 2.3 | 1.8 | - | 1.7 | - | 4.8 | - | 0.0 | - | 1.3 | 1.0 |
| Pedestrians | - | - | - | - | 5 | - | - | - | - | - | 64 | - | - | - | - | - | 5 | - | - | - | - | - | 19 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (7:30 AM)

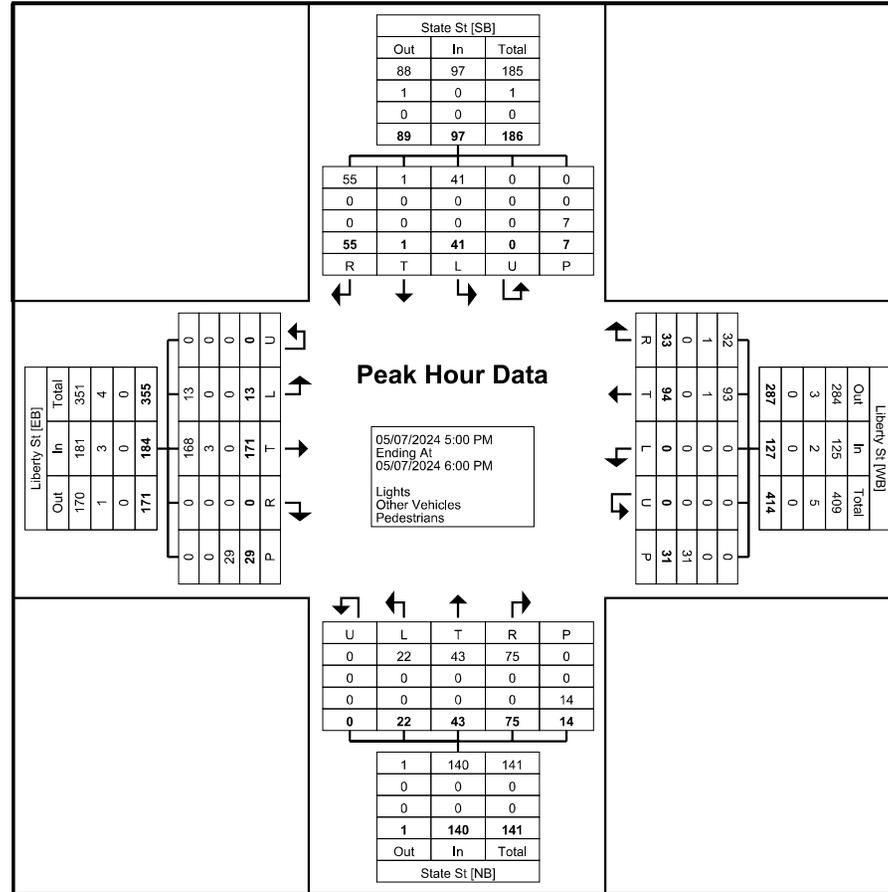
| Start Time | Liberty St Eastbound | | | | | | Liberty St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|----------------------|-------|-------|-------|-------|------------|----------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:30 AM | 0 | 2 | 23 | 0 | 4 | 25 | 0 | 0 | 34 | 18 | 9 | 52 | 0 | 0 | 28 | 7 | 1 | 35 | 0 | 10 | 0 | 26 | 1 | 36 | 148 |
| 7:45 AM | 0 | 3 | 26 | 0 | 0 | 29 | 0 | 0 | 50 | 10 | 5 | 60 | 0 | 1 | 30 | 9 | 4 | 40 | 0 | 16 | 1 | 29 | 3 | 46 | 175 |
| 8:00 AM | 0 | 4 | 29 | 0 | 0 | 33 | 0 | 0 | 29 | 9 | 4 | 38 | 0 | 1 | 14 | 6 | 1 | 21 | 0 | 10 | 0 | 18 | 2 | 28 | 120 |
| 8:15 AM | 0 | 1 | 19 | 0 | 5 | 20 | 0 | 0 | 28 | 6 | 6 | 34 | 0 | 1 | 11 | 4 | 4 | 16 | 0 | 9 | 0 | 14 | 2 | 23 | 93 |
| Total | 0 | 10 | 97 | 0 | 9 | 107 | 0 | 0 | 141 | 43 | 24 | 184 | 0 | 3 | 83 | 26 | 10 | 112 | 0 | 45 | 1 | 87 | 8 | 133 | 536 |
| Approach % | 0.0 | 9.3 | 90.7 | 0.0 | - | - | 0.0 | 0.0 | 76.6 | 23.4 | - | - | 0.0 | 2.7 | 74.1 | 23.2 | - | - | 0.0 | 33.8 | 0.8 | 65.4 | - | - | - |
| Total % | 0.0 | 1.9 | 18.1 | 0.0 | - | 20.0 | 0.0 | 0.0 | 26.3 | 8.0 | - | 34.3 | 0.0 | 0.6 | 15.5 | 4.9 | - | 20.9 | 0.0 | 8.4 | 0.2 | 16.2 | - | 24.8 | - |
| PHF | 0.000 | 0.625 | 0.836 | 0.000 | - | 0.811 | 0.000 | 0.000 | 0.705 | 0.597 | - | 0.767 | 0.000 | 0.750 | 0.692 | 0.722 | - | 0.700 | 0.000 | 0.703 | 0.250 | 0.750 | - | 0.723 | 0.766 |
| Lights | 0 | 10 | 96 | 0 | - | 106 | 0 | 0 | 139 | 39 | - | 178 | 0 | 3 | 81 | 24 | - | 108 | 0 | 40 | 1 | 86 | - | 127 | 519 |
| % Lights | - | 100.0 | 99.0 | - | - | 99.1 | - | - | 98.6 | 90.7 | - | 96.7 | - | 100.0 | 97.6 | 92.3 | - | 96.4 | - | 88.9 | 100.0 | 98.9 | - | 95.5 | 96.8 |
| Other Vehicles | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 2 | 4 | - | 6 | 0 | 0 | 2 | 2 | - | 4 | 0 | 5 | 0 | 1 | - | 6 | 17 |
| % Other Vehicles | - | 0.0 | 1.0 | - | - | 0.9 | - | - | 1.4 | 9.3 | - | 3.3 | - | 0.0 | 2.4 | 7.7 | - | 3.6 | - | 11.1 | 0.0 | 1.1 | - | 4.5 | 3.2 |
| Pedestrians | - | - | - | - | 9 | - | - | - | - | - | 24 | - | - | - | - | - | 10 | - | - | - | - | - | 8 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (5:00 PM)

| Start Time | Liberty St Eastbound | | | | | | Liberty St Westbound | | | | | | State St Northbound | | | | | | State St Southbound | | | | | | Int. Total |
|------------------|----------------------|-------|-------|-------|-------|------------|----------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|---------------------|-------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 5:00 PM | 0 | 4 | 33 | 0 | 25 | 37 | 0 | 0 | 16 | 12 | 15 | 28 | 0 | 4 | 13 | 18 | 6 | 35 | 0 | 8 | 1 | 10 | 4 | 19 | 119 |
| 5:15 PM | 0 | 3 | 48 | 0 | 3 | 51 | 0 | 0 | 29 | 7 | 4 | 36 | 0 | 3 | 3 | 17 | 3 | 23 | 0 | 9 | 0 | 13 | 1 | 22 | 132 |
| 5:30 PM | 0 | 4 | 46 | 0 | 1 | 50 | 0 | 0 | 26 | 9 | 6 | 35 | 0 | 9 | 12 | 20 | 1 | 41 | 0 | 8 | 0 | 15 | 1 | 23 | 149 |
| 5:45 PM | 0 | 2 | 44 | 0 | 0 | 46 | 0 | 0 | 23 | 5 | 6 | 28 | 0 | 6 | 15 | 20 | 4 | 41 | 0 | 16 | 0 | 17 | 1 | 33 | 148 |
| Total | 0 | 13 | 171 | 0 | 29 | 184 | 0 | 0 | 94 | 33 | 31 | 127 | 0 | 22 | 43 | 75 | 14 | 140 | 0 | 41 | 1 | 55 | 7 | 97 | 548 |
| Approach % | 0.0 | 7.1 | 92.9 | 0.0 | - | - | 0.0 | 0.0 | 74.0 | 26.0 | - | - | 0.0 | 15.7 | 30.7 | 53.6 | - | - | 0.0 | 42.3 | 1.0 | 56.7 | - | - | - |
| Total % | 0.0 | 2.4 | 31.2 | 0.0 | - | 33.6 | 0.0 | 0.0 | 17.2 | 6.0 | - | 23.2 | 0.0 | 4.0 | 7.8 | 13.7 | - | 25.5 | 0.0 | 7.5 | 0.2 | 10.0 | - | 17.7 | - |
| PHF | 0.000 | 0.813 | 0.891 | 0.000 | - | 0.902 | 0.000 | 0.000 | 0.810 | 0.688 | - | 0.882 | 0.000 | 0.611 | 0.717 | 0.938 | - | 0.854 | 0.000 | 0.641 | 0.250 | 0.809 | - | 0.735 | 0.919 |
| Lights | 0 | 13 | 168 | 0 | - | 181 | 0 | 0 | 93 | 32 | - | 125 | 0 | 22 | 43 | 75 | - | 140 | 0 | 41 | 1 | 55 | - | 97 | 543 |
| % Lights | - | 100.0 | 98.2 | - | - | 98.4 | - | - | 98.9 | 97.0 | - | 98.4 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | 99.1 |
| Other Vehicles | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 1 | 1 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 5 |
| % Other Vehicles | - | 0.0 | 1.8 | - | - | 1.6 | - | - | 1.1 | 3.0 | - | 1.6 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.9 |
| Pedestrians | - | - | - | - | 29 | - | - | - | - | - | 31 | - | - | - | - | - | 14 | - | - | - | - | - | 7 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Peak Hour Data Plot (5:00 PM)

Land Use: 221

Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

Multifamily Housing (Mid-Rise) Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units

On a: **Weekday,**

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 7

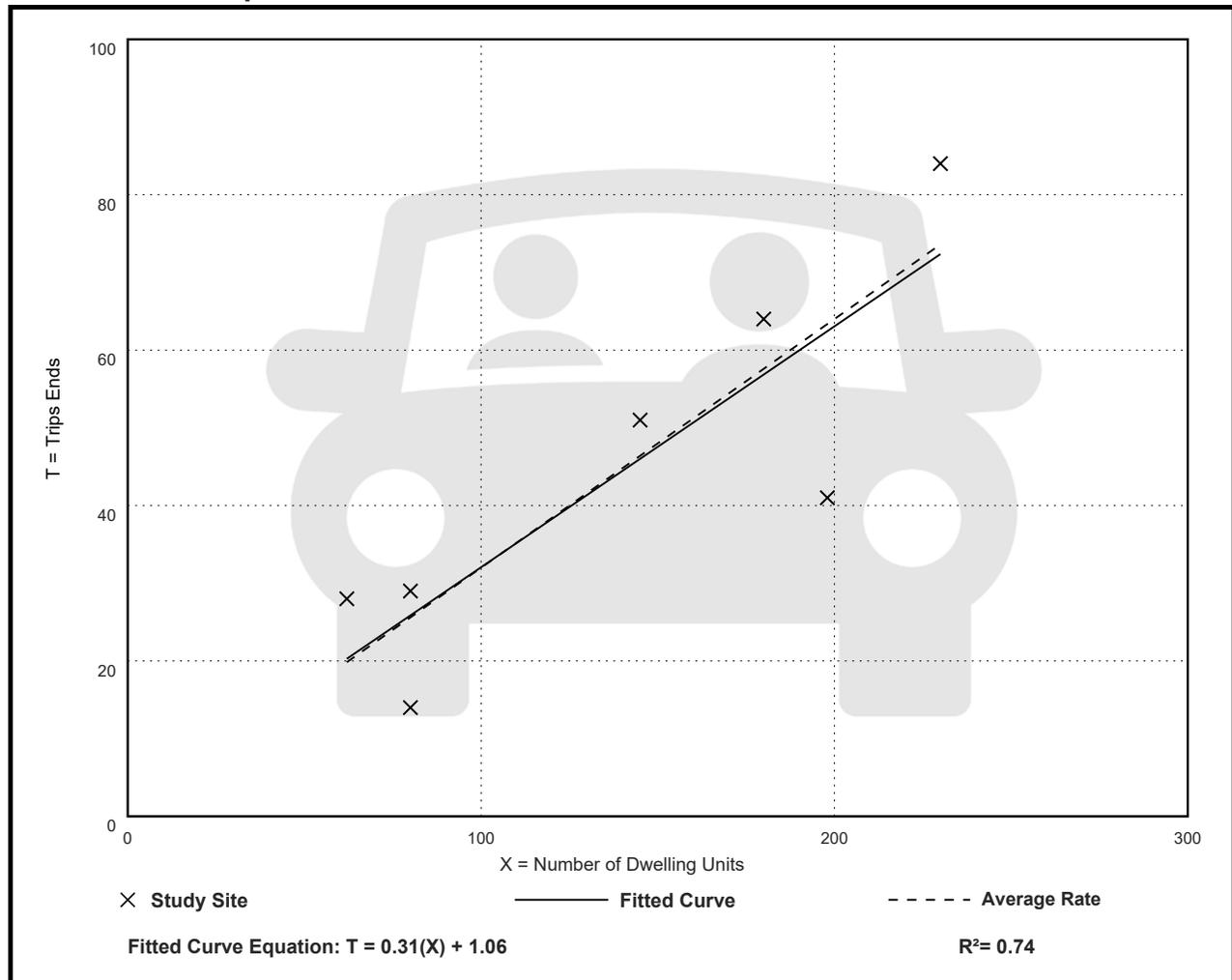
Avg. Num. of Dwelling Units: 139

Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.32 | 0.18 - 0.45 | 0.09 |

Data Plot and Equation



Multifamily Housing (Mid-Rise) Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 7

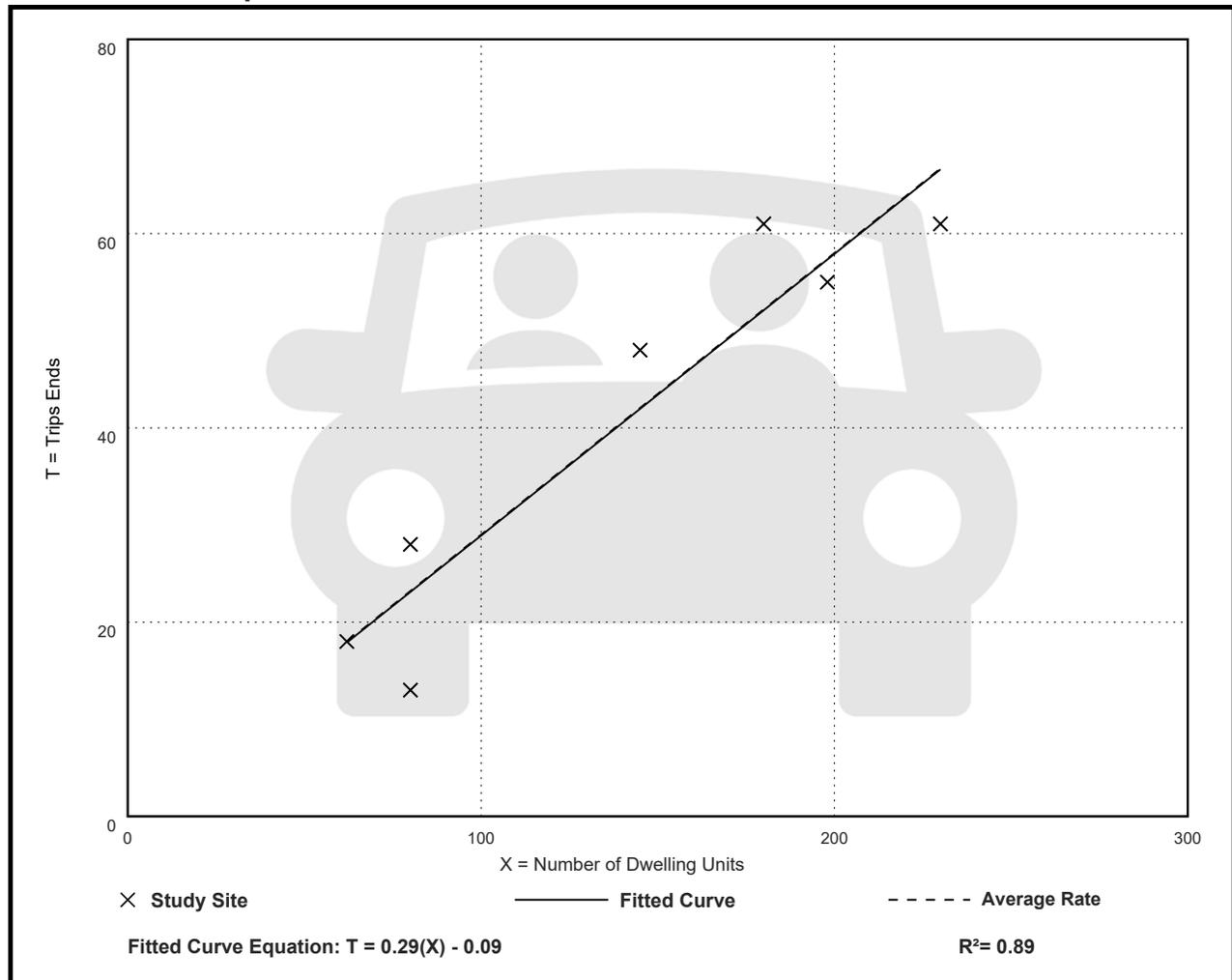
Avg. Num. of Dwelling Units: 139

Directional Distribution: 43% entering, 57% exiting

Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.29 | 0.16 - 0.35 | 0.05 |

Data Plot and Equation



Land Use: 560 Church

Description

A church is a building in which public worship services are held. A church houses an assembly hall or sanctuary. It may also house meeting rooms, classrooms, and, occasionally, dining, catering, or event facilities. Synagogue (Land Use 561) and mosque (Land Use 562) are related uses.

