APPENDIX 16.4 Traffic Impact Study

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TRAFFIC IMPACT STUDY

JARDIM ESTATES EAST

TARRYTOWN, NEW YORK

PROJECT 457

JANUARY 8, 2009

REVISED: OCTOBER 2, 2009

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A. <u>INTRODUCTION</u>

This Study has been updated to address comments by the Town's Traffic Consultant (Alder Consulting) as outlined in their May 8, 2009 letter.

This study has been prepared to evaluate the potential traffic impacts of the proposed Jardim Estates

East on the surrounding roadway network. The following sections provide a description of the

proposed Project and the tasks undertaken in completing our evaluation.

B. <u>PROJECT DESCRIPTION AND LOCATION</u> (Figure No. 1)

Jardim Estates East is proposing a subdivision for an approximately 46-acre parcel of land located on the east side of Browning Lane, south of Sheldon Avenue in Tarrytown, New York. The site currently consists of 5 existing residential structures on the property. The existing 5 structures contain a total of 14 units (11 apartments and 3 single family homes). Of the 5 structures, 3 will remain (11 apartments and 1 single family home) and two structures will be demolished (2 single family homes). The proposed action calls for a total of 13 single family homes (1 existing home to remain, 2 homes to be replaced, and 10 new homes) or a net addition of 10 single family homes. This Study evaluates the proposed traffic impact of the additional 10 single family homes. Access to 9 of the new single family homes is proposed via Gracemere Road (Private Road)/Browning Lane/Lake Drive (site access) with 1 single family home via Sheldon Avenue as shown on Figure

C. EXISTING TRAFFIC NETWORK (Figure No. 1)

The site is served by U.S. Route 9 and NYS Route 119 with access via a driveway connection to Gracemere Road (Private Road)/Browning Lane/Lake Drive as well as access via Sheldon Avenue. The following is a general description of each of these roadways.

1 U.S. Route 9

U.S. Route 9 is a four lane, north/south roadway. Between the intersections of Walter Street and Kraft Foods / Gracemere Road (Private Road), at Lakeview Drive U.S. Route 9 changes over from a four lane roadway with a posted speed limit of 30 mph to a two lane roadway with a posted speed limit of 35 mph (this was recently reduced from 40 mph by the NYSDOT at the Village's request). It continues as a two lane roadway, before returning to a four lane roadway just south of Sunnyside Lane. U.S. Route 9 ranges from its intersection with Gracemere Road (Private Road), where U.S. Route 9 consists of some 36 feet of pavement with one through lane in each direction and a separate southbound left turn lane, to its intersection with the I-287 Eastbound ramps, where U.S. Route 9 consists of some 60 feet of pavement with two trough lanes in each direction and center turning lane. Parking is prohibited on both sides of U.S. Route 9 while a sidewalk is provided on the west side of the roadway.

2. NYS Route 119

NYS Route 119 is a four lane, east/west State road. At its intersection with Meadow Street and the Garden Apartments, NYS Route 119 consists of some 60 feet of pavement width

consisting of two through lanes in each direction and center turning lane with no shoulders.

Parking is prohibited along NYS Route 119 while sidewalks are provided along NYS Route

119. In the vicinity of the site there is a posted speed limit of 30 mph.

3. Walter Street / Sheldon Avenue

Sheldon Avenue is an east/west Town road that originates at I-287 in the west and terminates at Taxter Ridge Park to the east. Sheldon Avenue is an undivided roadway consisting of some 30 feet of roadway. Parking is permitted on both sides of Sheldon Avenue and a sidewalk is provided on the south side of the roadway, with the exception of the stretch of roadway between Stephen Drive and Meadow Street / Browning Lane, where sidewalks are provided on both sides of the roadway. There is a posted speed limit of 25 mph. In the vicinity of its termination at Taxter Ridge Park, Sheldon Avenue intersects with an existing right of way. This existing right of way is a private road which provides access to a private home and Taxter Ridge Park. Access to 2 homes will be provided via this existing right of way.

Near its western boundary Sheldon Avenue connects with Walter Street to provide access to U.S. Route 9. Walter Street is a two lane east/west Town roadway that originates at its unsignalized "T" intersection with U.S. Route 9 and terminates at its intersection with Croton Place. Walter Street consists of some 30 feet of roadway. Parking spaces and sidewalks are provided along both sides of Walter Street.

4. <u>Gracemere Road (Private Road)</u>

Gracemere Road (Private Road) is a two lane east/west private road with no pavement markings that consists of some 18 feet of pavement west of Emerald Woods and consists of some 14 feet of pavement with a two foot paved swale east of Emerald Woods. Gracemere Road (Private Road) originates at its full-movement signalized intersection with U.S. Route 9, opposite the Kraft Foods Driveway. Gracemere Road (Private Road) provides access to private homes along the roadway including Emerald Woods (Jardim Estates West). At its intersection with Browning Lane, Gracemere Road (Private Road) continues eastbound as Lake Drive and will provide access to the site. Parking is prohibited along the roadway and there are no sidewalks provided.

Gracemere Road has posted speed limit 20 mph. As requested, an Automatic Traffic Recorder (ATR) was placed along Gracemere Road in order to obtain the operating speed. A copy of this data is contained in Appendix "J" of this Study. Based on this data, the average speed is 25 mph and the 85th percentile speed is 31 mph.

Along Gracemere Road (Private Road) there is adequate sight distance to the west of the Emerald Woods intersection. To the east of the Emerald Woods intersection there is adequate sight distance until the road begins to bend near its intersection with Lake Drive. In this area, the sight distance is restricted due to the existing vertical and horizontal alignment. In addition, there is line of sight restriction due to hedges on the north and south side that restrict sight lines in the curve area as well as over the crest.

5. <u>Meadow Street / Browning Lane</u>

Meadow Street is a two lane north/south Town roadway with pavement markings that originates at its full movement signalized intersection with NYS Route 119, across from the Sleepy Hollow Garden Apartments. Meadow Street consists of some 30 feet of pavement. Parking is permitted in certain areas along Meadow Street between the hours of 6 PM and 10 AM. Sidewalks are not provided along the roadway. South of its full-movement all-way stop controlled intersection with Sheldon Avenue, Meadow Street becomes Browning Lane.

Browning Lane continues southbound as a two lane north/south Town roadway with no pavement markings consisting of some 22 feet of pavement. There are no parking restrictions along the roadway and sidewalks are not provided. Browning Lane continues southbound intersecting with Walnut Street. At the "T" intersection of Browning Lane and Walnut Street, the Browning Lane northbound approach and Walnut Street westbound approach are controlled by "stop" signs, giving the right-of-way to the southbound Browning Lane approach. It should be noted that the Walnut Street westbound approach "stop" sign has recently been installed.

As requested, sight distances at the intersection of Browning Lane and Walnut Street were examined. There is currently a sight distance restriction exiting Walnut Street traveling southbound on Browning Lane (approximately 130 feet looking right) due to vegetation along the fence bordering the corner property (northeast corner of the intersection). This sight distance can be improved by the trimming of the vegetation or the implementation of an "All-Way Stop" intersection.

South of its intersection with Walnut Street, Browning Lane intersects with Gracemere Road (Private Road) where Browning Lane ends and the road becomes Lake Drive. Due to the alignment at the "Y" intersection of Browning Lane/Lake Drive and Gracemere Road (Private Road), left turn movements from Gracemere Road (Private Road) onto Browning Lane and right turn movements from Browning Lane onto Gracemere Road (Private Road), require the driver to "swing wide", since the intersection is not at 90°.

Browning Lane has posted speed limit 25 mph. As requested, an Automatic Traffic Recorder (ATR) was placed along Browning Lane in order to obtain the operating speed. A copy of this data is contained in Appendix "J" of this Study. Based on this data, the average speed is 22 mph and the 85th percentile speed is 26 mph.

6. Lake Drive

As previously discussed, Lake Drive originates at Gracemere Road and Browning Lane and provides access to the site. Lake Drive consists of some 20 feet of pavement.

There is no posted speed limit on Lake Drive. As requested, an Automatic Traffic Recorder (ATR) was placed along Lake Drive in order to obtain the operating speed. A copy of this data is contained in Appendix "J" of this Study. Based on this data, the average speed is 24 mph and the 85th percentile speed is 28 mph.

There is adequate sight distance at its intersection with Gracemere Road/Browning Lane.

7. Emerald Woods

Emerald Woods is a two lane north/south road with no pavement markings and consists of some 18 feet of pavement. Emerald Woods originates at a "T" shaped unsignalized intersection with Sheldon Avenue. Emerald Woods continues southbound providing access to the Emerald Woods development before its termination and a "T" shaped unsignalized intersection with Gracemere Road (Private Road).

8. Evaluation of Gracemere Road, Browning Land and Lake Drive

As outlined above, Gracemere Road has a pavement width of 18 feet west of Emerald Woods and a pavement width of 14 feet with a two foot paved swale east of Emerald Woods, Lake Drive has a pavement width of 20 feet and Browning Lane has a pavement width of 22 feet. These roadway widths are similar to other roadways in the vicinity of the site including Emerald Woods (18 feet), Front Street (18 feet), Woodlawn Street (19 feet), Walnut Street (21 feet) and High Street (22 feet). On-street parking was observed on these latter roadways which reduces the travel way to 10 - 12 feet depending on the roadway. In addition, since most of the roadways are curbed, vehicles tend to travel more towards the center than along the curb line on these low volume narrow roadways.

It should be noted that Gracemere Road, Browning Lane and Lake Drive have relatively low traffic volumes and that the proposed additional 10 single family homes would not have a significant impact on these roadways. Appendix "K" of this Study contains a summary of the Hourly Traffic Volumes along Gracemere Road, Browning Lane and Lake Drive and provides a Project Impact Table for each of these roads. The impact of the additional 10

single family homes would have similar impacts as the Emerald Woods development (15 single family homes).

9. School Bus/School Routes

As requested, school bus/school route information was obtained from Mr. Douglas Carter, Coordinator of Transportation (September 9, 2009 letter). As outlined in this letter, the Irvington School District sends 4 big buses through the Sheldon Avenue neighborhood each school morning between approximately 7:00AM and 8:30AM and 5 buses between 2:30PM and 4:30PM each afternoon. The buses stop at about every other side street along Sheldon Avenue, Browning Lane, Walnut Street, Lincoln Avenue and Meadow Street. In addition, about 5 small school vans make pick-ups and drop-offs at the homes of out-of-district students in the in the Sheldon Avenue neighborhood during these same hours. A copy of this letter is contained in Appendix "H" of this Study. It was observed that children from the Gracemere area (Site) walked to the school bus stop located at Browning Lane and Walnut Street.

D. YEAR 2008/2009 EXISTING TRAFFIC VOLUMES (Figures No. 2 and 3)

In order to establish the existing traffic volumes in the vicinity of the site, manual turning movement traffic counts were conducted by John Collins Engineers, P.C., while school was in session, on Wednesday, June 4, 2008 between the hours of 7:00 AM and 9:30 AM to establish the Weekday Peak AM Highway Hour and on Tuesday, June 3, 2008 between the hours of 4:00 PM to 6:30 PM to determine the Weekday Peak PM Highway Hour and supplemented with counts conducted in 2009.

The following key intersections were evaluated:

- 1. U.S. Route 9 and I-287 Eastbound Ramps
- 2. U.S. Route 9 and Walter Street
- 3. U.S. Route 9 and Kraft Foods driveway / Gracemere Road (Private Road)
- 4. U.S. Route 9 and Sunnyside Lane
- 5. NYS Route 119 and Meadow Street / Garden Apartments
- 6. Meadow Street / Browning Lane and Sheldon Avenue
- 7. Browning Lane and Gracemere Road (Private Road) / Site Access
- 8. Sheldon Avenue and Emerald Woods (2009 Counts)
- 9. Gracemere Road (Private Road) and Emerald Woods (2009 Counts)

Based upon a review of the traffic counts, the peak hours were generally identified as follows.

- Weekday Peak AM Highway Hour 7:30 AM 8:30 AM
- Weekday Peak PM Highway Hour 4:30 PM 5:30 PM

The resulting Year 2008/2009 Existing Traffic Volumes are shown on Figures No. 2 and 3 for each of the peak hours, respectively.

Appendix "K" contains a summary of the Hourly Traffic Volumes including Vehicle Classification along Gracemere Road, Browning Lane and Lake Drive

E. YEAR 2014/2015 NO-BUILD TRAFFIC VOLUMES (Figures No. 4, 5, 6, 7, 8 and 9)

The Jardim Estates East development is proposed to be constructed within a three to six year period.

For the purpose of analysis, a Design Year of 2014/2015 has been utilized in completing the traffic analysis. In order to account for background growth in the area, the Year 2008/2009 Existing Traffic Volumes were grown by a total background growth of 8% (1.33% per year). The resulting Year 2014/2015 Projected Traffic Volumes are shown on Figures No. 4 and 5 for each of the peak hours, respectively. In addition to normal background growth, traffic for other development in the area was added to the study area intersections. The three other developments that were included were Emerald Woods (Jardim Estates West), Avalon Green II and an approved 250,000 s.f. of office space at 600 Tarrytown Road. The trips generated by these other developments are shown in Appendix "F." The resulting Other Development Traffic Volumes are shown on Figures No. 6 and 7 for each of the peak hours, respectively. The Other Development Traffic Volumes were then combined with the Year 2014/2015 Projected Traffic Volumes to obtain the Year 2014/2015 No-Build Traffic Volumes. The resulting Year 2014/2015 No-Build Traffic Volumes are shown on Figures No. 8 and 9 for each of the peak hours, respectively.

F. <u>SITE GENERATED TRAFFIC VOLUMES</u> (Table No. 1)

As previously discussed, the proposed action calls for a net addition of 10 single family homes (9 homes with access via Lake Drive and 1 home with access via Sheldon Avenue).

In order to estimate the amount of traffic to be generated by the proposed development during each of the peak hours, ITE Trip Generation Rates were compared to actual traffic volumes at various subdivisions (which were compiled by Adler Consulting for the Jardim Estates West (Emerald Woods) development. A copy of this information is contained in Appendix "G". Based on a comparison of this data, the trip generation rates contained in the ITE Trip Generation Manual are higher than the observed volumes. In order to be conservative, the trip generation was calculated using the ITE trip rates as summarized below.

| JARDIM ESTATES EAST | En | try | Ex | kit | То | tal |
|---|-------|--------|-------|--------|-------|--------|
| PROJECTED TRIPS** | HTGR* | Volume | HTGR* | Volume | HTGR* | Volume |
| <u>1 SINGLE FAMILY HOME</u> (OFF SHELDON AVENUE) | | | | | | |
| WEEKDAY PEAK AM HIGHWAY HOUR | 0.25 | 0 | 0.75 | 1 | 1.00 | 1 |
| WEEKDAY PEAK PM HIGHWAY HOUR | 0.83 | 1 | 0.49 | 0 | 1.32 | 1 |
| 9 SINGLE FAMILY HOMES (OFF LAKE DRIVE) | | | | | | |
| WEEKDAY PEAK AM HIGHWAY HOUR | 0.25 | 2 | 0.75 | 7 | 1.00 | 9 |
| WEEKDAY PEAK PM HIGHWAY HOUR | 0.83 | 7 | 0.49 | 5 | 1.32 | 12 |
| TOTALS | | | | | | |
| 10 SINGLE FAMILY HOMES | | | | | | |
| WEEKDAY PEAK AM HIGHWAY HOUR | 0.25 | 2 | 0.75 | 8 | 1.00 | 10 . |
| WEEKDAY PEAK PM HIGHWAY HOUR | 0.83 | 8 | 0.49 | 5 | 1.32 | 13 |

^{*} The above trip rates are based on the ITE Trip Generation Handbook, Land Use 210 – Single Family Detached Housing.

** The Conventional Subdivision Plan is expected to generate one more trip than the Cluster Plan.

G. <u>ARRIVAL/DEPARTURE DISTRIBUTION</u> (Figure No. 10)

Based on a review of the existing travel patterns on the surrounding roadway network and expected travel patterns for this development, an arrival and departure distribution was established and is shown on Figure No. 10. It should be noted that the departure distribution patterns have been updated to reflect the existing patterns utilizing Gracemere Road and Browning Lane.

H. YEAR 2014/2015 BUILD TRAFFIC VOLUMES (Figures No. 11, 12, 13 and 14)

The site generated traffic volumes for the 10 additional single family homes were assigned to the roadway network based on the arrival and departure distribution patterns referenced above. The resulting site generated traffic volumes are shown on Figures No. 11 and 12 for each peak hour, respectively. These volumes were then added to the Year 2014/2015 No-Build Traffic Volumes to obtain the Year 2014/2015 Build Traffic Volumes. The resulting Year 2014/2015 Build Traffic Volumes are shown on Figures No. 13 and 14 for each of the peak hours, respectively.

I. DESCRIPTION OF ANALYSIS

In order to determine existing and future traffic operating conditions at the study area locations, capacity analysis were performed based on the 2000 Highway Capacity Manual. The following is a description of the analysis method utilized in this report.

The un-signalized intersection capacity analysis method utilized in this report was performed in accordance with the procedures described in the 2000 Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning un-signalized Levels of Service can be found in Appendix "C.".

J. RESULTS OF ANALYSIS (Table No.1)

In order to evaluate current and future traffic operating conditions at the study area intersections, capacity analyses were conducted utilizing the un-signalized intersection procedure described above. Summarized below is a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service.

Table No. I summarizes the results of the capacity analysis for the Existing, Year 2014/2015 No-Build and Year 2014/2015 Build Conditions. Copies of the capacity analysis are contained in Appendix "D".

As requested in the scope any proposed or potential improvements to U.S. Route 9 or Sheldon Avenue were evaluated. New York State funding has been made available to the Village of Tarrytown for the following improvements; however no plans are currently available and no timetable has been set. Based on earlier estimates, the cost of the Project would be less than \$500,000 with a 20% Village share.

- Upgrade the intersection of U.S. Route 9 and Sunnyside Lane
- Construct an additional northbound lane on U.S. Route 9 at Kraft Foods driveway / Gracemere Road (Private Road)
- Restripe the southbound lanes at U.S. Route 9 and the I-287 eastbound ramps to provide one through and a double left turn lane

No credit has been taken for any of these improvements in the capacity analysis.

A comparative analysis was conducted to show the proportional increase in traffic volumes at each of the study area intersections (Section K.1) as shown on Figures No. 15 and 16. A review of the Figures indicates that the Project would represent approximately 2% of the anticipated growth in the U.S. Route 9 Corridor.

1. <u>U.S. Route 9 and I-287 Eastbound Ramps</u>

U.S. Route 9 intersects the I-287 eastbound ramps at a full movement, signalized intersection. The northbound and southbound approaches of U.S. Route 9 consist of two through lanes in each direction and a center turning lane. The eastbound approach of the Doubletree Hotel Driveway consists of one shared lane for all movements. The westbound approach of the I-287 eastbound ramps consists of one shared lane for left turns and through movements and a separate right turn lane.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is currently operating at an overall Level of Service "D" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "D" during the Weekday Peak AM Highway Hour and is projected to operate at an overall Level of Service "E" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "D" during the Weekday Peak AM Highway Hour and is projected to continue to operate at an overall Level of Service "E" during the Weekday Peak PM Highway Hour.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | | 008/2009 TING | 3 | 014/2015 BUILD | YEAR 20 BU | 014/2015 ILD |
|--------------------------------------|----------|------------------|-----------|-------------------|---------------|-----------------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| U.S. ROUTE 9 & 1-287 EASTBOUND RAMPS | | | | | | |
| SIGNALIZED | | | | | | |
| EASTBOUND LEFT /THROUGH / RIGHT | C [21.8] | D [47.9] | C [25.6] | F [83.8] | C [25.6] | F [86.5] |
| EASTBOUND APPROACH | C [21,8] | D [47,9] | C [25.6] | F [83.8] | C [25.6] | F [86.5] |
| WESTBOUND LEFT / THROUGH | D [37.3] | E [71.8] | E [76.7] | F [94.5] | E [77.5] | F [97.4] |
| WESTBOUND RIGHT | D [46.1] | B [15.5] | E [67.7] | B [15.8] | E [67.7] | B [15.8] |
| WESTBOUND APPROACH | D [43.5] | D [36,9] | E[70.3] | D [46.4] | E [70,6] | D [47.7] |
| NORTHBOUND LEFT | C [21.3] | B [18.1] | C [21.3] | B [18.1] | C [21.3] | B [18.1] |
| NORTHBOUND THROUGH / RIGHT | C [27.7] | D [46.8] | C [29.6] | E [70.5] | C [29.7] | E [71.0] |
| NORTHBOUND APPROACH | C [27.7] | D [46.7] | C [29.6] | E [70.4] | -C [29.7] | E [70.9] |
| SOUTHBOUND LEFT | C [28.5] | F [98.2] | C [27.1] | F [132.3] | C [27.4] | F [132.3] |
| SOUTHBOUND THROUGH / RIGHT | B [13.9] | A [3.9] | B [11.3] | A [4.1] | B [11.3] | A [4.1] |
| SOUTHBOUND APPROACH | B [18.0] | D [50.6] | -В [15,7] | E [66.1] | B [15.8] | E [66.0] |
| OVERALL INTERSECTION | C [29.7] | D [47,0] | D [39.0] | E [65,3] | D [39.1] | E [65.8] |

2. <u>U.S. Route 9 and Walter Street</u>

Walter Street intersects with US Route at a "T' shaped, un-signalized intersection. The U.S. Route 9 northbound approach to the intersection consists of two through lanes. The U.S. Route 9 southbound approach to the intersection consists of two through lanes and a separate left turn lane. The Walter Street westbound approach to the intersection consists of one shared lane for all movements and is "stop" sign controlled.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the U.S. Route 9 southbound approach is currently operating at a Level of Service "A" during the Weekday Peak AM Highway Hour and is currently operating at a Level of Service "B" during the Weekday Peak PM Highway Hour. The Walter Street westbound approach is currently operating at a Level of Service "E" during the Weekday Peak AM Highway Hour and is currently operating at a Level of Service "F" during the Weekday Peak PM Highway Hour. It should be noted that during peak hours, vehicles exiting Walter Street to U.S. Route 9 southbound must rely on the courtesy of northbound motorists queuing back from the signal at the I-287 eastbound ramps to not block the intersection and then edge the nose of their vehicle out into traffic to see southbound vehicles before they execute the left turn movement.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the U.S. Route 9 southbound approach is projected to operate at a Level of Service "A" during the Weekday Peak AM Highway Hour and is projected to operate at a Level of Service "B" during the Weekday Peak PM Highway Hour. The Walter Street westbound approach is projected to operate at a Level of Service "F" during the Weekday Peak AM Highway Hour and is projected to operate at a Level of Service "F" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the U.S. Route 9 southbound approach is projected to continue to operate at a Level of Service "A" during the Weekday Peak AM Highway Hour and is projected to continue to

operate at a Level of Service "B" during the Weekday Peak PM Highway Hour. The Walter Street westbound approach is projected to continue to operate at a Level of Service "F" during the Weekday Peak AM Highway Hour and is projected to continue to operate at a Level of Service "F" during the Weekday Peak PM Highway Hour.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 2008/2009 EXISTING | | YEAR 2014/2015 NO-BUILD | | | 014/2015 ILD |
|--|----------------------------|----------|----------------------------|-----------|----------|-----------------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| U.S. ROUTE 9 & WALTER STREET UNSIGNALIZED | | | | - | | |
| MAJOR MOVEMENTS SOUTHBOUND LEFT MINOR APPROACH | A (9.3) | B (12.4) | A (9.7) | B (13.4) | A (9.7) | B (13.4) |
| WESTBOUND LEFT* / RIGHT * The left turn controls the intersection | E (41.5) | F (68.7) | F (58.3) | F (101.9) | F (59.1) | F (101.9) |

3. U.S. Route 9 and Kraft Foods Driveway / Gracemere Road (Private Road)

Gracemere Road (Private Road) intersects with U.S. Route 9 at a full movement signalized intersection. The northbound and southbound approaches of U.S. Route 9 consist of one through lane in each direction and a center turning lane. The eastbound approach of the Kraft Foods Driveway consists of one shared lane for left turns and through movements and a

separate right turn lane. The westbound approach of Gracemere Road (Private Road) consists of one shared lane for all movements.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is currently operating at an overall Level of Service "C" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/15 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is projected to operate at an overall Level of Service "C" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is projected to continue to operate at an overall Level of Service "C" during the Weekday Peak PM Highway Hour.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Tables shows any change in Levels of Service and any increase in delay.

| | YEAR 20 EXIS | 008/2009 TING | Į. | 014/2015 BUILD | | 014/2015 ILD |
|--|-----------------|------------------|-----------|-------------------|----------|-----------------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| U.S. ROUTE 9 & GRACEMERE ROAD/ KRAFT FOODS DRIVEWAY | | | | | - | |
| SIGNALIZED | | | | | | |
| EASTBOUND LEFT /THROUGH | C [32.6] | F [88.4] | C [32.7] | F [112.1] | C [32.7] | F [112.1] |
| EASTBOUND RIGHT | C [32.1] | C [32.1] | C [32.1] | C [32.1] | C [32.1] | C [32.1] |
| EASTBOUND APPROACH | C [32.6] | F [88.0] | C [32,6] | F[111.5] | C [32.6] | F [111.5] |
| WESTBOUND LEFT/THROUGH/RIGHT | C [33.0] | C [34.2] | C [33.2] | D [35.0] | C [33.3] | D [35.2] |
| WESTBOUND APPROACH | C [33.0] | C [34.2] | C [33,2] | D [35.0] | C [33.3] | D [35.2] |
| NORTHBOUND LEFT | A [4.7] | A [4.5] | A [4.7] | A [4.5] | A [4.7] | A [4.5] |
| NORTHBOUND THROUGH / RIGHT | A [7.4] | B [13.2] | A [8.3] | B[17.1] | A [8.3] | B [17.1] |
| NORTHBOUND APPROACH | A [7.4] | B [13.2] | A [8.3] | | A [8.3] | B [17.1] |
| SOUTHBOUND LEFT | A [4.6] | A [4.9] | A [4.6] | A [5.4] | A [4.6] | A [5.5] |
| SOUTHBOUND THROUGH / RIGHT | C [29.4] | A [8.0] | D [50.9] | A [9.2] | D [50.9] | A [9.2] |
| SOUTHBOUND APPROACH | C [29.2] | A [8.0] | D [50.4] | A [9.1] | D [50.4] | A [9,1] |
| OVERALL INTERSECTION | C [21.8] | C [21.0] | -C [34.9] | C [25.9] | C [34.9] | C [25.9] |

4. <u>U.S. Route 9 and Sunnyside Lane</u>

Sunnyside Lane intersects with U.S. Route 9 at a full movement signalized intersection. The U.S. Route 9 northbound approach to the intersection consists of one through lane, a separate left turn lane and a separate right turn lane. The U.S. Route 9 southbound approach to the intersection consists of one through lane and a separate left turn lane. The Sunnyside Lane eastbound and westbound approaches to the intersection consist of one shared lane for all movements.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is currently operating at an overall Level of Service "D" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is projected to operate at an overall Level of Service "D" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "C" during the Weekday Peak AM Highway Hour and is projected to continue to operate at an overall Level of Service "D" during the Weekday Peak PM Highway Hour.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 20 EXIS | | 1 | 014/2015 BUILD | | 014/2015 ILD |
|----------------------------------|-----------------|----------|----------|-------------------|----------|-----------------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| U.S. ROUTE 9 & SUNNYSIDE LANE | | | | | | |
| SIGNALIZED | | | | | | |
| EASTBOUND LEFT /THROUGH / RIGHT | C [21.4] | C [28.5] | C [21.4] | C [28.5] | C [21.4] | C [28.5] |
| EASTBOUND APPROACH | C[21.4] | C [28.5] | C [21.4] | C [28.5] | C [21.4] | C [28.5] |
| WESTBOUND LEFT / THROUGH / RIGHT | D [43.5] | D [52.2] | E [59.2] | E [67.3] | E [59.2] | E [67.3] |
| WESTBOUND APPROACH | D [43.5] | D [52.2] | E[59.2] | E [67.3] | E [59.2] | E[67.3] |
| NORTHBOUND LEFT | B [10.5] | B [11.6] | B [10.8] | B [11.7] | B [10.8] | B [11.7] |
| NORTHBOUND THROUGH | B [15.4] | D [52.1] | B [17.2] | E [79.2] | B [17.2] | E [79.9] |
| NORTHBOUND RIGHT | B [12.5] | B [13.3] | B [12.8] | B [13,7] | B [12.8] | B [13.7] |
| NORTHBOUND APPROACH | B [14.4] | D [45,3] | B [15.7] | E [67.1] | B [15,7] | E [67.4] |
| SOUTHBOUND LEFT | B [10.3] | D [35.9] | B [10.4] | D [36.5] | B [10.4] | D [36.5] |
| SOUTHBOUND THROUGH / RIGHT | C [21.0] | A [8.6] | C [24.9] | A [9.1] | C [25.0] | A [9.1] |
| SOUTHBOUND APPROACH | C [20.9] | B.[12.2] | C [24.8] | B [12.6] | C [24.8] | B [12.6] |
| OVERALL INTERSECTION | C [22.7] | D [36.9] | C [27.7] | D [51.2] | G [27:7] | D [51.4] |

5. NYS Route 119 and Meadow Street / Sleepy Hollow Garden Apartments

Meadow Street intersects with NYS Route 119 at a full movement signalized intersection. The eastbound and westbound approaches of NYS Route 119 consist of two through lanes in each direction and a center turning lane. The northbound approach of Meadow Street and the southbound approach of the Sleepy Hollow Garden Apartments consist of one shared lane for all movements.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service "B" during the Weekday Peak AM Highway Hour and is currently operating at an overall Level of Service "B" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "B" during the Weekday Peak AM Highway Hour and is projected to operate at an overall Level of Service "B" during the Weekday Peak PM Highway Hour.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "B" during the Weekday Peak AM Highway Hour and is projected to continue to operate at an overall Level of Service "B" during the Weekday Peak PM Highway Hour.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 20 EXIS | 008/2009 TING | | 014/2015 BUILD | YEAR 20 BU | 014/2015 ILD |
|-----------------------------------|-----------------|------------------|----------|-------------------|---------------|--|
| LOCATION | AM | PM | AM | PM | AM | PM |
| NYS ROUTE 119 & MEADOW STREET / | | | | | | |
| GARDEN APARTMENTS | | | | | | |
| GARDEN AT ARTIVENTS | | | | | | |
| SIGNALIZED | | | | | | |
| EASTBOUND LEFT | B [10.9] | B[11.1] | B [10.9] | B [11.3] | B [10.9] | B [11.3] |
| EASTBOUND THROUGH / RIGHT | B [13.5] | B [12.2] | B [14.1] | B [12.4] | B [14.1] | B [12.4] |
| EASTBOUND APPROACH | B [13.4] | B [12,2] | B [14.0] | В [12.4] | B [14,1] | B [12.4] |
| WESTBOUND LEFT | B [11.2] | B [11.2] | B [11.5] | B [11.3] | B [11.5] | B [11.3] |
| WESTBOUND THROUGH / RIGHT | B [12.2] | B [13.2] | B [12.4] | B [13.8] | B [12.4] | B [13.8] |
| WESTBOUND APPROACH | B[12.1] | B [13.1] | B [12,3] | B [13,6] | B [12,3] | B [13.6] |
| NORTHBOUND LEFT / THROUGH / RIGHT | B [14.7] | B [14.4] | B [14.9] | B [14.5] | B [14.9] | B [14.5] |
| NORTHBOUND APPROACH | B [14.7] | B [14.4] | В [14.9] | B [14.5] | B [14,9] | B [14.5] |
| SOUTHBOUND LEFT / THROUGH / RIGHT | B [13.8] | B [13.8] | B [13.9] | B [13.8] | B [13.9] | B [13.8] |
| SOUTHBOUND APPROACH | B [13.8] | B [13.8] | B [13.9] | B [13.8] | B [13.9] | B [13.8] |
| | | | | | | and the same of th |
| OVERALL INTERSECTION | B[13.1] | B [12.9] | В [13.5] | B [13.3] | B [13.6] | B [13.3] |
| | | | | | | |