Additional Data

Worship services are typically held on Sundays. Some of the surveyed churches offered day care or extended care programs during the week.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, Florida, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Texas, and Virginia.

Source Numbers

169, 170, 423, 428, 436, 554, 571, 583, 629, 631, 704, 903, 904, 957, 971, 981, 1080

Church (560)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 7

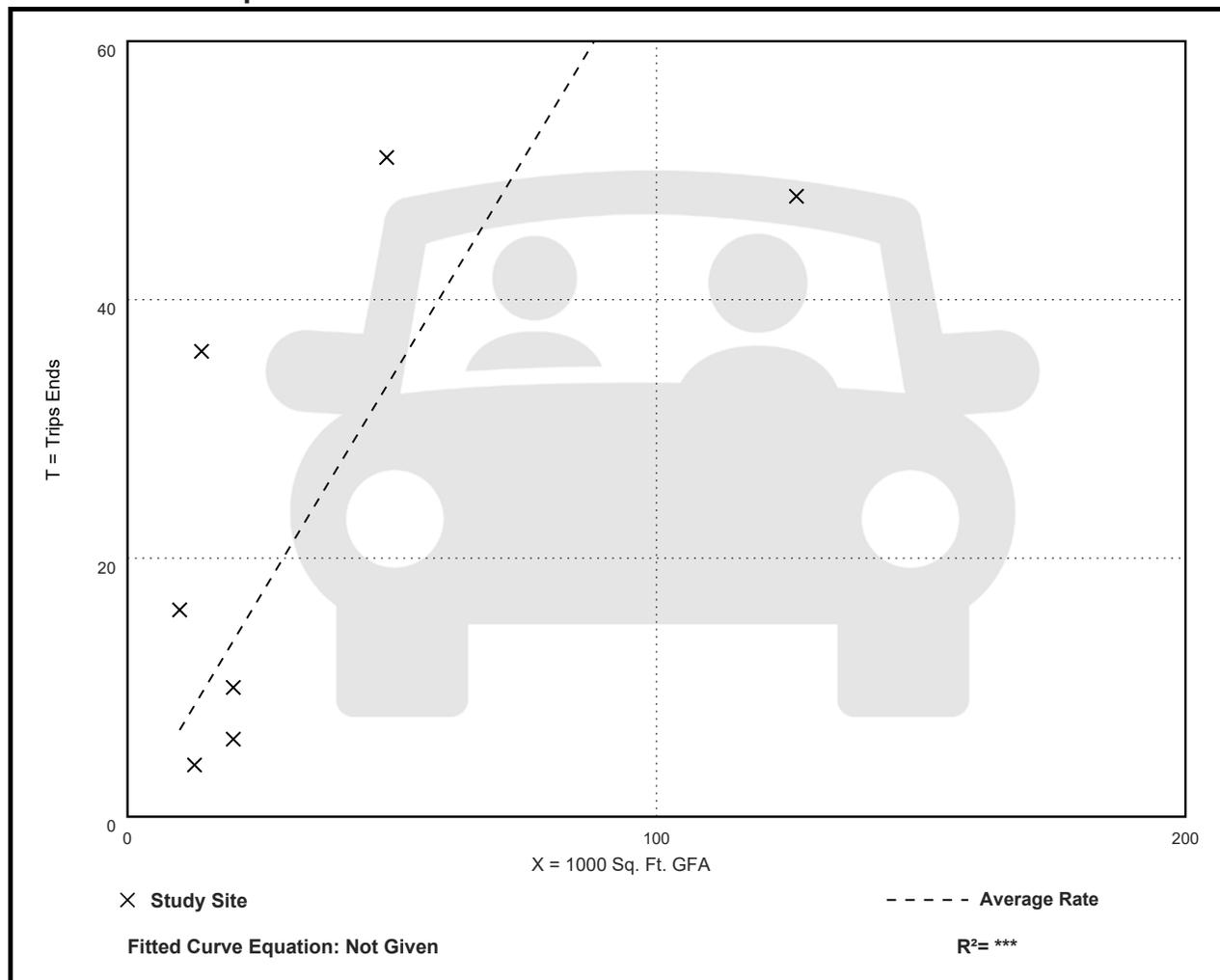
Avg. 1000 Sq. Ft. GFA: 36

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.68 | 0.30 - 2.57 | 0.62 |

Data Plot and Equation



Church (560)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 7

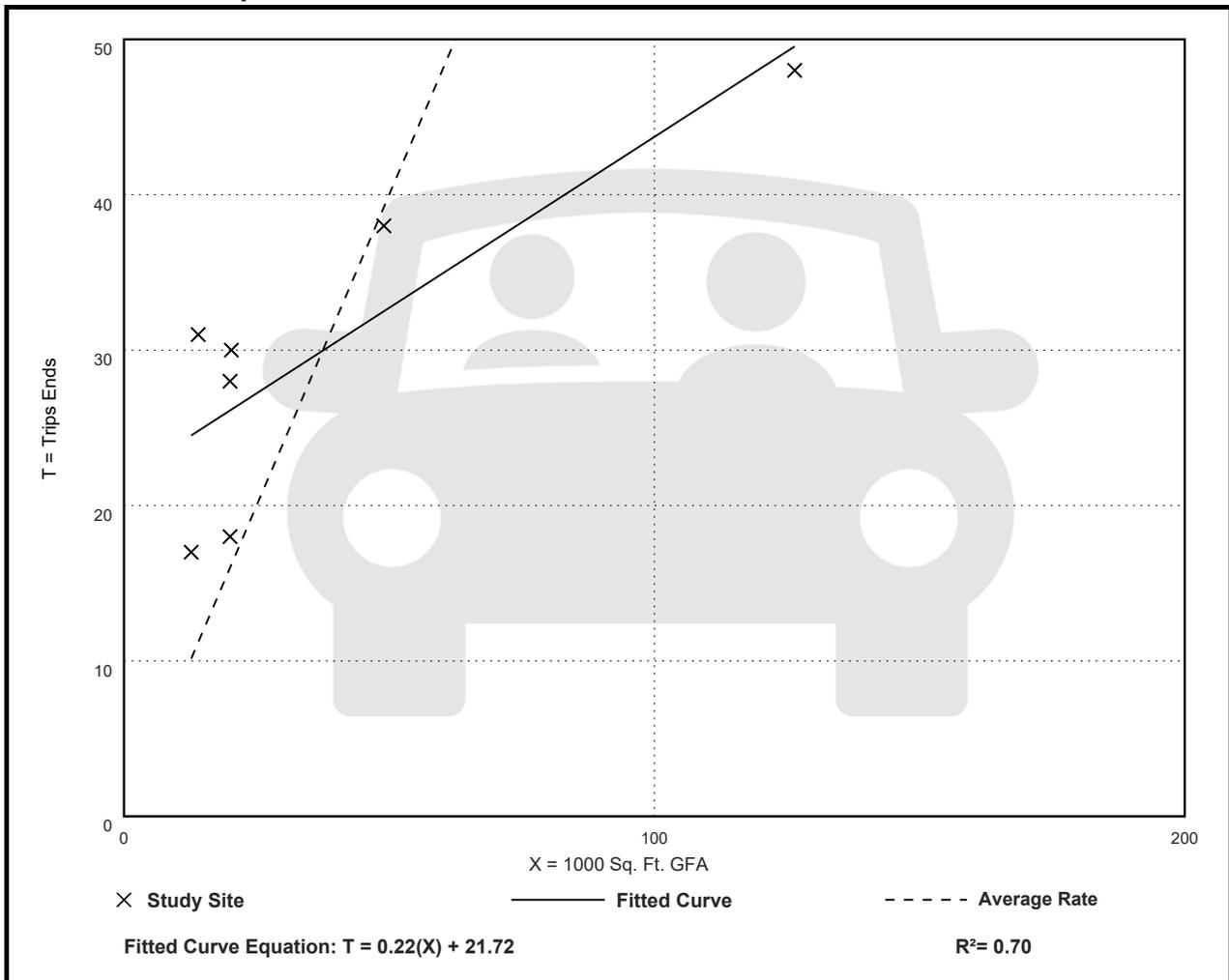
Avg. 1000 Sq. Ft. GFA: 37

Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.80 | 0.38 - 2.21 | 0.56 |

Data Plot and Equation



Church (560)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 5

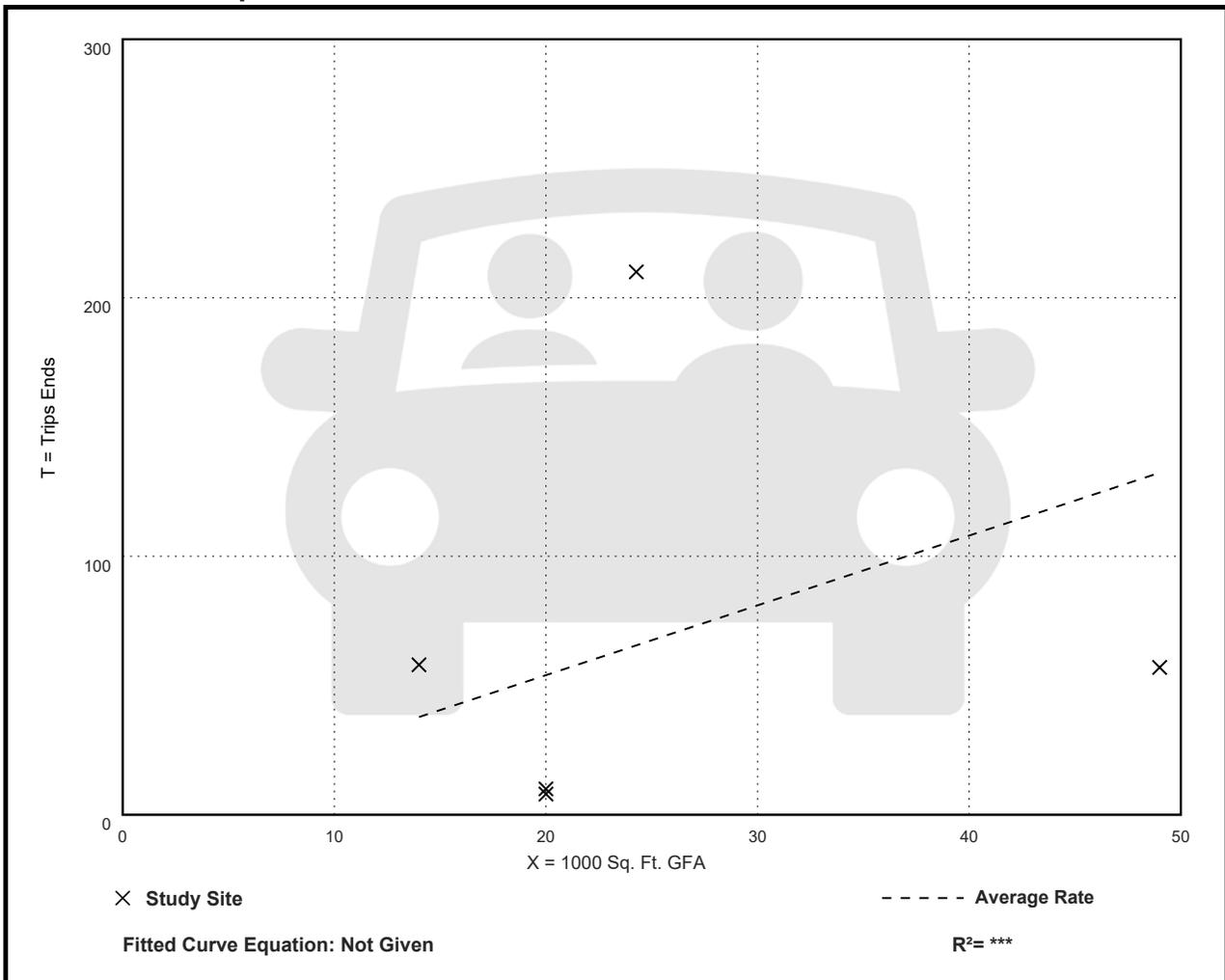
Avg. 1000 Sq. Ft. GFA: 25

Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 2.70 | 0.40 - 8.65 | 3.44 |

Data Plot and Equation



D | Level of Service Descriptions

Table 4
Level of Service and Average Delay
For Unsignalized Intersections

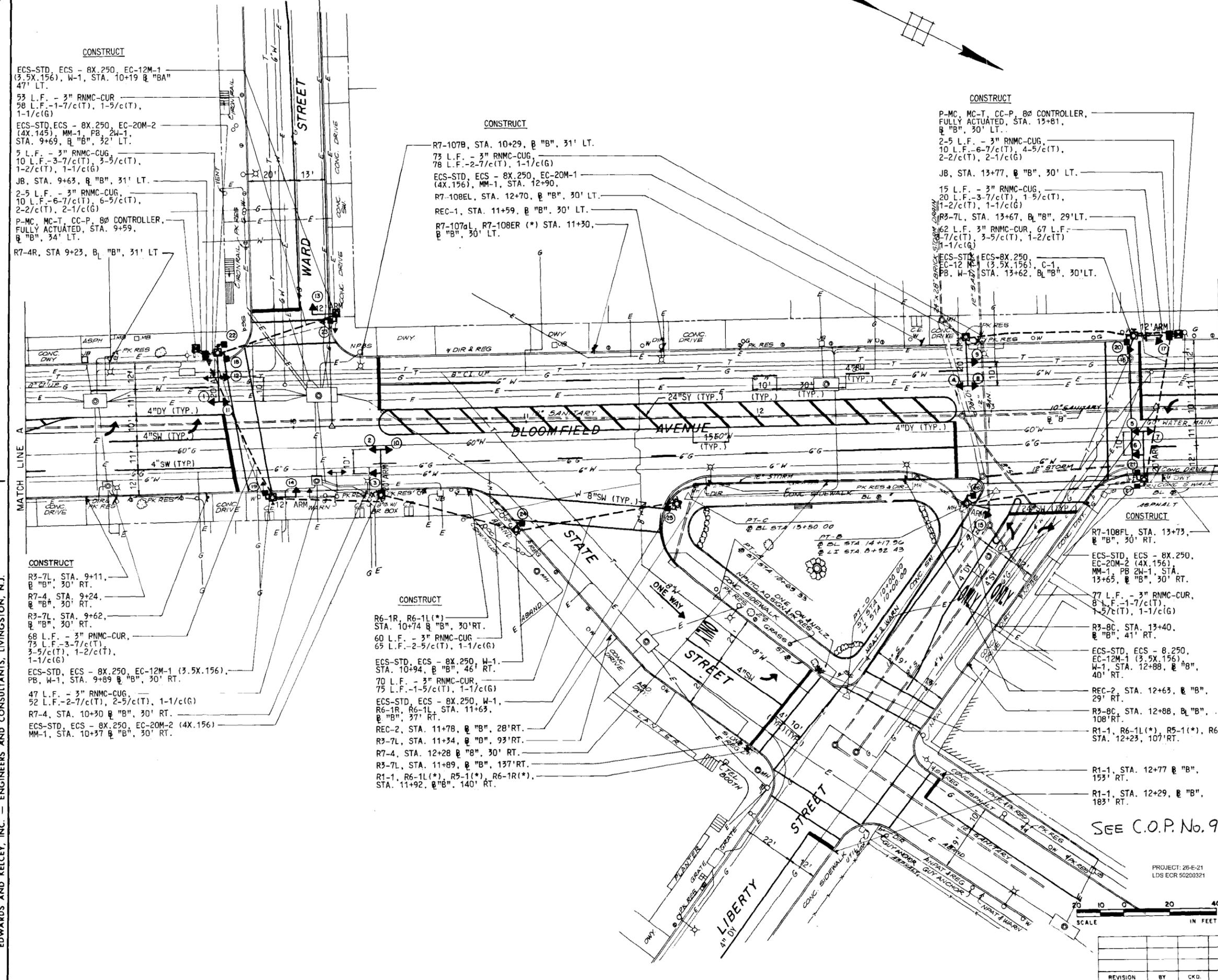
| Level of Service | Average Delay (seconds/vehicle) |
|------------------|--|
| A | Up to 10 seconds |
| B | More than 10 seconds; up to 15 seconds |
| C | More than 15 seconds; up to 25 seconds |
| D | More than 25 seconds; up to 35 seconds |
| E | More than 35 seconds; up to 50 seconds |
| F | More than 50 seconds |

Table 5
Level of Service and Average Delay
For Signalized Intersections

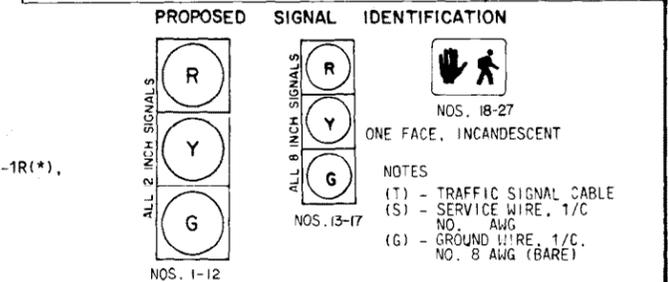
| Level of Service | Average Delay (seconds/vehicle) | Description |
|------------------|--|---|
| A | Up to 10 seconds | Very short delay, good progression; most vehicles do not stop at intersection. |
| B | More than 10 seconds Up to 20 seconds | Generally good signal progression and/or short cycle length; more vehicles stop at intersection than Level of Service A. |
| C | More than 20 seconds Up to 35 seconds | Fair progression and/or longer cycle length; significant number of vehicles stop at intersection. |
| D | More than 35 seconds Up to 55 seconds | Congestion becomes noticeable; individual cycle failures; longer delays from unfavorable progression, long cycle length; or high volume/capacity ratios; most vehicles stop at intersection. |
| E | More than 55 seconds Up to 80 seconds | Usually considered limit of acceptable delay indicative of poor progression long cycle length, or high volume/capacity ratio; frequent individual cycle failures. |
| F | More than 80 seconds | Could be considered excessive delay in some areas, frequently an indication of over-saturation (i.e., arrival flows exceed capacity), or very long cycle lengths with minimal side street green time. Capacity is not necessarily exceeded under this Level of Service. |

Reference: *Highway Capacity Manual*, (HCM7), 2022, Transportation Research Board, Washington, D.C.

E | Essex County Traffic Signal Plan & Timing Directive



| TO BE CONSTRUCTED | CONTRACT QUANTITIES | AS-BUILT QUANTITIES |
|--|---------------------|---------------------|
| FOUNDATIONS, TYPE R-MC | 2 UNITS | |
| FOUNDATIONS, TYPE ECS-STD | 10 UNITS | |
| TRAFFIC SIGNAL STANDARDS, TYPE ECS - PY 2' | 10 UNITS | |
| TRAFFIC SIGNAL ASSEMBLIES, TYPE EC-12M-1(3.5X.156) | 4 UNITS | |
| TRAFFIC SIGNAL ASSEMBLIES, TYPE EC-20M-2(4X.156) | 4 UNITS | |
| TRAFFIC SIGNAL ASSEMBLIES, TYPE MM-1 | 4 UNITS | |
| TRAFFIC SIGNAL ASSEMBLIES, TYPE C-1 | 1 UNIT | |
| 18"X36" JUNCTION BOX, TYPE JB | 2 UNITS | |
| PEDESTRIAN SIGNAL ASSEMBLIES, TYPE W-1 | 10 UNITS | |
| PUSH BUTTON ASSEMBLIES | 4 UNITS | |
| CONTROLLER, 8 PHASE FULLY ACTUATED | 2 UNITS | |
| CONTROLLER CABINETS, TYPE P | 2 UNITS | |
| METER CABINETS, TYPE T | 2 UNITS | |
| 2" RIGID METALLIC CONDUIT, TYPE CUG | | |
| 2" RIGID METALLIC CONDUIT, TYPE CUR | | |
| 3" RIGID NON-METALLIC CONDUIT SCHED. 40, TYPE CUG | 220 L.F. | |
| 3" RIGID NON-MET. CONDUIT, SCHEDULE 40, TYPE CUR | 330 L.F. | |
| TRAFFIC SIGNAL CABLE, 7 CONDUCTOR | 956 L.F. | |
| TRAFFIC SIGNAL CABLE, 5 CONDUCTOR | 945 L.F. | |
| TRAFFIC SIGNAL CABLE, 2 CONDUCTOR | 210 L.F. | |
| SERVICE WIRE, NO. 6 AWG, 1 CONDUCTOR | | |
| GROUND WIRE, NO. 8 AWG, 1 CONDUCTOR (BARE) | 546 L.F. | |
| 12"X18" SIGNS | 6 UNITS | |
| 12"X20" SIGNS | 1 UNIT | |
| 12"X30" SIGNS | 1 UNIT | |
| 30"X30" SIGNS | 11 UNITS | |
| 36"X12" SIGNS | 2 UNITS | |
| 12"X18" ACCESSORY PANELS | 1 UNIT | |
| 30"X30" ACCESSORY PANELS | 2 UNITS | |
| 36"X12" ACCESSORY PANELS | 6 UNITS | |
| 18"X30" ESSEX COUNTY SIGN | 3 UNITS | |
| TRAFFIC STRIPES | 6547 L.F. | |
| TRAFFIC PAINT | 150 S.F. | |



THE NEW JERSEY DEPARTMENT OF TRANSPORTATION
COUNTY OF ESSEX
IMPROVEMENTS TO BLOOMFIELD AVE.

TRAFFIC PLAN
BLOOMFIELD AVENUE WITH WARD STREET,
STATE STREET AND LIBERTY STREET

EDWARDS AND KELCEY, INC.

70 80 GRANGE AVENUE, LIVINGSTON, N.J.

DRAWN BY: FDD/AAK
CHECKED BY: JMG
DATE: 6/87
SCALE: 1"=20'

Wesley LaBaugh, P.E. *8667

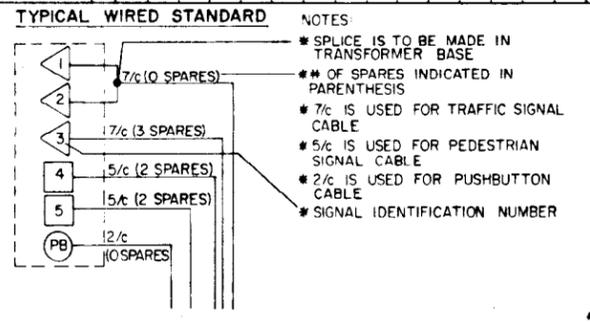
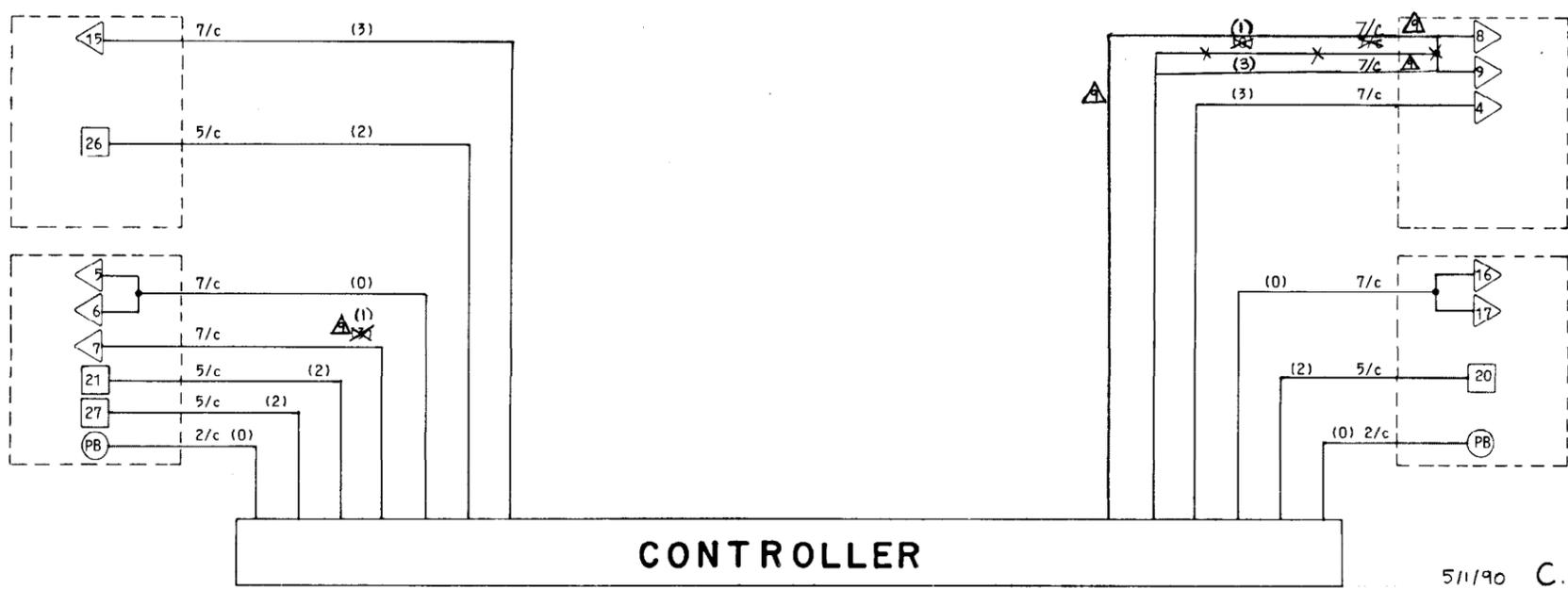
113
193

EDWARDS AND KELCEY, INC. - ENGINEERS AND CONSULTANTS, LIVINGSTON, N.J.

EDWARDS AND KELCEY, INC. — ENGINEERS AND CONSULTANTS, LIVINGSTON, N.J.

LIBERTY STREET

| TRAFFIC SIGNAL OPERATIONS | | FED. ROAD DIV. NO. | STATE | FEDERAL PROJECT NO. | SHEET | TOTAL SHEETS | |
|---|----------------------|--------------------|--------------|---------------------|------------|-------------------------------|------------|
| | | 01 | N.J. | M-0005 (76) | 158 | 193 | |
| PROPOSED AM PEAK SIGNAL TIMING (IN SECONDS) (BACKGROUND CYCLE - 120 SECS.) (OFFSET - 47 SECS.) | | | | | | | |
| PHASE | MINIMUM INITIAL TIME | PASS GREEN | MAX. GREEN 1 | MAX. GREEN 2 | WALK CLEAR | PED. YELLOW CLEAR. RED CLEAR. | MODE |
| 1 | - | - | 80 | - | 74 | 6 4 | 3 NON-ACT. |
| 2 | - | - | 16 | - | 8 | 8 3 | 3 NON-ACT. |
| 3 | - | - | 8 | - | - | 3 | NON-ACT. |
| PROPOSED MID-DAY SIGNAL TIMING (IN SECONDS) (BACKGROUND CYCLE - 90 SECS.) (OFFSET - 47 SECS.) | | | | | | | |
| PHASE | MINIMUM INITIAL TIME | PASS GREEN | MAX. GREEN 1 | MAX. GREEN 2 | WALK CLEAR | PED. YELLOW CLEAR. RED CLEAR. | MODE |
| 1 | - | - | 52 | - | 46 | 6 4 | 3 NON-ACT. |
| 2 | - | - | 16 | - | 8 | 8 3 | 3 NON-ACT. |
| 3 | - | - | 6 | - | - | 3 | NON-ACT. |
| PROPOSED PM-PEAK SIGNAL TIMING (IN SECONDS) (BACKGROUND CYCLE - 120 SECS.) (OFFSET - 47 SECS.) | | | | | | | |
| PHASE | MINIMUM INITIAL TIME | PASS GREEN | MAX. GREEN 1 | MAX. GREEN 2 | WALK CLEAR | PED. YELLOW CLEAR. RED CLEAR. | MODE |
| 1 | - | - | 82 | - | 76 | 6 4 | 3 NON-ACT. |
| 2 | - | - | 16 | - | 8 | 8 3 | 3 NON-ACT. |
| 3 | - | - | 6 | - | - | 3 | NON-ACT. |
| PROPOSED OFF-PEAK SIGNAL TIMING (IN SECONDS) (BACKGROUND CYCLE - 90 SECS.) (OFFSET - 47 SECS.) | | | | | | | |
| PHASE | MINIMUM INITIAL TIME | PASS GREEN | MAX. GREEN 1 | MAX. GREEN 2 | WALK CLEAR | PED. YELLOW CLEAR. RED CLEAR. | MODE |
| 1 | - | - | 52 | - | 46 | 6 4 | 3 NON-ACT. |
| 2 | - | - | 16 | - | 8 | 8 3 | 3 NON-ACT. |
| 3 | - | - | 6 | - | - | 3 | NON-ACT. |
| FLASHING | | Y | Y | DARK | R | DARK | |



*NOTE: OFFSETS ARE REFERENCED FROM THE BEGINNING OF GREEN TO BLOOMFIELD AVENUE AT THE INTERSECTION OF BLOOMFIELD AVENUE WITH BLOOMFIELD PLACE AND BROADWAY.