6. Meadow Street / Browning Lane and Sheldon Avenue

Meadow Street / Browning Lane intersects with Sheldon Avenue at a full movement unsignalized intersection. All approaches to the intersection consist of one lane and all approaches to the intersection are "stop" sign controlled.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the Sheldon Avenue eastbound approach is currently operating at a Level of Service "A" during each of the peak hours. The Sheldon Avenue westbound approach is currently operating at a Level of Service "A" during the each of the peak hours. The Browning Lane northbound approach is currently operating at a Level of Service "A" for each of the peak hours. The Meadow Street southbound approach is currently operating at a Level of Service

"A" during each of the peak hours. The intersection is currently operating at an overall Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the Sheldon Avenue eastbound approach is projected to operate at a Level of Service "A" during each of the peak hours. The Sheldon Avenue westbound approach is projected to operate at a Level of Service "A" during the each of the peak hours. The Browning Lane northbound approach is projected to operate at a Level of Service "A" for each of the peak hours. The Meadow Street southbound approach is projected to operate at a Level of Service "A" during each of the peak hours. The intersection is projected to operate at an overall Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the Sheldon Avenue eastbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours. The Sheldon Avenue westbound approach is projected to continue to operate at a Level of Service "A" during the each of the peak hours. The Browning Lane northbound approach is projected to continue to operate at a Level of Service "A" for each of the peak hours. The Meadow Street southbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours. The intersection is projected to continue to operate at an overall Level of Service "A" during each of the peak hours.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 2008/2009 EXISTING | | | | YEAR 2014/2015 BUILD | |
|---|--|--|--|--|--|--|
| LOCATION | AM | PM | AM | PM | AM | PM |
| MEADOW STREET / BROWNING LANE & SHELDON AVENUE ALL-WAY STOP EASTBOUND LEFT / THROUGH / RIGHT WESTBOUND LEFT / THROUGH / RIGHT NORTHBOUND LEFT / THROUGH / RIGHT SOUTHBOUND LEFT / THROUGH / RIGHT | A (8.20) A (7.32) A (8.00) A (7.34) | A (8.18) A (7.54) A (7.84) A (7.93) | A (8.35) A (7.40) A (8.09) A (7.43) | A (8.34) A (7.62) A (7.93) A (8.08) | A (8.38) A (7.44) A (8.13) A (7.47) | A (8.38) A (7.64) A (7.96) A (8.14) |
| OVERALL INTERSECTION | A (7.78) | A (7.96) | A (7.89) | A (8.10) | A (7.93) | A (8.15) |

7. Browning Lane and Gracemere Road (Private Road) / Lake Drive (Site Access)

Browning Lane and Gracemere Road (Private Road) intersects with Lake Drive (site access) at a "Y' shaped, un-signalized intersection. All approaches to the intersection consist of one lane.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the Gracemere Road (Private Road) westbound approach is currently operating at a Level of Service "A" during each of the peak hours. The Browning Lane southbound approach is currently operating at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the Gracemere Road (Private Road) westbound approach is projected to operate at a Level of Service "A" during each of the peak hours. The Browning Lane southbound approach is projected to operate at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the Gracemere Road (Private Road) westbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours. The Browning Lane southbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| · | YEAR 2008/2009 EXISTING | | YEAR 2014/2015 NO-BUILD | | | 014/2015 ILD |
|--|----------------------------|---------|----------------------------|---------|---------|-----------------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| BROWNING LANE & GRACEMERE ROAD / SITE ACCESS UNSIGNALIZED | | | | | | |
| MAJOR APPROACH WESTBOUND LEFT / THROUGH | A (7.4) | A (7.3) | A (7.4) | A (7.3) | A (7.4) | A (7.3) |
| MINOR APPROACH SOUTHBOUND LEFT / RIGHT | A (8.8) | A (8.7) | A (8.8) | A (8.7) | A (8.9) | A (8.8) |

8. Sheldon Avenue and Emerald Woods

Emerald Woods intersects with Sheldon Avenue at a "T" shaped, unsignalized intersection.

All approaches to the intersection consist of one lane and the Emerald Woods approach is "stop" sign controlled.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that the Sheldon Avenue westbound approach is currently operating at a Level of Service "A" during each of the peak hours. The Emerald Woods northbound approach is currently operating at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that the Sheldon Avenue westbound approach is projected to operate at a Level of Service "A" during each of the peak hours. The Emerald Woods northbound approach is projected to operate at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that the Sheldon Avenue westbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours. The Emerald Woods northbound approach is projected to continue to operate at a Level of Service "A" during each of the peak hours.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 2008/2009 EXISTING | | YEAR 2014/2015 NO-BUILD | | YEAR 2014/2015 BUILD | |
|--|----------------------------|---------|----------------------------|---------|-------------------------|---------|
| LOCATION | AM | PM | AM | PM | AM | PM |
| SHELDON AVENUE & EMERALD WOODS | | | | | | : |
| UNSIGNALIZED | | | | | | |
| MAJOR MOVEMENTS WESTBOUND LEFT / THROUGH | A (7.5) | A (7.5) | A (7.5) | A (7.5) | A (7.5) | A (7.5) |
| <u>MINOR APPROACH</u> NORTHBOUND LEFT / RIGHT | A (8.7) | A (8.8) | A (9.2) | A (9.0) | A (9.2) | A (9.0) |

9. Gracemere Road (Private Road) and Emerald Woods

Emerald Woods intersects with Gracemere Road (Private Road) at a "T' shaped, unsignalized intersection. All approaches to the intersection consist of one lane. All approaches to the intersection are "stop" sign controlled.

Capacity analysis conducted utilizing the Year 2008/2009 Existing Traffic Volumes indicates that all approaches to the intersection are currently operating at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 No-Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2014/2015 Build Traffic Volumes indicates that all approaches to the intersection are projected to continue to operate at a Level of Service "A" during each of the peak hours.

The following Table summarizes the intersection's Levels of Service and vehicle delay in seconds by movement, by approach as well as for the overall intersection for Existing, No-Build and Build Conditions. The Table shows any change in Level of Service and any increase in delay.

| | YEAR 2008/2009 | | YEAR 2014/2015 | | YEAR 2014/2015 | |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | EXISTING | | NO-BUILD | | BUİLD | |
| LOCATION | AM | PM | AM | PM | AM | PM |
| GRACEMERE ROAD & EMERALD WOODS | | | | | | |
| ALL-WAY STOP | | | | | | |
| EASTBOUND LEFT / THROUGH WESTBOUND THROUGH / RIGHT SOUTHBOUND LEFT / RIGHT | A (7.26) A (7.12) A (6.58) | A (7.38) A (7.07) A (6.66) | A (7.28) A (7.14) A (6.60) | A (7.44) A (7.09) A (6.68) | A (7.29) A (7.16) A (6.61) | A (7.46) A (7.12) A (6.70) |
| OVERALL INTERSECTION | A (6.99) | A (7.15) | A (6.99) | A (7.20) | A (7.02) | A (7.23) |

K. ADDITIONAL TRAFFICITEMS

1. Comparative Analysis (Figures No. 15 and 16)

As requested in the scope, a comparative analysis was conducted to show the proportional increase in traffic volumes at each of the evaluated key intersections. The resulting percentages are shown on Figures No. 15 and 16 for each of the peak hours, respectively. Based on this comparative analysis it can be seen that the impact of the 10 additional single family homes (Jardim Estates East project) on the area roadways is minimal with respect to the roadways which provide immediate access to the site. It should be noted that the highest percentage is at the intersection of Browning Lane and Gracemere Road (Private Road) / Site Access. This is due to the low existing volumes.

2. Sight-line Analysis / Safety Analysis

As requested in the scope, the sight lines at all entrances to the project site were evaluated as well as the stopping sight distance for vehicles traveling to and away from the project site.

Adequate sight-lines and stopping sight distance are present at the site's driveways.

The latest accident data (January 1, 2007 – January 31, 2009) was obtained from the New York State Department of Transportation for all of Sheldon Avenue. A copy of the NYSDOT Accident Reports is contained in Appendix "E." Based on a review of this data, there was 1 reported accident in 2007 (at E. Meadow Street) and 1 reported accident in 2008 (East of Chestnut Avenue). It is not expected that the additional 10 single family homes will have an impact on the accident rate on the area roadways.

3. Jardim Analysis

As part of this revised Traffic Impact Study, the intersections of Sheldon Avenue/Emerald Woods and Gracemere Road/Emerald Woods have been analyzed to determine the effect of traffic from Jardim Estates East on Emerald Woods (Jardim Estates West). As shown in Section J.8 and J.9 and summarized on Table No. 1, the 10 additional single family homes (Jardim Estates East) will have minimal impact at these two locations. These two intersections will continue to operate at a Level of Service "A."

Also requested was to evaluate the potential for cut through traffic from the Kraft building and others from Browning Lane to Broadway via Emerald Woods. Based on a comparison of the exiting traffic volumes (JCE 2009 Counts) and the Jardim Estates West (Emerald Woods) projections (Adler Consulting Study), it is possible that up to 13 trips cut through during the Peak AM Highway Hour and up to 10 trips cut through during the Peak PM Highway Hour. The addition of Emerald Woods provides an opportunity for vehicles to cut through from Sheldon Avenue to U.S. Route 9 avoiding making a left turn from Walter Street to U.S. Route 9 southbound and making it at the signalized U.S. Route 9/Gracemere intersection. It should be noted that it is expected that no traffic from the Jardim Estates East project would cut through Emerald Woods.

4. Pedestrian Impact/Bicycle Activity

As requested, pedestrian and bicycle activity was collected along Sheldon Avenue, Browning Lane, Gracemere Road, Lake Drive and Emerald Woods between the hours of 7:00AM and 7:00PM. This information is summarized in Tables No. 2, 3 and 4 (Appendix "I"). As shown on these Tables, some 24 pedestrians/bicyclists where observed along Gracemere Road (between Emerald Woods and Browning Lane/Lake Drive), some 29 pedestrians/bicyclists where observed along Browning Lane (between Gracemere Road/Lake Drive and Sheldon Avenue), some 23 pedestrians/bicyclists where observed along Sheldon Avenue (between Browning Lane and Emerald Woods), 5 pedestrians/bicyclists where observed along Emerald Woods (between Sheldon Avenue and Gracemere Road), and 6 pedestrian/bicyclists where observed along Lake Drive. It is not expected that the additional 10 single family homes will have a significant impact on pedestrian/bicycle activity on these roads or the surrounding roads.

5. Islamic Cultural Center

As requested in the scope, the effect of the development of the Jardim Estates East project on the future access to the Islamic Cultural Center property to allow development as a permitted use was examined. Upon completion of the Jardim Estates East project, it will surround the Islamic Cultural Center property on three sides. Currently, there is no plan to provide access to the Islamic Cultural Center property via the Jardim Estates East property.

L. <u>SUMMARY AND CONCLUSION</u>

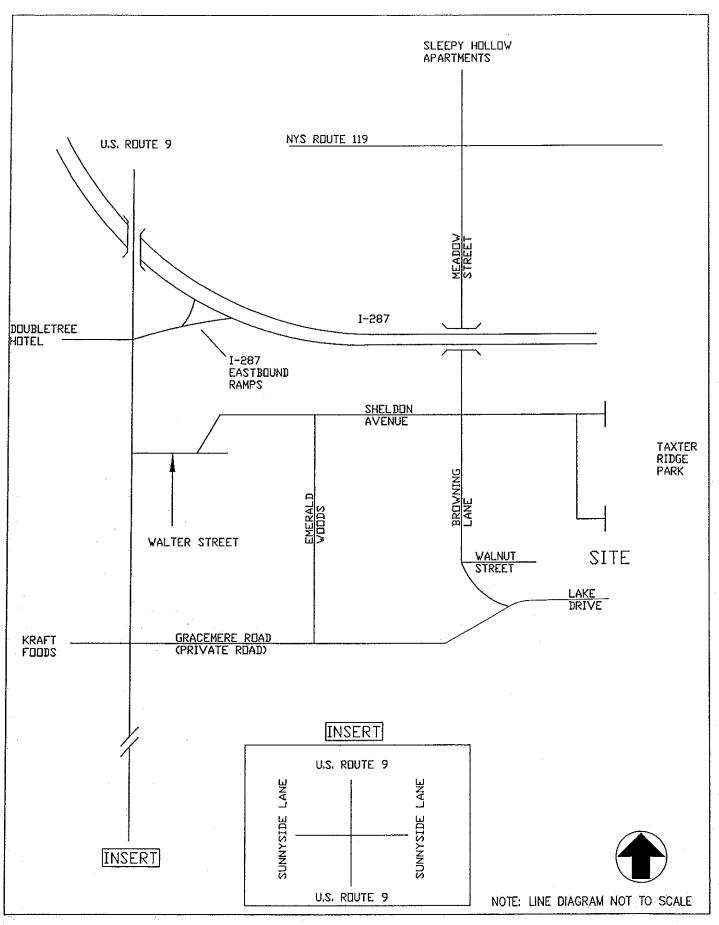
As summarized in this Study, the traffic generated by the additional 10 single family homes (proposed Jardim Estates East project) will not significantly affect the roadway system in the vicinity of the site. As shown on the Level of Service Summary Table (Table No. 1), similar Levels of Service and delays will be experienced under Future No-Build and Future Build Conditions. As indicated in this Study, an "All-Way Stop" is recommended at the intersection of Browning Lane and Walnut Street.

Respectfully submitted,

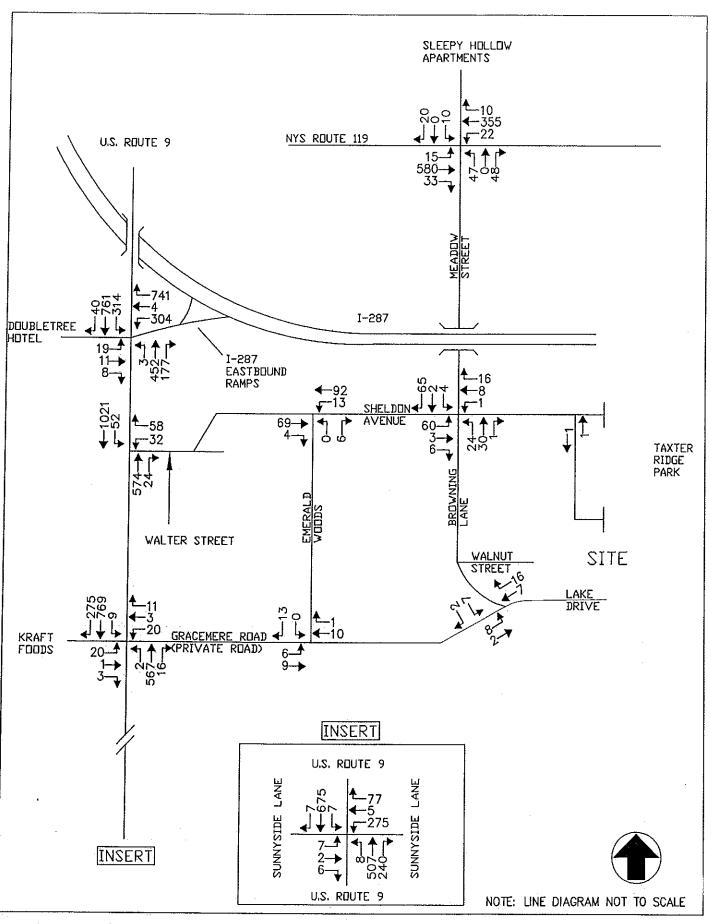
JOHN COLLINS ENGINEERS, P.C.

John T. Collins, Ph.D., P.E.

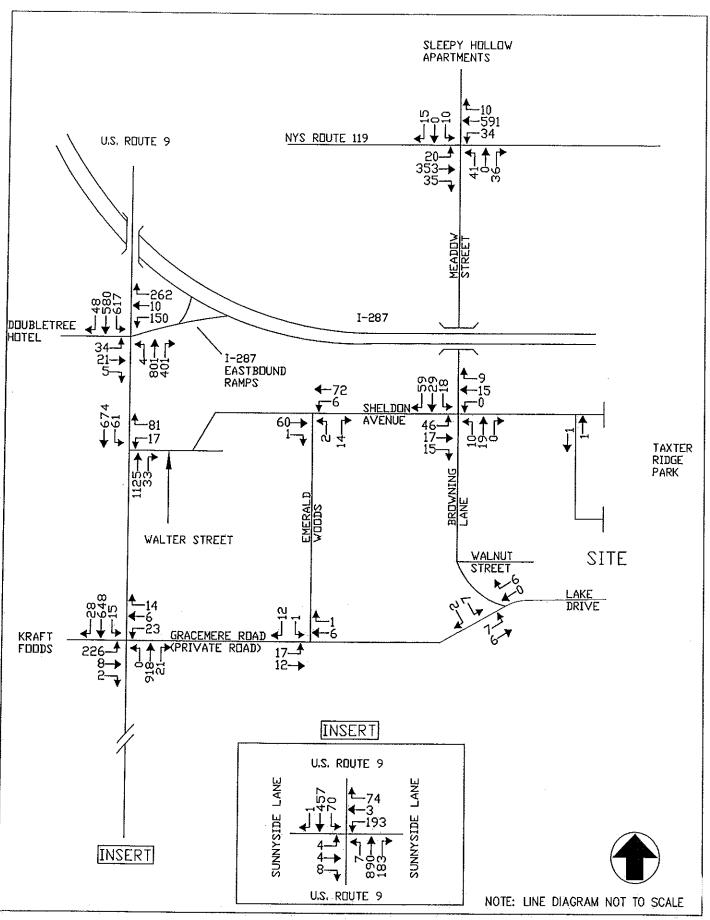
APPENDIX "A" FIGURES



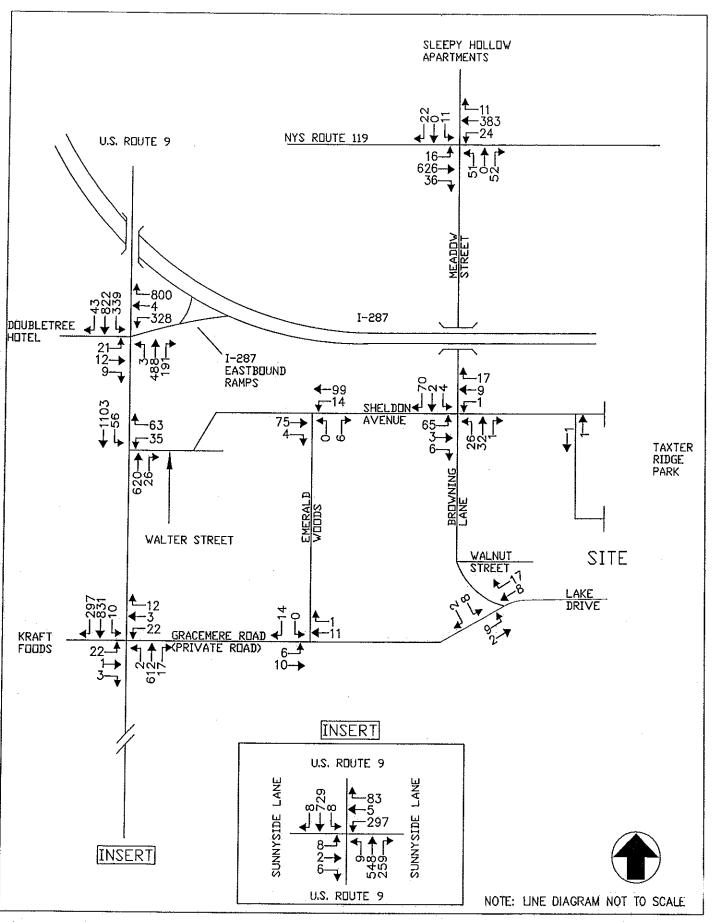
Site Location



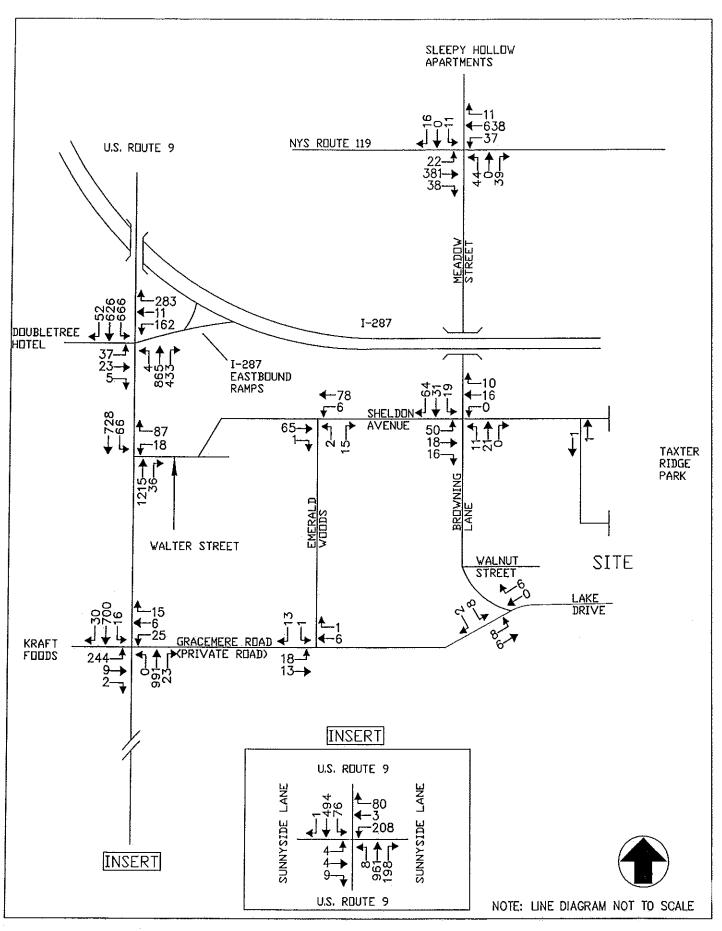
Year 2008/2009 Existing Traffic Volumes Weekday Peak AM Highway Hour



Year 2008/2009 Existing Traffic Volumes Weekday Peak PM Highway Hour



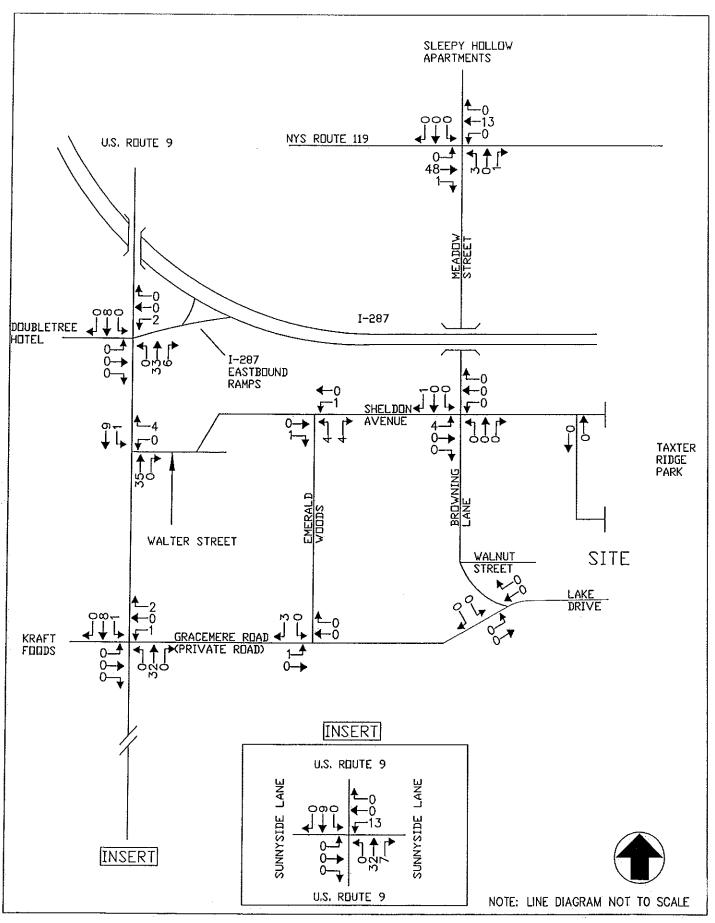
Year 2014/2015 Projected Traffic Volumes Weekday Peak AM Highway Hour



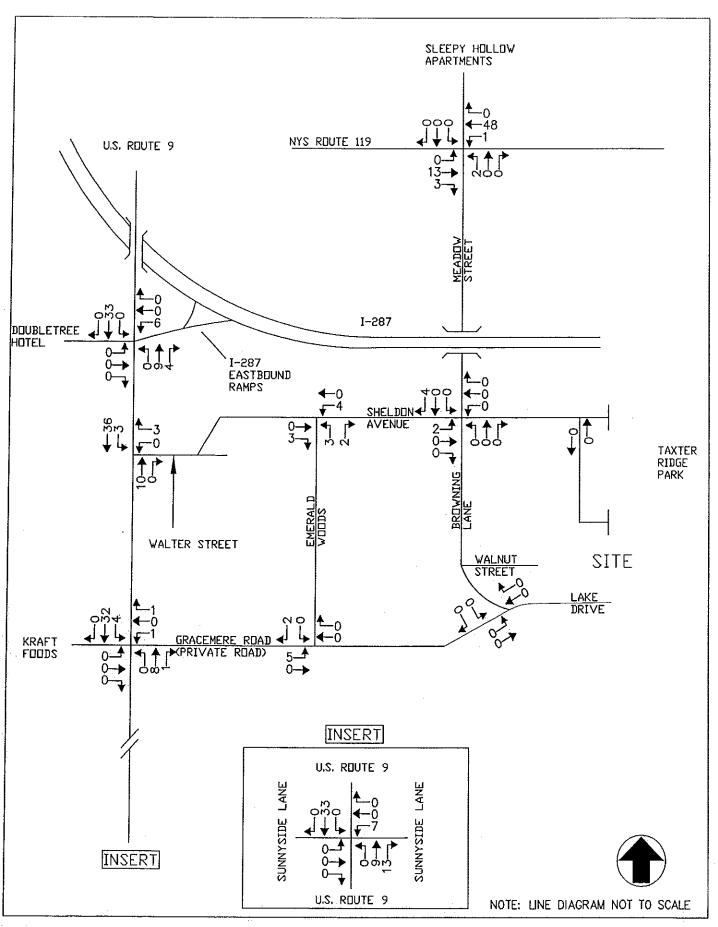
Year 2014/2015 Projected Traffic Volumes Weekday Peak PM Highway Hour

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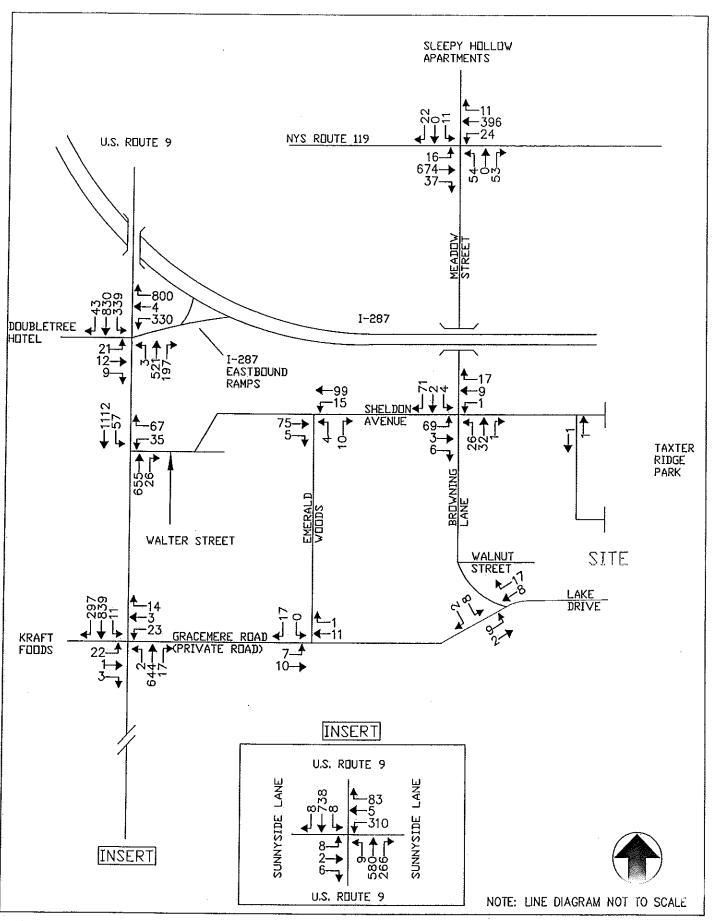
PROJECT NO. 1457 DATE: SEPTEMBER 2009 FIG. NO. 5



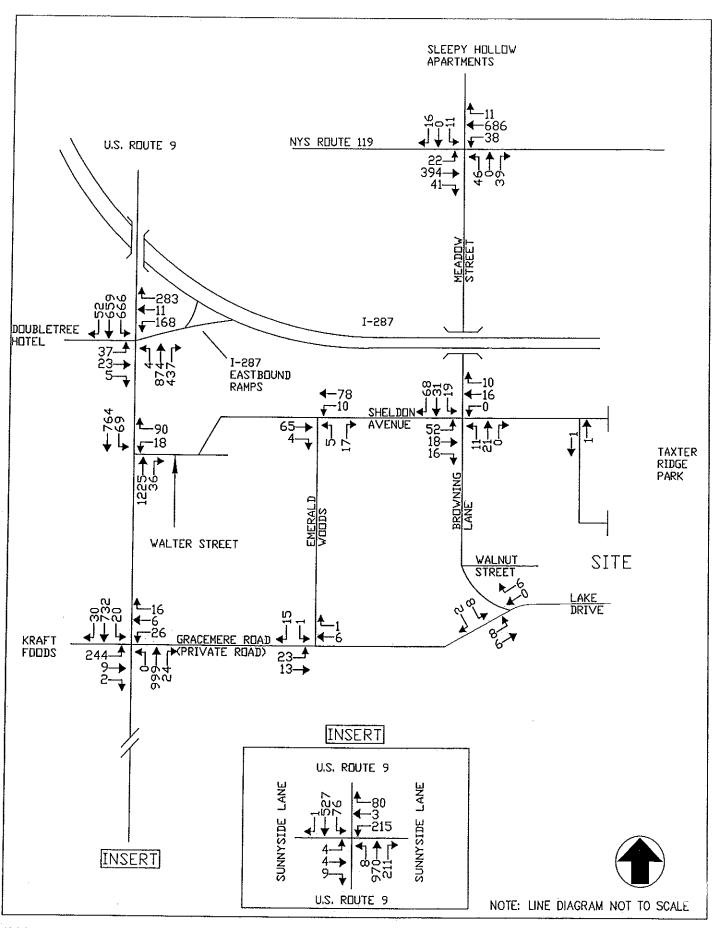
Other Development Traffic Volumes Weekday Peak AM Highway Hour



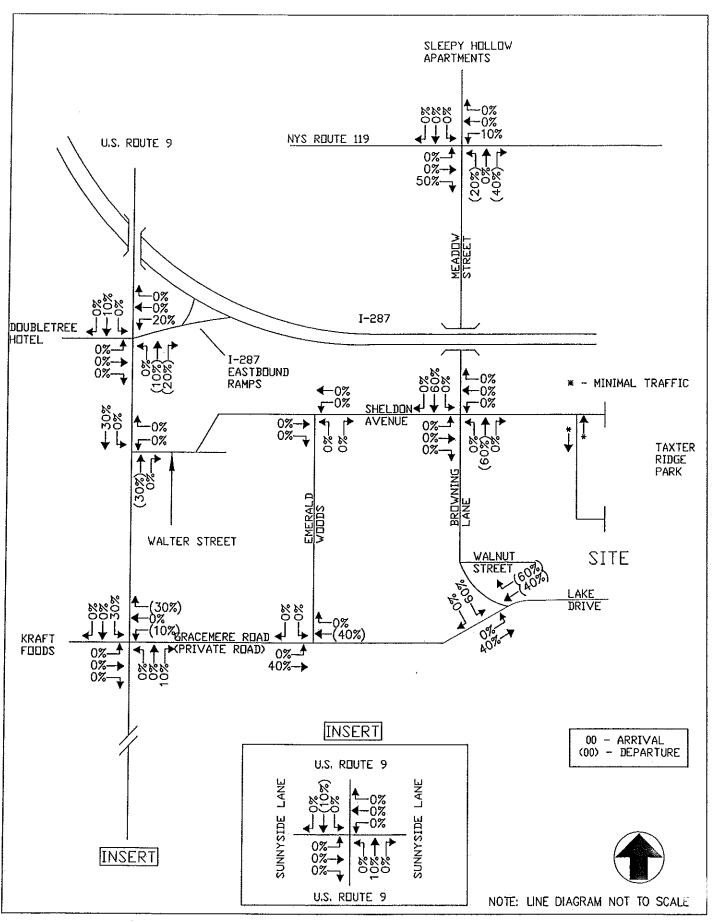
Other Development Traffic Volumes Weekday Peak PM Highway Hour



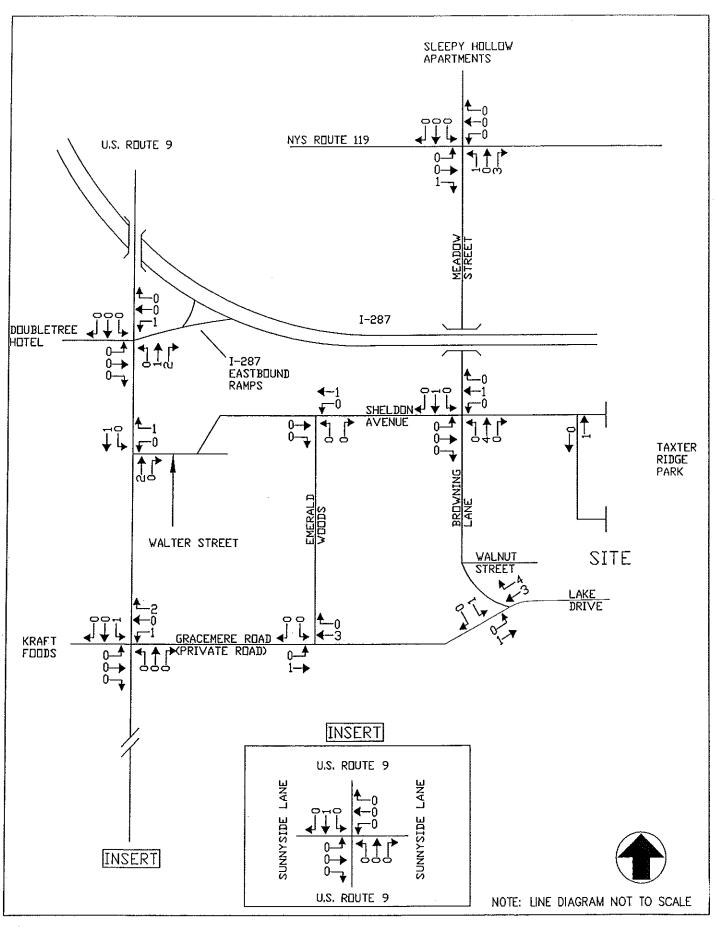
Year 2014/2015 No-Build Traffic Volumes Weekday Peak AM Highway Hour



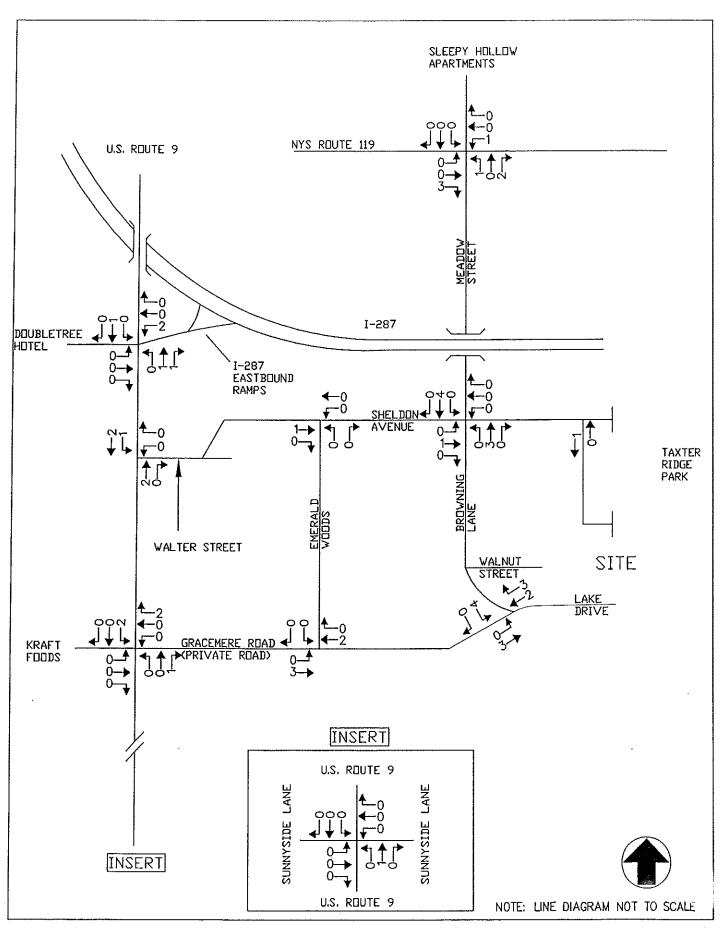
Year 2014/2015 No-Build Traffic Volumes Weekday Peak PM Highway Hour



Arrival / Departure Distribution

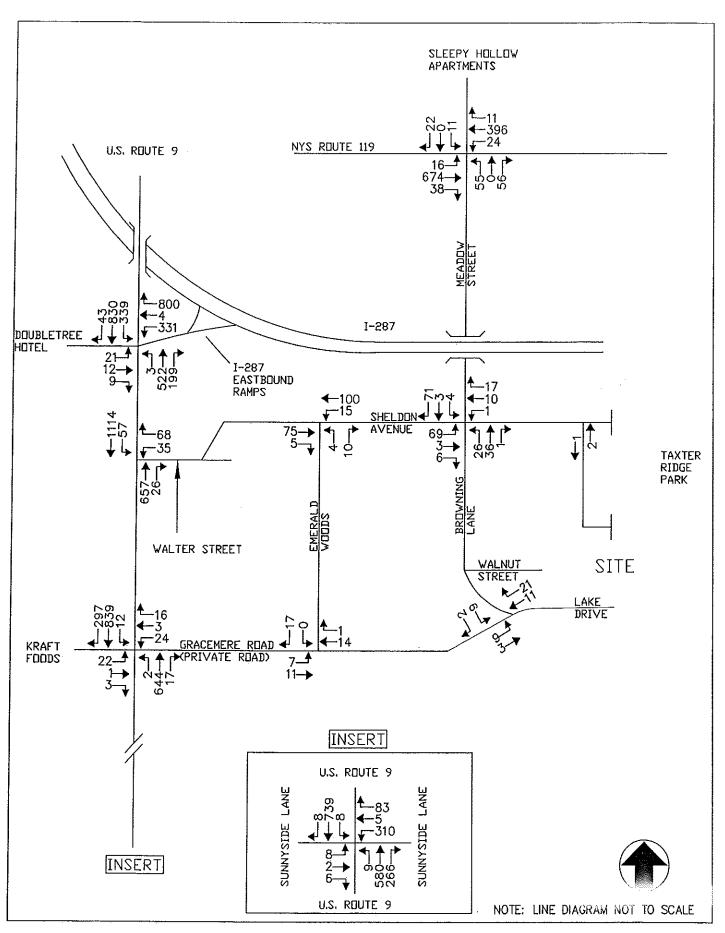


Site Generated Traffic Volumes Weekday Peak AM Highway Hour

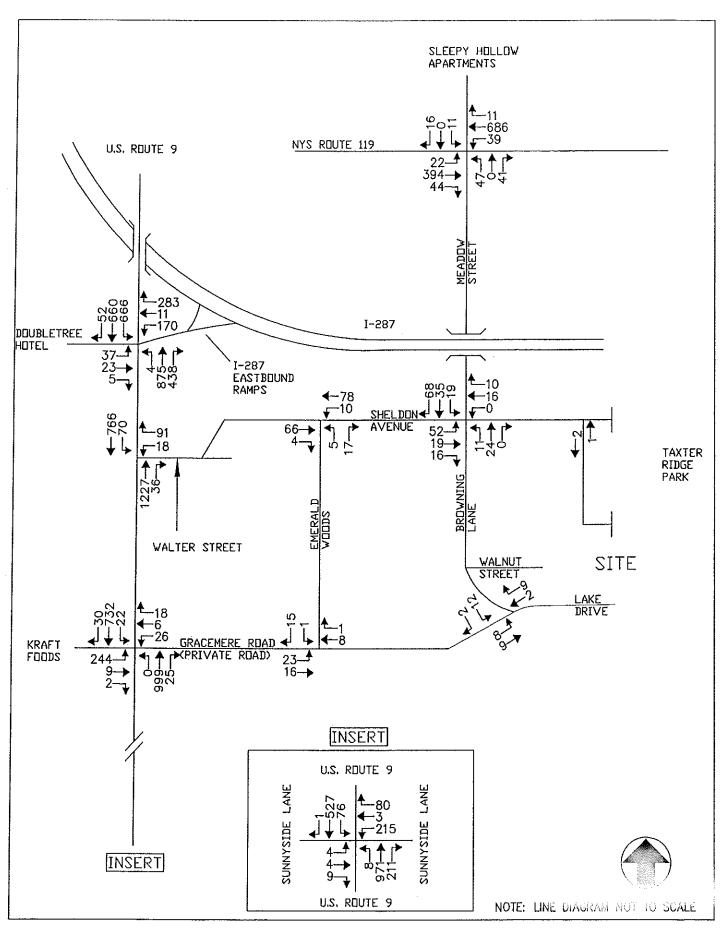


Site Generated Traffic Volumes Weekday Peak PM Highway Hour

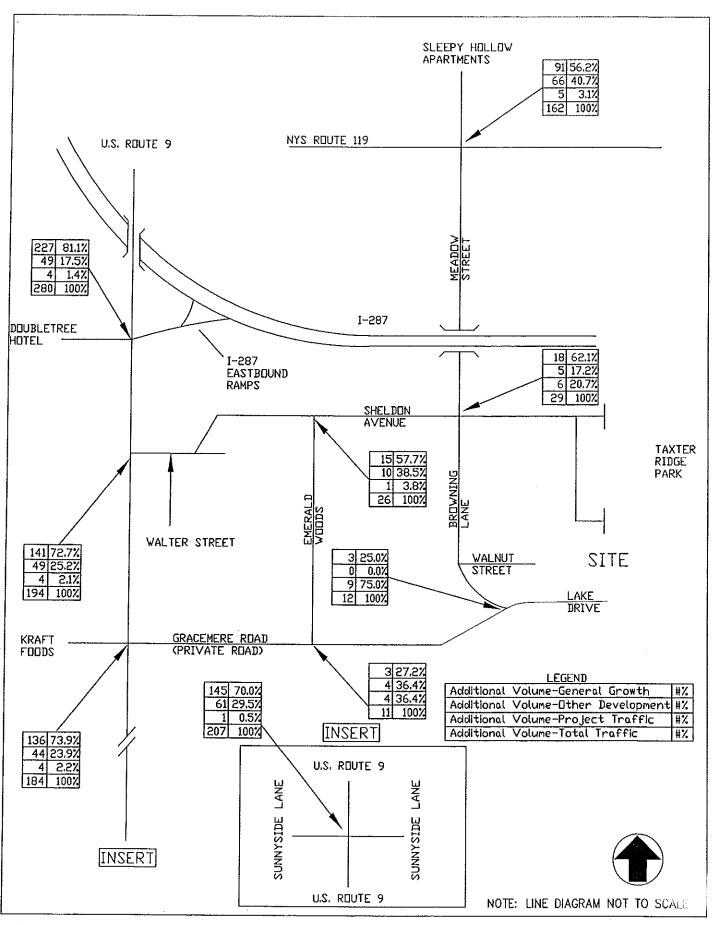
JOHN COLLINS ENGINEERS, P.C. HAWTHORNE, NEW YORK



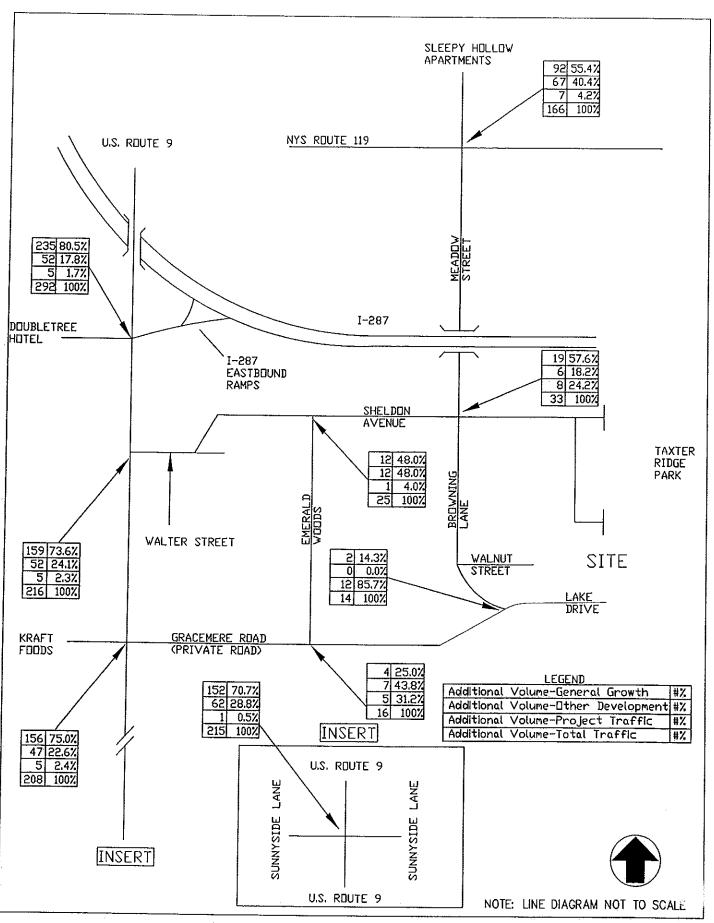
Year 2014/2015 Build Traffic Volumes Weekday Peak AM Highway Hour



Year 2014/2015 Build Traffic Volumes Weekday Peak PM Highway Hour



Comparative Analysis Weekday Peak AM Highway Hour



Comparative Analysis Weekday Peak PM Highway Hour

APPENDIX "B" TABLES

TABLE NO. 1

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | YEAR 2008/20 AM | 009 EXISTING PM | YEAR 2014/20 AM | 015 NO-BUILD PM | YEAR 2014/ AM | /2015 BUILD PM |
|---|---|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
| 1 | US ROUTE 9 & I-287 EASTBOUND RAMPS | | | **** | | • | |
| | SIGNALIZED | | | | | | |
| | EASTBOUND LEFT /THROUGH / RIGHT | C [21.8] | D [47.9] | C [25.6] | F [83.8] F [83.8) | C [25.6] C [25.6] | F [86.5] |
| | EASTBOUND APPROACH WESTBOUND LEFT / THROUGH | C [21,8] D [37.3] | D [47.9] E [71.8] | E [76.7] | F [94.5] | E [77.5] E [67.7] | F [97.4] B [15.8] |
| | WESTBOUND RIGHT WESTBOUND APPROACH | D [46.1] D [43.5] | B [15.5] D [36.9] | E [67.7] E [70.3] | B [15.8] D [46.4] | E [70.6] | D [47.7] |
| | NORTHBOUND LEFT NORTHBOUND THROUGH / RIGHT | C [21.3] C [27.7] | B [18.1] D [46.8] | C [21.3] C [29.6] | B [18.1] E [70.5] | C [21.3] C [29.7] | B [18.1] E [71.0] |
| | NORTHBOUND APPROACH SOUTHBOUND LEFT | C [27,7] C [28.5] | D [46,7] F [98.2] | C [29.6] C [27.1] | E [70.4] F [132.3] | C [29.7] C [27.4] | E [70.9] F [132.3] |
| | SOUTHBOUND THROUGH / RIGHT SOUTHBOUND APPROACH | B [13.9] B [18.0] | A [3.9] D [50.6] | B [11.3] B [15,7] | A [4.1] E [66.1] | B [11.3] B [15.8] | A [4.1] E [66,0] |
| | OVERALL INTERSECTION | C [29,7] | D [47.0] | D [89.0] | E [65:3] | D [39.1] | E [65:8] |
| 2 | US ROUTE 9 & WALTER STREET | | | | | | |
| | UNSIGNALIZED | | | | | | |
| | MAJOR MOVEMENTS SOUTHBOUND LEFT | A (9.3) | B (12.4) | A (9.7) | В (13.4) | A (9.7) | B (13.4) |
| | MINOR APPROACH WESTBOUND LEFT* / RIGHT | E (41.5) | F (68.7) | F (58.3) | F (101.9) | F (59.1) | F (101.9) |
| | * THE LEFT TURN CONTROLS THE INTERSECTION | | | | | | |
| 3 | US ROUTE 9 & GRACEMERE ROAD / KRAFT FOODS DRIVEWAY | | | | | | |
| | SIGNALIZED | | | | | | |
| | EASTBOUND LEFT /THROUGH EASTBOUND RIGHT | C [32.6] C [32.1] | F [88.4] C [32.1] | C [32.7] C [32.1] | F [112.1] C [32.1] | C [32.7] C [32.1] | F [112.1] C [32.1] |
| | EASTBOUND APPROACH WESTBOUND LEFT / THROUGH / RIGHT | G [32,6] C [33,0] | F [88:0] C [34.2] | C [32.6] C [33.2] | F [111:5] D [35.0] | C [32.6] C [33.3] | F [111.5] D [35.2] |
| | WESTBOUND APPROACH NORTHBOUND LEFT | C [33:0] A [4.7] | C [34:2] A [4.5] | C [33.2] A [4.7] | D [35.0] A [4.5] | C [33.8] A [4.7] | D [35.2] A [4.5] |
| | NORTHBOUND THROUGH / RIGHT NORTHBOUND APPROACH | A [7.4] A [7.4] | B [13.2] B [13.2] | A [8.3] A [8.3] | B [17.1] B [17.1] | A [8.3] A [8.3] | B [17.1] B [17.1] |
| | SOUTHBOUND LEFT SOUTHBOUND THROUGH / RIGHT | A [4.6] C [29.4] | A [4.9] A [8.0] | A [4.6] D [50.9] | A [5.4] A [9.2] | A [4.6] D [50.9] | A [5.5] A [9.2] |
| | SOUTHBOUND APPROAGH | C [29,2] | A (8.0) | -D [50;4] | | D [50.4] | A (9,1) |
| | OVERALL INTERSECTION | G [21.8] | C [21.0] | _C.[34.9] | C [25.9] | C [34:9] | C [25.9] |
| 4 | US ROUTE 9 & SUNNYSIDE LANE | | | | | | |
| | SIGNALIZED | | | | | | |
| | EASTBOUND LEFT /THROUGH / RIGHT EASTBOUND APPROACH | C [21.4] G [21.4] | C [28.5] C [28.5] | C [21.4] | C [28.5] C [28.5] | C [21.4] C [21.4] | |
| | WESTBOUND LEFT / THROUGH / RIGHT WESTBOUND APPROACH | D [43.5] D [43.5] | D [52.2] D [52.2] | E [59.2] E [59.2] | E [67.3] E [67.3] | E [59.2] E [59.2] | |
| | NORTHBOUND LEFT NORTHBOUND THORUGH | B [10.5] B [15.4] | B [11.6] D [52.1] | B [10.8] B [17.2] | B [11.7] E [79.2] | B [10.8] B [17.2] | B [11.7] E [79.9] |
| | NORTHBOUND RIGHT NORTHBOUND APPROACH | B [12.5] B [14.4] | B [13.3] D [45,3] | B [12.8] B [15.7] | B [13.7] E [67:1] | B [12.8] B [15.7] | B [13.7] E [67.4] |
| ĺ | SOUTHBOUND LEFT SOUTHBOUND THROUGH / RIGHT | B [10.3] C [21.0] | D [35,9] A [8,6] | B [10.4] C [24.9] | D [36.5] A [9.1] | B [10.4] C [25.0] | D [36.5] A [9.1] |
| | SOUTHBOUND APPROACH | C [20.9] | B [12.2] | .C [24.8] | B [12.6] | C [24,8] | B [12.6] |
| | OVERALLINTERSECTION | C [22.7] | D [36.9] | C [27,7] | D (61:2) | C [27.7] | D (51.4) |

TABLE NO. 1

LEVEL OF SERVICE SUMMARY TABLE

| | 1 | YEAR 2008/2 | 009 EXISTING | YFAR 2014/20 | 15 NO-BUILD | YEAR 2014/ | 2015 BUILD |
|---|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | LOCATION | AM | PM | AM | PM | AM | PM |
| 5 | NYS ROUTE 119 & MEADOW STREET / GARDEN APARTMENTS | | | | | | |
| | SIGNALIZED | | | | | | |
| | EASTBOUND LEFT | B [10.9] | B [11.1] | B [10.9] | B [11.3] | B [10.9] | B [11.3] |
| | EASTBOUND THROUGH / RIGHT EASTBOUND APPROACH | B [13.5] B [13.4] | B [12.2] B [12.2] | B [14.1] B [14.0] | B [12.4] B [12.4] | B [14.1] B [14.1] | B [12.4] B [12.4] |
| | WESTBOUND LEFT | B [11.2] | B [11.2] | B [11.5] | B [11.3] | B [11.5] | B [11.3] B [13.8] |
| | WESTBOUND THROUGH / RIGHT WESTBOUND APPROACH | B [12.2] B [12.1] | B [13.2] B [13.1] | B [12.4] B [12.3] | B [13.8] B [13.6] | B [12.4] B [12.3] | B [13.6] |
| | NORTHBOUND LEFT / THROUGH / RIGHT | B [14.7] | B [14.4] | B [14.9] | B [14.5] | B [14.9] | B [14.5] |
| | NORTHBOUND APPROACH SOUTHBOUND LEFT / THROUGH / RIGHT | B [14.7] B [13.8] | B [14,4] B [13.8] | B [14.9] B [13.9] | B [14.5] B [13.8] | B [14.9] B [13.9] | B [14,5] B [13.8] |
| | SOUTHBOUND APPROACH | B [13.8] | _B [13.8] | B [13.9] | В [13.8] | B [13.9] | B [13.8] |
| | OVERALL INTERSECTION | B [13:1] | B [12.9] | B [13.5] | B [13,3] | B [13,6] | B [13.3] |
| 6 | MEADOW STREET / BROWNING LANE & SHELDON AVENUE | | | | | | |
| | ALL-WAY STOP | | | | | | |
| | EASTBOUND LEFT / THROUGH / RIGHT | A (8.20) | A (8.18) | A (8.35) | A (8.34) | A (8.38) | A (8.38) |
| | WESTBOUND LEFT / THROUGH / RIGHT | A (7.32) | A (7.54) | A (7.40) | A (7.62) | A (7.44) | A (7.64) |
| | NORTHBOUND LEFT / THROUGH / RIGHT SOUTHBOUND LEFT / THROUGH / RIGHT | A (8.00) A (7.34) | A (7.84) A (7.93) | A (8.09) A (7.43) | A (7.93) A (8.08) | A (8.13) A (7.47) | A (7.96) A (8.14) |
| | SOUTHBOOME LEFT? MINOUSH? NIGHT | | | ' ' | | | |
| | OVERALL INTERSECTION | A (7.78) | A (7.96) | A (7.89) | A (8.10) | A (7.93) | A (8.15) |
| 7 | BROWNING LANE & GRACEMERE ROAD / SITE ACCESS | | | | | | |
| | UNSIGNALIZED | | | | | | |
| | MAJOR APPROACH | | | | | | |
| | WESTBOUND LEFT / THROUGH | A (7.4) | A (7.3) | A (7.4) | A (7.3) | A (7.4) | A (7.3) |
| | MINOR APPROACH | | | | | | |
| | SOUTHBOUND LEFT / RIGHT | A (8.8) | A (8.7) | A (8.8) | A (8.7) | A (8.9) | A (8.8) |
| 8 | SHELDON AVENUE & EMERALD WOODS | | | | | | |
| | UNSIGNALIZED | | | | | | |
| | MAJOR MOVEMENTS | | | | | | |
| | WESTBOUND LEFT / THROUGH | A (7.5) |
| | MINOD ADDDOACH | | | | | | |
| | MINOR APPROACH NORTHBOUND LEFT / RIGHT | A (8.7) | A (8.8) | A (9.2) | A (9.0) | A (9.2) | A (9.0) |
| 9 | GRACEMERE ROAD & EMERALD WOODS | | | | | | |
| | ALL-WAY STOP | | | | | | |
| | EASTBOUND LEFT / THROUGH | A (7.26) | A (7.38) | A (7.28) | A (7.44) | A (7.29) | A (7.46) |
| | WESTBOUND THROUGH / RIGHT | A (7.12) | A (7.07) | A (7.14) | A (7.09) | A (7.16) | A (7.12) |
| | SOUTHBOUND LEFT / RIGHT | A (6.58) | A (6.66) | A (6.60) | A (6.68) | A (6.61) | A (6.70) |
| | OVERALL INTERSECTION | A (6.99) | A (7.15) | A (6.99) | A (7.20) | A (7.02) | A (7.23) |
| | | | | | <u> </u> | | |

THE ABOVE SUMMARIZES THE LEVELS OF SERVICE AND VEHICLE DELAY IN SECONDS,
B [12.0], {0.29} FOR THE SIGNALIZED INTERSECTIONS AND THE LEVELS OF SERVICE AND AVERAGE CONTROL DELAY IN SECONDS,
B (12.0), {0.29} FOR THE CRITICAL MOVEMENTS FOR UNSIGNALIZED INTERSECTIONS.

APPENDIX "C" LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-minute analysis period. The criteria are given in Exhibit 16-2 from the 2000 Highway Capacity Manual published by the Transportation Research Board.

EXHIBIT 16-2
LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

| LEVEL OF SERVICE (LOS) | CONTROL DELAY PER VEHICLE (S/VEH) |
|------------------------|---|
| A B | ≤10 >10-20 |
| l č | >20-35 |
| D | >35-55 |
| E | >55-80 |
| F | >80 |

LEVEL OF SERVICE A describes operations with low control delay, up to 10 seconds per vehicle (s/veh). This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

LEVEL OF SERVICE B describes operations with control delay greater than 10 and up to 20 seconds per vehicle (s/veh). This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with Level of Service "A", causing higher levels of delay.

LEVEL OF SERVICE C describes operations with control delay greater than 20 and up to 35 seconds per vehicle (s/veh). These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LEVEL OF SERVICE D describes operations with control delay greater than 35 and up to 55 seconds per vehicle (s/veh). At Level of Service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LEVEL OF SERVICE E describes operations with control delay greater than 55 and up to 80 seconds per vehicle (s/veh). This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

LEVEL OF SERVICE F describes operations with control delay in excess of 80 seconds per vehicle (s/veh). This level is considered unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

The Level of Service (LOS) for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. Control delay is defined as the total elapsed time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. This total elapsed time includes the time required for the vehicle to travel from the lastin-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to speed of vehicles in queue. Average control delay for any particular minor movement is a function of the capacity of the approach and the degree of saturation. The Level of Service Criteria are given in Exhibit 17-2 from the 20.00 Highway Capacity Manual published the Transportation Research Board.