COLOR LEGEND

- ① RED
- ② AMBER
- ③ GREEN
- ④ RED W/WHITE TRACER
- ⑤ AMBER W/WHITE TRACER
- ⑥ GREEN W/WHITE TRACER
- ⑦ RED W/BLACK TRACER

LEGEND

- ◁ VEHICLE TRAFFIC SIGNAL
- PEDESTRIAN SIGNAL
- ⊙ (PB) PUSHBUTTON (PB)
- WIRE SPLICE
- TRAFFIC SIGNAL FOUNDATION

HOURS OF OPERATION
 AM. MON-FRI. 6:00-9:30
 PM. MON-FRI. 3:00-6:00
 MID. MON-FRI. 9:30-3:00
 OFF-PEAK ALL OTHER TIMES

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION
 COUNTY OF ESSEX
 IMPROVEMENTS TO BLOOMFIELD AVE.
 WIRING, PHASING, SEQUENCE AND TIMING PLAN
 FOR THE INTERSECTION OF
 BLOOMFIELD AVENUE WITH WARD STREET, STATE STREET AND LIBERTY STREET

EDWARDS AND KELCEY, INC.

70 00 ORANGE AVENUE, LIVINGSTON, N.J.

DRAWN BY: AAK
 CHECKED BY: JMG
 DATE: 6/87
 SCALE: NONE

Wesley LaBaugh
 Wesley LaBaugh, P.E. *8667

158
193

PROJECT: 26-E-86
LDS ECR 50200323

| REVISION | BY | CHKD | DATE |
|----------|----|------|------|
| | | | |

5/11/90 C.O.P. NO. 9 A

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

No-Build
 AM

| |  |  |  |  |  |  |
|---------------------------|---|---|--|---|---|--|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |   | | |   |
| Traffic Volume (vph) | 136 | 111 | 757 | 0 | 112 | 715 |
| Future Volume (vph) | 136 | 111 | 757 | 0 | 112 | 715 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Fr _t | | 0.850 | | | | |
| Fl _t Protected | 0.950 | | | | | 0.993 |
| Satd. Flow (prot) | 1985 | 1776 | 3854 | 0 | 0 | 3871 |
| Fl _t Permitted | 0.950 | | | | | 0.677 |
| Satd. Flow (perm) | 1985 | 1776 | 3854 | 0 | 0 | 2639 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 61 | | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 432 |
| Travel Time (s) | 4.1 | | 5.2 | | | 11.8 |
| Peak Hour Factor | 0.71 | 0.78 | 0.96 | 0.92 | 0.81 | 0.89 |
| Heavy Vehicles (%) | 1% | 1% | 3% | 0% | 2% | 3% |
| Adj. Flow (vph) | 192 | 142 | 789 | 0 | 138 | 803 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 192 | 142 | 789 | 0 | 0 | 941 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 80.0 | | 8.0 | 91.0 |
| Minimum Split (s) | 22.0 | 22.0 | 87.0 | | 11.0 | 98.0 |
| Total Split (s) | 22.0 | 22.0 | 87.0 | | 11.0 | 98.0 |
| Total Split (%) | 18.3% | 18.3% | 72.5% | | 9.2% | 81.7% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 91.0 | | | 91.0 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.76 | | | 0.76 |
| v/c Ratio | 0.72 | 0.49 | 0.27 | | | 0.47 |
| Control Delay (s/veh) | 66.6 | 33.7 | 4.6 | | | 6.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 66.6 | 33.7 | 4.6 | | | 6.3 |
| LOS | E | C | A | | | A |
| Approach Delay (s/veh) | 52.6 | | 4.7 | | | 6.4 |
| Approach LOS | D | | A | | | A |

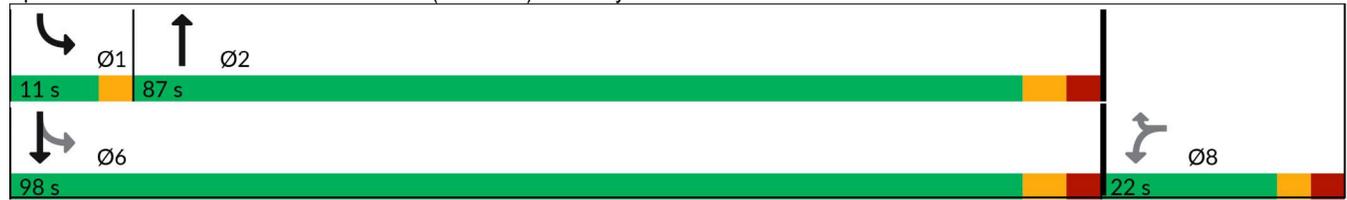


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 145 | 58 | 83 | | | 123 |
| Queue Length 95th (ft) | 173 | 99 | 104 | | | 154 |
| Internal Link Dist (ft) | 72 | | 109 | | | 352 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 264 | 289 | 2922 | | | 2001 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.73 | 0.49 | 0.27 | | | 0.47 |

Intersection Summary

| | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 120 |
| Actuated Cycle Length: | 120 |
| Natural Cycle: | 120 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.73 |
| Intersection Signal Delay (s/veh): | 13.2 |
| Intersection LOS: | B |
| Intersection Capacity Utilization | 120.4% |
| ICU Level of Service | H |
| Analysis Period (min) | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

No-Build
 AM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 14 | 14 | 107 | 33 | 848 | 35 | 16 | 715 | 57 |
| Future Vol, veh/h | 0 | 0 | 0 | 14 | 14 | 107 | 33 | 848 | 35 | 16 | 715 | 57 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 81 | 76 | 89 | 91 | 77 | 65 | 84 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 0 | 3 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 22 | 17 | 141 | 37 | 932 | 45 | 25 | 851 | 62 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1504 | 1991 | 489 |
| Stage 1 | 1029 | 1029 | - |
| Stage 2 | 475 | 962 | - |
| Critical Hdwy | 7 | 6.7 | 7 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 105 | 55 | 523 |
| Stage 1 | 293 | 296 | - |
| Stage 2 | 582 | 319 | - |
| Platoon blocked, % | | | |
| Mov Cap-1 Maneuver | 94 | 0 | 523 |
| Mov Cap-2 Maneuver | 94 | 0 | - |
| Stage 1 | 273 | 0 | - |
| Stage 2 | 555 | 0 | - |

| Approach | WB | NB | SB |
|------------------------|-------|------|------|
| HCM Control Delay, s/v | 28.93 | 0.94 | 0.68 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|-------|-------|-----|
| Capacity (veh/h) | 124 | - | - | 325 | 86 | - |
| HCM Lane V/C Ratio | 0.049 | - | - | 0.553 | 0.034 | - |
| HCM Control Delay (s/veh) | 10 | 0.6 | - | 28.9 | 10.2 | 0.4 |
| HCM Lane LOS | B | A | - | D | B | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 3.2 | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | TT | | TT | | | TT |
| Traffic Vol, veh/h | 1 | 3 | 857 | 1 | 2 | 786 |
| Future Vol, veh/h | 1 | 3 | 857 | 1 | 2 | 786 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 2 | - | - | -2 |
| Peak Hour Factor | 92 | 92 | 91 | 92 | 92 | 84 |
| Heavy Vehicles, % | 2 | 2 | 3 | 2 | 2 | 3 |
| Mvmt Flow | 1 | 3 | 942 | 1 | 2 | 936 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1415 | 471 | 0 | 0 | 943 |
| Stage 1 | 942 | - | - | - | - |
| Stage 2 | 472 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 128 | 539 | - | - | 723 |
| Stage 1 | 339 | - | - | - | - |
| Stage 2 | 594 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 128 | 539 | - | - | 723 |
| Mov Cap-2 Maneuver | 128 | - | - | - | - |
| Stage 1 | 339 | - | - | - | - |
| Stage 2 | 591 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 17.22 | 0 | 0.06 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 299 | 8 |
| HCM Lane V/C Ratio | - | - | 0.015 | 0.003 |
| HCM Control Delay (s/veh) | - | - | 17.2 | 10 |
| HCM Lane LOS | - | - | C | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.9 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | ↑↑ | | ↑↑ |
| Traffic Vol, veh/h | 37 | 111 | 57 | 821 | 767 | 20 |
| Future Vol, veh/h | 37 | 111 | 57 | 821 | 767 | 20 |
| 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 69 | 89 | 76 | 89 | 87 | 65 |
| Heavy Vehicles, % | 0 | 3 | 0 | 4 | 3 | 0 |
| Mvmt Flow | 54 | 125 | 75 | 922 | 882 | 31 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-----|--------|---|
| Conflicting Flow All | 1508 | 456 | 912 | 0 | 0 |
| Stage 1 | 897 | - | - | - | - |
| Stage 2 | 611 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.96 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.33 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 114 | 549 | 755 | - | - |
| Stage 1 | 363 | - | - | - | - |
| Stage 2 | 510 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 98 | 549 | 755 | - | - |
| Mov Cap-2 Maneuver | 98 | - | - | - | - |
| Stage 1 | 315 | - | - | - | - |
| Stage 2 | 510 | - | - | - | - |

| Approach | EB | NB | SB |
|-----------------------------|----|------|----|
| HCM Control Delay, s/v59.06 | | 1.87 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 271 | - | 231 | - | - |
| HCM Lane V/C Ratio | 0.099 | - | 0.772 | - | - |
| HCM Control Delay (s/veh) | 10.3 | 1.2 | 59.1 | - | - |
| HCM Lane LOS | B | A | F | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 5.5 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 11 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 24 | 30 | 6 | 44 | 117 | 83 | 10 | 113 | 16 | 37 | 92 | 22 |
| Future Vol, veh/h | 24 | 30 | 6 | 44 | 117 | 83 | 10 | 113 | 16 | 37 | 92 | 22 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 82 | 66 | 75 | 65 | 82 | 61 | 65 | 68 | 75 | 65 | 65 | 65 |
| Heavy Vehicles, % | 0 | 3 | 17 | 2 | 1 | 3 | 10 | 6 | 7 | 0 | 5 | 0 |
| Mvmt Flow | 29 | 45 | 8 | 68 | 143 | 136 | 15 | 166 | 21 | 57 | 142 | 34 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|------|---|---|
| Conflicting Flow All | 541 | 491 | 158 | 486 | 497 | 177 | 175 | 0 | 0 | 188 | 0 | 0 |
| Stage 1 | 272 | 272 | - | 208 | 208 | - | - | - | - | - | - | - |
| Stage 2 | 268 | 218 | - | 278 | 289 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.33 | 6.27 | 6.92 | 6.31 | 6.13 | 4.2 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.33 | - | 5.92 | 5.31 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.33 | - | 5.92 | 5.31 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.027 | 3.453 | 3.518 | 4.009 | 3.327 | 2.29 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 469 | 490 | 853 | 505 | 489 | 868 | 1354 | - | - | 1399 | - | - |
| Stage 1 | 749 | 693 | - | 804 | 740 | - | - | - | - | - | - | - |
| Stage 2 | 753 | 729 | - | 740 | 686 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 262 | 462 | 853 | 428 | 461 | 868 | 1354 | - | - | 1399 | - | - |
| Mov Cap-2 Maneuver | 262 | 462 | - | 428 | 461 | - | - | - | - | - | - | - |
| Stage 1 | 715 | 662 | - | 793 | 731 | - | - | - | - | - | - | - |
| Stage 2 | 504 | 720 | - | 652 | 655 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|-----------------------------|----|-------|------|------|
| HCM Control Delay, s/v17.21 | | 21.66 | 0.58 | 1.88 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 133 | - | - | 377 | 555 | 425 | - | - |
| HCM Lane V/C Ratio | 0.011 | - | - | 0.219 | 0.624 | 0.041 | - | - |
| HCM Control Delay (s/veh) | 7.7 | 0 | - | 17.2 | 21.7 | 7.7 | 0 | - |
| HCM Lane LOS | A | A | - | C | C | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.8 | 4.3 | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 2 | 0 | 138 | 138 | 4 |
| Future Vol, veh/h | 1 | 2 | 0 | 138 | 138 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 68 | 65 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 6 | 5 | 2 |
| Mvmt Flow | 1 | 2 | 0 | 203 | 212 | 4 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 417 | 214 | 217 | 0 | 0 |
| Stage 1 | 214 | - | - | - | - |
| Stage 2 | 203 | - | - | - | - |
| 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 | 592 | 825 | 1353 | - | - |
| Stage 1 | 821 | - | - | - | - |
| Stage 2 | 831 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 592 | 825 | 1353 | - | - |
| Mov Cap-2 Maneuver | 592 | - | - | - | - |
| Stage 1 | 821 | - | - | - | - |
| Stage 2 | 831 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|----|----|
| HCM Control Delay, s/v | 9.96 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1353 | - | 730 | - | - |
| HCM Lane V/C Ratio | - | - | 0.004 | - | - |
| HCM Control Delay (s/veh) | 0 | - | 10 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 6 | 136 | 138 | 1 |
| Future Vol, veh/h | 0 | 0 | 6 | 136 | 138 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 0 | 0 | 7 | 148 | 150 | 1 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 311 | 151 | 151 | 0 | 0 |
| Stage 1 | 151 | - | - | - | - |
| Stage 2 | 161 | - | - | - | - |
| 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 | 681 | 896 | 1430 | - | - |
| Stage 1 | 877 | - | - | - | - |
| Stage 2 | 868 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 678 | 896 | 1430 | - | - |
| Mov Cap-2 Maneuver | 678 | - | - | - | - |
| Stage 1 | 873 | - | - | - | - |
| Stage 2 | 868 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|----|------|----|
| HCM Control Delay, s/v | 0 | 0.32 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 76 | - | - | - | - |
| HCM Lane V/C Ratio | 0.005 | - | - | - | - |
| HCM Control Delay (s/veh) | 7.5 | 0 | 0 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

No-Build
 PM



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|-------|-------|------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 113 | 65 | 541 | 28 | 166 | 859 |
| Future Volume (vph) | 113 | 65 | 541 | 28 | 166 | 859 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.850 | 0.992 | | | |
| Flt Protected | 0.950 | | | | | 0.991 |
| Satd. Flow (prot) | 1985 | 1759 | 3857 | 0 | 0 | 3903 |
| Flt Permitted | 0.950 | | | | | 0.703 |
| Satd. Flow (perm) | 1985 | 1759 | 3857 | 0 | 0 | 2769 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 38 | 11 | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 432 |
| Travel Time (s) | 4.1 | | 5.2 | | | 11.8 |
| Peak Hour Factor | 0.67 | 0.83 | 0.92 | 0.84 | 0.84 | 0.95 |
| Heavy Vehicles (%) | 1% | 2% | 2% | 4% | 1% | 2% |
| Adj. Flow (vph) | 169 | 78 | 588 | 33 | 198 | 904 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 169 | 78 | 621 | 0 | 0 | 1102 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 82.0 | | 6.0 | 91.0 |
| Minimum Split (s) | 22.0 | 22.0 | 89.0 | | 9.0 | 98.0 |
| Total Split (s) | 22.0 | 22.0 | 89.0 | | 9.0 | 98.0 |
| Total Split (%) | 18.3% | 18.3% | 74.2% | | 7.5% | 81.7% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 91.0 | | | 91.0 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.76 | | | 0.76 |
| v/c Ratio | 0.64 | 0.29 | 0.21 | | | 0.52 |
| Control Delay (s/veh) | 61.2 | 29.5 | 4.2 | | | 6.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 61.2 | 29.5 | 4.2 | | | 6.8 |
| LOS | E | C | A | | | A |
| Approach Delay (s/veh) | 51.2 | | 4.3 | | | 6.9 |
| Approach LOS | D | | A | | | A |

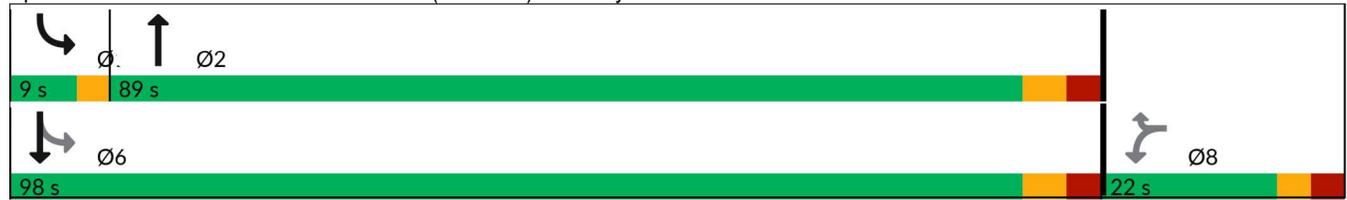


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 126 | 28 | 61 | | | 154 |
| Queue Length 95th (ft) | 145 | 67 | 78 | | | 194 |
| Internal Link Dist (ft) | 72 | | 109 | | | 352 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 264 | 267 | 2927 | | | 2099 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.64 | 0.29 | 0.21 | | | 0.53 |

Intersection Summary

| | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 120 |
| Actuated Cycle Length: | 120 |
| Natural Cycle: | 120 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.64 |
| Intersection Signal Delay (s/veh): | 11.6 |
| Intersection LOS: | B |
| Intersection Capacity Utilization | 153.4% |
| ICU Level of Service | H |
| Analysis Period (min) | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

No-Build
 PM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 15 | 18 | 80 | 33 | 647 | 36 | 57 | 884 | 66 |
| Future Vol, veh/h | 0 | 0 | 0 | 15 | 18 | 80 | 33 | 647 | 36 | 57 | 884 | 66 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 71 | 80 | 73 | 93 | 73 | 81 | 94 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 3 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 23 | 25 | 100 | 45 | 696 | 49 | 70 | 940 | 84 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1422 | 1975 | 373 |
| Stage 1 | 811 | 811 | - |
| Stage 2 | 611 | 1165 | - |
| Critical Hdwy | 7 | 6.7 | 7 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 120 | 56 | 624 |
| Stage 1 | 385 | 378 | - |
| Stage 2 | 493 | 254 | - |
| Platoon blocked, % | | | |
| Mov Cap-1 Maneuver | 97 | 0 | 624 |
| Mov Cap-2 Maneuver | 97 | 0 | - |
| Stage 1 | 353 | 0 | - |
| Stage 2 | 437 | 0 | - |

| Approach | WB | NB | SB |
|------------------------|------|-----|------|
| HCM Control Delay, s/v | 26.9 | 1.3 | 1.42 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|------|-------|-----|
| Capacity (veh/h) | 188 | - | - | 309 | 208 | - |
| HCM Lane V/C Ratio | 0.066 | - | - | 0.48 | 0.081 | - |
| HCM Control Delay (s/veh) | 10.6 | 0.8 | - | 26.9 | 9.5 | 0.9 |
| HCM Lane LOS | B | A | - | D | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 2.5 | 0.3 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | TT | | TT | | | TT |
| Traffic Vol, veh/h | 1 | 2 | 667 | 2 | 1 | 968 |
| Future Vol, veh/h | 1 | 2 | 667 | 2 | 1 | 968 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 2 | - | - | -2 |
| Peak Hour Factor | 92 | 92 | 93 | 92 | 92 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 3 |
| Mvmt Flow | 1 | 2 | 717 | 2 | 1 | 1030 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1235 | 360 | 0 | 0 | 719 |
| Stage 1 | 718 | - | - | - | - |
| Stage 2 | 517 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 168 | 637 | - | - | 878 |
| Stage 1 | 444 | - | - | - | - |
| Stage 2 | 563 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 168 | 637 | - | - | 878 |
| Mov Cap-2 Maneuver | 168 | - | - | - | - |
| Stage 1 | 444 | - | - | - | - |
| Stage 2 | 562 | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|------|
| HCM Control Delay, s/v16.01 | | 0 | 0.03 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|------|-------|
| Capacity (veh/h) | - | - | 330 | 4 |
| HCM Lane V/C Ratio | - | - | 0.01 | 0.001 |
| HCM Control Delay (s/veh) | - | - | 16 | 9.1 |
| HCM Lane LOS | - | - | C | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | ↑↑ | | ↑↑ |
| Traffic Vol, veh/h | 34 | 136 | 32 | 635 | 937 | 32 |
| Future Vol, veh/h | 34 | 136 | 32 | 635 | 937 | 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 83 | 89 | 86 | 93 | 97 | 71 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 0 |
| Mvmt Flow | 41 | 153 | 37 | 683 | 966 | 45 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|------|--------|---|
| Conflicting Flow All | 1404 | 506 | 1011 | 0 | 0 |
| Stage 1 | 989 | - | - | - | - |
| Stage 2 | 416 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.94 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.32 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 133 | 512 | 694 | - | - |
| Stage 1 | 326 | - | - | - | - |
| Stage 2 | 640 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 124 | 512 | 694 | - | - |
| Mov Cap-2 Maneuver | 124 | - | - | - | - |
| Stage 1 | 304 | - | - | - | - |
| Stage 2 | 640 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|-------|------|----|
| HCM Control Delay, s/v | 34.54 | 1.14 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 186 | - | 308 | - | - |
| HCM Lane V/C Ratio | 0.054 | - | 0.629 | - | - |
| HCM Control Delay (s/veh) | 10.5 | 0.6 | 34.5 | - | - |
| HCM Lane LOS | B | A | D | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 4 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 17 | 55 | 17 | 23 | 97 | 22 | 8 | 75 | 19 | 7 | 62 | 23 |
| Future Vol, veh/h | 17 | 55 | 17 | 23 | 97 | 22 | 8 | 75 | 19 | 7 | 62 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 80 | 83 | 65 | 65 | 97 | 66 | 65 | 65 | 65 | 88 | 88 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| Mvmt Flow | 21 | 66 | 26 | 35 | 100 | 33 | 12 | 115 | 29 | 8 | 70 | 25 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-----|--------|-----|------|--------|---|------|---|---|
| Conflicting Flow All | 289 | 268 | 83 | 274 | 266 | 130 | 95 | 0 | 0 | 145 | 0 | 0 |
| Stage 1 | 99 | 99 | - | 155 | 155 | - | - | - | - | - | - | - |
| Stage 2 | 190 | 169 | - | 119 | 111 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.32 | 6.1 | 6.9 | 6.3 | 6.1 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.32 | - | 5.9 | 5.3 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.32 | - | 5.9 | 5.3 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 678 | 648 | 984 | 693 | 653 | 928 | 1511 | - | - | 1450 | - | - |
| Stage 1 | 917 | 818 | - | 860 | 780 | - | - | - | - | - | - | - |
| Stage 2 | 825 | 766 | - | 896 | 812 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 545 | 638 | 984 | 596 | 643 | 928 | 1511 | - | - | 1450 | - | - |
| Mov Cap-2 Maneuver | 545 | 638 | - | 596 | 643 | - | - | - | - | - | - | - |
| Stage 1 | 912 | 813 | - | 852 | 773 | - | - | - | - | - | - | - |
| Stage 2 | 686 | 759 | - | 796 | 807 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-------|-------|------|------|
| HCM Control Delay, s/v | 11.46 | 12.13 | 0.58 | 0.58 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 136 | - | - | 671 | 673 | 132 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | - | 0.169 | 0.251 | 0.005 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | 11.5 | 12.1 | 7.5 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.6 | 1 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 2 | 1 | 98 | 98 | 4 |
| Future Vol, veh/h | 4 | 2 | 1 | 98 | 98 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 88 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 2 | 2 |
| Mvmt Flow | 4 | 2 | 1 | 151 | 111 | 4 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 266 | 114 | 116 | 0 | 0 |
| Stage 1 | 114 | - | - | - | - |
| Stage 2 | 153 | - | - | - | - |
| 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 | 723 | 939 | 1473 | - | - |
| Stage 1 | 911 | - | - | - | - |
| Stage 2 | 875 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 722 | 939 | 1473 | - | - |
| Mov Cap-2 Maneuver | 722 | - | - | - | - |
| Stage 1 | 911 | - | - | - | - |
| Stage 2 | 875 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 9.64 | 0.05 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 13 | - | 782 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.008 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 9.6 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | Y | | | Y | Y | |
| Traffic Vol, veh/h | 2 | 1 | 3 | 90 | 99 | 1 |
| Future Vol, veh/h | 2 | 1 | 3 | 90 | 99 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 2 | 1 | 3 | 98 | 108 | 1 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 213 | 108 | 109 | 0 | 0 |
| Stage 1 | 108 | - | - | - | - |
| Stage 2 | 104 | - | - | - | - |
| 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 | 946 | 1482 | - | - |
| Stage 1 | 916 | - | - | - | - |
| Stage 2 | 920 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 774 | 946 | 1482 | - | - |
| Mov Cap-2 Maneuver | 774 | - | - | - | - |
| Stage 1 | 914 | - | - | - | - |
| Stage 2 | 920 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 9.39 | 0.24 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 58 | - | 824 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.004 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 9.4 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

No-Build
 SAT

| |  |  |  |  |  |  |
|-------------------------|---|---|--|---|---|--|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |   | | |   |
| Traffic Volume (vph) | 89 | 67 | 586 | 18 | 95 | 778 |
| Future Volume (vph) | 89 | 67 | 586 | 18 | 95 | 778 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.850 | 0.995 | | | |
| Flt Protected | 0.950 | | | | | 0.995 |
| Satd. Flow (prot) | 2005 | 1794 | 3912 | 0 | 0 | 3950 |
| Flt Permitted | 0.950 | | | | | 0.788 |
| Satd. Flow (perm) | 2005 | 1794 | 3912 | 0 | 0 | 3129 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 73 | 6 | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 432 |
| Travel Time (s) | 4.1 | | 5.2 | | | 11.8 |
| Peak Hour Factor | 0.95 | 0.92 | 0.93 | 0.85 | 0.98 | 0.94 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 1% | 1% |
| Adj. Flow (vph) | 94 | 73 | 630 | 21 | 97 | 828 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 94 | 73 | 651 | 0 | 0 | 925 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 52.0 | | 6.0 | 61.0 |
| Minimum Split (s) | 22.0 | 22.0 | 59.0 | | 9.0 | 68.0 |
| Total Split (s) | 22.0 | 22.0 | 59.0 | | 9.0 | 68.0 |
| Total Split (%) | 24.4% | 24.4% | 65.6% | | 10.0% | 75.6% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 65.8 | | | 65.8 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.74 | | | 0.74 |
| v/c Ratio | 0.25 | 0.19 | 0.22 | | | 0.39 |
| Control Delay (s/veh) | 34.0 | 9.5 | 5.0 | | | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 34.0 | 9.5 | 5.0 | | | 6.4 |
| LOS | C | A | A | | | A |
| Approach Delay (s/veh) | 23.4 | | 5.1 | | | 6.4 |
| Approach LOS | C | | A | | | A |

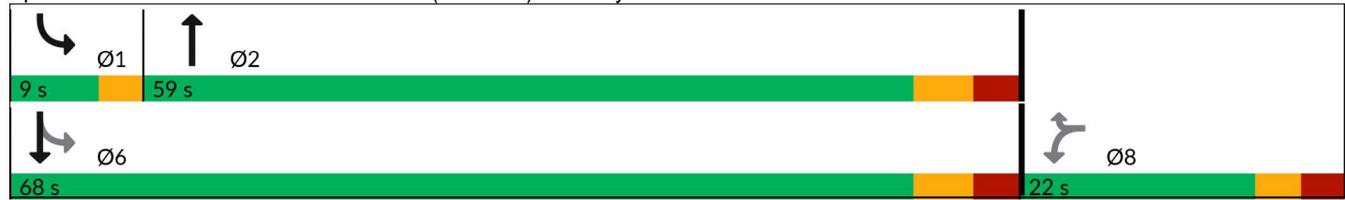


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 47 | 0 | 64 | | | 110 |
| Queue Length 95th (ft) | 91 | 36 | 86 | | | 145 |
| Internal Link Dist (ft) | 72 | | 109 | | | 352 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 362 | 383 | 2905 | | | 2322 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.26 | 0.19 | 0.22 | | | 0.40 |

Intersection Summary

| | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 90 |
| Actuated Cycle Length: | 88.6 |
| Natural Cycle: | 90 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.40 |
| Intersection Signal Delay (s/veh): | 7.5 |
| Intersection LOS: | A |
| Intersection Capacity Utilization | 110.8% |
| ICU Level of Service | H |
| Analysis Period (min) | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