EXHIBIT 17-2

LEVEL OF SERVICE FOR CRITERIA
FOR UNSIGNALIZED INTERSECTIONS

| LEVEL OF SERVICE (LOS) | AVERAGE CONTROL DELAY (S/VEH) |
|------------------------|-------------------------------------|
| A | 0-10 |
| . B | >10-15 |
| С | >15-25 |
| D | >25-35 |
| E | >35-50 |
| F | >50 |

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

APPENDIX "D" CAPACITY ANALYSIS

HCS+: Signalized Intersections Release 5.3

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK AM HOUR Year : 2008/2009 EXISITNG VOLUME

Project ID: 1457AMEX1

E/W St: I-287 EB RAMP/DOUBLETREE HOTEL N/S St: US ROUTE 9

| | | SI | GNALIZE | D INTERSE | CTION | SUMMAI | RY | | | | |
|----------|--------------|------------|--------------|-----------------------|--------|---------|--------|-------------|--------|-----|--------|
| | Ea | stbound | West | bound | No: | rthbour | nd | Sou | ıthboı | und | |
| | L . | T R | L | T R | L | Т | R | L | T | R | ****** |
| No. Lan | es 0 | 1 0 | i 0 | 1 1 | ` 1 | 2 | 0 | i 1 | 2 | 0 | i |
| LGConfi | a j | LTR | | LT R | i L | TR | _ | L | TR | | i |
| Volume | 119 | 11 8 | 304 4 | | j 3 | | 177 | 314 | 761 | 40 | i |
| Lane Wi | dth | 12.0 | • | 2.0 12.0 | | 12.0 | | 12.0 | 12.0 | | i |
| RTOR Vo | 1 | 0 | | 0 | 1 | |)] | , | | 0 | Ì |
| | , | | | | • | | | • | | | • |
| Duratio | n 0.25 | Area ' | | 11 other al Operat | | | | | | | |
| Phase Co | ombination | n 1 2 | 3 | 4 | | 5 | 6 | 7 | { | 3 | |
| EB Left | | A | | i NB | Left | | Α | | | | |
| Thr | u | A | | i | Thru | | A | | | | |
| Rigl | ht | A | | i | Right | | Α | | | | |
| Ped | S | | | i | Peds | | | | | | |
| WB Left | t | A | | i sb | Left | Α | A | | | | |
| Thru | J | A | | i | Thru | А | A | | | | |
| Righ | nt | A | | i | Right | . A | Α | | | | |
| Peds | 5 | | | i | Peds | | | | | | |
| NB Righ | nt | | | , EB | Right | - | | | | | |
| SB Righ | nt | | | i wb | Right | | | | | | |
| Green | | 35.0 | | , | J | 15.0 | 35.0 |) | | | |
| Yellow | | 3.0 | | | | 3.0 | 3.0 | | | | |
| All Red | | 2.0 | | | | 2.0 | 2.0 | | | | |
| | | | | | | Cyc] | le Ler | ngth: | 100.0 |) | secs |
| | | Intersec | ction P | erformanc | e Summ | nary | | - | | | |
| Appr/ | Lane | Adj Sat | Rat | ios | Lane | Group | App | proach | n | | |
| Lane | Group | Flow Rate | | | | _ | | | | | |
| Grp | Capacity | (s) | v/c | g/C | Delay | , LOS | Dela | ay Los | 3 | | |
| Eastbour | nd | | | | | , | | | | | |
| LTR | 496 | 1418 | 0.08 | 0.35 | 21.8 | С | 21.8 | 3 C | | | |
| Westbour | nd | | | | | | | | | | |
| LT | 4 4 2 | 1262 | 0 77 | 0.35 | 37.3 | D | 43.5 | 5 D | | | |
| R | 846 | 1538 | 0.77 | 0.55 | | D D | 45.0 | , , | | | |
| Northbou | | 1330 | 0.97 | 0.55 | 40.1 | D | | | | | |
| L | 203 | 579 | 0.01 | 0.35 | 21 2 | C | | | | | |
| TR | 1155 | 3300 | 0.61 | 0.35 | 21.3 | C C | 27.7 | 7 C | | | |
| 111 | 1100 | 3300 | 0.61 | 0.33 | 21.1 | C | 21.1 | , . | | | |
| Southbou | | | | | | | | | | | |
| L | 421 | 1719 | 0.83 | | | С | | | | | |
| TR | 1881 | 3420 | 0.47 | 0.55 | 13.9 | В | 18.0 |) B | | | |
| | Intersec | tion Delay | = 29.7 | (sec/ve | h) I | Interse | ection | n LOS | = C | | |

HCS+: Signalized Intersections Release 5.3

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Year : 2008/2009 EXISITNG VOLUMES Period: PEAK PM HOUR

Project ID: 1457PMEX1

| E/W St: I | -287 EB | RAMP/DOUBLE | TREE HO | OTEL N/S | St: US | S ROUT | E 9 | | | | |
|--|-------------------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|--------------|----------------|-------|-------|-----|------|
| | | SIG | NALIZEI |) INTERSE | CTION : | SUMMAR | Y | | | | |
| | [Eas | stbound | | oound | | thboun | d l | Sou | thbou | | ļ |
| | L | T R | L : | r R | L | \mathbf{T} | R | L | T | R | 1 |
| No. Lanes | i 0 | 1 0 | | 1 1 | 1 | 2 | 0 i | 1 | 2 | 0 | i |
| LGConfig | 1 | LTR | | LT R |] L | TR | 1 | L | TR | | j |
| Volume | 134 | · | 150 10 | | • | | - | 617 | 580 | 48 | |
| Lane Widt | h | 12.0 | 12 | 2.0 12.0 | 112.0 | | | 12.0 | 12.0 | _ | ļ. |
| RTOR Vol | I | 0 [| | 0 | 1 | 0 | 1 | | | 0 | I |
| Duration | 0.25 | Area I | | ll other | | | | | | | |
| Phase Com | hination | 1 2 | Signa | al Operat 4 | ions | 5 | 6 | 7 | | 3 | |
| EB Left | DINACIOI. | A A | 3 | 4 I I NB | Left | J | A | , | ` | , | |
| Thru | | A | | I ND | Thru | | A | | | | |
| Right | | A | | | Right | | A | | | | |
| Peds | | A | | ! ! | Peds | | 11 | | | | |
| WB Left | | A | | l SB | Left | Α | Α | | | | |
| Thru | | A | | 1 | Thru | A | A | | | | |
| Right | | A | | 1 | Right | | A | | | | |
| Peds | | 11 | | 1 | Peds | •• | | | | | |
| NB Right | | | | EB | Right | | | | | | |
| SB Right | | | | WB | Right | | | | | | |
| Green | | 15.0 | | , | 5 | 30.0 | 40.0 | + | | | |
| Yellow | | 3.0 | | | | 3.0 | 3.0 | | | | |
| All Red | | 2.0 | | | | 2.0 | 2.0 | | | | |
| | | | | | | Cycl | e Len | igth: | 100. | 0 : | secs |
| | | | | erformanc | | | | | | | |
| * * | ane roup | Adj Sat Flow Rate | Rati | ios | Lane | Group | App | roach | 1 | | |
| | apacity | (s) | v/c | g/C | Delay | LOS | Dela | y LOS | 3 | | |
| Eastbound | | | | | | | | | | | |
| LTR : | 107 | 710 | 0.59 | 0.15 | | | 457.0 | | | | |
| | | | 0.32 | 0.15 | 47.9 | D | 47.9 |) D | | | |
| | | , 20 | 0.35 | 0.15 | 47.9 | D | 47.9 | ט י | | | |
| Westbound | | , 10 | 0.39 | 0.15 | 47.9 | D | 47.9 | , п | | | |
| | 196 | 1307 | 0.86 | 0.15 | 47.9 71.8 | D E | 36.9 | | | | |
| LT 1 | 196 769 | | | | | | | | | | |
| LT 1 | 769 | 1307 | 0.86 | 0.15 | 71.8 | E | | | | | |
| LT I | 769 | 1307 | 0.86 | 0.15 | 71.8 | E | | | | | |
| LT R R Northbound L 2 | 769 d | 1307 1538 | 0.86 0.36 | 0.15 0.50 | 71.8 15.5 | E B | |) D | | | |
| LT IN THE SOUTH DOWN TO THE SO | 769 d 290 1309 d | 1307 1538 725 3273 | 0.86 0.36 0.01 0.97 | 0.15 0.50 0.40 0.40 | 71.8 15.5 18.1 46.8 | E B B | 36.9 |) D | | | |
| LT I I I I I I I I I I I I I I I I I I I | 769 d 290 1309 d 588 | 1307 1538 725 3273 | 0.86 0.36 0.01 0.97 | 0.15 0.50 0.40 0.40 | 71.8 15.5 18.1 46.8 | E B D | 36.9 |) D | | | |
| LT IN THE SOUTH DOWN OF L IN THE SOUTH DOWN OF L IN THE SOUTH DOWN OF L IN THE SOUTH DOWN OF T | 769 d 290 1309 d | 1307 1538 725 3273 | 0.86 0.36 0.01 0.97 | 0.15 0.50 0.40 0.40 | 71.8 15.5 18.1 46.8 | E B B | 36.9 |) D | | | |

HCS+: Signalized Intersections Release 5.3

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK AM HOUR Year : 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB1

E/W St: I-287 EB RAMP/DOUBLETREE HOTEL N/S St: US ROUTE 9

| | | STO | MAT.TOFF | INTERSE | CTION ' | AMMIP | ₹Y | | | | |
|---|---|--|--------------------------------------|--------------------------------------|----------------------------------|--|---------------|-----------------------|--------|--------------|------|
| | l Pag | stbound | Westh | | | thbour | | SOU | thbou | nd | |
| | Las | T R | L 1 | | L | Т | R I | L | Т | R | |
| No. Lar LGConfi Volume Lane Wi RTOR Vo | lg 21 dth | 1 0 LTR 12 9 12.0 | 330 4 12 | 1 1 LT R 800 2.0 12.0 | 1 L 3 12.0 | 12.0 | • | 1 L 339 12.0 | 12.0 | 0 43 0 | |
| Duratio | on 0.25 | Area I | ** * | l other | | | | | | <u> </u> | |
| EB Lef | | A | srgna 3 | al Operat 4 NB | Left | 5 | 6 A | 7 | 8 | _ | |
| Thr Rig Ped | jht | A A | | | Thru Right Peds | | A A | | | | |
| WB Lef Thr Rig | ru | A A A | | SB | Left Thru R i ght | A A A | A A A | | | | |
| Ped NB Rig | ls jht | A | | EB | Peds Right | | 2.1 | | | | |
| SB Rig Green Yellow | | 30.0 3.0 | | WB | Right | 20.0 3.0 | 35.0 3.0 | l | | | |
| All Red | 1 | 2 0 | | | | | | | | | |
| | • | 2.0 | | | | _ | 2.0 le Len | igth: | 100.0 |) | secs |
| Appr/ | Lane | Intersec Adj Sat | ction Pe Rati | erformanc Los | e Summ Lane | Cyc. ary | le Len | gth: | |) | secs |
| Appr/ Lane Grp | | Intersec | | | | Cyc. ary Group | le Len App | | n |) | secs |
| Lane | Lane Group Capacity | Intersec Adj Sat Flow Rate | Rati | los | Lane | Cyc. ary Group | le Len App | roacl | n |) | secs |
| Lane Grp | Lane Group Capacity | Intersec Adj Sat Flow Rate | Rati | los | Lane | Cyc. ary Group | le Len App | proach | n |) | secs |
| Lane Grp Eastbou | Lane Group Capacity and 364 | Intersec Adj Sat Flow Rate (s) | Rati | los g/C | Lane Delay | Cyc. ary Group LOS | App Dela | proach | n | | secs |
| Lane Grp Eastbou LTR Westbou LT R | Lane Group Capacity and 364 and 377 846 | Intersec Adj Sat Flow Rate (s) | Rati | los g/C | Lane Delay | Cyc. ary_ Group LOS | App Dela | oroach | n |) | secs |
| Lane Grp Eastbou LTR Westbou LT | Lane Group Capacity and 364 and 377 846 | Intersection Adj Sat Flow Rate (s) 1214 | Ration 7.7c 0.13 | g/C 0.30 | Delay 25.6 | Cyc. ary Group LOS C | App Dela | oroach y Los C | S |) | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo L TR Southbo | Lane Group Capacity and 364 and 377 846 bund 187 1156 | Intersect Adj Sat Flow Rate (s) 1214 1257 1538 535 3304 | 0.13 0.98 1.05 0.02 0.69 | 0.30 0.30 0.55 0.35 0.35 | Delay 25.6 76.7 67.7 21.3 29.6 | Cyc. ary_ Group LOS C E E C | App Dela 25.6 | oroach y Los C | S |) | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo L TR | Lane Group Capacity and 364 and 377 846 bund 187 1156 | Intersect Adj Sat Flow Rate (s) 1214 1257 1538 535 | 0.13 0.98 1.05 0.02 | 0.30 0.30 0.55 0.35 | Delay 25.6 76.7 67.7 21.3 | Cyc. ary Group LOS C E C C | App Dela 25.6 | oroach ny Los 6 C | 5 5 |) | secs |

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK PM HOUR Year : 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB1

E/W St: I-287 EB RAMP/DOUBLETREE HOTEL N/S St: US ROUTE 9

| | 1 Paatha | | | | NTERSE | | | | Col | ıthboı | ınd | |
|--|---|--|------------------------------|------------------|---------------------|---|---|---------------------------------------|---|-------------|-------------|--------|
| | Eastbo | una i | wes L | tbour T | na R | NOT | thbou T | R | L | тоопод Т | лга R | l J |
| | | 1 | ы | 1 | 10 | 1 | 1 | 11 | 13 | - | | • |
| No. Lanes | 0 1 | 0 i | 0 | 1 | 1 | 1 1 | 2 | 0 | 1 | 2 | 0 | i |
| LGConfig | l L | TR | | LT | R | L | TR | | L | TR | | |
| Volume | 137 23 | 5 | 168 | 11 | 283 | 4 | 874 | 437 | 666 | 659 | 52 | |
| Lane Width | 12. | 0 | | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | | |
| RTOR Vol | 1 | 0 | | | 0 | 1 | | 0 | | | 0 | I |
| Duration | 0.25 | Area T | | | | | | | | | | |
| D1 | | | | | Operat | ions | | | 7 | | | |
| Phase Combi | | 2 | 3 | 4 | | T () | 5 | 6 | / | • | 3 | |
| EB Left | A | | | | NB | Left | | A | | | | |
| Thru | A | | | | 1 | Thru | | A | | | | |
| Right | A | | | | ! | Right | • | A | | | | |
| Peds | 75 | | | | | Peds | 70. | 70. | | | | |
| WB Left | A | | | | SB | Left | A | A | | | | |
| Thru | A | | | | 1 | Thru | A | A | | | | |
| Right Peds | A | | | | | Right | . A | A | | | | |
| | | | | | 170 | Peds | | | | | | |
| NB Right | | | | | EB | Right | | | | | | |
| SB Right | | | | | WB | Right | . A | | | | | |
| | 1 6 | 0 | | | | _ | 20 0 | 10 (| ` | | | |
| Green | 15. | 0 | | | • | | 30.0 | |) | | | |
| Yello w | 3.0 | 0 | | | • | j | 3.0 | 3.0 |) | | | |
| Yellow | | 0 | | | , | J | 3.0 2.0 | 3.0 2.0 | | 100.0 | 0 | secs |
| Yellow | 3.0 2.0 | | tion | Perf | · | - | 3.0 2.0 Cyc | 3.0 | | 100. | 0 | secs |
| Yellow All Red | 3.0 | Intersec | | | · | e Summ | 3.0 2.0 Cyc ary_ | 3.0 2.0 cle Le | ngth: | | 0 | sec |
| Yellow All Red Appr/ Lan | 3.0 2.0 | | | Perfo tios | · | - | 3.0 2.0 Cyc ary_ | 3.0 2.0 cle Le | | | 0 | sec |
| Yellow All Red Appr/ Lan Lane Gro | 3.0 2.0 | Intersec ^h dj Sat ow Rate | Ra | tios | ormanc | e Summ | 3.0 2.0 Cyc ary_ Group | 3.0 2.0 cle Len | ngth: | n | 0 | sec |
| Yellow All Red Appr/ Land Lane Gro | 3.0 2.0 e A up Fl | Intersec ^a dj Sat | | tios | · | e Summ Lane | 3.0 2.0 Cyc ary_ Group | 3.0 2.0 cle Len | ngth: proach | n | 0 | sec |
| Yellow All Red Appr/ Lan Lane Gro | 3.0 2.0 e A up Fl | Intersec ^h dj Sat ow Rate | Ra | tios | ormanc | e Summ Lane | 3.0 2.0 Cyc ary_ Group | 3.0 2.0 cle Len | ngth: proach | n | 0 | sec |
| Yellow All Red Appr/ Land Lane Gro | acity | Intersec ^h dj Sat ow Rate | Ra | tios g, | ormanc | e Summ Lane | 3.0 2.0 Cyc ary_ Group | 3.0 2.0 cle Len | ngth: proacl | n | 0 | sec |
| Yellow All Red Appr/ Land Lane Gro Grp Cape Eastbound LTR 84 | acity | Intersect dj Sat ow Rate (s) | Ra v/c | tios g, | ormanc /C | e Summ Lane Delay | 3.0 2.0 Cycuary_ Group | 3.0 2.0 cle Len Dela | ngth: proacl | n | 0 | sec |
| Yellow All Red Appr/ Land Lane Grod Grp Cap Eastbound LTR 84 | acity 3.0 2.0 Aup Flacity | Intersect dj Sat ow Rate (s) | Ra v/c 0.81 | g. | ormanc /C | e Summ Lane Delay | 3.0 2.0 Cycuary_ Group LOS | 3.0 2.0 cle Len Dela Dela | ngth: proach ay LOS | n | 0 | sec |
| Yellow All Red Appr/ Land Lane Gro Grp Cap Eastbound LTR 84 Westbound | 3.0 2.0 e A up Flacity 5 | Intersect dj Sat ow Rate (s) 61 | Ra v/c 0.81 | tios g. 0 | ormanc /C .15 | e Summ Lane Delay 83.8 | 3.0 2.0 Cycnary_ Group LOS F | 3.0 2.0 cle Len Dela | ngth: proach ay LOS | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 | 3.0 2.0 e A up Flacity 5 | Intersect dj Sat ow Rate (s) | Ra v/c 0.81 | tios g. 0 | ormanc /C | e Summ Lane Delay | 3.0 2.0 Cycuary_ Group LOS | 3.0 2.0 cle Len Dela Dela | ngth: proach ay LOS | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 197 R 765 Northbound | 3.0 2.0 e A up Flacity 5 | Intersection of the state of th | 0.81 0.96 0.39 | 0 0 | .15 .50 | e Summ Lane Delay 83.8 | 3.0 2.0 Cycuary_ Group LOS F | 3.0 2.0 cle Len Dela Dela | ngth: proach ay LOS | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 R 76 Northbound L 26 | 3.0 2.0 e A up Flacity 5 7 1 9 1 | Intersection of the state of th | 0.81 0.96 0.39 | g. 0 0 0 0 | .15 .50 | e Summ Lane Delay 83.8 94.5 15.8 | 3.0 2.0 Cycuary_ Group LOS F | 3.0 2.0 cle Len Dela 83.4 | ngth: proacl ay Los | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 R 76 Northbound L 26 | 3.0 2.0 e A up Flacity 5 7 1 9 1 | Intersection of the state of th | 0.81 0.96 0.39 | g. 0 0 0 0 | .15 .50 | e Summ Lane Delay 83.8 | 3.0 2.0 Cycuary_ Group LOS F | 3.0 2.0 cle Len Dela Dela | ngth: proacl ay Los | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 R 76 Northbound L 26 LR 136 Gouthbound | 3.0 2.0 e A up Flacity 5 7 1 9 1 6 6 09 3: | Intersect dj Sat ow Rate (s) 61 315 538 66 273 | 0.81 0.96 0.39 | 0 0 0 | .15 .15 .40 | e Summ Lane Delay 83.8 94.5 15.8 18.1 70.5 | 3.0 2.0 Cyclary_ Group LOS F | 3.0 2.0 cle Len Dela 83.4 | ngth: proacl ay Los | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 R 76 Northbound L 26 | 3.0 2.0 e A up Flacity 5 7 1 9 1 6 6 09 3: | Intersection of the state of th | 0.81 0.96 0.39 0.02 1.19 | 0 0 0 0 | .15 .50 | e Summ Lane Delay 83.8 94.5 15.8 | 3.0 2.0 Cyclary_ Group LOS F | 3.0 2.0 cle Len Dela 83.4 | ngth: proach ay LOS B F 4 D | n | 0 | sec |
| Yellow All Red Appr/ Lang Lane Gro Grp Cap Eastbound LTR 84 Westbound LT 19 R 76 Northbound L 26 LR 136 Gouthbound | 3.0 2.0 e A up Flacity 5 7 1 9 1 6 6 09 3: | Intersect dj Sat ow Rate (s) 61 315 538 66 273 | 0.81 0.96 0.39 0.02 | 0 0 0 0 | .15 .15 .40 | e Summ Lane Delay 83.8 94.5 15.8 18.1 70.5 | 3.0 2.0 Cyclary_ Group LOS F | 3.0 2.0 cle Len Dela 83.4 | ngth: proach ay LOS B F 4 D | n | 0 | sec |

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK AM HOUR Year : 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD1

E/W St: I-287 EB RAMP/DOUBLETREE HOTEL N/S St: US ROUTE 9

| | | STO | NALTZEI | O INTERSE | CTION | SUMMA | RY | | | | |
|--|---|--|--------------------------------------|---|--------------------------|-------------------|--------------|---------------|----------------|-----|------------|
| | l Eas | stbound | | oound | | thbou | | Sou | ithbou | ınd | |
| | L | T R | | r R | L | T | R | L | Т | R | İ |
| No. Lan LGConfi Volume | • | 1 0 LTR 12 9 | 331 4 | 1 1 LT R 800 | 1 L 3 | 2 TR 522 | 0 199 | 1 L 339 | 2 TR 830 | 0 | ; |
| Lane Wi RTOR Vo | dth | 12.0 | | 2.0 12.0 | • | 12.0 | 0 | 12.0 | | 0 | ļ ļ |
| Duratio | n 0.25 | Area 7 | | ll other al Operat | | | | | | | |
| Phase C | ombinatior | 1 2 | 3 | 4 | 10113 | 5 | 6 | 7 | 8 | } | * * ** |
| EB Lef | | A 2 | 9 | I NB | Left | Ũ | Ā | | | | |
| Thr | | A | | 1.2 | Thru | | A | | | | |
| Rig | | A | | i | Right | | A | | | | |
| Ped | | 2.1 | | ì | Peds | | | | | | |
| WB Lef | | A | | l SB | Left | Α | Α | | | | |
| Thr | | A | | 1 | Thru | A | A | | | | |
| Rig | | A | | 1 | Right | | A | | | | |
| Ped | | ** | | 1 | Peds | | | | | | |
| NB Rig | | | | , EB | Right | | | | | | |
| SB Rig | | | | WB | Right | | | | | | |
| Green | 116 | 30.0 | | 1 112 | magne | 20.0 | 35.0 |) | | | |
| Yellow | | 3.0 | | | | 3.0 | 3.0 | , | | | |
| All Red | | 2.0 | | | | 2.0 | 2.0 | | | | |
| AII Ked | | 2.0 | | | | | le Ler | ath. | 100.0 |) | secs |
| | | Intorco | stion D | erformanc | o Cumm | _ | тс пст | ig cir. | 100.0 | • | 3000 |
| Appr/ | | | CTOH E | | | шту | | | | | |
| ADDI/ | | 7 4 - 0 - + | Dat. | 100 | | | Λnr | roach | า | | |
| | Lane | Adj Sat | Rat | ios | | Group | App | roacl | n | | |
| Lane | Group | Flow Rate | | | Lane | Group | | | | | |
| | | | Rat: | ios g/C | Lane | | | roach | | | |
| Lane | Group Capacity | Flow Rate | | | Lane | Group | | | | | |
| Lane Grp | Group Capacity | Flow Rate | | | Lane | Group | | ay Los | | | |
| Lane Grp Eastbou | Group Capacity nd 364 | Flow Rate (s) | v/c | g/C | Lane Delay | Group LOS | Dela | ay Los | | | |
| Lane Grp Eastbou | Group Capacity nd 364 | Flow Rate (s) | v/c | g/C 0.30 | 25.6 | Group LOS C | Dela | ay Los | | | |
| Lane Grp Eastbou | Group Capacity nd 364 nd | Flow Rate (s) | v/c 0.13 | g/C 0.30 | Lane Delay 25.6 | Group LOS C | Dela 25.6 | ay Los | | | |
| Lane Grp Eastbou | Group Capacity nd 364 nd 377 846 und | Flow Rate (s) 1212 1257 1538 | v/c 0.13 0.99 1.05 | g/C 0.30 0.30 0.55 | 25.6 77.5 67.7 | C E E | Dela 25.6 | ay Los | | | |
| Lane Grp Eastbour LTR Westbour LT R | Group Capacity nd 364 nd 377 846 | Flow Rate (s) 1212 | v/c 0.13 | g/C 0.30 | 25.6 | Group LOS C | Dela 25.6 | Y LOS | 5 | | |
| Lane Grp Eastbour LTR Westbour LT R Northbor | Group Capacity nd 364 nd 377 846 und | Flow Rate (s) 1212 1257 1538 | v/c 0.13 0.99 1.05 | g/C 0.30 0.30 0.55 | 25.6 77.5 67.7 | C E E | Dela 25.6 | Y LOS | 5 | | |
| Lane Grp Eastbour LTR Westbour LT R Northbor L TR Southbor | Group Capacity nd 364 ad 377 846 und 187 1156 und | Flow Rate (s) 1212 1257 1538 535 3303 | 0.13 0.99 1.05 0.02 0.69 | g/C 0.30 0.55 0.35 0.35 | 25.6 77.5 67.7 21.3 29.7 | C C C | Dela 25.6 | Y LOS | 5 | | |
| Lane Grp Eastbour LTR Westbour LT R Northbor L TR Southbor L | Group Capacity nd 364 nd 377 846 und 187 1156 und 472 | Flow Rate (s) 1212 1257 1538 535 3303 | 0.13 0.99 1.05 0.02 0.69 | g/C 0.30 0.30 0.55 0.35 0.35 | 25.6 77.5 67.7 21.3 29.7 | C C C | Dela 25.6 | 6 E | 5 | | |
| Lane Grp Eastbour LTR Westbour LT R Northbor L TR Southbor | Group Capacity nd 364 ad 377 846 und 187 1156 und | Flow Rate (s) 1212 1257 1538 535 3303 | 0.13 0.99 1.05 0.02 0.69 | g/C 0.30 0.55 0.35 0.35 | 25.6 77.5 67.7 21.3 29.7 | C C C | Dela 25.6 | 6 E | 5 | | |

Analyst: APF Inter.: US ROUTE 9 & I-287 RAMPS

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK PM HOUR Year : 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD1

E/W St: I-287 EB RAMP/DOUBLETREE HOTEL N/S St: US ROUTE 9

| | | SIG | NALIZE | INTERSE | CTION S | SUMMAR | .Y | | | | |
|--|---|--|--------------------------------------|--------------------------------------|-----------------------------------|-----------------------------|------------------------|---------------------|------|-----|------|
| | Eas | stbound | Westh | oound | Nort | hboun | .d | Sou | thbo | und | ļ |
| | L | T R | L 7 | R | L | T | R | L | Т | R | 1 |
| No. Lar | nes 0 | 1 0 | 0 | 1 1 | <u> </u> | 2 | 0 i | 1 | 2 | 0 | |
| LGConfi | ig i | LTR I | | LT R | L | TR | ĺ | L | TR | | 1 |
| Volume | 137 | 23 5 | 170 11 | 283 | [4 8 | 375 4 | 38 6 | 66 | 660 | 52 | |
| Lane Wi | idth İ | 12.0 | | 2.0 12.0 | 112.0 1 | 2.0 | 1 | 2.0 | 12.0 | | |
| RTOR Vo | 01 | 0 [| | 0 | Ì | 0 | İ | | | 0 | 1 |
| Duratio | on 0.25 | Area T | | 1 other 1 Operat | | | | | | | |
| Phase C | Combination | n 1 2 | 3 | 4 | | 5 | 6 | 7 | | 8 | |
| EB Lef | | A | _ | , I NB | Left | | Α | | | | |
| Thr | | A | | i | Thru | | А | | | | |
| Rig | | A | | i | Right | | A | | | | |
| Ped | | | | i | Peds | | | | | | |
| WB Lef | | A | | i sb | Left | A | Α | | | | |
| Thr | | A | | i | Thru | Α | A | | | | |
| Rig | | A | | ì | Right | A | Α | | | | |
| Ped | | | | ì | Peds | | | | | | |
| NB Rig | | | | EB | Right | | | | | | |
| SB Rig | | | | WB | Right | A | | | | | |
| Green | , | 15.0 | | 1 | 9 | 30.0 | 40.0 | | | | |
| Yellow | | 3.0 | | | | 3.0 | 3.0 | | | | |
| All Red | 1 | | | | | ••• | | | | | |
| 1111 | | 2.0 | | | | 2.0 | 2.0 | | | | |
| | • | 2.0 | | | | 2.0 Cvc1 | 2.0 e Lenc | rth: | 100. | 0 | secs |
| | • | | tion Pe | erformanc | e Summa | Cyc1 | 2.0 .e Len g | ŋth: | 100. | 0 | secs |
| Appr/ | | Intersec | | erformanc | | Cyc1 | .e Leng | | | 0 | secs |
| Appr/ | Lane | Intersec Adj Sat | tion Pe Rati | | e Summa Lane G | Cyc1 | .e Leng | oach | | 0 | secs |
| Lane | Lane Group | Intersec Adj Sat Flow Rate | Rati | .os | Lane G | Cyc1 ary_ Group | e Leng | roach | 1 | 0 | secs |
| | Lane | Intersec Adj Sat | | | | Cyc1 ary_ Group | e Leng | roach | 1 | 0 | secs |
| Lane | Lane Group Capacity | Intersec Adj Sat Flow Rate | Rati | .os | Lane G | Cyc1 ary_ Group | e Leng | roach | 1 | 0 | secs |
| Lane Grp | Lane Group Capacity | Intersec Adj Sat Flow Rate | Rati | .os | Lane G | Cyc1 ary_ Group | e Leng | roach | 1 | 0 | secs |
| Lane Grp Eastbou | Lane Group Capacity and | Intersec Adj Sat Flow Rate (s) | Rati v/c | .os g/C | Lane G | Cycl ary Froup LOS | Appr | roach | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou | Lane Group Capacity and 83 | Intersec Adj Sat Flow Rate (s) | Rati | 0.15 | Delay 86.5 | Cyc1 ary Froup LOS | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT | Lane Group Capacity and 83 and 197 | Intersection Adj Sat Flow Rate (s) 550 | Rati v/c 0.82 | 0.15 | Delay 86.5 | Cyc1 ary F F | Appr | roach | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R | Lane Group Capacity and 83 and 197 769 | Intersec Adj Sat Flow Rate (s) | Rati | 0.15 | Delay 86.5 | Cyc1 ary Froup LOS | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo | Lane Group Capacity and 83 and 197 769 | Intersection Adj Sat Flow Rate (s) 550 1315 1538 | 0.82 0.97 0.39 | 0.15 0.50 | Delay 86.5 97.4 15.8 | Cyc1 ary F F B | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo | Lane Group Capacity and 83 and 197 769 bund 266 | Intersection Adj Sat Flow Rate (s) 550 1315 1538 665 | 0.82 0.97 0.39 | 0.15 0.15 0.40 | Delay 86.5 97.4 15.8 18.1 | Cyc1 ary Group LOS F B B | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo | Lane Group Capacity and 83 and 197 769 | Intersection Adj Sat Flow Rate (s) 550 1315 1538 | 0.82 0.97 0.39 | 0.15 0.50 | Delay 86.5 97.4 15.8 | Cyc1 ary F F B | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo | Lane Group Capacity and 83 and 197 769 aund 266 1309 | Intersection Adj Sat Flow Rate (s) 550 1315 1538 665 | 0.82 0.97 0.39 | 0.15 0.15 0.40 | Delay 86.5 97.4 15.8 18.1 | Cyc1 ary Group LOS F B B | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo L TR | Lane Group Capacity and 83 and 197 769 aund 266 1309 | Intersection Adj Sat Flow Rate (s) 550 1315 1538 665 | 0.82 0.97 0.39 | 0.15 0.15 0.40 | Delay 86.5 97.4 15.8 18.1 | Cyc1 ary Froup F B B E | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo L TR Southbo | Lane Group Capacity and 83 and 197 769 aund 266 1309 | Intersect Adj Sat Flow Rate (s) 550 1315 1538 665 3273 | 0.82 0.97 0.39 0.02 | 0.15 0.15 0.50 0.40 0.40 | Delay 86.5 97.4 15.8 18.1 71.0 | Cyc1 ary Froup F B B E | Appr Delay 86.5 | roach / LOS F | 1 | 0 | secs |
| Lane Grp Eastbou LTR Westbou LT R Northbo L TR Southbo L | Lane Group Capacity and 83 and 197 769 aund 266 1309 aund 588 | Intersect Adj Sat Flow Rate (s) 550 1315 1538 665 3273 | 0.82 0.97 0.39 0.02 1.06 | 0.15 0.15 0.50 0.40 0.40 | Delay 86.5 97.4 15.8 18.1 71.0 | Cyc1 ary Froup B B B E | Appr Delay 86.5 47.7 | roach / LOS F D | 3 | 0 | secs |