No-Build
 SAT

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | ↔ | | | ↔ | | | ↔ | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 21 | 17 | 72 | 46 | 642 | 43 | 35 | 759 | 89 |
| Future Vol, veh/h | 0 | 0 | 0 | 21 | 17 | 72 | 46 | 642 | 43 | 35 | 759 | 89 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 71 | 67 | 69 | 73 | 93 | 68 | 85 | 94 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 30 | 25 | 104 | 63 | 690 | 63 | 41 | 807 | 103 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|------|--------|-----|--------|-----|
| Conflicting Flow All | 1334 | 1841 | 377 | 911 | 0 | 0 |
| Stage 1 | 848 | 848 | - | - | - | - |
| Stage 2 | 486 | 993 | - | - | - | - |
| Critical Hdwy | 7 | 6.7 | 7 | 4.1 | - | 4.1 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 2.2 | - | 2.2 |
| Pot Cap-1 Maneuver | 137 | 69 | 620 | 756 | - | 866 |
| Stage 1 | 367 | 363 | - | - | - | - |
| Stage 2 | 574 | 308 | - | - | - | - |
| Platoon blocked, % | | | | | - | - |
| Mov Cap-1 Maneuver | 115 | 0 | 620 | 756 | - | 866 |
| Mov Cap-2 Maneuver | 115 | 0 | - | - | - | - |
| Stage 1 | 329 | 0 | - | - | - | - |
| Stage 2 | 537 | 0 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|------|------|
| HCM Control Delay, s/v | 27.64 | 1.56 | 0.87 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|-------|-------|-----|
| Capacity (veh/h) | 249 | - | - | 314 | 134 | - |
| HCM Lane V/C Ratio | 0.083 | - | - | 0.507 | 0.048 | - |
| HCM Control Delay (s/veh) | 10.2 | 0.9 | - | 27.6 | 9.4 | 0.5 |
| HCM Lane LOS | B | A | - | D | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2.7 | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | TT | | TT | | | TT |
| Traffic Vol, veh/h | 0 | 0 | 666 | 0 | 0 | 846 |
| Future Vol, veh/h | 0 | 0 | 666 | 0 | 0 | 846 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 2 | - | - | -2 |
| Peak Hour Factor | 92 | 92 | 93 | 92 | 92 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 1 |
| Mvmt Flow | 0 | 0 | 716 | 0 | 0 | 900 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1166 | 358 | 0 | 0 | 716 |
| Stage 1 | 716 | - | - | - | - |
| Stage 2 | 450 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 187 | 638 | - | - | 880 |
| Stage 1 | 445 | - | - | - | - |
| Stage 2 | 609 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 187 | 638 | - | - | 880 |
| Mov Cap-2 Maneuver | 187 | - | - | - | - |
| Stage 1 | 445 | - | - | - | - |
| Stage 2 | 609 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-----|-----|
| Capacity (veh/h) | - | - | 880 | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 | - |
| HCM Lane LOS | - | - | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | ↑↑ | | ↑↑ |
| Traffic Vol, veh/h | 34 | 71 | 21 | 632 | 822 | 24 |
| Future Vol, veh/h | 34 | 71 | 21 | 632 | 822 | 24 |
| 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 69 | 81 | 71 | 93 | 94 | 96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 2 | 1 | 0 |
| Mvmt Flow | 49 | 88 | 30 | 680 | 874 | 25 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-----|--------|---|
| Conflicting Flow All | 1286 | 450 | 899 | 0 | 0 |
| Stage 1 | 887 | - | - | - | - |
| Stage 2 | 399 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 159 | 562 | 764 | - | - |
| Stage 1 | 368 | - | - | - | - |
| Stage 2 | 653 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 151 | 562 | 764 | - | - |
| Mov Cap-2 Maneuver | 151 | - | - | - | - |
| Stage 1 | 350 | - | - | - | - |
| Stage 2 | 653 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 28.9 | 0.83 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 150 | - | 284 | - | - |
| HCM Lane V/C Ratio | 0.039 | - | 0.482 | - | - |
| HCM Control Delay (s/veh) | 9.9 | 0.4 | 28.9 | - | - |
| HCM Lane LOS | A | A | D | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 2.5 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 18 | 49 | 6 | 14 | 85 | 6 | 6 | 57 | 12 | 2 | 40 | 18 |
| Future Vol, veh/h | 18 | 49 | 6 | 14 | 85 | 6 | 6 | 57 | 12 | 2 | 40 | 18 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 71 | 78 | 65 | 65 | 89 | 75 | 75 | 72 | 75 | 65 | 68 | 71 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 1 | 0 | 17 | 0 | 0 | 50 | 0 | 0 |
| Mvmt Flow | 25 | 63 | 9 | 22 | 96 | 8 | 8 | 79 | 16 | 3 | 59 | 25 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-----|--------|-----|--------|---|---|------|---|---|
| Conflicting Flow All | 221 | 189 | 71 | 200 | 193 | 87 | 84 | 0 | 0 | 95 | 0 | 0 |
| Stage 1 | 78 | 78 | - | 103 | 103 | - | - | - | - | - | - | - |
| Stage 2 | 143 | 111 | - | 96 | 90 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.32 | 6.1 | 6.9 | 6.31 | 6.1 | 4.27 | - | - | 4.6 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.32 | - | 5.9 | 5.31 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.32 | - | 5.9 | 5.31 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.5 | 4.009 | 3.3 | 2.353 | - | - | 2.65 | - | - |
| Pot Cap-1 Maneuver | 749 | 713 | 998 | 772 | 711 | 979 | 1423 | - | - | 1246 | - | - |
| Stage 1 | 940 | 834 | - | 913 | 816 | - | - | - | - | - | - | - |
| Stage 2 | 872 | 808 | - | 920 | 826 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 637 | 707 | 998 | 691 | 705 | 979 | 1423 | - | - | 1246 | - | - |
| Mov Cap-2 Maneuver | 637 | 707 | - | 691 | 705 | - | - | - | - | - | - | - |
| Stage 1 | 938 | 832 | - | 907 | 812 | - | - | - | - | - | - | - |
| Stage 2 | 758 | 804 | - | 841 | 824 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|-----------------------------|----|-------|------|------|
| HCM Control Delay, s/v10.91 | | 11.09 | 0.59 | 0.28 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 135 | - | - | 707 | 715 | 60 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.138 | 0.175 | 0.002 | - | - |
| HCM Control Delay (s/veh) | 7.5 | 0 | - | 10.9 | 11.1 | 7.9 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 0.6 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 75 | 60 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 75 | 60 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 72 | 68 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 104 | 88 | 0 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 192 | 88 | 88 | 0 | 0 |
| Stage 1 | 88 | - | - | - | - |
| Stage 2 | 104 | - | - | - | - |
| 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 | 796 | 970 | 1507 | - | - |
| Stage 1 | 935 | - | - | - | - |
| Stage 2 | 920 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 796 | 970 | 1507 | - | - |
| Mov Cap-2 Maneuver | 796 | - | - | - | - |
| Stage 1 | 935 | - | - | - | - |
| Stage 2 | 920 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1507 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | Y | | | Y | Y | |
| Traffic Vol, veh/h | 1 | 2 | 1 | 83 | 76 | 1 |
| Future Vol, veh/h | 1 | 2 | 1 | 83 | 76 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 1 | 2 | 1 | 90 | 83 | 1 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 176 | 83 | 84 | 0 | 0 |
| Stage 1 | 83 | - | - | - | - |
| 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 | 814 | 976 | 1513 | - | - |
| Stage 1 | 940 | - | - | - | - |
| Stage 2 | 931 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 814 | 976 | 1513 | - | - |
| Mov Cap-2 Maneuver | 814 | - | - | - | - |
| Stage 1 | 939 | - | - | - | - |
| Stage 2 | 931 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 8.95 | 0.09 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 21 | - | 915 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.004 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 8.9 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

Build
 AM

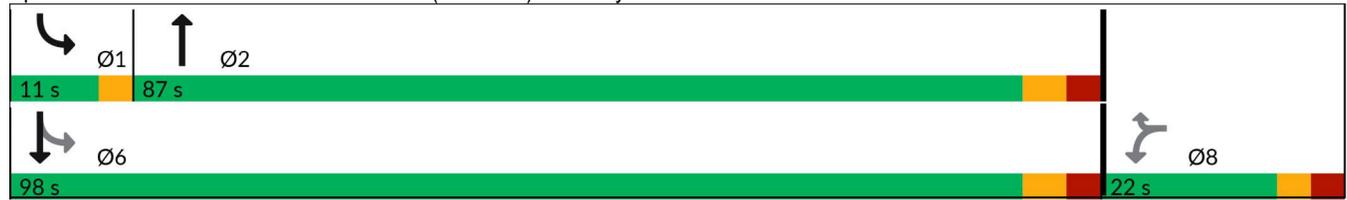
| |  |  |  |  |  |  |
|---------------------------|---|---|--|---|---|--|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |   | | |   |
| Traffic Volume (vph) | 142 | 111 | 762 | 0 | 112 | 718 |
| Future Volume (vph) | 142 | 111 | 762 | 0 | 112 | 718 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Fr _t | | 0.850 | | | | |
| Fl _t Protected | 0.950 | | | | | 0.993 |
| Satd. Flow (prot) | 1985 | 1776 | 3854 | 0 | 0 | 3871 |
| Fl _t Permitted | 0.950 | | | | | 0.676 |
| Satd. Flow (perm) | 1985 | 1776 | 3854 | 0 | 0 | 2636 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 59 | | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 348 |
| Travel Time (s) | 4.1 | | 5.2 | | | 9.5 |
| Peak Hour Factor | 0.71 | 0.78 | 0.96 | 0.92 | 0.81 | 0.89 |
| Heavy Vehicles (%) | 1% | 1% | 3% | 0% | 2% | 3% |
| Adj. Flow (vph) | 200 | 142 | 794 | 0 | 138 | 807 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 200 | 142 | 794 | 0 | 0 | 945 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 80.0 | | 7.0 | 91.0 |
| Minimum Split (s) | 22.0 | 22.0 | 87.0 | | 10.0 | 98.0 |
| Total Split (s) | 22.0 | 22.0 | 87.0 | | 11.0 | 98.0 |
| Total Split (%) | 18.3% | 18.3% | 72.5% | | 9.2% | 81.7% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 91.0 | | | 91.0 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.76 | | | 0.76 |
| v/c Ratio | 0.75 | 0.49 | 0.27 | | | 0.47 |
| Control Delay (s/veh) | 69.0 | 34.4 | 4.6 | | | 6.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 69.0 | 34.4 | 4.6 | | | 6.3 |
| LOS | E | C | A | | | A |
| Approach Delay (s/veh) | 54.7 | | 4.7 | | | 6.4 |
| Approach LOS | D | | A | | | A |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 151 | 59 | 84 | | | 124 |
| Queue Length 95th (ft) | 179 | 100 | 104 | | | 155 |
| Internal Link Dist (ft) | 72 | | 109 | | | 268 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 264 | 287 | 2922 | | | 1998 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.76 | 0.49 | 0.27 | | | 0.47 |

| Intersection Summary | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 120 |
| Actuated Cycle Length: | 120 |
| Natural Cycle: | 120 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.76 |
| Intersection Signal Delay (s/veh): | 13.7 |
| Intersection LOS: | B |
| Intersection Capacity Utilization | 120.5% |
| ICU Level of Service | H |
| Analysis Period (min) | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

Build
AM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 14 | 14 | 110 | 33 | 857 | 35 | 18 | 720 | 57 |
| Future Vol, veh/h | 0 | 0 | 0 | 14 | 14 | 110 | 33 | 857 | 35 | 18 | 720 | 57 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 81 | 76 | 89 | 91 | 77 | 65 | 84 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 0 | 3 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 22 | 17 | 145 | 37 | 942 | 45 | 28 | 857 | 62 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|------|--------|-----|--------|-----|
| Conflicting Flow All | 1523 | 2013 | 494 | 919 | 0 | 0 |
| Stage 1 | 1039 | 1039 | - | - | - | - |
| Stage 2 | 484 | 974 | - | - | - | - |
| Critical Hdwy | 7 | 6.7 | 7 | 4.1 | - | 4.1 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 2.2 | - | 2.2 |
| Pot Cap-1 Maneuver | 102 | 53 | 519 | 751 | - | 708 |
| Stage 1 | 289 | 293 | - | - | - | - |
| Stage 2 | 576 | 315 | - | - | - | - |
| Platoon blocked, % | | | | | - | - |
| Mov Cap-1 Maneuver | 90 | 0 | 519 | 751 | - | 708 |
| Mov Cap-2 Maneuver | 90 | 0 | - | - | - | - |
| Stage 1 | 270 | 0 | - | - | - | - |
| Stage 2 | 545 | 0 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|------|------|
| HCM Control Delay, s/v | 30.15 | 0.95 | 0.76 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|-------|-------|-----|
| Capacity (veh/h) | 122 | - | - | 321 | 96 | - |
| HCM Lane V/C Ratio | 0.049 | - | - | 0.572 | 0.039 | - |
| HCM Control Delay (s/veh) | 10 | 0.6 | - | 30.2 | 10.3 | 0.5 |
| HCM Lane LOS | B | A | - | D | B | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 3.3 | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↔ | | ↑↓ | | | ↔ |
| Traffic Vol, veh/h | 4 | 12 | 877 | 6 | 7 | 877 |
| Future Vol, veh/h | 4 | 12 | 877 | 6 | 7 | 877 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 1 | - | - | -1 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 13 | 953 | 7 | 8 | 953 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1448 | 480 | 0 | 0 | 960 |
| Stage 1 | 957 | - | - | - | - |
| Stage 2 | 492 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 122 | 532 | - | - | 713 |
| Stage 1 | 334 | - | - | - | - |
| Stage 2 | 580 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 120 | 532 | - | - | 713 |
| Mov Cap-2 Maneuver | 120 | - | - | - | - |
| Stage 1 | 334 | - | - | - | - |
| Stage 2 | 572 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 18.37 | 0 | 0.22 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 287 | 29 |
| HCM Lane V/C Ratio | - | - | 0.061 | 0.011 |
| HCM Control Delay (s/veh) | - | - | 18.4 | 10.1 |
| HCM Lane LOS | - | - | C | B |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.1 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 37 | 111 | 57 | 832 | 773 | 20 |
| Future Vol, veh/h | 37 | 111 | 57 | 832 | 773 | 20 |
| 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 69 | 89 | 76 | 89 | 87 | 65 |
| Heavy Vehicles, % | 0 | 3 | 0 | 4 | 3 | 0 |
| Mvmt Flow | 54 | 125 | 75 | 935 | 889 | 31 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-----|--------|---|
| Conflicting Flow All | 1521 | 460 | 919 | 0 | 0 |
| Stage 1 | 904 | - | - | - | - |
| Stage 2 | 617 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.96 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.33 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 111 | 546 | 751 | - | - |
| Stage 1 | 360 | - | - | - | - |
| Stage 2 | 506 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 96 | 546 | 751 | - | - |
| Mov Cap-2 Maneuver | 96 | - | - | - | - |
| Stage 1 | 312 | - | - | - | - |
| Stage 2 | 506 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|-------|------|----|
| HCM Control Delay, s/v | 61.65 | 1.88 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 267 | - | 227 | - | - |
| HCM Lane V/C Ratio | 0.1 | - | 0.785 | - | - |
| HCM Control Delay (s/veh) | 10.3 | 1.2 | 61.7 | - | - |
| HCM Lane LOS | B | A | F | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 5.7 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 10.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 24 | 30 | 8 | 48 | 117 | 83 | 13 | 16 | 22 | 37 | 89 | 22 |
| Future Vol, veh/h | 24 | 30 | 8 | 48 | 117 | 83 | 13 | 16 | 22 | 37 | 89 | 22 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 82 | 66 | 75 | 65 | 82 | 61 | 65 | 68 | 75 | 65 | 65 | 65 |
| Heavy Vehicles, % | 0 | 3 | 17 | 2 | 1 | 3 | 10 | 6 | 7 | 0 | 5 | 0 |
| Mvmt Flow | 29 | 45 | 11 | 74 | 143 | 136 | 20 | 24 | 29 | 57 | 137 | 34 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|------|---|---|
| Conflicting Flow All | 403 | 361 | 154 | 352 | 363 | 38 | 171 | 0 | 0 | 53 | 0 | 0 |
| Stage 1 | 268 | 268 | - | 78 | 78 | - | - | - | - | - | - | - |
| Stage 2 | 135 | 93 | - | 273 | 285 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.33 | 6.27 | 6.92 | 6.31 | 6.13 | 4.2 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.33 | - | 5.92 | 5.31 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.33 | - | 5.92 | 5.31 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.027 | 3.453 | 3.518 | 4.009 | 3.327 | 2.29 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 575 | 576 | 858 | 615 | 578 | 1032 | 1359 | - | - | 1566 | - | - |
| Stage 1 | 753 | 696 | - | 935 | 836 | - | - | - | - | - | - | - |
| Stage 2 | 880 | 820 | - | 744 | 689 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 353 | 545 | 858 | 529 | 546 | 1032 | 1359 | - | - | 1566 | - | - |
| Mov Cap-2 Maneuver | 353 | 545 | - | 529 | 546 | - | - | - | - | - | - | - |
| Stage 1 | 723 | 668 | - | 920 | 823 | - | - | - | - | - | - | - |
| Stage 2 | 622 | 808 | - | 657 | 661 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|-----------------------------|----|-------|------|------|
| HCM Control Delay, s/v14.17 | | 16.47 | 2.11 | 1.85 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 445 | - | - | 478 | 662 | 433 | - | - |
| HCM Lane V/C Ratio | 0.015 | - | - | 0.179 | 0.533 | 0.036 | - | - |
| HCM Control Delay (s/veh) | 7.7 | 0 | - | 14.2 | 16.5 | 7.4 | 0 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.6 | 3.2 | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 12 | 12 | 3 | 139 | 138 | 7 |
| Future Vol, veh/h | 12 | 12 | 3 | 139 | 138 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 68 | 65 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 6 | 5 | 2 |
| Mvmt Flow | 13 | 13 | 3 | 204 | 212 | 8 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 427 | 216 | 220 | 0 | 0 |
| Stage 1 | 216 | - | - | - | - |
| Stage 2 | 211 | - | - | - | - |
| 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 | 824 | 1349 | - | - |
| Stage 1 | 820 | - | - | - | - |
| Stage 2 | 824 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 583 | 824 | 1349 | - | - |
| Mov Cap-2 Maneuver | 583 | - | - | - | - |
| Stage 1 | 818 | - | - | - | - |
| Stage 2 | 824 | - | - | - | - |

| Approach | EB | NB | SB |
|-----------------------------|----|------|----|
| HCM Control Delay, s/v10.48 | | 0.12 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 28 | - | 683 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.038 | - | - |
| HCM Control Delay (s/veh) | 7.7 | 0 | 10.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 1 | 0 | 1 | 139 | 148 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 139 | 148 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 151 | 161 | 1 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 315 | 161 | 162 | 0 | 0 |
| Stage 1 | 161 | - | - | - | - |
| Stage 2 | 153 | - | - | - | - |
| 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 | 678 | 884 | 1417 | - | - |
| Stage 1 | 867 | - | - | - | - |
| Stage 2 | 875 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 678 | 884 | 1417 | - | - |
| Mov Cap-2 Maneuver | 678 | - | - | - | - |
| Stage 1 | 867 | - | - | - | - |
| Stage 2 | 875 | - | - | - | - |

| Approach | EB | NB | SB |
|-----------------------------|----|------|----|
| HCM Control Delay, s/v10.32 | | 0.05 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 13 | - | 678 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.002 | - | - |
| HCM Control Delay (s/veh) | 7.5 | 0 | 10.3 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

Build
PM



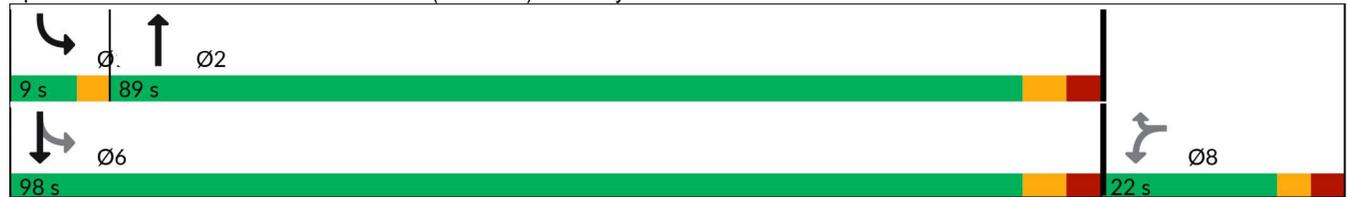
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|-------|-------|------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 117 | 65 | 549 | 28 | 166 | 860 |
| Future Volume (vph) | 117 | 65 | 549 | 28 | 166 | 860 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.850 | 0.992 | | | |
| Flt Protected | 0.950 | | | | | 0.991 |
| Satd. Flow (prot) | 1985 | 1759 | 3857 | 0 | 0 | 3903 |
| Flt Permitted | 0.950 | | | | | 0.701 |
| Satd. Flow (perm) | 1985 | 1759 | 3857 | 0 | 0 | 2761 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 37 | 10 | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 349 |
| Travel Time (s) | 4.1 | | 5.2 | | | 9.5 |
| Peak Hour Factor | 0.67 | 0.83 | 0.92 | 0.84 | 0.84 | 0.95 |
| Heavy Vehicles (%) | 1% | 2% | 2% | 4% | 1% | 2% |
| Adj. Flow (vph) | 175 | 78 | 597 | 33 | 198 | 905 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 175 | 78 | 630 | 0 | 0 | 1103 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 82.0 | | 6.0 | 91.0 |
| Minimum Split (s) | 22.0 | 22.0 | 89.0 | | 9.0 | 98.0 |
| Total Split (s) | 22.0 | 22.0 | 89.0 | | 9.0 | 98.0 |
| Total Split (%) | 18.3% | 18.3% | 74.2% | | 7.5% | 81.7% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 91.0 | | | 91.0 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.76 | | | 0.76 |
| v/c Ratio | 0.66 | 0.29 | 0.21 | | | 0.52 |
| Control Delay (s/veh) | 62.4 | 30.0 | 4.3 | | | 6.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 62.4 | 30.0 | 4.3 | | | 6.9 |
| LOS | E | C | A | | | A |
| Approach Delay (s/veh) | 52.5 | | 4.3 | | | 6.9 |
| Approach LOS | D | | A | | | A |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 131 | 29 | 62 | | | 154 |
| Queue Length 95th (ft) | 149 | 68 | 79 | | | 195 |
| Internal Link Dist (ft) | 72 | | 109 | | | 269 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 264 | 266 | 2927 | | | 2093 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.66 | 0.29 | 0.22 | | | 0.53 |

| Intersection Summary | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 120 |
| Actuated Cycle Length: | 120 |
| Natural Cycle: | 120 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.66 |
| Intersection Signal Delay (s/veh): | 11.9 |
| Intersection LOS: | B |
| Intersection Capacity Utilization | 153.5% |
| ICU Level of Service | H |
| Analysis Period (min) | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

Build
PM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 15 | 18 | 82 | 33 | 651 | 36 | 60 | 894 | 66 |
| Future Vol, veh/h | 0 | 0 | 0 | 15 | 18 | 82 | 33 | 651 | 36 | 60 | 894 | 66 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 71 | 80 | 73 | 93 | 73 | 81 | 94 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 3 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 23 | 25 | 103 | 45 | 700 | 49 | 74 | 951 | 84 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1439 | 1998 | 375 |
| Stage 1 | 815 | 815 | - |
| Stage 2 | 624 | 1183 | - |
| Critical Hdwy | 7 | 6.7 | 7 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 116 | 54 | 622 |
| Stage 1 | 383 | 376 | - |
| Stage 2 | 485 | 249 | - |
| Platoon blocked, % | | | |
| Mov Cap-1 Maneuver | 94 | 0 | 622 |
| Mov Cap-2 Maneuver | 94 | 0 | - |
| Stage 1 | 351 | 0 | - |
| Stage 2 | 427 | 0 | - |

| Approach | WB | NB | SB |
|------------------------|-------|------|------|
| HCM Control Delay, s/v | 27.73 | 1.31 | 1.49 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|-------|-------|-----|
| Capacity (veh/h) | 188 | - | - | 306 | 216 | - |
| HCM Lane V/C Ratio | 0.067 | - | - | 0.494 | 0.085 | - |
| HCM Control Delay (s/veh) | 10.7 | 0.8 | - | 27.7 | 9.5 | 1 |
| HCM Lane LOS | B | A | - | D | A | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 2.6 | 0.3 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↔ | | ↑↓ | | | ↔ |
| Traffic Vol, veh/h | 2 | 6 | 665 | 10 | 11 | 1072 |
| Future Vol, veh/h | 2 | 6 | 665 | 10 | 11 | 1072 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 1 | - | - | -1 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 7 | 723 | 11 | 12 | 1165 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1335 | 367 | 0 | 0 | 734 |
| Stage 1 | 728 | - | - | - | - |
| Stage 2 | 607 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 145 | 630 | - | - | 867 |
| Stage 1 | 439 | - | - | - | - |
| Stage 2 | 507 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 142 | 630 | - | - | 867 |
| Mov Cap-2 Maneuver | 142 | - | - | - | - |
| Stage 1 | 439 | - | - | - | - |
| Stage 2 | 497 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|------|----|------|
| HCM Control Delay, s/v | 15.9 | 0 | 0.28 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 339 | 37 |
| HCM Lane V/C Ratio | - | - | 0.026 | 0.014 |
| HCM Control Delay (s/veh) | - | - | 15.9 | 9.2 |
| HCM Lane LOS | - | - | C | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | ↑↑ | | ↑↑ |
| Traffic Vol, veh/h | 34 | 136 | 32 | 639 | 947 | 32 |
| Future Vol, veh/h | 34 | 136 | 32 | 639 | 947 | 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 83 | 89 | 86 | 93 | 97 | 71 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 0 |
| Mvmt Flow | 41 | 153 | 37 | 687 | 976 | 45 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|------|--------|---|
| Conflicting Flow All | 1417 | 511 | 1021 | 0 | 0 |
| Stage 1 | 999 | - | - | - | - |
| Stage 2 | 418 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.94 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.32 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 130 | 508 | 687 | - | - |
| Stage 1 | 322 | - | - | - | - |
| Stage 2 | 638 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 122 | 508 | 687 | - | - |
| Mov Cap-2 Maneuver | 122 | - | - | - | - |
| Stage 1 | 300 | - | - | - | - |
| Stage 2 | 638 | - | - | - | - |

| Approach | EB | NB | SB |
|-----------------------------|----|------|----|
| HCM Control Delay, s/v35.53 | | 1.14 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 185 | - | 304 | - | - |
| HCM Lane V/C Ratio | 0.054 | - | 0.637 | - | - |
| HCM Control Delay (s/veh) | 10.5 | 0.6 | 35.5 | - | - |
| HCM Lane LOS | B | A | E | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 4.1 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 17 | 55 | 20 | 29 | 97 | 22 | 10 | 71 | 23 | 7 | 61 | 23 |
| Future Vol, veh/h | 17 | 55 | 20 | 29 | 97 | 22 | 10 | 71 | 23 | 7 | 61 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 80 | 83 | 65 | 65 | 97 | 66 | 65 | 65 | 65 | 88 | 88 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| Mvmt Flow | 21 | 66 | 31 | 45 | 100 | 33 | 15 | 109 | 35 | 8 | 69 | 25 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-----|--------|-----|------|--------|---|------|---|---|
| Conflicting Flow All | 288 | 273 | 82 | 276 | 268 | 127 | 94 | 0 | 0 | 145 | 0 | 0 |
| Stage 1 | 98 | 98 | - | 158 | 158 | - | - | - | - | - | - | - |
| Stage 2 | 190 | 175 | - | 118 | 110 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.32 | 6.1 | 6.9 | 6.3 | 6.1 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.32 | - | 5.9 | 5.3 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.32 | - | 5.9 | 5.3 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 679 | 644 | 986 | 691 | 651 | 932 | 1512 | - | - | 1450 | - | - |
| Stage 1 | 919 | 819 | - | 857 | 778 | - | - | - | - | - | - | - |
| Stage 2 | 825 | 761 | - | 897 | 813 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 545 | 633 | 986 | 590 | 640 | 932 | 1512 | - | - | 1450 | - | - |
| Mov Cap-2 Maneuver | 545 | 633 | - | 590 | 640 | - | - | - | - | - | - | - |
| Stage 1 | 913 | 814 | - | 847 | 769 | - | - | - | - | - | - | - |
| Stage 2 | 684 | 753 | - | 794 | 808 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-------|-------|------|------|
| HCM Control Delay, s/v | 11.45 | 12.38 | 0.71 | 0.58 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 165 | - | - | 676 | 665 | 133 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.175 | 0.268 | 0.005 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | 11.5 | 12.4 | 7.5 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.6 | 1.1 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 6 | 6 | 98 | 99 | 11 |
| Future Vol, veh/h | 6 | 6 | 6 | 98 | 99 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 65 | 88 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 2 | 2 |
| Mvmt Flow | 7 | 7 | 7 | 151 | 113 | 12 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 282 | 118 | 124 | 0 | 0 |
| Stage 1 | 118 | - | - | - | - |
| Stage 2 | 164 | - | - | - | - |
| 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 | 933 | 1462 | - | - |
| Stage 1 | 907 | - | - | - | - |
| Stage 2 | 865 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 704 | 933 | 1462 | - | - |
| Mov Cap-2 Maneuver | 704 | - | - | - | - |
| Stage 1 | 902 | - | - | - | - |
| Stage 2 | 865 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 9.56 | 0.31 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 75 | - | 803 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.016 | - | - |
| HCM Control Delay (s/veh) | 7.5 | 0 | 9.6 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 2 | 1 | 1 | 95 | 103 | 2 |
| Future Vol, veh/h | 2 | 1 | 1 | 95 | 103 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 2 | 1 | 1 | 103 | 112 | 2 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 218 | 113 | 114 | 0 | 0 |
| Stage 1 | 113 | - | - | - | - |
| Stage 2 | 105 | - | - | - | - |
| 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 | 770 | 940 | 1475 | - | - |
| Stage 1 | 912 | - | - | - | - |
| Stage 2 | 919 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 769 | 940 | 1475 | - | - |
| Mov Cap-2 Maneuver | 769 | - | - | - | - |
| Stage 1 | 911 | - | - | - | - |
| Stage 2 | 919 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 9.41 | 0.08 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 19 | - | 819 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.004 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 9.4 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

BOHL 00293 Proposed Residential Development - Bloomfield NJ
 4: Bloomfield Avenue (CR 506S) & Liberty Street

Build
SAT



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|-------|-------|------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 93 | 68 | 596 | 18 | 96 | 780 |
| Future Volume (vph) | 93 | 68 | 596 | 18 | 96 | 780 |
| Ideal Flow (vphpl) | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| Grade (%) | -1% | | 1% | | | -1% |
| Storage Length (ft) | 0 | 35 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.850 | 0.995 | | | |
| Flt Protected | 0.950 | | | | | 0.995 |
| Satd. Flow (prot) | 2005 | 1794 | 3912 | 0 | 0 | 3950 |
| Flt Permitted | 0.950 | | | | | 0.785 |
| Satd. Flow (perm) | 2005 | 1794 | 3912 | 0 | 0 | 3117 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 74 | 6 | | | |
| Link Speed (mph) | 25 | | 25 | | | 25 |
| Link Distance (ft) | 152 | | 189 | | | 348 |
| Travel Time (s) | 4.1 | | 5.2 | | | 9.5 |
| Peak Hour Factor | 0.95 | 0.92 | 0.93 | 0.85 | 0.98 | 0.94 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 1% | 1% |
| Adj. Flow (vph) | 98 | 74 | 641 | 21 | 98 | 830 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 98 | 74 | 662 | 0 | 0 | 928 |
| Turn Type | Perm | Perm | NA | | pm+pt | NA |
| Protected Phases | | | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 16.0 | 16.0 | 52.0 | | 6.0 | 61.0 |
| Minimum Split (s) | 22.0 | 22.0 | 59.0 | | 9.0 | 68.0 |
| Total Split (s) | 22.0 | 22.0 | 59.0 | | 9.0 | 68.0 |
| Total Split (%) | 24.4% | 24.4% | 65.6% | | 10.0% | 75.6% |
| Yellow Time (s) | 3.0 | 3.0 | 4.0 | | 3.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | 3.0 | | 0.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 7.0 | | | 7.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | Max | | None | Max |
| Act Effct Green (s) | 16.0 | 16.0 | 65.8 | | | 65.8 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.74 | | | 0.74 |
| v/c Ratio | 0.27 | 0.19 | 0.22 | | | 0.40 |
| Control Delay (s/veh) | 34.2 | 9.6 | 5.1 | | | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Total Delay (s/veh) | 34.2 | 9.6 | 5.1 | | | 6.4 |
| LOS | C | A | A | | | A |
| Approach Delay (s/veh) | 23.7 | | 5.1 | | | 6.4 |
| Approach LOS | C | | A | | | A |

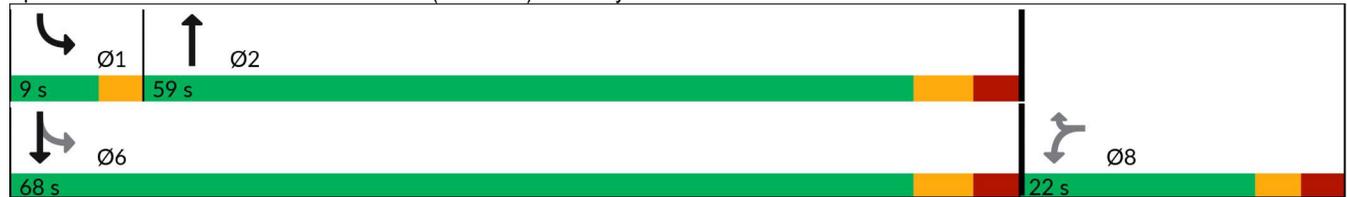


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|-----|-----|------|
| Queue Length 50th (ft) | 49 | 0 | 66 | | | 111 |
| Queue Length 95th (ft) | 94 | 36 | 88 | | | 147 |
| Internal Link Dist (ft) | 72 | | 109 | | | 268 |
| Turn Bay Length (ft) | | 35 | | | | |
| Base Capacity (vph) | 362 | 384 | 2905 | | | 2313 |
| Starvation Cap Reductn | 0 | 0 | 0 | | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | | 0 |
| Reduced v/c Ratio | 0.27 | 0.19 | 0.23 | | | 0.40 |