TWO-WAY STOP CONTROL SUMMARY_____

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK AM HOUR

Intersection: US ROUTE 9 & WALTER STREET

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX2

East/West Street: WALTER STREET North/South Street: US ROUTE 9

Intersection Orientation: NS Study period (hrs): 0.25

| | Vehic | cle Volu | mes and | Adjus | tme | nts | | | |
|-----------------|----------|----------|----------|-------|-----|----------|---------|-----|---|
| Major Street: | Approach | | thbound | | | | thbound | | |
| , | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | L | ${ m T}$ | R | 1 | L | ${f T}$ | R | |
| | | | | | | | | | |
| Volume | | | 574 | 24 | | 52 | 1021 | | |
| Peak-Hour Facto | or, PHF | | 0.90 | 0.90 | | 0.90 | 0.90 | | |
| Hourly Flow Rat | te, HFR | | 637 | 26 | | 57 | 1134 | | |
| Percent Heavy | Vehicles | | | | | 5 | | | |
| Median Type/Sto | orage | Undivi | .ded | | | / | | | |
| RT Channelized | ? | | | | | | | | |
| Lanes | | | 2 0 | | | 1 | 2 | | |
| Configuration | | | T TR | | | ${ m L}$ | ${f T}$ | | |
| Upstream Signa | 1? | | No | | | | No | | |
| | | | | | | | | | |
| Minor Street: | Approach | | tbound | | | | tbound | 1.0 | |
| | Movement | 7 | 8 | 9 | - | 10 | 11 | 12 | |
| | | L | Т | R | İ | L | Т | R | |
| Volume | | 32 | | 58 | | | | | |
| Peak Hour Facto | or. PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rat | | 35 | | 64 | | | | | |
| Percent Heavy | | 5 | | 5 | | | | | |
| Percent Grade | | _ | 0 | | | | 0 | | |
| Flared Approach | | Storage | • | | / | • | | | / |
| Lanes | | 1 | 1 | | • | | | | |
| Configuration | | L | R | | | | | | |
| | | _ | | | | | | | |

| Approach | Delay, NB | Queue SB | ье | | and Leve stbound | | ser | | astboun | d |
|------------------|--------------|--------------|----|------|---------------------|------|-----|----|---------|----|
| Movement | 1 | 4 | 1 | 7 | 8 | 9 | - [| 10 | 11 | 12 |
| Lane Config | | \mathbf{L} | 1 | L | | R | | | | |
| v (vph) | | 57 | | 35 | | 64 | | | | |
| C(m) (vph) | | 902 | | 133 | | 699 | | | | |
| v/c | | 0.0 | 6 | 0.26 | | 0.09 | | | | |
| 95% queue length | | 0.2 | 0 | 0.99 | | 0.30 | | | | |
| Control Delay | | 9.3 | | 41.5 | | 10.7 | | | | |
| LOS | | A | | E | | В | | | | |
| Approach Delay | | | | | 21.6 | | | | | |
| Approach LOS | | | | | С | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

US ROUTE 9 & WALTER STREET Intersection:

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457PMEX2

East/West Street: WALTER STREET North/South Street: US ROUTE 9

Intersection Orientation: NS Study period (hrs): 0.25

| | | cle Volu | | | tme | nts | | | |
|-----------------|----------|----------|---------|------|-----|---------|---------|----|---|
| Major Street: | Approach | Nor | thbound | | | | thbound | _ | |
| | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | L | Т | R | 1 | L | Т | R | |
| Volume | | | 1125 | 33 | | 61 | 674 | | |
| Peak-Hour Facto | or, PHF | | 0.95 | 0.95 | | 0.95 | 0.95 | | |
| Hourly Flow Ra | te, HFR | | 1184 | 34 | | 64 | 709 | | |
| Percent Heavy | | | | | | 5 | | | |
| Median Type/Sto | | Undivi | .ded | | | / | | | |
| RT Channelized | | | | | | | | | |
| Lanes | • | | 2 0 | | | 1 | 2 | | |
| Configuration | | | T TR | | | ${f L}$ | ${f T}$ | | |
| Upstream Signal | 1? | | No | | | | No | | |
| Minor Street: | Approach | Wes | tbound | | | Eas | tbound | | |
| | Movement | 7 | 8 | 9 | - 1 | 10 | 11 | 12 | |
| | | L | Т | R | - | L | T | R | |
| Volume | | 17 | | 81 | | | | | |
| Peak Hour Facto | or, PHF | 0.95 | | 0.95 | | | | | |
| Hourly Flow Ra | | 17 | | 85 | | | | | |
| Percent Heavy | | 5 | | 5 | | | | | |
| Percent Grade | | | 0 | | | | 0 | | |
| Flared Approach | • • | Storage | | | / | , | | | / |
| Lanes | | 1 | | | | | | | |
| Configuration | | L | R | | | | | | |

| Approach | _Delay, NB | SB | | and Leve stbound | | | | astbound | d |
|------------------|---------------|------|------|---------------------|------|---------------------------------------|----|----------|----|
| Movement | 1 | 4 [| 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | | L [| L | | R | | | | |
| v (vph) | | 64 | 17 | | 85 | · · · · · · · · · · · · · · · · · · · | | | |
| C(m) (vph) | | 552 | 73 | | 485 | | | | |
| v/c | | 0.12 | 0.23 | | 0.18 | | | | |
| 95% queue length | | 0.39 | 0.82 | | 0.63 | | | | |
| Control Delay | | 12.4 | 68.7 | | 14.0 | | | | |
| LOS | | В | F | | В | | | | |
| Approach Delay | | | | 23.1 | | | | | |
| Approach LOS | | | | С | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

Intersection: US ROUTE 9 & WALTER STREET

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB2

East/West Street: WALTER STREET North/South Street: US ROUTE 9

Intersection Orientation: NS Study period (hrs): 0.25

| venic. | le Volu | mes and | Adjust | tme | nts | | | |
|-----------------------------|---------|---------|--------|-----|------------------|---------|----|---|
| Major Street: Approach | Nor | thbound | | | Sou ⁻ | thbound | | |
| Movement | 1 | 2 | 3 | | 4 | 5 | 6 | |
| | L | T | R | [| $\mathbf L$ | Т | R | |
| Volume | | 655 | 26 | | 57 | 1112 | | |
| Peak-Hour Factor, PHF | | 0.90 | 0.90 | | 0.90 | 0.90 | | |
| Hourly Flow Rate, HFR | | 727 | 28 | | 63 | 1235 | | |
| Percent Heavy Vehicles | | | | | 5 | | | |
| Median Type/Storage | Undivi | ded | | | / | | | |
| RT Channelized? | | | | | | | | |
| Lanes | | 2 0 | | | 1 | 2 | | |
| Configuration | | T TR | | | L | ${f T}$ | | |
| Upstream Signal? | | No | | | | No | | |
| Minor Street: Approach | West | tbound | | | Eas | tbound | | |
| Movement | 7 | 8 | 9 | 1 | 10 | 11 | 12 | |
| | L | T | R | i | L | Т | R | |
| Volume | 35 | | 67 | | | | | |
| Peak Hour Factor, PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rate, HFR | 38 | | 74 | | | | | |
| Percent Heavy Vehicles | 5 | | 5 | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | |
| Flared Approach: Exists?/St | corage | | | / | | | | / |
| Lanes | ĺ | 1 | | | | | | |
| Configuration | ${f L}$ | R | | | | | | |

| Approach | _Delay, NB | Queue Le | • | ind Leve | el of | Ser | | astbound | <u>t</u> |
|------------------|---------------|----------|----------|----------|-------|-------------|----|----------|----------|
| Movement | 1 | 4 | 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | | L | Γ | | R | I | | | |
| v (vph) | | 63 | 38 | | 74 | | | | |
| C(m) (vph) | | 832 | 104 | | 658 | | | | |
| V/C | | 0.08 | 0.37 | | 0.11 | | | | |
| 95% queue length | | 0.25 | 1.47 | | 0.38 | | | | |
| Control Delay | | 9.7 | 58.3 | | 11.2 | | | | |
| LOS | | А | F | | В | | | | |
| Approach Delay | | | | 27.2 | | | | | |
| Approach LOS | | | | D | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: US ROUTE 9 & WALTER STREET

Jurisdiction:

Units: U. S. Customary
2014/2015 NO-BUILD VOLUMES
2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB2

East/West Street: WALTER STREET North/South Street: US ROUTE 9

Intersection Orientation: NS Study period (hrs): 0.25

| | | .cle Volu | | | tme | | | | |
|----------------|-------------|-----------|----------|----------|-----|--------------|---------|----|-----|
| Major Street: | Approach | | rthbound | | | | thbound | | |
| | Movement | 1 | 2 | 3 | ١ | 4 | 5 | 6 | |
| | | L | Т | R | 1 | L | T | R | |
| Volume | | | 1225 | 36 | | 69 | 764 | | *** |
| Peak-Hour Fact | or, PHF | | 0.95 | 0.95 | | 0.95 | 0.95 | | |
| Hourly Flow Ra | ite, HFR | | 1289 | 37 | | 72 | 804 | | |
| Percent Heavy | Vehicles | | | | | 5 | | | |
| Median Type/St | orage | Undiv | ided | | | / | | | |
| RT Channelized | 1? | | | | | | | | |
| Lanes | | | 2 0 |) | | 1 | 2 | | |
| Configuration | | | T TF | \ | | \mathbf{L} | T | | |
| Upstream Signa | 1? | | No | | | | No | | |
| Minor Street: | Approach | Wes | stbound | | | Eas | tbound | | |
| | Movement | 7 | 8 | 9 | | 10 | 11 | 12 | |
| | | L | T | R | I | L | Т | R | |
| <i>J</i> olume | | 18 | | 90 | | | | | |
| Peak Hour Fact | or, PHF | 0.95 | | 0.95 | | | | | |
| Hourly Flow Ra | te, HFR | 18 | | 94 | | | | | |
| Percent Heavy | Vehicles | 5 | | 5 | | | | | |
| Percent Grade | (%) | | 0 | | | | 0 | | |
| Flared Approac | h: Exists?/ | 'Storage | | | / | l | | | / |
| Lanes | | ĺ | 1 | | | | | | |
| Configuration | | ${f L}$ | R | | | | | | |

| Approach | _Delay, NB | Queue Le SB | | nd Leve | el of | Ser | | astbound | 1 |
|------------------|---------------|----------------|-------|---------|-------|-----|----|----------|----|
| Movement | 1 | 4 | 7 | 8 | 9 | I | 10 | 11 | 12 |
| Lane Config | | L | L | | R | l | | | |
| v (vph) | | 72 | 18 | | 94 | | | | |
| C(m) (vph) | | 501 | 54 | | 451 | | | | |
| v/c | | 0.14 | 0.33 | | 0.21 | | | | |
| 95% gueue length | | 0.50 | 1.19 | | 0.78 | | | | |
| Control Delay | | 13.4 | 101.9 | | 15.1 | | | | |
| LOS | | В | F | | С | | | | |
| Approach Delay | | | | 29.0 | | | | | |
| Approach LOS | | | | D | | | | | |

TWO-WAY STOP CONTROL SUMMARY_

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK AM HOUR

Intersection: US ROUTE 9 & WALTER STREET

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD2

East/West Street: WALTER STREET
North/South Street: US ROUTE 9
Intersection Orientation: NS

Intersection Orientation: NS Study period (hrs): 0.25

| Intersection Ori | entation: | NS | | Sti | udy | period | (hrs): | 0.25 | |
|---|-----------|----------|----------|--------|------|----------|---------|-------|----|
| | Vehi | cle Volu | mes and | Adjust | tme: | nts | | | |
| Major Street: A | pproach | No | thbound | _ | | Sou | thbound | | |
| - | ovement | 1 | 2 | 3 | | 4 | 5 | 6 | |
| | | ${f L}$ | ${f T}$ | R | - | ${f L}$ | T | R | |
| Vicent | | | | | | | | | |
| Volume | | | 657 | 26 | | 57 | 1114 | | |
| Peak-Hour Factor | • | | 0.90 | 0.90 | | 0.90 | 0.90 | | |
| Hourly Flow Rate | | | 730 | 28 | | 63 | 1237 | | |
| Percent Heavy Ve | | 11 | | | | ,5 , | | | |
| <pre>Median Type/Stor RT Channelized?</pre> | age | Undiv | ıded | | | / | | | |
| Lanes | | | 2 0 | | | 1 | 2 | | |
| Configuration | | | T TR | | | L | T | | |
| Upstream Signal? | | | No In | | | | No | | |
| opstream signar: | | | NO | | | | 1.0 | | |
| Minor Street: A | pproach | We | stbound | | | Eas | tbound | | |
| | ovement | 7 | 8 | 9 | | 10 | 11 | 12 | |
| | | ${f L}$ | ${f T}$ | R | - 1 | ${ m L}$ | T | R | |
| | | | | | | | | | |
| Volume | | 35 | | 68 | | | | | |
| Peak Hour Factor | | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rate | • | 38 | | 75 | | | | | |
| Percent Heavy Ve | | 5 | | 5 | | | _ | | |
| Percent Grade (% | | | 0 | | , | | 0 | | , |
| Flared Approach: | Exists?/ | _ | - | | / | | | | / |
| Lanes | | 1_ | _1 | | | | | | |
| Configuration | | L | R | | | | | | |
| | | | | | | | | | |
| | Delay, Q | ueue Lei | ngth, an | d Leve | 1 0 | f Servi | .ce | | |
| Approach | NB | SB | | bound | | | Easth | oound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 1 | .0 | 11 | 12 |
| Lane Config | | L į | L | | R | ĺ | | | |
| | | · | | | | | | | |
| v (vph) | | 63 | 38 | | 75 | | | | |
| C(m) (vph) | | 830 | 103 | | 65 | | | | |
| v/c | | 0.08 | 0.37 | | | 11 | | | |
| 95% queue length | | 0.25 | 1.48 | | | 38 | | | |
| Control Delay | | 9.7 | 59.1 | | | 2 | | | |
| LOS | | Α | F | | E | 3 | | | |
| Approach Delay | | | | 27.3 | | | | | |
| Approach LOS | | | | D | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: US ROUTE 9 & WALTER STREET

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD2

East/West Street: WALTER STREET North/South Street: US ROUTE 9

Intersection Orientation: NS Study period (hrs): 0.25

| | | | Lumes an | | tme | | | | |
|----------------|-------------|---------|----------|------|-----|------|---------|----|---|
| Major Street: | Approach | | orthboun | | | | ıthboun | | |
| | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | L | T | R | l | L | ${f T}$ | R | |
| Volume | | | 1227 | 36 | | 70 | 766 | | |
| Peak-Hour Fact | or, PHF | | 0.95 | 0.95 | | 0.95 | 0.95 | | |
| Hourly Flow Ra | ite, HFR | | 1291 | 37 | | 73 | 806 | | |
| Percent Heavy | | | | | | 5 | | | |
| Median Type/St | orage | Undiv | vided | | | / | | | |
| RT Channelized | 1? | | | | | | | | |
| Lanes | | | 2 | 0 | | 1 | 2 | | |
| Configuration | | | т т | R | | L | ${f T}$ | | |
| Upstream Signa | 11? | | No | | | | No | | |
| Minor Street: | Approach | We | estbound | | | Eas | tbound | | |
| | Movement | 7 | 8 | 9 | | 10 | 11 | 12 | |
| | | L | ${f T}$ | R | | L | Т | R | |
| Volume | | 18 | | 91 | | | | | |
| Peak Hour Fact | or, PHF | 0.95 | | 0.95 | | | | | |
| Hourly Flow Ra | te, HFR | 18 | | 95 | | | | | |
| Percent Heavy | | 5 | | 5 | | | | | |
| Percent Grade | (용) | | 0 | | | | 0 | | |
| Flared Approac | h: Exists?/ | Storage |) | | / | • | | | / |
| Lanes | | ī | | 1 | | | | | |
| Configuration | | I | . R | | | | | | |

| Approach | Delay, NB | Queue Le SB | _ | nd Leve | el of | Ser | vice | Eastbound | |
|------------------|--------------|----------------|-------|---------|-------|-------------|------|-----------|----|
| Movement | 1 | 4 | 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | | L | L | | R | l | | | |
| v (vph) | | 73 | 18 | | 95 | | | | |
| C(m) (vph) | | 500 | 54 | | 451 | | | | |
| v/c | | 0.15 | 0.33 | | 0.21 | | | | |
| 95% queue length | | 0.51 | 1.19 | | 0.79 | | | | |
| Control Delay | | 13.4 | 101.9 | | 15.1 | | | | |
| LOS | | В | F | | С | | | | |
| Approach Delay | | | | 28.9 | | | | | |
| Approach LOS | | | | D | | | | | |

Analyst: APF Agency: JCE

Date:

Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Area Type: All other areas

Jurisd:

Period: PEAK AM HOUR

9/11/2009

Year : 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX3

| | ject ID: St: GRA | | | VATE RD | | N/S | s st: U | S ROU | TE 9 | | | | |
|---------------|---------------------|-------------|-----------------|---------------|------------------|------------|---------------|---------|--------|---------------|-------------|-----|--------|
| | | | | CTCNAT | такр т | NIMED CE | CTTON | CLIMMAY | DV | | | | |
| | | l Ea: | stbound | SIGNAL | ızıb ı estbou | | | thbou | | Sou | thbou | ınd | 1 |
| | | L | T F | | Т | R | L | T | R I | Γ_{-1} | Т | R | į |
| NTo | T 0 0 | | 1 1 | | 0 1 | | _ [| | l | 1 | | 0 | _¦ |
| | Lanes onfig | 0 | 1 1 LT | . ' R | 0 1 LT | 0 'R | 1 L | 1 TR | U [| L L | TR | U | l I |
| Vol | _ | 20 | 1 3 | 20 | 3 | 11 | • | | 16 | | 769 | 275 | i |
| Lan | e Width | Ì | 12.0 12 | • | 12.0 | | 12.0 | 12.0 | Ī | 12.0 | 12.0 | | 1 |
| RTO | R Vol | 1 | 0 | 1 | | 0 | 1 | (| 0 | | | 0 | I |
| Dur | ation | 0.25 | Ar | ea Type | | | | | | | | | |
| Dha | se Combi | natio | - 1 | S: | | Operat | cions | 5 | 6 | 7 | 8 | | |
| EB | Left | .Hat101 | A A | 2 3 | 4 | NB | Left | A | O | , | O | , | |
| סנו | Thru | | A | | | 1 | Thru | A | | | | | |
| | Right | | A | | | i | Right | | | | | | |
| | Peds | | | | | İ | Peds | | | | | | |
| \mathtt{WB} | Left | | A | | | SB | Left | Α | | | | | |
| | Thru | | A | | | ļ | Thru | A | | | | | |
| | Right | | A | | | ļ | Right | . A | | | | | |
| MD | Peds Right | | | | | 1775 | Peds Right | | | | | | |
| NB SB | Right | | | | | EB WB | Right | | | | | | |
| Gree | _ | | 20.0 | | | 1 110 | Right | 70.0 | | | | | |
| Yel. | | | 3.0 | | | | | 3.0 | | | | | |
| All | Red | | 2.0 | | | | | 2.0 | | | | | |
| | | | | | | | | _ | 1e Ler | igth: | 100.0 |) ຣ | ecs |
| <u>~</u> | | | | rsection | | | | | | | | | |
| App: Lane | | | Adj S | | Ratios | | Lane | Group | App | roach | | | |
| Grp | | up acity | Flow R (s) | $\frac{1}{v}$ | <u> </u> | /C | Delav | LOS | Dela | y LOS | | | |
| OLP | сар | acrey | (3) | V / · | 9 | ,, С | Deray | TOS | DOIL | y Los | | | |
| East | bound | | | | | | | | | | | | |
| LT | 28 | 6 | 1430 | 0.0 | 08 0 | .20 | 32.6 | С | 32.6 | 5 C | | | |
| R | | 8 | 1538 | 0.0 | 01 0 | .20 | 32.1 | C | | | | | |
| West | bound | | | | | | | | | | | | |
| LTR | 29 | 8 | 1489 | 0. | 12 0 | .20 | 33.0 | С | 33.0 |) C | | | |
| Nort | hbound | | | | | | | | | | | | |
| $\mathbf L$ | 97 | | 138 | | | .70 | 4.7 | A | | | | | |
| TR | 12 | 61 | 1802 | 0. | 51 0 | .70 | 7.4 | A | 7.4 | A | | | |
| | hbound | _ | | | | | | | | | | | |
| L | 44 | | 629 | | | 70 | 4.6 | A | 0.0 | | | | |
| TR | 12 | T.) | 1738 | 0.5 | 95 C | .70 | 29.4 | С | 29.2 | 2 C | | | |

Intersection Delay = 21.8 (sec/veh) Intersection LOS = C

Analyst: APF Agency: JCE

Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Area Type: All other areas

Jurisd:

Date: 9/11/2009

Year : 2008/2009 EXISTING VOLUMES

Period: PEAK PM HOUR Project ID: 1457PMEX3

| | t: GRACEME | PMEXS RE RD/PRIVAT | E RD | N/S | s St: US | S ROUT | E 9 | | | | |
|--------------|-------------|-----------------------|----------|----------------|---------------|-----------|---------|----------------|--------|-----|-------|
| | | ST | GNALTZEI |) INTERSE | ECTION S | SUMMAR | Y | | | | |
| | E | astbound | Westh | | | hboun | | Sot | ıthboı | ınd | |
| | L | T R | L 1 | r R | [L | T | R | L | Т | R | |
| No. La | • | 0 1 1 | i 0 | 1 0 | 1 | | 0 1 | 1 | 1 | 0 |] |
| LGCon | | LT R | | LTR | L | TR | | L | TR | 00 | ļ |
| Volume | • | | 23 6 | 14 | • | 918 2 | | 15 | 648 | 28 | į. |
| Lane V | | 12.0 12.0 | 12 | 2.0 | 12.0 | LZ.U 0 | l I | 12.0 | 12.0 | 0 | ! |
| RTOR ' | VOI 1 | 0 | ı | U | 1 | , | | | | | |
| Durat: | ion 0.2 | 5 Area | | ll other | | | | | | | |
| Phase | Combinati | on 1 2 | srgna | al Operat 4 | | 5 | 6 | 7 | | B | |
| | eft | A Z | J | NB | Left | Ä | Ū | | | | |
| | hru | A | | i | Thru | А | | | | | |
| | ight | A | | Ì | Right | A | | | | | |
| | eds | | | | Peds | | | | | | |
| | eft | A | | SB | Left | A | | | | | |
| | hru | A | | | Thru | A | | | | | |
| | ight | А | | | Right Peds | A | | | | | |
| | eds ight | | | l EB | Right | | | | | | |
| | ight | | | WB | Right | | | | | | |
| Green | -90 | 20.0 | | , | | 70.0 | | | | | |
| Yellov | W | 3.0 | | | | 3.0 | | | | | |
| All Re | ed | 2.0 | | | | 2.0 | - T | - - b - | 100 | Λ | 0000 |
| | | Intarsa | ction Pe | erforman | ce Summa | _ | е тег | igtii: | 100. | U | secs |
| Appr/ | Lane | Adj Sat | Rati | | Lane (| | App | proac | h | | |
| Lane | Group | Flow Rate | | | | | | | | | |
| Grp | Capacit | y (s) | v/c | g/C | Delay | LOS | Dela | ay LO | S | | |
| Eastbo | ound | | | | | | | | | | |
| LT | 253 | 1267 | 0.97 | 0.20 | 88.4 | F | 88. | 0 F | | | |
| R | 308 | 1538 | 0.01 | 0.20 | 32.1 | С | | | | | |
| Westbo | ound | | | | | | | | | | |
| LTR | 191 | 957 | 0.24 | 0.20 | 34.2 | С | 34. | 2 C | | | |
| North | oound | | | | | | | | | | |
| L | 396 | 566 | 0.00 | 0.70 | 4.5 | Α | | _ | | | |
| TR | 1262 | 1803 | 0.78 | 0.70 | 13.2 | В | 13. | 2 B | | | |
| Southk | | | | | | | | | | | |
| \mathbf{L} | 212 | 303 | 0.08 | 0.70 | 4.9 | A | 0 0 | 78. | | | |
| TR | 1259 | 1798 | 0.56 | 0.70 | 8.0 | А | 8.0 | A | | | |

Intersection Delay = 21.0 (sec/veh) Intersection LOS = C

Analyst: APF Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

1739

TR

1217

Period: PEAK AM HOUR Year : 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB3

| | | ~ ~ ~ | | D THEFT | OMION (| יר ד ת את אודי | J | | |
|--------------------|----------------|----------------------|---------|--------------------|----------------|----------------|----------------|-----------|---------|
| | l Es | SIG stbound | | D INTERSE bound | | thbound | | Southk | oound I |
| | l L | T R | | T R | L | | | L T | R |
| | | I K | ш | 1 K | 1 4 | 1 1 | | _ | i |
| No. La | nes <u> </u> | 1 1 1 | 0 | 1 0 | ¦ | 1 0 | - - | 1 1 | 0 i |
| LGConf. | • | LT R | · · | LTR | L | TR | | _ | rr l |
| Volume | _ | 1 3 | 23 3 | | • | 644 1 | | | |
| Lane W. | • | 12.0 12.0 | | 2.0 | • | 12.0 | • | 2.0 12. | - |
| RTOR V | • | 0 | | 0 | 1 12.0 | 0 | 1 - | | 0 |
| (IOI(V | OI (| 0 1 | | O | ı | Ü | • | | |
| Duratio | on 0.25 | Area T | 'ype: A | 11 other | areas | | | | |
| | | | | al Operat | ions | | | | |
| | Combinatio: | | 3 | 4 | | 5 | 6 | 7 | 8 |
| B Le | | A | | NB | Left | A | | | |
| Th | | A | | l | Thru | A | | | |
| | ght | A | | l | Right | A | | | |
| Pe | | | | I | Peds | | | | |
| VB Le | | A | | SB | Left | Α | | | |
| Th: | | A | | | Thru | А | | | |
| Ric | ght | A | | entriting. | Right | A | | | |
| Pec | ds | | | 1 | Peds | | | | |
| √IB Ri | ght | | | EB | Right | | | | |
| BB Ri | ght | | | WB | Right | | | | |
| Green | | 20.0 | | | | 70.0 | | | |
| Yellow | | 3.0 | | | | 3.0 | | | |
| All Red | d | 2.0 | | | | 2.0 | _ | . 1 . 10. | 0 0 |
| | | | | | 0 | - | e Leng | th: 10 | 0.0 sec |
| | Т 2 | | | erformano | e Summ Lane | | Appr | oach | |
| Appr/ Lane | Lane Group | Adj Sat Flow Rate | Rat | ios | цапе | Group | Appr | Oacii | |
| Grp | Capacity | | v/c | g/C | De1ay | LOS | Delay | LOS | |
| \ | | | | | | | | | |
| lastbou | ana | | | | | | | | |
| T | 282 | 1412 | 0.09 | 0.20 | 32.7 | С | 32.6 | С | |
| ₹ | 308 | 1538 | 0.01 | 0.20 | 32.1 | С | | | |
| lestbou | | | | | | | | | |
| JTR | 295 | 1473 | 0.15 | 0.20 | 33.2 | С | 33.2 | С | |
| 1 T T/ | 233 | 1110 | 0.13 | 0.20 | 33.2 | J | 00.2 | • | |
| orthbo | | | | | | | | | |
| | 72 | 103 | 0.03 | 0.70 | 4.7 | A | | _ | |
| | 1262 | 1803 | 0.58 | 0.70 | 8.3 | Α | 8.3 | A | |
| 'R | | | | | | | | | |
| | ound | | | | | | | | |
| TR Southbo L | ound 379 | 542 | 0.03 | 0.70 | 4.6 | A | | | |

1.04 0.70

Intersection Delay = 34.9 (sec/veh) Intersection LOS = C

50.9 D

50.4 D

Analyst: APF Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK PM HOUR Year : 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB3

| _ | : GRACEM | | | TE RD | N/ | s St: U | s ROU | re 9 | | | | |
|---------------|----------|-------|---------|---------|------------------------|-------------|--------|-------|------------|----------|-----|------|
| | | | S | IGNALIZ | ED INTERS | ECTION | SUMMAE | RY | | | | |
| | | Eastb | | | tbound | | thbour | | So | uthbou | ind | i |
| | I | T | R | L | T R | L | Т | R | L | T | R | |
| No. Lar | nes | 0 | 1 1 | -i 0 | 1 0 | _i <u> </u> | 1 | 0 | 1 | 1 | 0 | |
| LGConf | | | LT R | 1 | LTR | L | TR | | l L | ТR | | 1 |
| Volume | 24 | | 2 | • | 6 16 | • | | 24 | 120 | 732 | 30 | 1 |
| Lane Wi | | 12 | .0 12.0 | | 12.0 | 112.0 | | | 12.0 | 12.0 | | İ |
| RTOR Vo | oT [| | 0 |] | 0 | l | (|) | | | 0 | 1 |
| Duratio | on 0. | 25 | Area | | All other nal Opera | | | | | | | |
| Phase (| Combinat | ion 1 | 2 | 3 | 4 | CTO110 | 5 | 6 | 7 | 8 | 3 | |
| EB Lef | | A | | - | NB | Left | A | | | | | |
| Thi | cu | A | | | į | Thru | A | | | | | |
| Ric | ght | A | | | 1 | Right | Α | | | | | |
| Pec | | | | | | Peds | | | | | | |
| WB Lef | | A | | | [SB | | Α | | | | | |
| Thr | | A | | | 1 | Thru | A | | | | | |
| Rig | | A | | | 1 | Right | A | | | | | |
| Pec NB Rig | | | | | ्रं तस्य १ | Peds | | | | | | |
| SB Rig | | | | | EB WB | _ | | | | | | |
| Green | ,110 | 20 | . 0 | | (WD | Rigire | 70.0 | | | | | |
| Yellow | | 3. | | | | | 3.0 | | | | | |
| All Red | l | 2. | | | | | 2.0 | | | | | |
| | | | | | | | Сус | le Le | ngth: | 100.0 |) | secs |
| | | | | | Performan | | | | | | | |
| Appr/ | Lane | | Adj Sat | | tios | Lane | Group | Ap | proac | h | | |
| Lane | Group | | low Rat | | / G | D-1 | T 00 | Do 1 | T.O | <u> </u> | | |
| Grp | Capaci | τу | (s) | v/c | g/C | ретау | LOS | DeT | ay LO | 5 | | |
| Eastbou | nd | | | | | | | | | | | |
| LT | 252 | | 1261 | 1.06 | 0.20 | 112.1 | F | 111 | .5 F | | | |
| R | 308 | | 1538 | 0.01 | 0.20 | 32.1 | С | | | | | |
| Westbou | nd | | | | | | | | | | | |
| LTR | 167 | 1 | 836 | 0.30 | 0.20 | 35.0+ | D | 35. | 0+ D | | | |
| Northbo | | | | | | | | | | | | |
| L | 333 | | 476 | 0.00 | | 4.5 | A | 4 - | . – | | | |
| TR | 1262 | | 1803 | 0.85 | 0.70 | 17.1 | В | 17. | 1 B | | | |
| Southbo | | | | | | | | | | | | |
| L | 153 | | 219 | 0.14 | 0.70 | 5.4 | A | | | | | |
| TR | 1259 | | 1799 | 0.64 | 0.70 | 9.2 | А | 9.1 | A | • | | |

Intersection Delay = 25.9 (sec/veh) Intersection LOS = C

Analyst: APF Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK AM HOUR Year : 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD3

| | t ID: 14577 : GRACEMER | AMBD3 E RD/PRIVATE | RD | N/S | St: U | S ROUTE | E 9 | | | |
|---------------|---------------------------|-----------------------|---------|-----------|---------------|---------|-----------------|--------|-------------|------|
| | | SIG | NALIZEI | D INTERSE | CTION | SUMMARY | ď | | | |
| ***** | Eas | stbound | | oound | | thbound | | Sout | hbound | E |
| | Ĺ | T R | L ' | ľ R | L | T H | 3 | L | T I | 3 |
| | l | | | | l | | l | | | |
| No. La | nes 0 | 1 1 | 0 | 1 0 | 1 | 1 (| • | 1 | |) i |
| LGConf. | | LT R | | LTR | L | TR | | L | TR | |
| Volume | • | | 24 3 | | • | 644 1 | | | | 97 |
| Lane W. | • | 12.0 12.0 | 1: | 2.0 | 112.0 | | 11 | 2.0 1 | 2.0 | ! |
| RTOR V | ol [| 0 1 | | 0 | | 0 | l | | 0 | I |
| Duration | on 0.25 | Area T | | 11 other | | | | | | |
| | | | | al Operat | ions | | | 7 | 8 | |
| | Combination | | 3 | 4 | T - CL | 5 | 6 | 7 | Ö | |
| EB Le: | | A | | NB | Left | A A | | | | |
| Th: | | A | | ļ | Thru | | | | | |
| | ght | Α | | l I | Right Peds | А | | | | |
| Ped WB Let | | 7) | | CD | Left | А | | | | |
| WB Le: Th: | | A A | | SB | Thru | A | | | | |
| | ght | A | | 1 | Right | | | | | |
| Ped | | А | | I I | Peds | Λ. | | | | |
| | ght | | | EB | Right | | | | | |
| | ght | | | WB | Right | | | | | |
| Green | gire | 20.0 | | 1 112 | 1119110 | 70.0 | | | | |
| Yellow | | 3.0 | | | | 3.0 | | | | |
| All Red | ri | 2.0 | | | | 2.0 | | | | |
| | - | | | | | | e Leng | jth: 1 | .00.0 | secs |
| | | | | erformanc | | | | | | |
| Appr/ | Lane | Adj Sat | Rat: | ios | Lane | Group | Appı | oach | | |
| Lane Grp | Group Capacity | Flow Rate (s) | v/c | g/C | Delay | LOS | Delay | LOS | | |
| Eastboi | ınd | | | | | | | | | |
| | | | | | | | | | | |
| LT | 282 | 1409 | 0.09 | 0.20 | 32.7 | С | 32.6 | С | | |
| R | | 1538 | 0.01 | 0.20 | 32.1 | С | | | | |
| Westbou | und | | | | | | | | | |
| LTR | 294 | 1471 | 0.16 | 0.20 | 33.3 | С | 33.3 | С | | |
| Northbo | ound | | | | | | | | | |
| L | 72 | 103 | 0.03 | 0.70 | 4.7 | Α | | | | |
| TR | 1262 | 1803 | 0.58 | 0.70 | 8.3 | Α | 8.3 | A | | |
| Southbo | ound | | | | | | | | | |
| L | 379 | 542 | 0.03 | 0.70 | 4.6 | A | | | | |
| 64 5 | | 1800 | 1 0 4 | 0 50 | 60.0 | | $\Gamma \cap A$ | | | |

Intersection Delay = 34.9 (sec/veh) Intersection LOS = C

1.04 0.70

1739

TR

1217

50.9 D

50.4 D

Analyst: APF

Inter.: US ROUTE 9 & GRACEMERE/PRIVATE

Agency: JCE Area Type: All other areas

Date: 9/11/2009

Jurisd:

Period: PEAK PM HOUR

Year : 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD3

E/W St: GRACEMERE RD/PRIVATE RD N/S St: US ROUTE 9

| | | SIC | GNALIZE | D INTERSE | CTION S | SUMMAR | Y | | | | |
|--|---|---|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|-------------------------|---------------|----------|-----|------|
| | l Ea | stbound | | bound | | hboun | | Sou | thboi | ınd | |
| | l L | T R | • | r R | L | | | L | T | R | [|
| No. Lai | nes 0 | 1 1 | ' | 1 0 | 'i | 1 | - | 1 | 1 | 0 | i |
| LGConf: | • | LT R | | LTR | L | TR | i | L | TR | | Ì |
| Volume | 244 | 9 2 | 126 6 | 18 | io 9 | 99 2 | 5 2 | 2 | 732 | 30 | 1 |
| Lane W: | idth | 12.0 12.0 | 1: | 2.0 | 12.0 1 | .2.0 | 1 | 2.0 | 12.0 | | 1 |
| RTOR V | ol | 0 | İ | 0 | 1 | 0 | 1 | | | 0 | I |
| Duratio | on 0.25 | Area S | | ll other al Operat | | | | | | | |
| Phase (| Combination | n 1 2 | 3 | 4 l | .TOII5 | 5 | 6 | 7 | | 3 | |
| EB Let | | A | J | I NB | Left | A | | | | | |
| Thi | | A | | | Thru | A | | | | | |
| | ght | A | | i | Right | A | | | | | |
| Pec | | | | i | Peds | | | | | | |
| WB Lei | ft | A | | , SB | Left | A | | | | | |
| Thi | ru | A | | i | Thru | Α | | | | | |
| Ric | ght | Α | | İ | Right | Α | | | | | |
| Ped | | | | İ | Peds | | | | | | |
| NB Rig | ght | | | EB | Right | | | | | | |
| SB Rig | ght | | | WB | Right | | | | | | |
| Green | | 20.0 | | | | 70.0 | | | | | |
| Valla | | | | | | | | | | | |
| Yellow | | 3.0 | | | | 3.0 | | | | | |
| All Rec | i | 2.0 | | | | 3.0 2.0 | | | | | |
| | i | | | | | 2.0 | e Leng | ſth: | 100. | 0 | secs |
| All Red | | 2.0 Intersec | | erformanc | | 2.0 Cycl ary | | | | 0 | secs |
| All Rec | Lane | 2.0 Intersec Adj Sat | ction Pe Rat: | | e Summa Lane G | 2.0 Cycl ary | | nth: | | 0 | secs |
| All Rec | Lane Group | 2.0Intersect Adj Sat Flow Rate | Rat: | ios —— | Lane C | 2.0 Cycl ary_ Group | Appr | oach | 1 | 0 | secs |
| All Rec | Lane | 2.0 Intersec Adj Sat | | | | 2.0 Cycl ary_ Group | | oach | 1 | 0 | secs |
| All Rec | Lane Group Capacity | 2.0Intersect Adj Sat Flow Rate | Rat: | ios —— | Lane C | 2.0 Cycl ary_ Group | Appr | oach | 1 | 0 | secs |
| Appr/ Lane Grp Eastbou | Lane Group Capacity und | Intersection Adj Sat Flow Rate (s) | Rat: | ios g/C | Delay | 2.0 Cycl ary Group LOS | Appr Delay | roach LOS | 1 | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbou | Lane Group Capacity and | Intersection Adj Sat Flow Rate (s) | Rat: v/c 1.06 | g/C 0.20 | Delay | 2.0 Cycl ary Group LOS | Appr | roach LOS | 1 | 0 | secs |
| Appr/ Lane Grp Eastbou | Lane Group Capacity and 252 308 | Intersection Adj Sat Flow Rate (s) | Rat: | ios g/C | Delay | 2.0 Cycl ary Group LOS | Appr Delay | roach LOS | 1 | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbou | Lane Group Capacity und 252 308 und | Intersection Adj Sat Flow Rate (s) | Rat: v/c 1.06 | g/C 0.20 | Delay 112.1 32.1 | 2.0 Cyclary_ Froup LOS | Appr Delay | roach LOS | 1 | 0 | secs |
| All Reconstruction | Lane Group Capacity Ind 252 308 Ind 168 | Intersection Adj Sat Flow Rate (s) | Rat: v/c 1.06 0.01 | 0.20 0.20 | Delay 112.1 32.1 | 2.0 Cyclary_ Froup LOS | Appr Delay | LOS | 1 | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbou LT R Westbou | Lane Group Capacity Ind 252 308 Ind 168 | Intersection Adj Sat Flow Rate (s) | 7.06 0.01 0.31 | 0.20 0.20 | Delay 112.1 32.1 35.2 | 2.0 Cyclary_ Froup LOS | Appr Delay | LOS | 1 | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbour LT R Westbour LTR Northbour | Lane Group Capacity and 252 308 and 168 | Intersection Adj Sat Flow Rate (s) 1262 1538 | 7.06 0.01 0.31 | 0.20 0.20 0.20 | Delay 112.1 32.1 35.2 | Cyclary | Appr Delay | LOS | 1 | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbou LT R Westbou LTR Northbou L TR | Lane Group Capacity Ind 252 308 Ind 168 Dund 333 1262 | 2.0 Intersect Adj Sat Flow Rate (s) 1262 1538 838 | Rat: v/c 1.06 0.01 0.31 0.00 | 0.20 0.20 0.20 | Delay 112.1 32.1 35.2 | Cyclary | Appr Delay 111.5 | LOS F | 1 | 0 | secs |
| All Reconstruction Appr/Lane Grp Eastbound LT R Westbound LTR Northbound TR Southbound | Lane Group Capacity und 252 308 und 168 ound 333 1262 | Intersect Adj Sat Flow Rate (s) 1262 1538 838 476 1803 | Rat: v/c 1.06 0.01 0.31 0.00 0.85 | 0.20 0.20 0.20 0.70 | 112.1 32.1 35.2 4.5 17.1 | 2.0 Cyclary Froup LOS D A B | Appr Delay 111.5 | LOS F | <u> </u> | 0 | secs |
| All Reconstruction Appr/Lane Grp Eastbought LT R Westbought LTR Northbought LTR Southbought LTR | Lane Group Capacity Ind 252 308 Ind 168 Dund 333 1262 Dund 153 | Intersect Adj Sat Flow Rate (s) 1262 1538 838 476 1803 | 1.06 0.01 0.31 0.00 0.85 | 0.20 0.20 0.20 0.70 0.70 | 112.1 32.1 35.2 4.5 17.1 | Cyclary | Appr Delay 111.5 35.2 | LOS F D | <u> </u> | 0 | secs |
| All Reconstruction Appr/Lane Grp Eastbound LT R Westbound LTR Northbound TR Southbound | Lane Group Capacity und 252 308 und 168 ound 333 1262 | Intersect Adj Sat Flow Rate (s) 1262 1538 838 476 1803 | 1.06 0.01 0.31 0.00 0.85 | 0.20 0.20 0.20 0.70 | 112.1 32.1 35.2 4.5 17.1 | 2.0 Cyclary Froup LOS D A B | Appr Delay 111.5 | LOS F | <u> </u> | 0 | secs |

Analyst: APF

Inter.: US ROUTE 9 & SUNNYSIDE LANE

Area Type: All other areas Agency: JCE

Jurisd:

Date: 9/11/2009

Year : 2008/2009 EXISTING VOLUMES

Period: PEAK AM HOUR Project ID: 1457AMEX4 E/W St: SUNNYSIDE LANE

N/S St: US ROUTE 9

| 11/ W DC | . BORNIBIE | DE DANS | | 117 . | , DC. O. | 1100. | | | | |
|---------------|-------------|--------------------|------------------|-----------|---------------|---|---------|-------|----------|-----|
| | | SI | GNALIZED | | | | | | | |
| | • | astbound | Westb | | - | hbour | | | thbound | |
| | L | T R | L T | R | L | T | R | L | T R | . |
| No. Lai | nes (| 0 1 0 | ¦ | 1 0 | -¦ | 1 | ¦- | 1 | 1 0 | ¦ |
| LGConf. | • | LTR | • | LTR | i L | ${f T}$ | R | L | TR | } |
| Volume | - | 2 6 | 275 5 | 77 | • | 507 2 | 240 | 7 | 675 7 | i |
| Lane W: | • | 12.0 | • | .0 | 12.0 | | 12.0 j | 12.0 | 12.0 | 1 |
| RTOR V | ol i | 0 | İ | 0 | Ì | |) (| | 0 | 1 |
| Duratio | on 0.25 | Area | Type: Al | | | *************************************** | | | | |
| Dhaga (| Combination | | | 1 Operat | lons | 5 | 6 | 7 | 8 | |
| | Combinatio | | 3 | 4 | Toff | Э A | О | ′ | 0 | |
| EB Le: Th: | | A | | NB | Left Thru | A | | | | |
| | | A | | ! | | | | | | |
| | ght ds | Α | | | Right Peds | A | | | | |
| Ped WB Le: | | 7\ | | l I SB | reas Left | A | | | | |
| wв Le: Th: | | A | | 1 28 | Thru | A A | | | | |
| | | A | | ļ. | Right | A | | | | |
| | ght | Α | | [| | А | | | | |
| Ped | | | | | Peds | | | | | |
| | ght | | | EB | Right | | | | | |
| | ght | 25.0 | | WB | Right | EE 0 | | | | |
| Green | | 35.0 | | | | 55.0 | | | | |
| Yellow | | 3.0 | | | | 3.0 | | | | |
| All Red | a | 2.0 | | | | 2.0 | 1 - Tam | ath. | 100 0 | 900 |
| | | Intonac | ation Do | xforman. | ao Cummi | _ | le Len | gun. | 100.0 | sec |
| Appr/ | Lane | Interse Adj Sat | ction Pe Rati | | Lane (| | | roach | <u> </u> | |
| Lane | Group | Flow Rate | | .03 | Danc v | JIOUP | 1100 | 10001 | • | |
| Grp | Capacity | | V/C | g/C | Delay | LOS | Dela | у гоз | 3 | |
| Eastbou | und | | | | | | | | | |
| LTR | 512 | 1464 | 0.03 | 0.35 | 21.4 | С | 21.4 | С | | |
| Westbou | und | | | | | | | | | |
| | | 1242 | 0.05 | 0.25 | 40 E | D | 43.5 | D | | |
| LTR | 470 | 1343 | 0.85 | 0.35 | 43.5 | D | 43.3 | ט | | |
| Northbo | | | | | | | | | | |
| _ | 186 | 339 | 0.05 | 0.55 | 10.5 | В | | | | |
| Γ | 996 | 1810 | 0.57 | 0.55 | 15.4 | В | 14.4 | В | | |
| ₹ | 846 | 1538 | 0.32 | 0.55 | 12.5 | В | | | | |
| Southbo | ound | | | | | | | | | |
| L | 324 | 589 | 0.02 | 0.55 | 10.3 | В | | | | |
| ľR | 994 | 1807 | 0.76 | 0.55 | 21.0 | С | 20.9 | С | | |
| | Interse | ction Delay | = 22.7 | (sec/ve | eh) I∶ | nters | ection | LOS | = C | |
| | | 1 | | | , – | | | | | |

Analyst: APF Agency: JCE

Date:

Inter.: US ROUTE 9 & SUNNYSIDE LANE

Area Type: All other areas

Jurisd:

9/11/2009 Year : 2008/2009 EXISTING VOLUMES Period: PEAK PM HOUR

Project ID: 1457PMEX4 E/W St: SUNNYSIDE LANE

N/S St: US ROUTE 9

| | | GNALIZED | | | SUMMAR hboun | | 501 | thbo | und | - 1 |
|--|--|--------------------------------------|--------------------------------------|--|---|---------------|-----------------------|---------|-----|-----------------|
| deres | Eastbound R | Westbo | ouna R | L | | R [| L | T | R | i |
| e de la compansión de l | | 1 | | i | | | | | | <u>i</u> |
| No. Lanes | 0 1 0 | • | 1 0 | 1 | _ | 1 | 1 | 1 TR | 0 | |
| LGConfig | LTR | • | LTR 74 | L 7 8 | т 390 1 | R 83 | L 70 | 457 | 1 | \ |
| Volume | 4 4 8 12.0 | 193 3 12 | | 112.0 1 | | | 12.0 | | - | i |
| RTOR Vol | 12.0 | 12 | 0 | 1 12.0 1 | 0 | | | | 0 | İ |
| Duration | 0.25 Area | Type: Al. | l other | areas | | | | | | |
| | | Signa: | 1 Operat | | | | | | | |
| Phase Combin | | 3 | 4 | - C) | 5 | 6 | 7 | | 8 | |
| EB Left | A | | NB | Left | A | | | | | |
| Thru | A | | 1 | Thru | A | | | | | |
| Right | A | | 1 | Right Peds | A | | | | | |
| Peds WB Left | 7\ | | l l SB | Left | А | Α | | | | |
| WB Left Thru | A A | | 1 20 | Thru | A | A | | | | |
| Right | A A | | i I | Right | A | A | | | | |
| Peds | А | | | Peds | 2.1 | | | | | |
| NB Right | | | EB | Right | | | | | | |
| SB Right | | | WB | Right | | | | | | |
| Green | 25.0 | | , | , | 52.0 | 8.0 | | | | |
| Yellow | 3.0 | | | | 3.0 | 3.0 | | | | |
| | | | | | | | | | | |
| att ked | 2.0 | | | | 2.0 | 2.0 | | | | |
| ятт кеа | 2.0 | | | | 2.0 | 2.0 e Ler | igth: | 100. | 0 | secs |
| | Interse | ction Pe | | | 2.0 Cycl ary | e Ler | | | 0 | secs |
| Appr/ Lane | Interse e Adj Sat | Rati | | e Summa Lane (| 2.0 Cycl ary | e Ler | ngth: | | 0 | secs |
| Appr/ Lane Lane Grou | Interse e Adj Sat ıp Flow Rate | Rati | os | Lane (| 2.0 Cycl ary Group | App | roac | h | 0 | secs |
| Appr/ Lane Lane Grou | Interse e Adj Sat | Rati | | | 2.0 Cycl ary Group | App | | h | 0 | secs |
| Lane Grou | Interse e Adj Sat ıp Flow Rate | Rati | os | Lane (| 2.0 Cycl ary Group | App | roac | h | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound | Interse e Adj Sat up Flow Rate acity (s) | Rati | os | Lane (| 2.0 Cycl ary Group | App | oroac ny LO | h | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound | Interse e Adj Sat up Flow Rate acity (s) | Rati v/c | g/C | Lane (| 2.0 Cycl ary_ Group LOS | App Dela | oroac ny LO | h | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound LTR 393 | Interse Adj Sat up Flow Rate acity (s) 3 1571 | Rati v/c | g/C | Lane (| 2.0 Cycl ary_ Group LOS | App Dela | oroac | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound LTR 393 Westbound | Interse Adj Sat up Flow Rate acity (s) 3 1571 | Rati v/c 0.04 | g/C 0.25 | Delay 28.5 | 2.0 Cycl ary Group LOS C | App Dela | oroac | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound LTR 393 Westbound LTR 339 | Interse e Adj Sat up Flow Rate acity (s) 3 1571 | Rati v/c 0.04 | g/C 0.25 | Delay 28.5 | 2.0 Cycl ary Group LOS C | App Dela 28.5 | oroac ny LO 6 C | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound LTR 393 Westbound LTR 339 Northbound L 391 | Interse Adj Sat up Flow Rate acity (s) 3 1571 9 1356 | Rati v/c 0.04 0.84 | g/C 0.25 0.25 | Delay 28.5 52.2 | 2.0 Cycl ary_ Group LOS C | App Dela | oroac ny LO 6 C | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Lastbound LTR 393 Westbound LTR 339 Northbound L 391 L 941 | Interse Adj Sat Up Flow Rate acity (s) 3 1571 9 1356 1 751 1 1810 | Rati v/c 0.04 0.84 0.02 | g/C 0.25 0.25 | Delay 28.5 52.2 11.6 | 2.0 Cycl ary_ Group LOS C | App Dela 28.5 | oroac ny LO 6 C | h S | 0 | secs |
| Appr/ Lane Cane Grou Grp Capa Eastbound TR 393 Westbound TR 339 Northbound S 391 S 941 R 800 | Interse Adj Sat Up Flow Rate acity (s) 3 1571 1 751 1 1810 | Rati v/c 0.04 0.84 0.02 1.00 | 0.25 0.25 0.52 0.52 0.52 | Delay 28.5 52.2 11.6 52.1 13.3 | 2.0 Cyclary_ Group LOS C D | App Dela 28.5 | oroac ny LO 6 C | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Lastbound LTR 393 Westbound LTR 339 Worthbound L 391 L 941 R 800 Southbound | Interse Adj Sat Up Flow Rate acity (s) 3 1571 9 1356 1 751 1 1810 1 1538 | Rati v/c 0.04 0.84 0.02 1.00 | 0.25 0.25 0.52 0.52 | Delay 28.5 52.2 11.6 52.1 13.3 35.9 | 2.0 Cyclary_ Group LOS C D B D B D B | App Dela 28.5 | ay LO C D | h S | 0 | secs |
| Appr/ Lane Lane Grou Grp Capa Eastbound LTR 393 Westbound LTR 339 Northbound L 391 R 941 R 800 Southbound | Interse Adj Sat ap Flow Rate acity (s) 3 1571 1 1356 1 751 1 1810 1 1538 5 1719 | 0.04 0.84 0.02 1.00 0.24 | 0.25 0.25 0.52 0.52 0.52 | Delay 28.5 52.2 11.6 52.1 13.3 | 2.0 Cyclary_ Group LOS C D B D B B | App Dela 28.5 | ay LO C D | h S | 0 | secs |

Jurisd:

Inter.: US ROUTE 9 & SUNNYSIDE LANE Analyst: APF

Agency: JCE Area Type: All other areas

Date: 9/11/2009

Year : 2014/2015 NO-BUILD VOLUMES Period: PEAK AM HOUR

Project ID: 1457AMNB4

| E/W St | : SUNNYSIDE | | | N/S | St: U | s rou | TE 9 | | | | |
|--------------|-------------|------------|----------------|-------------|--------|---------|---------------|-------|--------|-----|---------|
| | | SI | GNALIZEI | INTERSE | CTION | SUMMA | RY | | | | |
| | Eas | stbound | Westh | | | thbou | | Sou | ıthboı | ınd | |
| | l I | T R | i L j | | L | Т | R | L | Т | R | |
| No. La | nes i 0 | 1 0 | -i | 1 0 | i 1 | 1 | 1 | i 1 | 1 | 0 | _ |
| LGConf | • | LTR | i | LTR | L | ${f T}$ | R | L | TR | | 1 |
| Volume | 18 | 2 6 | 310 5 | 83 | | | | 8 | 738 | 8 | |
| Lane W | idth | 12.0 | 12 | 2.0 | 112.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 1 |
| RTOR V | ol | 0 | I | 0 | I | | 0 | 1 | | 0 | } |
| Durati | on 0.25 | Area | | l other | | | | | | | |
| Dhaga | Combination | n 1 2 | | l Operat | ions | 5 | 6 | 7 | 5 | 3 | <u></u> |
| EB Le | Combination | 1 1 2 A | 3 | 4 NB | Left | A | O | , | , | J | |
| | ru | A | | l ND | Thru | A | | | | | |
| | ght | A | | ! ! | Right | | | | | | |
| | ds | 11 | | 1 | Peds | | | | | | |
| WB Le | | A | | , SB | Left | А | | | | | |
| | ru | A | | i | Thru | А | | | | | |
| | ght | A | | i | Right | Α | | | | | |
| Pe | | | | i | Peds | | | | | | |
| | ght | | | i EB | Right | | | | | | |
| | ght | | | , WB | Right | | | | | | |
| Green | | 35.0 | | | _ | 55.0 | | | | | |
| Yellow | | 3.0 | | | | 3.0 | | | | | |
| All Re | d | 2.0 | | | | 2.0 | 1 - т - | | 100 | Λ | 8008 |
| | | Interse | ection Pe | erformanc | e Summ | _ | те те | ngth: | 100. | U | secs |
| Appr/ | Lane | Adj Sat | Rati | | Lane | | Ap | proac | h | | |
| Lane | Group | Flow Rate | | | | - | _ | _ | | | |
| Grp | Capacity | (s) | v/c | g/C | Delay | LOS | De1 | ay LO | S | | |
| Eastbo | und | | | | | | | | | | |
| LTR | 502 | 1433 | 0.04 | 0.35 | 21.4 | С | 21. | 4 C | | | |
| Westbo | und | | | | | | | | | | |
| LTR | 469 | 1340 | 0.94 | 0.35 | 59.2 | E | 59. | 2 E | | | |
| Northb | ound | | | | | | | | | | |
| \mathbf{L} | 138 | 251 | 0.07 | 0.55 | 10.8 | В | | | | | |
| ${f T}$ | 996 | 1810 | 0.65 | 0.55 | 17.2 | В | 15. | 7 B | | | |
| R | 846 | 1538 | 0.35 | 0.55 | 12.8 | В | | | | | |
| Southb | | | | | | | | | | | |
| $\mathbf L$ | 266 | 483 | 0.03 | 0.55 | 10.4 | В | | . ~ | | | |
| TR | 994 | 1807 | 0.83 | 0.55 | 24.9 | С | 24. | 8 C | | | |

Intersection Delay = 27.7 (sec/veh) Intersection LOS = C

Analyst: APF Inter.: US ROUTE 9 & SUNNYSIDE LANE

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK PM HOUR Year : 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB4

 $\mathbf{T}R$

1176

1809

| E/W St: SUN | | | | n/s | St: U | S ROU] | 'E 9 | | | |
|-----------------|---------------|----------------|-----------|--------------|--------------|--------------|--------|-------|----------|---------------|
| · | | | | | | | | | | |
| | l Pos | | | D INTERSE | | | | COL | ıthbounc | 1 I |
| | Eas | stbound T R | | bound T R | L | thbour T | R | L | T F | |
| | 1 1 | 1 K |] 17 | 1 K | [} ТЛ | T | 1 | ш | 1 1 | 1 |
| No. Lanes | i | 1 0 | 0 | 1 0 | 1 | 1 | 1 | 1 | 1 0 | i |
| LGConfig | i | LTR | 1 | LTR | | ${f T}$ | R | L | TR | į |
| Volume 5 | 4 | 4 9 | 215 3 | | • | | 211 | 76 | 527 1 | [|
| Lane Width | 1 | 12.0 | 1 | 2.0 | 12.0 | 12.0 1 | L2.0 | 12.0 | 12.0 | 1 |
| RTOR Vol | | 0 | 1 | 0 | [| (|) [| | 0 | I |
| Duration | 0.25 | Area ' | Type: A | ll other | areas | | | | | |
| | | | | al Operat | ions | | | | | |
| Phase Combi | ination | | 3 | 4 | | 5 | 6 | 7 | 8 | |
| EB Left | | A | | l NB | Left | A | | | | |
| Thru | | A | | 1 | Thru | A | | | | |
| Right | | A | | 1 | Right | A | | | | |
| Peds WB Left | | 75. | | l SB | Peds Left | А | Α | | | |
| Thru | | A A | | ac I | Thru | A | A | | | |
| Right | | A | | l I | Right | | A | | | |
| Peds | | A | | i i | Peds | 21 | 11 | | | |
| NB Right | | | | EB | Right | | | | | |
| SB Right | | | | WB | Right | | | | | |
| Green | | 25.0 | | 1 | | 52.0 | 8.0 | | | |
| Yellow | | 3.0 | | | | 3.0 | 3.0 | | | |
| All Red | | 2.0 | | | | 2.0 | 2.0 | | | |
| | | | | | - | - | le Ler | ngth: | 100.0 | secs |
| T / T . | | | | erformanc | | | T | | _ | |
| Appr/ Lan | | Adj Sat | | ios | Lane | Group | App | proac | .1 | |
| - | acity | Flow Rate (s) | v/c | g/C | Delay | LOS | Dela | y LO | <u> </u> | |
| | | | | | | | | | | |
| Eastbound | | | | | | | | | | |
| LTR 39 | 1 | 1564 | 0.04 | 0.25 | 28.5 | С | 28.5 | 5 C | | |
| Westbound | | | | | | | | | | |
| LTR 33 | 8 | 1353 | 0.93 | 0.25 | 67.3 | E | 67.3 | 3 E | | |
| Northbound | | | | | | | | | | |
| ь 34 | 1 | 656 | 0.02 | 0.52 | 11.7 | В | | | | |
| Т 94 | 1 | 1810 | 1.09 | 0.52 | 79.2 | E | 67.3 | l E | | |
| R 80 | 0 | 1538 | 0.28 | 0.52 | 13.7 | В | | | | |
| Southbound | | | | | | | | | | |
| L 29 | | 1719 | 0.27 | 0.65 | 36.5 | D | | | | |
| IDD 11 | 76 | 1000 | 0 47 | 0 65 | Ο 1 | 75 | 10 | _ n | | |