Intersection Summary

| | |
|------------------------------------|------------------|
| Area Type: | Other |
| Cycle Length: | 90 |
| Actuated Cycle Length: | 88.6 |
| Natural Cycle: | 90 |
| Control Type: | Semi Act-Uncoord |
| Maximum v/c Ratio: | 0.40 |
| Intersection Signal Delay (s/veh): | 7.6 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 111.6% |
| ICU Level of Service: | H |
| Analysis Period (min): | 15 |

Splits and Phases: 4: Bloomfield Avenue (CR 506S) & Liberty Street



BOHL 00293 Proposed Residential Development - Bloomfield NJ
 1: Bloomfield Avenue (CR 506S) & Strip Retail Ingress Driveway/Park Street

Build
SAT

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 21 | 17 | 75 | 46 | 649 | 43 | 40 | 771 | 89 |
| Future Vol, veh/h | 0 | 0 | 0 | 21 | 17 | 75 | 46 | 649 | 43 | 40 | 771 | 89 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | 1 | - | - | 2 | - | - | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 71 | 67 | 69 | 73 | 93 | 68 | 85 | 94 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 30 | 25 | 109 | 63 | 698 | 63 | 47 | 820 | 103 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1360 | 1873 | 381 |
| Stage 1 | 855 | 855 | - |
| Stage 2 | 504 | 1018 | - |
| Critical Hdwy | 7 | 6.7 | 7 |
| Critical Hdwy Stg 1 | 6 | 5.7 | - |
| Critical Hdwy Stg 2 | 6 | 5.7 | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 132 | 66 | 617 |
| Stage 1 | 364 | 360 | - |
| Stage 2 | 562 | 300 | - |
| Platoon blocked, % | | | |
| Mov Cap-1 Maneuver | 109 | 0 | 617 |
| Mov Cap-2 Maneuver | 109 | 0 | - |
| Stage 1 | 325 | 0 | - |
| Stage 2 | 520 | 0 | - |

| Approach | WB | NB | SB |
|------------------------|-------|------|------|
| HCM Control Delay, s/v | 29.08 | 1.57 | 0.99 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBRWBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|----------|------|-------|-----|
| Capacity (veh/h) | 247 | - | - | 309 | 151 | - |
| HCM Lane V/C Ratio | 0.084 | - | - | 0.53 | 0.055 | - |
| HCM Control Delay (s/veh) | 10.3 | 0.9 | - | 29.1 | 9.4 | 0.6 |
| HCM Lane LOS | B | A | - | D | A | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2.9 | 0.2 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | Y | | ↑↑ | | | ↑↑ |
| Traffic Vol, veh/h | 2 | 6 | 654 | 10 | 11 | 894 |
| Future Vol, veh/h | 2 | 6 | 654 | 10 | 11 | 894 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 1 | - | - | -1 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 7 | 711 | 11 | 12 | 972 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 1226 | 361 | 0 | 0 | 722 |
| Stage 1 | 716 | - | - | - | - |
| Stage 2 | 510 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | 171 | 636 | - | - | 876 |
| Stage 1 | 445 | - | - | - | - |
| Stage 2 | 568 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 168 | 636 | - | - | 876 |
| Mov Cap-2 Maneuver | 168 | - | - | - | - |
| Stage 1 | 445 | - | - | - | - |
| Stage 2 | 557 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 14.84 | 0 | 0.28 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 374 | 44 |
| HCM Lane V/C Ratio | - | - | 0.023 | 0.014 |
| HCM Control Delay (s/veh) | - | - | 14.8 | 9.2 |
| HCM Lane LOS | - | - | B | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 34 | 71 | 21 | 639 | 834 | 24 |
| Future Vol, veh/h | 34 | 71 | 21 | 639 | 834 | 24 |
| 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 | - | - | 1 | -2 | - |
| Peak Hour Factor | 69 | 81 | 71 | 93 | 94 | 96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 2 | 1 | 0 |
| Mvmt Flow | 49 | 88 | 30 | 687 | 887 | 25 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-----|--------|---|
| Conflicting Flow All | 1302 | 456 | 912 | 0 | 0 |
| Stage 1 | 900 | - | - | - | - |
| Stage 2 | 403 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 155 | 557 | 755 | - | - |
| Stage 1 | 362 | - | - | - | - |
| Stage 2 | 650 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 147 | 557 | 755 | - | - |
| Mov Cap-2 Maneuver | 147 | - | - | - | - |
| Stage 1 | 345 | - | - | - | - |
| Stage 2 | 650 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|-------|------|----|
| HCM Control Delay, s/v | 29.81 | 0.84 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 149 | - | 279 | - | - |
| HCM Lane V/C Ratio | 0.039 | - | 0.492 | - | - |
| HCM Control Delay (s/veh) | 10 | 0.4 | 29.8 | - | - |
| HCM Lane LOS | A | A | D | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 2.5 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 18 | 49 | 11 | 20 | 85 | 6 | 9 | 58 | 16 | 2 | 43 | 18 |
| Future Vol, veh/h | 18 | 49 | 11 | 20 | 85 | 6 | 9 | 58 | 16 | 2 | 43 | 18 |
| 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 |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | 1 | - | - | -1 | - |
| Peak Hour Factor | 71 | 78 | 65 | 65 | 89 | 75 | 75 | 72 | 75 | 65 | 68 | 71 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 1 | 0 | 17 | 0 | 0 | 50 | 0 | 0 |
| Mvmt Flow | 25 | 63 | 17 | 31 | 96 | 8 | 12 | 81 | 21 | 3 | 63 | 25 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-----|--------|-----|--------|---|---|------|---|---|
| Conflicting Flow All | 234 | 208 | 76 | 216 | 210 | 91 | 89 | 0 | 0 | 102 | 0 | 0 |
| Stage 1 | 82 | 82 | - | 115 | 115 | - | - | - | - | - | - | - |
| Stage 2 | 152 | 126 | - | 101 | 95 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.32 | 6.1 | 6.9 | 6.31 | 6.1 | 4.27 | - | - | 4.6 | - | - |
| Critical Hdwy Stg 1 | 5.9 | 5.32 | - | 5.9 | 5.31 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | 5.32 | - | 5.9 | 5.31 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.5 | 4.009 | 3.3 | 2.353 | - | - | 2.65 | - | - |
| Pot Cap-1 Maneuver | 734 | 697 | 993 | 754 | 697 | 974 | 1418 | - | - | 1238 | - | - |
| Stage 1 | 935 | 831 | - | 900 | 807 | - | - | - | - | - | - | - |
| Stage 2 | 862 | 797 | - | 915 | 823 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 621 | 689 | 993 | 666 | 689 | 974 | 1418 | - | - | 1238 | - | - |
| Mov Cap-2 Maneuver | 621 | 689 | - | 666 | 689 | - | - | - | - | - | - | - |
| Stage 1 | 933 | 828 | - | 892 | 800 | - | - | - | - | - | - | - |
| Stage 2 | 746 | 790 | - | 829 | 821 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|----|-------|-----|------|
| HCM Control Delay, s/v | 11 | 11.41 | 0.8 | 0.27 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 182 | - | - | 705 | 696 | 57 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | - | 0.149 | 0.193 | 0.002 | - | - |
| HCM Control Delay (s/veh) | 7.6 | 0 | - | 11 | 11.4 | 7.9 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 0.7 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 6 | 6 | 77 | 63 | 11 |
| Future Vol, veh/h | 6 | 6 | 6 | 77 | 63 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 72 | 68 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 7 | 7 | 7 | 107 | 93 | 12 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 219 | 99 | 105 | 0 | 0 |
| Stage 1 | 99 | - | - | - | - |
| 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 | 770 | 957 | 1487 | - | - |
| Stage 1 | 925 | - | - | - | - |
| Stage 2 | 905 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 766 | 957 | 1487 | - | - |
| Mov Cap-2 Maneuver | 766 | - | - | - | - |
| Stage 1 | 921 | - | - | - | - |
| Stage 2 | 905 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|-----|------|----|
| HCM Control Delay, s/v | 9.3 | 0.43 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 103 | - | 851 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.015 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 9.3 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 3 | 2 | 3 | 89 | 82 | 4 |
| Future Vol, veh/h | 3 | 2 | 3 | 89 | 82 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 1 | -1 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 0 | 2 |
| Mvmt Flow | 3 | 2 | 3 | 97 | 89 | 4 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 195 | 91 | 93 | 0 | 0 |
| Stage 1 | 91 | - | - | - | - |
| Stage 2 | 103 | - | - | - | - |
| 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 | 794 | 966 | 1501 | - | - |
| Stage 1 | 932 | - | - | - | - |
| Stage 2 | 921 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 792 | 966 | 1501 | - | - |
| Mov Cap-2 Maneuver | 792 | - | - | - | - |
| Stage 1 | 930 | - | - | - | - |
| Stage 2 | 921 | - | - | - | - |

| Approach | EB | NB | SB |
|------------------------|------|------|----|
| HCM Control Delay, s/v | 9.24 | 0.24 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---------------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 59 | - | 854 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.006 | - | - |
| HCM Control Delay (s/veh) | 7.4 | 0 | 9.2 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



30 Independence Boulevard, Suite 110
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Proposed Multifamily Residential Development
Bloomfield Avenue (CR 506)
Township of Bloomfield
Essex County, New Jersey

ATDE Project No. BOHL 00293

Gap Study

Left Turn From Minor Road (Two-Way Gap)

Data Collection Date: **Tuesday, 10/22/2024**

| | | | |
|-------------|----------------|----------------|--------------|
| Analyst: | BR | Lanes: | 4 |
| Start Time: | 7:30 AM | Critical Gap: | 7.5 s |
| End Time: | 8:30 AM | Follow Up Gap: | 3.5 s |

| Gap [seconds] | OBSERVED GAPS | | Turns | |
|--------------------|---------------|----------------------|---------------------|------------|
| | Tally | Number of Gaps | | |
| 7.5 - 11.0 | | 40 @ 1 Turn Per Gap | 40 | |
| 11.0 - 14.5 | | 5 @ 2 Turns Per Gap | 10 | |
| 14.5 - 18.0 | | 4 @ 3 Turns Per Gap | 12 | |
| 18.0 - 21.5 | | 1 @ 4 Turns Per Gap | 4 | |
| 21.5 - 25.0 | | 1 @ 5 Turns Per Gap | 5 | |
| 25.0 - 28.5 | | 1 @ 6 Turns Per Gap | 6 | |
| 28.5 - 32.0 | | 2 @ 7 Turns Per Gap | 14 | |
| 32.0 - 35.5 | | 0 @ 8 Turns Per Gap | 0 | |
| 35.5 - 39.0 | | 2 @ 9 Turns Per Gap | 18 | |
| 39.0 - 42.5 | | 0 @ 10 Turns Per Gap | 0 | |
| 42.5 - 46.0 | | 0 @ 11 Turns Per Gap | 0 | |
| 46.0 - 49.5 | | 0 @ 12 Turns Per Gap | 0 | |
| 49.5 - 53.0 | | 0 @ 13 Turns Per Gap | 0 | |
| 53.0 - 56.5 | | 0 @ 14 Turns Per Gap | 0 | |
| 56.5 - 60+ | | 0 @ 15 Turns Per Gap | 0 | |
| TOTAL GAPS: | | 56 | TOTAL TURNS: | 109 |

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Gap Study

Left Turn From Minor Road (Two-Way Gap)

Data Collection Date: **Tuesday, 10/22/2024**

| | | | |
|-------------|----------------|----------------|--------------|
| Analyst: | BR | Lanes: | 4 |
| Start Time: | 5:00 PM | Critical Gap: | 7.5 s |
| End Time: | 6:00 PM | Follow Up Gap: | 3.5 s |

| Gap [seconds] | OBSERVED GAPS | | Turns | |
|--------------------|---------------|----------------------|---------------------|-----------|
| | Tally | Number of Gaps | | |
| 7.5 - 11.0 | | 32 @ 1 Turn Per Gap | 32 | |
| 11.0 - 14.5 | | 9 @ 2 Turns Per Gap | 18 | |
| 14.5 - 18.0 | | 5 @ 3 Turns Per Gap | 15 | |
| 18.0 - 21.5 | | 3 @ 4 Turns Per Gap | 12 | |
| 21.5 - 25.0 | | 1 @ 5 Turns Per Gap | 5 | |
| 25.0 - 28.5 | | 0 @ 6 Turns Per Gap | 0 | |
| 28.5 - 32.0 | | 0 @ 7 Turns Per Gap | 0 | |
| 32.0 - 35.5 | | 0 @ 8 Turns Per Gap | 0 | |
| 35.5 - 39.0 | | 0 @ 9 Turns Per Gap | 0 | |
| 39.0 - 42.5 | | 0 @ 10 Turns Per Gap | 0 | |
| 42.5 - 46.0 | | 0 @ 11 Turns Per Gap | 0 | |
| 46.0 - 49.5 | | 0 @ 12 Turns Per Gap | 0 | |
| 49.5 - 53.0 | | 0 @ 13 Turns Per Gap | 0 | |
| 53.0 - 56.5 | | 0 @ 14 Turns Per Gap | 0 | |
| 56.5 - 60.0 | | 0 @ 15 Turns Per Gap | 0 | |
| TOTAL GAPS: | | 50 | TOTAL TURNS: | 82 |



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Essex County, New Jersey

ATDE Project No. BOHL 00293

Gap Study

Left Turn From Minor Road (Two-Way Gap)

Data Collection Date: **Saturday, 10/19/2024**

| | | | |
|-------------|----------------|----------------|--------------|
| Analyst: | BR | Lanes: | 4 |
| Start Time: | 1:00 PM | Critical Gap: | 7.5 s |
| End Time: | 2:00 PM | Follow Up Gap: | 3.5 s |

| Gap [seconds] | OBSERVED GAPS | | Turns | |
|--------------------|---------------|----------------------|---------------------|-----------|
| | Tally | Number of Gaps | | |
| 7.5 - 11.0 | | 20 @ 1 Turn Per Gap | 20 | |
| 11.0 - 14.5 | | 6 @ 2 Turns Per Gap | 12 | |
| 14.5 - 18.0 | | 6 @ 3 Turns Per Gap | 18 | |
| 18.0 - 21.5 | | 2 @ 4 Turns Per Gap | 8 | |
| 21.5 - 25.0 | | 2 @ 5 Turns Per Gap | 10 | |
| 25.0 - 28.5 | | 1 @ 6 Turns Per Gap | 6 | |
| 28.5 - 32.0 | | 0 @ 7 Turns Per Gap | 0 | |
| 32.0 - 35.5 | | 0 @ 8 Turns Per Gap | 0 | |
| 35.5 - 39.0 | | 0 @ 9 Turns Per Gap | 0 | |
| 39.0 - 42.5 | | 0 @ 10 Turns Per Gap | 0 | |
| 42.5 - 46.0 | | 0 @ 11 Turns Per Gap | 0 | |
| 46.0 - 49.5 | | 0 @ 12 Turns Per Gap | 0 | |
| 49.5 - 53.0 | | 0 @ 13 Turns Per Gap | 0 | |
| 53.0 - 56.5 | | 0 @ 14 Turns Per Gap | 0 | |
| 56.5 - 60.0 | | 0 @ 15 Turns Per Gap | 0 | |
| TOTAL GAPS: | | 37 | TOTAL TURNS: | 74 |