Intersection Delay = 51.2 (sec/veh) Intersection LOS = D

0.65

9.1

Α

12.6 B

0.47

Analyst: APF Inter.: US ROUTE 9 & SUNNYSIDE LANE

Agency: JCE Area Type: All other areas

Date: 9/11/2009 Jurisd:

Period: PEAK AM HOUR Year : 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD4 E/W St: SUNNYSIDE LANE

N/S St: US ROUTE 9

| | | SIG | SNALIZE | INTERSE | CTION S | SUMMA | RY | | | | |
|--|--|--|--------------------------------------|--------------------------------------|-----------------------------------|--|----------------|-------------------------------|---------------|-----|------|
| | Eas | stbound [| Westh | ound | Nort | thbou | nd | Sou | thbo | und | 1 |
| | l L | T R | L I | | l L | Т | R | L | T | R | |
| No. Lan | nes i 0 | 1 0 'i | 0 | 1 0 | $\frac{1}{1}$ | 1 | 1 i | 1 | 1 | 0 | — j |
| LGConf: | • | LTR | | LTR | i L | ${f T}$ | R | ${ m L}$ | $\mathbf{T}R$ | | 1 |
| Volume | | 2 6 | 310 5 | 83 | | 580 | 266 | В | 739 | 8 | |
| Lane W | • | 12.0 | | 2.0 | 112.0 | | 12.0 | 12.0 | 12.0 | | |
| RTOR V | • | 0 | | 0 | İ | | 0 | | | 0 | l |
| Duratio | on 0.25 | Area T | | .1 other | | | | | | | |
| Dhago (| Combination | <u> </u> | Signa 3 | ıl Operat 4 | ions | 5 | 6 | 7 | | 8 | |
| EB Let | | A 2 | 3 | l NB | Left | A | V | • | | • | |
| Th: | | A | | I | Thru | A | | | | | |
| | ght | Ā | | 1 | Right | A | | | | | |
| Peo | | А | | 1 | Peds | 11 | | | | | |
| WB Let | | A | | l SB | Left | Α | | | | | |
| Thi | | A | | 1 05 | Thru | A | | | | | |
| | ght | Ā | | l E | Right | | | | | | |
| Ped | | А | | l l | Peds | 21 | | | | | |
| | ght | | | l EB | Right | | | | | | |
| | ght | | | WB | Right | | | | | | |
| Green | giic | 35.0 | | i MD | Kigne | 55.0 | 1 | | | | |
| | | | | | | 55.0 | • | | | | |
| Vallant | | 3 0 | | | | 3 0 | | | | | |
| Yellow | 4 | 3.0 | | | | 3.0 | | | | | |
| Yellow All Red | d | 3.0 2.0 | | | | 2.0 | :1e Len | gth: | 100. | 0 | secs |
| | d | 2.0 | ction Pe | erformanc | e Summ | 2.0 Cyc | :1e Len | gth: | 100. | 0 | secs |
| | d Lane | 2.0Intersection Adj Sat | ction Pe Rati | erformanc | e Summa Lane (| 2.0 Cyc ary | | gth: roacl | | 0 | secs |
| All Rec | Lane Group | 2.0 Intersect Adj Sat Flow Rate | Rati | os | Lane (| 2.0 Cyc ary_ Group | App | roacl | n | 0 | secs |
| All Rec | Lane | 2.0Intersection Adj Sat | | | | 2.0 Cyc ary_ Group | App | | n | 0 | secs |
| All Rec | Lane Group Capacity | 2.0 Intersect Adj Sat Flow Rate | Rati | os | Lane (| 2.0 Cyc ary_ Group | App | roacl | n | 0 | secs |
| All Red Appr/ Lane Grp | Lane Group Capacity | 2.0 Intersect Adj Sat Flow Rate | Rati | os | Lane (| 2.0 Cyc ary_ Group | App | roach y LOS | n | 0 | secs |
| All Rec | Lane Group Capacity and | 2.0 Intersection Adj Sat Flow Rate (s) | Rati v/c | g/C | Lane (| 2.0 Cyc ary_ Group | Dela | roach y LOS | n | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbox LTR | Lane Group Capacity and | 2.0 Intersection Adj Sat Flow Rate (s) | Rati v/c | g/C | Lane (| 2.0 Cyc ary_ Group | Dela | roach y Los C | n | 0 | secs |
| Appr/Lane Grp Eastbook | Lane Group Capacity and 502 and 469 | Intersection Adj Sat Flow Rate (s) | Rati | .os g/C 0.35 | Delay | 2.0 Cyc ary_ Group LOS | Dela | roach y Los C | n | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbou LTR Westbou | Lane Group Capacity and 502 and 469 | Intersection Adj Sat Flow Rate (s) | 0.04 0.94 | 0.35 0.55 | Delay | 2.0 Cyc ary_ Group LOS | Dela 21.4 59.2 | roach y Los C | n | 0 | secs |
| All Reconstruction Appr/Lane Grp Eastbound LTR Westbound LTR Northbound LTR | Lane Group Capacity and 502 and 469 bound | Intersection Adj Sat Flow Rate (s) 1433 | 0.04 0.94 0.07 | 0.35 0.55 0.55 | Delay 21.4 59.2 | 2.0 Cyc ary_ Group LOS C | Dela | roach y Los C | n | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbook LTR Westbook LTR Northbook L | Lane Group Capacity and 502 and 469 bund 138 | 2.0 Intersect Adj Sat Flow Rate (s) 1433 | 0.04 0.94 | 0.35 0.55 | Delay 21.4 59.2 | 2.0 Cyc ary_ Group LOS C | Dela 21.4 59.2 | roach y Los C | n | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbook LTR Westbook LTR Northbook L | Lane Group Capacity and 502 and 469 bund 138 996 846 | Intersect Adj Sat Flow Rate (s) 1433 1340 250 1810 | 0.04 0.94 0.07 | 0.35 0.55 0.55 | Delay 21.4 59.2 10.8 17.2 | 2.0 Cycary_ Group LOS C | Dela 21.4 59.2 | roach y Los C | n | 0 | secs |
| All Reconstruction Appr/ Lane Grp Eastbook LTR Westbook LTR Northbook L T R | Lane Group Capacity and 502 and 469 bund 138 996 846 | Intersect Adj Sat Flow Rate (s) 1433 1340 250 1810 | 0.04 0.94 0.07 | 0.35 0.55 0.55 | Delay 21.4 59.2 10.8 17.2 | 2.0 Cycary_ Group LOS C | Dela 21.4 59.2 | roach y Los C E B | n | 0 | secs |
| All Reconstruction Appr/Lane Grp Eastbound LTR Westbound LTR Northbound T R Southbound | Lane Group Capacity and 502 and 469 bund 138 996 846 bund | Intersect Adj Sat Flow Rate (s) 1433 1340 250 1810 1538 | 0.04 0.94 0.07 0.65 0.35 | 0.35 0.35 0.55 0.55 0.55 | Delay 21.4 59.2 10.8 17.2 12.8 | 2.0 Cycary_ Group LOS C E B B | Dela 21.4 59.2 | roach y Los C E | n | 0 | secs |

Analyst: APF Agency: JCE

Date:

Inter.: US ROUTE 9 & SUNNYSIDE LANE

Area Type: All other areas

Jurisd:

Year : 2014/2015 BUILD VOLUMES

Period: PEAK PM HOUR Project ID: 1457PMBD4

9/11/2009

N/S St: US ROUTE 9

E/W St: SUNNYSIDE LANE

| | | | | 5 | GIGNALI | ZED : | INTERS | SECTION | SUMM | ARY | | | | |
|------------|---|-----|------|----|---------|--------------|--------|----------------|--------------|------|------------|--------|-----|-----|
| | 1 | Eas | tbou | nd | W∈ | stbou | ınd | No: | rthboi | und | So | uthbou | und | |
| | I | , | Т | R | l L | \mathbf{T} | R | L | \mathbf{T} | R | ļ L | Т | R | - [|
| No. Lanes | | 0 | 1 | 0 | ! |) 1 | 0 | $-\frac{1}{1}$ | 1 | 1 | -¦ <u></u> | 1 | 0 | } |
| LGConfig | Ì | | LT | R | į | L | ľR | L | T | R | į L | TR | | 1 |
| Volume | 4 | | 4 | 9 | 215 | 3 | 80 | 18 | 971 | 211 | 176 | 527 | 1 | 1 |
| Lane Width | 1 | | 12.0 | | Ì | 12.0 |) | 112.0 | 12.0 | 12.0 | 12.0 | 12.0 | | |
| RTOR Vol | 1 | | | 0 | | | 0 | Ī | | 0 | | | 0 | |

| Dur | ation | 0.25 | Area | Type: | A11 of | her | areas | | | | |
|---------------|----------|----------|------|-------|---------|-----|-------|------|-----------|-------|------|
| | | | | | gnal Or | | | | | | |
| Pha | se Combi | nation 1 | 2 | 3 | 4 | | | 5 | 6 7 | 8 | |
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | A | . • | | | | Thru | A | | | |
| | Ríght | A | | | | | Right | A | | | |
| | Peds | | | | | | Peds | | | | |
| \mathtt{WB} | Left | А | | | | SB | Left | Α | A | | |
| | Thru | A | | | | | Thru | Α | Α | | |
| | Right | А | | | | | Right | Α | Α | | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | | | | | EB | Right | | | | |
| SB | Right | | | | | WB | Right | | | | |
| Gre | en | 25 | .0 | | | | _ | 52.0 | 8.0 | | |
| Yel | low | 3. | 0 | | | | | 3.0 | 3.0 | | |
| All | Red | 2. | 0 | | | | | 2.0 | 2.0 | | |
| | | | | | | | | Cycl | e Length: | 100.0 | secs |

| | | Intersec | tion Pe | erforman | ce Summa | arv | · | - |
|---------------|---------------|----------------------|---------|----------|----------|-----|-------|--------------|
| Appr/ Lane | Lane Group | Adj Sat Flow Rate | Rat | | Lane G | | Appro | oach |
| Grp | Capacity | (s) | V/C | g/C | Delay | LOS | Delay | LOS |
| Eastbou | ınd | | | | | | | |
| LTR | 391 | 1564 | 0.04 | 0.25 | 28.5 | С | 28.5 | С |
| Westbou | ınd | | | | | | | |
| LTR | 338 | 1353 | 0.93 | 0.25 | 67.3 | E | 67.3 | E |
| Northbo | ound | | | | | | | |
| ${f L}$ | 341 | 656 | 0.02 | 0.52 | 11.7 | В | | |
| Т | 941 | 1810 | 1.09 | 0.52 | 79.6 | E | 67.4 | \mathbf{E} |
| R | 800 | 1538 | 0.28 | 0.52 | 13.7 | В | | |
| Southbo | ound | | | | | | | |
| L | 295 | 1719 | 0.27 | 0.65 | 36.5 | D | | |
| TR | 1176 | 1809 | 0.47 | 0.65 | 9.1 | Α | 12.6 | В |
| | | | | | | | | |

Intersection Delay = 51.4 (sec/veh) Intersection LOS = D

Analyst: APF Agency: JCE Inter.: NYS RTE 119 & MEADOW/APARTMENT

Area Type: All other areas

Jurisd:

Date: 9/11/2009

Year : 2008/2009 EXISTING VOLUMES

Period: PEAK AM HOUR Project ID: 1457AMEX5

N/S St: MEADOW/APARTMENTS

E/W St: NYS ROUTE 119

| | l Fac | SIG | GNALIZED Westb | INTERSE | | SUMMAR thboun | | S011 | thbou | ind | 1 |
|---|--|---|--------------------------------|---------------------------|--|---|--|---------------------|-----------------------|-------------------|----------|
| | Las | T R | west. | | i POT | | R I | L | Т | R | ! |
| No. Lar LGConfi Volume Lane Wi RTOR Vo | ig L 15 idth 12.0 | 2 0 TR 580 33 12.0 | 1 L 22 35 12.0 12 | | • | 1 LTR 0 4 12.0 | i | | 1 LTI 0 12.0 | 0 R 20 0 | - |
| Duratio | on 0.25 | Area ' | | l other l Operat | | | | | | | |
| Phase C EB Lef Thr Rig Pec WB Lef Thr Rig Pec NB Rig | ru ght ds Et ru ght ds | A A A A A | 3 3 | 4 NB I SB I EB | Left Thru Right Peds Left Thru Right Peds Right Peds | A A A | 6 | 7 | } | 8 | |
| SB Rig Green | jht | 35.0 | | WB | Right | | | | | | |
| Yellow All Red | | 3.0 2.0 | ction Pe | rformanc | e Summ | _ | e Leng | gth: | 75.0 | | secs |
| All Red | Lane | 2.0Intersection Adj Sat | ction Pe Rati | rformanc os | e Summ Lane | 2.0 Cycl ary | | gth: roach | | | secs |
| All Red | 1 | 2.0 Intersec | | | Lane | 2.0 Cycl ary | | roach | 1 | | secs |
| All Red Appr/ Lane | Lane Group Capacity | 2.0 Intersection Adj Sat Flow Rate | Rati | .os | Lane | 2.0 Cycl ary Group | Appı | roach | 1 | | secs |
| All Red Appr/ Lane Grp Eastbou | Lane Group Capacity and 430 1595 | Intersection Adj Sat Flow Rate (s) | Rati v/c 0.04 0.43 | g/C 0.47 | Delay | 2.0 Cycl ary_ Group LOS | App | roach | 1 | | secs |
| All Red Appr/ Lane Grp Eastbou L TR Westbou L | Lane Group Capacity and 430 1595 and 286 1601 | Intersection Adj Sat Flow Rate (s) 921 3417 | Rati v/c 0.04 0.43 | 0.47 0.47 | 10.9 13.5 | 2.0 Cycl ary_ Group LOS B B | Appropriate Approp | roach y LOS B | 1 | | secs |
| All Red Appr/ Lane Grp Eastbou L TR Westbou L TR | Lane Group Capacity and 430 1595 and 286 1601 | Intersection Adj Sat Flow Rate (s) 921 3417 | Rati v/c 0.04 0.43 | 0.47 0.47 | 10.9 13.5 | 2.0 Cycl ary_ Group LOS B B | Appropriate Approp | roach y LOS B | 1 | | secs |
| All Red Appr/ Lane Grp Eastbou L TR Westbou L TR Northbo | Lane Group Capacity and 430 1595 and 286 1601 bund 585 | Intersection Adj Sat Flow Rate (s) 921 3417 612 3431 | 0.04 0.43 0.08 0.25 | g/C 0.47 0.47 0.47 0.47 | 10.9 13.5 11.2 12.2 | 2.0 Cycl ary Group LOS B B B | Appropriate Approp | roach y LOS B | 1 | | secs |
| All Red Appr/ Lane Grp Eastbou L TR Westbou L TR Northbo | Lane Group Capacity and 430 1595 and 286 1601 bund 585 | Intersection Adj Sat Flow Rate (s) 921 3417 612 3431 | 0.04 0.43 0.08 0.25 | g/C 0.47 0.47 0.47 0.47 | 10.9 13.5 11.2 12.2 | 2.0 Cycl ary_ Group LOS B B B | Appropriate Approp | roach y LOS B | 1 | | secs |

Inter.: NYS RTE 119 & MEADOW/APARTMENT Analyst: APF

Area Type: All other areas Agency: JCE Jurisd:

Date: 9/11/2009

Year : 2008/2009 EXISTING VOLUMES Period: PEAK PM HOUR

Project ID: 1457PMEX5

| E/W St: NYS | | | N/S | St: ME | EADOW/ | APAR' | CMENT | S | |
|--------------|--------------|----------|-------------|---------|--------|-------|-------|-------------|---------|
| | SI | GNALIZED | INTERSE | CTION S | SUMMAR | Y | | | |
| | Eastbound | Westb | | | thboun | - | So | uthboun | d l |
| | L T R | L T | | L | Т | R | L | Т | R |
| No. Lanes | 1 2 0 | <u> </u> | 2 0 | i 0 | 1 | 0 | 0 | 1 | 0 |
| LGConfig | L TR | • | TR | i | LTR | | | $_{ m LTR}$ | 1 |
| | 20 353 35 | 34 59 | 1 10 | 41 (| 3 3 | 6 | 10 | 0 1 | 5 |
| Lane Width | 12.0 12.0 | 12.0 12 | .0 | 1 | 12.0 | | | 12.0 | |
| RTOR Vol | 0 | 1 | 0 | · | 0 | | | 0 | ļ |
| Duration | 0.25 Area | | l other | | | | | | |
| Phase Combin | nation 1 2 | | 1 Operat | ions | 5 | 6 | 7 | 8 | |
| EB Left | | 3 | 4 NB | Left | A | U | , | O | |
| Thru | A A | | 1 140 | Thru | A | | | | |
| Right | A | | 1 | Right | A | | | | |
| Peds | A | | 1 | Peds | 11 | | | | |
| WB Left | A | | SB | Left | А | | | | |
| Thru | A | | 1 | Thru | A | | | | |
| Right | A | | 1 | Right | A | | | | |
| Peds | А | | i | Peds | | | | | |
| NB Right | | | EB | Right | | | | | |
| SB Right | | | WB | Right | | | | | |
| Green | 35.0 | | 1 112 | | 30.0 | | | | |
| Yellow | 3.0 | | | | 3.0 | | | | |
| All Red | 2.0 | | | | 2.0 | | | | |
| | 2.00 | | | | Cycl | e Le | ngth: | 75.0 | secs |
| | Interse | ction Pe | rformand | e Summ | _ | | | | |
| Appr/ Lane | | Rati | | Lane | | Ap | proac | h | |
| Lane Grou | - | ! | | | - | | | | |
| | acity (s) | v/c | g/C | De1ay | LOS | Del | ay LO | S | |
| Eastbound | | | | | | | | | |
| L 308 | 659 | 0.07 | 0.47 | 11.1 | В | | | | |
| TR 158 | 3399 | 0.26 | 0.47 | 12.2 | В | 12. | 2 B | | |
| Westbound | | | | | | | | | |
| L 427 | | 0.08 | 0.47 | 11.2 | В | | - | | |
| TR 160 | 3436 | 0.39 | 0.47 | 13.2 | В | 13. | 1 B | ł | |
| Northbound | | | | | | | | | |
| LTR 590 | 1475 | 0.14 | 0.40 | 14.4 | В | 14. | 4 E | 3 | |
| Southbound | | | | | | | | | |
| LTR 615 | 5 1537 | 0.04 | 0.40 | 13.8 | В | 13. | 8 E | 3 | |

Intersection Delay = 12.9 (sec/veh) Intersection LOS = B

Analyst: APF Agency: JCE

Green

Yellow

All Red

Inter.: NYS RTE 119 & MEADOW/APARTMENT

Area Type: All other areas

Jurisd:

Date: 9/11/2009

Year : 2014/2015 NO-BUILD VOLUMES

Period: PEAK AM HOUR
Project ID: 1457AMNR5

N/S St: MEADOW/APARTMENTS

30.0

3.0

2.0

Cycle Length: 75.0

secs

| Proj | ect | TD: | 145/AN | MB5 |
|------|-----|-----|--------|-----|
| E/W | St: | NYS | ROUTE | 119 |

35.0

3.0

2.0

| | | | | SI | GNALI | ZED I | NTERSE | CTION S | SUMMA | ARY | | | | |
|-----|----------|--------|---------|------|-------|----------|--------|---------|----------|-----|-----|---------|------|---|
| | | Eas | stbour | nd | We: | stbou | nd | Nort | hbou | ınd | 5 | Southb | ound | 1 |
| | | L | ${f T}$ | R | L | ${f T}$ | R | L | ${ m T}$ | R | [L | ${f T}$ | R | |
| | | 1 | | | İ | | | t | | | 1 | | | |
| No. | Lanes | 1 1 | 2 | 0 | i = 1 | 2 | 0 | 0 | 1 | 0 | | 0 1 | 0 | |
| LGC | onfig | L | TR | | L | TR | | İ | LTI | ₹ | | m L' | TR | 1 |
| | ume | 116 | 674 | 37 | 124 | 396 | 11 | 154 (|) | 53 | 11 | 0 | 22 | 1 |
| | e Width | • | | | 112.0 | 12.0 | | j 3 | 12.0 | | | 12. | 0 | |
| | R Vol | 1 | | 0 | i | | 0 | i | | 0 | 1 | | 0 | |
| | | ' | | | • | | | • | | | | | | |
| Dur | ation | 0.25 | | Area | Type: | A11 | other | areas | | | | | | |
| | | | | | | | Operat | | | | | | | |
| Pha | se Combi | nation | n 1 | 2 | 3 | 4 | Ī | | 5 | 6 | | 7 | 8 | |
| EB | Left | | A | | | | NB | Left | Α | | | | | |
| | Thru | | A | | | | ĺ | Thru | Α | | | | | |
| | Right | | A | | | | i | Right | A | | | | | |
| | Peds | | | | | | i | Peds | | | | | | |
| WB | Left | | А | | | | i sb | Left | А | | | | | |
| | Thru | | A | | | | 1 | Thru | A | | | | | |
| | Right | | A | | | | | Right | A | | | | | |
| | Peds | | 11 | | | | i E | Peds | | | | | | |
| NTD | Right | | | | | | EB | Right | | | | | | |
| NB | _ | | | | | | WB | _ | | | | | | |
| sb | Right | | | | | | 1 MD | Right | | _ | | | | |

| | | Intersec | tion Per | rformance | e Summa: | ry | | |
|--------------|----------|-----------|----------|-----------|----------|------|-------|-----|
| Appr/ | Lane | Adj Sat | Ratio | os | Lane G | roup | Appro | ach |
| Lane | Group | Flow Rate | | | | | | |
| Grp | Capacity | (s) | V/C | g/C | Delay | LOS | Delay | LOS |
| Eastbour | nd | | ···· | | | | | |
| ${f L}$ | 402 | 862 | 0.04 | 0.47 | 10.9 | В | | |
| TR | 1596 | 3419 | 0.49 | 0.47 | 14.1 | В | 14.0 | В |
| Westbour | nd | | | | | | | |
| \mathbf{L} | 239 | 512 | 0.11 | 0.47 | 11.5 | В | | |
| TR | 1602 | 3432 | 0.28 | 0.47 | 12.4 | В | 12.3 | В |
| Northbou | und | | | | | | | |
| LTR | 580 | 1450 | 0.21 | 0.40 | 14.9 | В | 14.9 | В |
| 0 t- ln ln | J | | | | | | | |
| Southbou | ina | | | | | | | |
| LTR | 610 | 1525 | 0.06 | 0.40 | 13.9 | В | 13.9 | В |

Intersection Delay = 13.5 (sec/veh) Intersection LOS = B

Analyst: APF Agency: JCE

Inter.: NYS RTE 119 & MEADOW/APARTMENT

Area Type: All other areas

Date: 9/11/2009 Period: PEAK PM HOUR Jurisd:

Project ID: 1457PMNB5

Year : 2014/2015 NO-BUILD VOLUMES

E/W St: NYS ROUTE 119

N/S St: MEADOW/APARTMENTS

| E/W St: | NYS ROUTE | E 119 | | N/S | St: M | EADOW/ | APARTI | MENTS | | |
|-------------------|---------------|----------------------|-------------|---------------------|--------------|-------------|--------------|--------|------------|------------|
| | | stbound | Westh | | Nor | thboun | d | | hbound | |
| | L | T R į | l L I | ? R | L | T | R | L ' | r R | l |
| No. Lan | • | 2 0 | 1 | 2 0 | 0 | | 0 | 0 | 1 0 LTR | ' |
| LGConfi Volume | g L 22 | TR 394 41 | L 38 68 | TR 86 11 | 46 | LTR 0 3 | 9 1 | 11 0 | 16 | |
| Lane Wie | • | | | 2.0 | • | 12.0 | , I. | | 2.0 | • |
| RTOR Vo | | 0 | | 0 | 1 | 0 | İ | | 0 | 1 |
| Duration | n 0.25 | Area 1 | | l other 1 Operat | | | | | | |
| Phase Co | ombination | n 1 2 | 3 | 4 | | 5 | 6 | 7 | 8 | |
| EB Left | | A | | NB | Left | Α | | | | |
| Thr | | A | | | Thru | A | | | | |
| Rigl Ped: | | A | | | Right | А | | | | |
| WB Left | | A | | l I SB | Peds Left | A | | | | |
| Thri | | A | | l SB | Thru | A | | | | |
| Rigl | | Α | | i | Right | A | | | | |
| Peds | | | | | Peds | | | | | |
| NB Righ | | | | EB | Right | | | | | |
| SB Righ | ht | 05.0 | | WB | Right | | | | | |
| Green Yellow | | 35.0 | | | | 30.0 3.0 | | | | |
| All Red | | 3.0 2.0 | | | | 2.0 | | | | |
| AII NCG | | 2.0 | | | | | e Len | gth: 7 | 5.0 | secs |
| | | Intersec | ction Pe | rformanc | e Summ | | | 9 | | |
| Appr/ Lane | Lane Group | Adj Sat Flow Rate | Rati | | | Group | App | roach | | |
| Grp | Capacity | (s) | v/c | g/C | Delay | LOS | De1a | y LOS | _ | |
| Eastbour | nd | | | | | | | | | |
| L | 262 | 562 | 0.09 | 0.47 | 11.3 | В | | | | |
| TR | 1585 | 3397 | 0.29 | 0.47 | 12.4 | В | 12.4 | В | | |
| Westbour | nd | | | | | | | | | |
| L | 399 | 855 | 0.10 | 0.47 | 11.3 | В | | | | |
| TR | 1604 | 3437 | 0.46 | 0.47 | 13.8 | В | 13.6 | В | | |
| Northbou | ınd | | | | | | | | | |
| LTR | 586 | 1465 | 0.15 | 0.40 | 14.5 | В | 14.5 | В | | |
| Southbou | und | | | | | | | | | |
| LTR | 612 | 1530 | 0.05 | 0.40 | 13.8 | В | 13.8 | В | | |
| | Intersec | tion Delay | = 13.3 | (sec/ve | eh) I | nterse | ction | LOS = | В | |

Analyst: APF

Inter.: NYS RTE 119 & MEADOW/APARTMENT

Agency: JCE

Area Type: All other areas

Jurisd:

Date: 9/11/2009

Year : 2014/2015 BUILD VOLUMES

Period: PEAK AM HOUR Project ID: 1457AMBD5

E/W St: NYS ROUTE 119

N/S St: MEADOW/APARTMENTS

| | | CTO | יאי דענאי | тыппррег | CULTON C | VORMATI | | | | |
|---|---|-------------------------|------------------------------|------------------------------|------------------------------|------------------|-----------------------|-------|------------|------------|
| ***** | l Eas | stbound | NALIZEI Westb |) INTERSE | | hbound. | 1 | Sout | hbound | |
| | L | T R | L I | | • | T R | | L | T R | i I |
| No. Lar | • | 2 0 | 1 | 2 0 TR | 0 | 1 0 LTR | | 0 | 1 0 LTR | [t |
| LGConfi Volume | ig <u>L</u> 16 | TR 674 38 | ¦ L 24 39 | | 155 0 | | 1 | 1 (|) 22 | ; 1 |
| Lane Wi | · | 12.0 | 12.0 12 | | | 2.0 | - | | 12.0 | i |
| RTOR Vo | , | 0 | | 0 | | 0 | i | | 0 | İ |
| Duratio | on 0.25 | Area 5 | | 1 other 1 Operat | | | | | | |
| Phase 0 | Combination | 1 2 | 3 | 4 | | 5 | 6 | 7 | 8 | |
| EB Lef | Ét | A | | NB | Left | A | | | | |
| Thr | | A | | 1 | Thru | A | | | | |
| Rig | | A | | 1 | Right | A | | | | |
| Pec | | | | | Peds | _ | | | | |
| WB Lef | | A | | [SB | Left | A | | | | |
| Thr | | A | | Į. | Thru | A | | | | |
| Rig | | A | | İ | Right | A | | | | |
| Pec | | | | 1 55 | Peds | | | | | |
| NB Rig | | | | EB | Right | | | | | |
| SB Rig | jnt | 35.0 | | į WB | Right | 30.0 | | | | |
| Green Yellow | | 3.0 | | | | 3.0 | | | | |
| All Red | 1 | 2.0 | | | | 2.0 | | | | |
| ATT VEC | ı | 2.0 | | | | Cycle | Lena | th. | 75.0 | secs |
| | | Intersec | rtion Pe | rformanc | e Summa | - | пенд | C11 • | | |
| Appr/ | Lane | Adj Sat | Rati | | Lane G | | Annr | oach | | |
| Lane | | maj bac | 11461 | .00 | | - F () | | | | |
| | Group | Flow Rate | | | тапе в | Loup | nppr | | | |
| Grp | Group Capacity | Flow Rate | v/c | g/C | | | | | | |
| Grp | Capacity | Flow Rate (s) | v/c | g/C | Delay | | Delay | | | |
| Eastbou | Capacity | (s) | | | Delay | LOS | | | | |
| | Capacity | | v/c 0.04 0.50 | g/C 0.47 0.47 | | LOS | | | | |
| Eastbou L | Capacity and 402 1595 | (s) | 0.04 | 0.47 | Delay | LOS | Delay | LOS | | |
| Eastbou L TR | Capacity and 402 1595 | (s) | 0.04 0.50 | 0.47 0.47 | Delay 10.9 14.1 11.5 | LOS B B | Delay | LOS | | |
| Eastbou L TR | Capacity and 402 1595 | (s) 862 3418 | 0.04 | 0.47 | Delay 10.9 14.1 | LOS B B | Delay | LOS | | |
| Eastbou L TR Westbou L | Capacity 100 402 1595 100 238 1602 | (s) 862 3418 | 0.04 0.50 | 0.47 0.47 | Delay 10.9 14.1 11.5 | LOS B B B | Delay | B | | |
| Eastbou L TR Westbou L TR | Capacity 100 402 1595 100 238 1602 | (s) 862 3418 | 0.04 0.50 | 0.47 0.47 | Delay 10.9 14.1 11.5 | B B B | Delay | B | | |
| Eastbou L TR Westbou L TR | Capacity 100 402 1595 100 238 1602 1000 580 | (s) 862 3418 511 3432 | 0.04 0.50 0.11 0.28 | 0.47 0.47 0.47 0.47 | 10.9 14.1 11.5 12.4 | B B B | Delay 14.1 12.3 | B B | | |
| Eastbou L TR Westbou L TR Northbo | Capacity 100 402 1595 100 238 1602 1000 580 | (s) 862 3418 511 3432 | 0.04 0.50 0.11 0.28 | 0.47 0.47 0.47 0.47 | 10.9 14.1 11.5 12.4 | B B B B | Delay 14.1 12.3 | B B | | |

HCS+: Signalized Intersections Release 5.3

Analyst: APF Agency: JCE Inter.: NYS RTE 119 & MEADOW/APARTMENT

Area Type: All other areas

Jurisd:

Period: PEAK PM HOUR

Date: 9/11/2009

Year : 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD5 E/W St: NYS ROUTE 119

612

LTR

N/S St: MEADOW/APARTMENTS

| E/W St | : NYS ROUT | E 119 | | N/S | St: M | EADOW/ | APARI | MENTS | | |
|-------------|-------------------|------------------|--------------|----------------|--------------|------------|---|------------|-------------|----------|
| | | SIC | GNALIZEI | O INTERSE | CTION : | SUMMAR' | Y | | | |
| | Ea: | stbound | | oound | | thbound | | Sout | hbound | |
| | l l | T R | - | ľ R | L | T 1 | R | L | T R | |
| No. Lar | nes 1 | 2 0 | 1 | 2 0 | i 0 | 1 | <u>о</u> і | 0 | 1 0 | <u> </u> |
| LGConfi | | TR | L | TR | 1 | LTR | | | LTR | 1 |
| Volume | 22 | 394 44 | 39 68 | 36 11 | , | 0 43 | 1 | 11 0 | | İ |
| Lane Wi | • | | 12.0 12 | | 1 | 12.0 | ł | 1 | 2.0 | ļ |
| RTOR Vo | ol | 0 | | 0 | 1 | 0 | *************************************** | | 0 | I |
| Duratio | on 0.25 | Area 1 | | ll other | | | | | | |
| Phage (| Combination | n 1 2 | srgna | al Operat 4 | TOHS | 5 | 6 | 7 | 8 | |
| EB Lef | | A Z | J | I NB | Left | A | Ü | , | Ŭ | |
| Thi | | A | | 1 | Thru | A | | | | |
| Ric | | A | | i | Right | | | | | |
| Pec | • | | | i | Peds | | | | | |
| WB Lef | | A | | , SB | Left | A | | | | |
| Thi | ru | A | | ĺ | Thru | A | | | | |
| Ric | ght | A | | 1 | Right | A | | | | |
| Pec | | | | I | Peds | | | | | |
| NB Rig | | | | EB | Right | | | | | |
| SB Rig | ght | | | WB | Right | | | | | |
| Green | | 35.0 | | | | 30.0 | | | | |
| Yellow | 3 | 3.0 | | | | 3.0 2.0 | | | | |
| All Rec | 1 | 2.0 | | | | | e Ler | ngth: 7 | 5.0 | secs |
| | | Intersec | ction Pe | erformanc | e Summ | ary | | | | |
| Appr/ | Lane | Adj Sat | Rat: | ios | Lane | Group | App | oroach | | |
| Lane Grp | Group Capacity | Flow Rate (s) | v/c | g/C | Delay | LOS | Dela | ay LOS | | |
| | | | | | | | | | | |
| Eastbou | | F.C0 | 0 00 | 0.47 | 11 2 | D | | | | |
| L TR | 262 1584 | 562 3394 | 0.09 0.29 | 0.47 0.47 | 11.3 12.4 | B B | 12.4 | 4 B | | |
| IK | 1304 | 3394 | 0.29 | 0.47 | 12.4 | Б | 12.5 | 3 D | | |
| Westbou | | 0.5.1 | 0 10 | 0.47 | 11 0 | D | | | | |
| L | 397 | 851 | 0.10 0.46 | 0.47 0.47 | 11.3 13.8 | B B | 13.6 | 5 B | | |
| TR | 1604 | 3437 | 0.46 | 0.47 | 13.0 | Ь | 10.0 | у Б | | |
| Northbo | und | | | | | | | | | |
| LTR | 586 | 1464 | 0.16 | 0.40 | 14.5 | В | 14.5 | 5 В | | |
| Southbo | und | | | | | | | | | |
| | | | | | | | | | | |

1529 0.05 0.40 13.8 B 13.8 B

Intersection Delay = 13.3 (sec/veh) Intersection LOS = B

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK AM HOUR

Intersection: SHELDON & MEADOW/BROWNING

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX6

East/West Street: SHELDON AVENUE

North/South Street: MEADOW ST/BROWNING LN

Worksheet 2 - Volume Adjustments and Site Characteristics_____

Southbound | Northbound Eastbound Westbound IL T R | L T R | L T R l L 8 16 $1\overline{24}$ 30 $1\overline{1}$ % Thrus Left Lane

Northbound Southbound Eastbound Westbound L1 L2 L1L1 L2 L1 L2 Configuration LTRLTR LTR LTR 0.75 PHF 0.75 0.75 0.75 Flow Rate 93 92 32 73 % Heavy Veh 10 10 10 10 No. Lanes 1 1 1 1 Opposing-Lanes 1 1 1 Conflicting-lanes 1 1 1 Geometry group 1 Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbo L1 | ound L2 | Westb L1 | ound L2 | North L1 | bound L2 | South L1 | bound L2 |
|--------------------|--------------|------------|-------------|------------|-------------|-------------|-------------|-------------|
| Flow Rates: | | | | | | | | |
| Total in Lane | 92 | | 32 | | 73 | | 93 | |
| Left-Turn | 80 | | 1 | | 32 | | 5 | |
| Right-Turn | 8 | | 21 | | 1 | | 86 | |
| Prop. Left-Turns | 0.9 | | 0.0 | | 0.4 | | 0.1 | |
| Prop. Right-Turns | 0.1 | | 0.7 | | 0.0 | | 0.9 | |
| Prop. Heavy Vehicl | e0.1 | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | | 1 | | | 1 | | 1 |
| Adjustments Exhibi | t 17-33: | | | | | | | |
| hLT-adj | 0. | . 2 | 0 | . 2 | | 0.2 | | 0.2 |

| hRT-adj hHV-adj | | 0.6 1.7 | | 0.6 1.7 | |).6 L.7 | - (| |
|---|--|------------------|--|-------------------|---|--------------------------|---|-------------|
| hadj, computed | | - • · | -0.2 | | 0.2 | | -0.4 | |
| Wor | ksheet | 4 - Dep | arture 1 | Headway | and Serv | vice Tim | ıe | |
| | Eastl | oound | West | oound | North | oound | South | oound |
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow rate | 92 | | 32 | | 73 | | 93 | |
| hd, initial value | | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.08 | | 0.03 | | 0.06 | | 0.08 | |
| hd, final value | 4.59 | | 4.16 | | 4.54 | | 3.90 | |
| x, final value | | | 0.04 | | 0.09 | | 0.10 | |
| Move-up time, m | | 2.0 | ; | 2.0 | 2 | 2.0 | : | 2.0 |
| Service Time | | | 2.2 | | 2.5 | | 1.9 | |
| Wor | | 5 - Cap | acity a | nd Level | of Ser | vice | | |
| Wor | ksheet | 5 - Cap cound | oacity a | nd Level bound | of Serv | | South | bound |
| Wor | ksheet | | oacity a | bound | | | South | bound L2 |
| Wor Flow Rate | ksheet Eastl | oound | pacity an Westl | bound | North | oound | | |
| | ksheet Eastl L1 | oound | wacity an Westl L1 | bound | Northl L1 | oound | L1 | |
| Flow Rate | Eastl L1 92 2.6 | oound | wacity an Westl | bound L2 | North L1 73 | oound | L1 93 1.9 0.10 | |
| Flow Rate Service Time | Eastl L1 92 2.6 0.12 | oound | Westl L1 32 2.2 | bound L2 | North L1 73 2.5 | oound | 93 1.9 0.10 3.90 | |
| Flow Rate Service Time Utilization, x Dep. headway, hd | Eastl L1 92 2.6 0.12 | oound | Westl L1 32 2.2 0.04 | bound L2 | Northl L1 73 2.5 0.09 4.54 323 | oound | 93 1.9 0.10 3.90 343 | |
| Flow Rate Service Time Utilization, x Dep. headway, hd | Eastl L1 92 2.6 0.12 4.59 | oound | Westl L1 32 2.2 0.04 4.16 | bound L2 | North L1 73 2.5 0.09 4.54 | oound | 93 1.9 0.10 3.90 | |
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity | Eastl L1 92 2.6 0.12 4.59 342 | oound | Westl L1 32 2.2 0.04 4.16 282 | bound L2 | Northl L1 73 2.5 0.09 4.54 323 | oound | 93 1.9 0.10 3.90 343 | |
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity Delay | Eastl L1 92 2.6 0.12 4.59 342 8.20 | oound | Westl L1 32 2.2 0.04 4.16 282 7.32 | bound L2 | Northl L1 73 2.5 0.09 4.54 323 8.00 A | oound L2 | 93 1.9 0.10 3.90 343 7.34 A | ь2 |
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity Delay LOS | Easth L1 92 2.6 0.12 4.59 342 8.20 A | oound | Westl L1 32 2.2 0.04 4.16 282 7.32 A | bound L2 | Northl L1 73 2.5 0.09 4.54 323 8.00 A | oound | 93 1.9 0.10 3.90 343 7.34 A | L2 7.34 |
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity Delay LOS Approach: | Eastl L1 92 2.6 0.12 4.59 342 8.20 A | oound L2 | Westl L1 32 2.2 0.04 4.16 282 7.32 A | bound L2 | Northl L1 73 2.5 0.09 4.54 323 8.00 A | Dound L2 8.00 A | 93 1.9 0.10 3.90 343 7.34 A | ь2 |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

SHELDON & MEADOW/BROWNING Intersection:

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457PMEX6

East/West Street: SHELDON AVENUE
North/South Street: MEADOW ST/BROWNING LN

Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | Eá | astbou | ınd | We | estbou | ınd | l No | orthbo | ound | ļ Sc | outhbo | ound | - 1 |
|--------|-----|---------|-----|----|---------|-----|------|--------|------|------|---------|------|-----|
| | L | ${f T}$ | R | L | ${f T}$ | R | L | Т | R | l L | ${f T}$ | R | l |
| | 1 | | | | | | 1 | | | f | | | |
| Volume | 146 | 17 | 15 | 10 | 15 | 9 | 10 | 19 | 0 | 18 | 29 | 59 | 1 |

% Thrus Left Lane

| | Eastbound | | Westb | | Northb | | Southbound | | |
|-------------------|-----------|----|-------|----|--------|----|------------|----|--|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | ь2 | |
| Configuration | LTR | | LTR | | LTR | | LTR | | |
| PHF | 0.75 | | 0.75 | | 0.75 | | 0.75 | | |
| Flow Rate | 103 | | 32 | | 38 | | 140 | | |
| % Heavy Veh | 10 | | 10 | | 10 | | 10 | | |
| No. Lanes | 1 | | 1 | | 1 | - | 1 | | |
| Opposing-Lanes | 1 | | 1 | | 1 | - | 1 | | |
| Conflicting-lanes | 1 | | 1 | | 1 | - | 1 | | |
| Geometry group | 1 | | 1 | | 1 | - | 1 | | |
| Duration, T 0.25 | hrs. | | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | Westh | ound | Northbound | | Southbound | |
|--------------------|-----------|-----|-------|------|------------|-----|------------|-----|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 103 | | 32 | | 38 | | 140 | |
| Left-Turn | 61 | | 0 | | 13 | | 24 | |
| Right-Turn | 20 | | 12 | | 0 | | 78 | |
| Prop. Left-Turns | 0.6 | | 0.0 | | 0.3 | | 0.2 | |
| Prop. Right-Turns | 0.2 | | 0.4 | | 0.0 | | 0.6 | |
| Prop. Heavy Vehicl | e0.1 | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | | 1 | _ | 1 | | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | 0 | . 2 | (| .2 | 0 | . 2 | | 0.2 |

| hRT-adj | -0.6 | -0.6 | -0.6 | -0.6 |
|----------------|------|------|------|------|
| hHV-adj | 1.7 | 1.7 | 1.7 | 1.7 |
| hadj, computed | 0.2 | -0.1 | 0.2 | -0.1 |

| Worksheet | 4 | Denarture | Headway | and | Service | Time |
|-----------|---|---------------|---------|-----|---------|---|
| WOLKSHEEL | 4 | Departure | neauwav | anu | SOLATOR | $\perp \perp \perp \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel \parallel$ |

| | Eastbound | | West | oound | North | oound | Southbound | | |
|-------------------|-----------|------|------|-------|-------|-------|------------|------|--|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 | |
| Flow rate | 103 | | 32 | | 38 | | 140 | | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | |
| x, initial | 0.09 | | 0.03 | | 0.03 | | 0.12 | | |
| hd, final value | 4.51 | | 4.36 | | 4.61 | | 4.14 | | |
| x, final value | 0.13 | | 0.04 | | 0.05 | | 0.16 | | |
| Move-up time, m | | 2.0 | 2 | 2.0 | 2 | 2.0 | ; | 2.0 | |
| Service Time | 2.5 | | 2.4 | | 2.6 | | 2.1 | | |

Worksheet 5 - Capacity and Level of Service_____

| | Eastbound | | Westh | | Northbound | | Southbound L1 L2 | |
|--------------------|-----------|------|-------|-----------|------------|-----|---------------------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | тŢ | 112 |
| Flow Rate | 103 | | 32 | | 38 | | 140 | |
| Service Time | 2.5 | | 2.4 | | 2.6 | | 2.1 | |
| Utilization, x | 0.13 | | 0.04 | | 0.05 | | 0.16 | |
| Dep. headway, hd | 4.51 | | 4.36 | | 4.61 | | 4.14 | |
| Capacity | 353 | | 282 | | 288 | | 390 | |
| Delay | 8.18 | | 7.54 | | 7.84 | | 7.93 | |
| LOS | A | | A | | Α | | Α | |
| Approach: | | | | | | | | |
| Delay | | 8.18 | 7 | 7.54 | 7 | .84 | | 7.93 |
| LOS | | A | I | A | A | | | A |
| Intersection Delay | 7.96 | | Inte | ersection | n LOS A | | | |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS_____

Analyst: Agency/Co.: APF

JCE

Date Performed: 9/11/2009

Analysis Time Period: PEAK AM HOUR Intersection:

SHELDON & MEADOW/BROWNING

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB6

East/West Street: SHELDON AVENUE
North/South Street: MEADOW ST/BROWNING LN

Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | Ea | stbo | und | We | estbo | und | No | rthbo | ound | So | outhbo | ound | |
|--------|----|---------|-----|----|---------|-----|-----|---------|------|----|---------|------|---|
| | L | ${f T}$ | R | L | ${f T}$ | R | L | ${f T}$ | R | L | ${f T}$ | R | 1 |
| | | | | 1 | | | 1 | | | | | | |
| Volume | 69 | 3 | 6 | 1 | 9 | 17 | 126 | 32 | 1 | 4 | 2 | 71 | I |

% Thrus Left Lane

| | Eastbound | | Westbound | | Northb | ound | Southbound | | |
|-------------------|-----------|----|-----------|------------|--------|------|------------|----|--|
| | L1 | L2 | L1 | L 2 | L1 | L2 | L1 | L2 | |
| Configuration | LTR | | LTR | | LTR | | LTR | | |
| PHF | 0.75 | | 0.75 | | 0.75 | | 0.75 | | |
| Flow Rate | 104 | | 35 | | 77 | | 101 | | |
| % Heavy Veh | 10 | | 10 | | 10 | | 10 | | |
| No. Lanes | 1 | | 1 | i | 1 | - | 1 | L | |
| Opposing-Lanes | 1 | | 1 | • | 1 | - | 1 | L | |
| Conflicting-lanes | 1 | | 1 | | 1 | | 1 | L | |
| Geometry group | 1 | | 1 | | 1 | - | 1 | L | |
| Duration, T 0.25 | hrs. | | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | Westh | ound | North | oound | Southbound | |
|--------------------|-----------|-----|-------|------|-------|------------|------------|-----|
| | L1 | L2 | L1 | L2 | L1 | L 2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 104 | | 35 | | 77 | | 101 | |
| Left-Turn | 92 | | 1 | | 34 | | 5 | |
| Right-Turn | 8 | | 22 | | 1 | | 94 | |
| Prop. Left-Turns | 0.9 | | 0.0 | | 0.4 | | 0.0 | |
| Prop. Right-Turns | 0.1 | | 0.6 | | 0.0 | | 0.9 | |
| Prop. Heavy Vehicl | | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | | 1 | _ | | 1 | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | | . 2 | (| .2 | (| 0.2 | | 0.2 |

| hRT-adj hHV-adj | | | -(| | 1 |).6 .7 | - C | | | | |
|---|--|------|--|-------|---|-------------|--|-------------|--|--|--|
| hadj, computed | 0.3 | | -0.2 | | 0.3 | | -0.4 | | | | |
| Worksheet 4 - Departure Headway and Service Time | | | | | | | | | | | |
| | Easth | ound | West | oound | Northb | ound | Southk | ound | | | |
| | L1 | L2 | L1 | L2 | $_{\rm L1}$ | L2 | $_{ m L1}$ | L2 | | | |
| Flow rate | 104 | | 35 | | 77 | | 101 | | | | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | | | |
| x, initial | 0.09 | | 0.03 | | 0.07 | | 0.09 | | | | |
| hd, final value | 4.64 | | 4.22 | | 4.59 | | 3.94 | | | | |
| x, final value | 0.13 | | 0.04 | | 0.10 | | 0.11 | | | | |
| Move-up time, m | 2 | 2.0 | 2.0 | | 2.0 | | 2.0 | | | | |
| Service Time | 2.6 | | 2.2 | | 2.6 | | 1.9 | | | | |
| Worksheet 5 - Capacity and Level of Service | | | | | | | | | | | |
| | | | | | | | | | | | |
| | Eastb | ound | | oound | North | | South | oound | | | |
| | Eastb L1 | | | | | | Southk L1 | oound L2 | | | |
| Flow Rate | | | West | | North | oound | | | | | |
| Flow Rate Service Time | L1 | | West! L1 | | North L1 | oound | L1 | | | | |
| | L1 104 | | West L1 35 | | Northk L1 | oound | L1 101 | | | | |
| Service Time | L1 104 2.6 0.13 | | Westl L1 35 2.2 | | North L1 77 2.6 | oound | 101 1.9 0.11 3.94 | | | | |
| Service Time Utilization, x | L1 104 2.6 0.13 | | Westl L1 35 2.2 0.04 4.22 285 | | Northk L1 77 2.6 0.10 4.59 327 | oound | 101 1.9 0.11 3.94 351 | | | | |
| Service Time Utilization, x Dep. headway, hd Capacity Delay | 104 2.6 0.13 4.64 | | Westl L1 35 2.2 0.04 4.22 | | Northk L1 77 2.6 0.10 4.59 | oound | 101 1.9 0.11 3.94 351 7.43 | | | | |
| Service Time Utilization, x Dep. headway, hd Capacity | 104 2.6 0.13 4.64 354 | | Westl L1 35 2.2 0.04 4.22 285 | | Northk L1 77 2.6 0.10 4.59 327 | oound | 101 1.9 0.11 3.94 351 | | | | |
| Service Time Utilization, x Dep. headway, hd Capacity Delay LOS Approach: | 104 2.6 0.13 4.64 354 8.35 A | L2 | Westh L1 35 2.2 0.04 4.22 285 7.40 A | L2 | Northk L1 77 2.6 0.10 4.59 327 8.09 A | oound L2 | 101 1.9 0.11 3.94 351 7.43 | L2 | | | |
| Service Time Utilization, x Dep. headway, hd Capacity Delay LOS | 104 2.6 0.13 4.64 354 8.35 A | | Westh L1 35 2.2 0.04 4.22 285 7.40 A | | Northb L1 77 2.6 0.10 4.59 327 8.09 A | oound | 101 1.9 0.11 3.94 351 7.43 A | | | | |

LOS A A A A Intersection Delay 7.89 Intersection LOS A

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst:

APF JCE

Agency/Co.:

Date Performed: 9/11/2009

Analysis Time Period: PEAK PM HOUR

Intersection:

SHELDON & MEADOW/BROWNING

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB6

East/West Street: SHELDON AVENUE

North/South Street: MEADOW ST/BROWNING LN

______Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | 1 | Eastbo | und | W | Westbound | | No | orthbo | ound | Southbound | | | |
|---------|--------|---------|-----|---|-----------|----|----|---------|------|------------|---------|----|-----|
| | L | ${f T}$ | R | L | T | R | L | ${f T}$ | R | L | ${f T}$ | R | - [|
| | | | | | | | | | | | | | |
| Volume | 52 | 18 | 16 | 0 | 16 | 10 | 11 | 21 | 0 | 19 | 31 | 68 | ł |
| % Thrus | Left L | ane | | | | | | | | | | | |

Southbound Northbound Westbound Eastbound L1 L2 L1 L2L1 L2 L1 L2LTRConfiguration LTR LTRLTR0.75 PHF 0.75 0.75 0.75 42 156 Flow Rate 114 34 10 % Heavy Veh 10 10 10 1 1 No. Lanes 1 1 Opposing-Lanes 1 1 1 1 1 Conflicting-lanes 1 1

Geometry group Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

1

1

1

| | Eastbound | | Westh | oound | Northbound | | Southbound | |
|---------------------|-----------|-----|-------|-------|------------|----|------------|-----|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 114 | | 34 | | 42 | | 156 | |
| Left-Turn | 69 | | 0 | | 14 | | 25 | |
| Right-Turn | 21 | | 13 | | 0 | | 90 | |
| Prop. Left-Turns | 0.6 | | 0.0 | | 0.3 | | 0.2 | |
| Prop. Right-Turns | 0.2 | | 0.4 | | 0.0 | | 0.6 | |
| Prop. Heavy Vehicle | e0.1 | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | |] | L | 1 | | | 1 |
| Adjustments Exhibi | t 17-33: | : | | | | | | |
| hLT-adj | 0 . | . 2 | (| 0.2 | 0 | .2 | | 0.2 |

| hRT-adj | -0.6 | -0.6 | -0.6 | -0.6 |
|----------------|------|------|------|------|
| hHV-adj | 1.7 | 1.7 | 1.7 | 1.7 |
| hadj, computed | 0.2 | -0.1 | 0.2 | -0.1 |

| Worksheet 4 | | Departure | Headway | and | Service | Time |
|-------------|--|-----------|---------|-----|---------|------|
|-------------|--|-----------|---------|-----|---------|------|

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|-------------------|-----------|------|-----------|------|------------|------|------------|------|
| | L1 | L2 | L1 | L2 | $_{ m L1}$ | L2 | $_{ m L1}$ | L2 |
| Flow rate | 114 | | 34 | | 42 | | 156 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.10 | | 0.03 | | 0.04 | | 0.14 | |
| hd, final value | 4.57 | | 4.42 | | 4.66 | | 4.16 | |
| x, final value | 0.14 | | 0.04 | | 0.05 | | 0.18 | |
| Move-up time, m | | 2.0 | 2 | 2.0 | 2 | 2.0 | 2 | 2.0 |
| Service Time | 2.6 | | 2.4 | | 2.7 | | 2.2 | |

Worksheet 5 - Capacity and Level of Service_____

| | Eastk | Eastbound Westbound | | ound | Northb | ound | Southbound | | |
|--------------------|-------|---------------------|------|----------|----------|------|------------|------|--|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 | |
| Flow Rate | 114 | | 34 | | 42 | | 156 | | |
| Service Time | 2.6 | | 2.4 | | 2.7 | | 2.2 | | |
| Utilization, x | 0.14 | | 0.04 | | 0.05 | | 0.18 | | |
| Dep. headway, hd | 4.57 | | 4.42 | | 4.66 | | 4.16 | | |
| Capacity | 364 | | 284 | | 292 | | 406 | | |
| Delay | 8.34 | | 7.62 | | 7.93 | | 8.08 | | |
| LOS | Α | | A | | Α | | Α | | |
| Approach: | | | | | | | | | |
| Delay | 8 | 3.34 | 7 | .62 | 7 | .93 | { | 8.08 | |
| LOS | P | 1 | P | 1 | P | 1 | I | A | |
| Intersection Delay | 8.10 | | Inte | ersectio | on LOS A | | | | |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

Intersection: SHELDON & MEADOW/BROWNING

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD6

East/West Street: SHELDON AVENUE

North/South Street: MEADOW ST/BROWNING LN

Worksheet 2 - Volume Adjustments and Site Characteristics_____

Northbound | Southbound | Westbound Eastbound | L l L R ${f T}$ | L R R 1 17 126 36 3 6 $1\overline{1}$ 10 Volume 169 % Thrus Left Lane

Southbound Northbound Eastbound Westbound L2L1 L2L1L1L2L1L2LTR Configuration LTR LTR LTR0.75 0.75 0.75 PHF 0.75 103 104 36 83 Flow Rate 10 10 % Heavy Veh 10 10 1 No. Lanes 1 1 1 1 1 Opposing-Lanes 1 1 Conflicting-lanes 1 1 1 1 1 Geometry group 1 1 1 Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|---------------------|-----------|-----|-----------|-----|------------|----------|------------|-----|
| | L1 | L2 | L1 | L2 | Ь1 | L2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 104 | | 36 | | 83 | | 103 | |
| Left-Turn | 92 | | 1 | | 34 | | 5 | |
| Right-Turn | 8 | | 22 | | 1 | | 94 | |
| Prop. Left-Turns | 0.9 | | 0.0 | | 0.4 | | 0.0 | |
| Prop. Right-Turns | 0.1 | | 0.6 | | 0.0 | | 0.9 | |
| Prop. Heavy Vehicle | e0.1 | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | | 1 | L | - | <u> </u> | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | 0 | . 2 | (|),2 | (|).2 | | 0.2 |

| hRT-adj | -0.6 | -0.6 | -0.6 | -0.6 |
|----------------|------|------|------|------|
| hHV-adj | 1.7 | 1.7 | 1.7 | 1.7 |
| hadj, computed | 0.3 | -0.2 | 0.2 | -0.4 |

| Worksheet | 4 | _ | Departure | Headway | and | Service | Time |
|-----------|----|---|-----------|---------|-----|---------|--------|
| MOTVPHEEC | -1 | | Departure | Headway | and | OCTATOC | T TILL |

| | East | oound | Westh | oound | North | oound | South | oound |
|-------------------|---------|--------|------------|------------|------------|-------|-------|-------|
| | L1 | L2 | $_{ m L1}$ | L 2 | $_{ m L1}$ | L2 | L1 | L2 |
| Flow rate | 104 | | 36 | | 83 | | 103 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.09 | | 0.03 | | 0.07 | | 0.09 | |
| hd, final value | 4.66 | | 4.25 | | 4.59 | | 3.97 | |
| x, final value | 0.13 | | 0.04 | | 0.11 | | 0.11 | |
| Move-up time, m | | 2.0 | 2 | 2.0 | 2 | 2.0 | 2 | 2.0 |
| Service Time | 2.7 | | 2.3 | | 2.6 | | 2.0 | |
| FI o se | leabaat | E (725 | | nd Iorral | of Com | ri ao | | |

____Worksheet 5 - Capacity and Level of Service_____

| | Easth | ound | Westb | ound | Northb | ound | Southb | oound |
|--------------------|-------|------|-------|----------|---------|----------|--------|-------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate | 104 | | 36 | | 83 | | 1.03 | |
| Service Time | 2.7 | | 2.3 | | 2.6 | | 2.0 | |
| Utilization, x | 0.13 | | 0.04 | | 0.11 | | 0.11 | |
| Dep. headway, hd | 4.66 | | 4.25 | | 4.59 | | 3.97 | |
| Capacity | 354 | | 286 | | 333 | | 353_ | |
| Delay | 8.38 | | 7.44 | | 8.13 | | 7.47 | |
| LOS | A | | A | | A | | A | |
| Approach: | | | | | | | _ | . 45 |
| Delay | | .38 | | .44 | _ | 3.13 | | 7.47 |
| LOS | P | | P | = | P | Y | F | F |
| Intersection Delay | 7.93 | | Inte | ersectio | n LOS A | | | |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: SHELDON & MEADOW/BROWNING

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD6

East/West Street: SHELDON AVENUE

North/South Street: MEADOW ST/BROWNING LN

_Worksheet 2 - Volume Adjustments and Site Characteristics_____

| Southbound | Westbound | Northbound Eastbound T R | L R l L R l L 24 119 152 16 0 16 10 $|\overline{11}$ 0 35 Volume

% Thrus Left Lane

| | Eastb | ound | Westb | ound | North | oound | Southk | ound |
|-------------------|-------|------|-------|------|-------|-------|--------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Configuration | LTR | | LTR | | LTR | | LTR | |
| PHF | 0.75 | | 0.75 | | 0.75 | | 0.75 | |
| Flow Rate | 115 | | 34 | | 46 | | 161 | |
| % Heavy Veh | 10 | | 10 | | 10 | | 10 | |
| No. Lanes | 1 | | 1 | | - | l | 3 | L |
| Opposing-Lanes | 1 | | 1 | _ | | 1 | 3 | L |
| Conflicting-lanes | 1 | | 1 | _ | | 1 | 1 | L |
| Geometry group | 1 | | 1 | | | 1 | 1 | L |
| Duration, T 0.25 | hrs. | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastb | ound | Westb | ound | Northb | | | nbound |
|---------------------|---------|------|-------|------|--------|-----|-----|--------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 115 | | 34 | | 46 | | 161 | |
| Left-Turn | 69 | | 0 | | 14 | | 25 | |
| Right-Turn | 21 | | 13 | | 0 | | 90 | |
| Prop. Left-Turns | 0,6 | | 0.0 | | 0.3 | | 0.2 | |
| Prop. Right-Turns | 0.2 | | 0.4 | | 0.0 | | 0.6 | |
| Prop. Heavy Vehicle | e0.1 | | 0.1 | | 0.1 | | 0.1 | |
| Geometry Group | 1 | | 1 | | 1 | | | 1 |
| Adjustments Exhibi | t 17-33 | : . | | | | | | |
| hLT-adj | 0 | . 2 | C | .2 | 0 | . 2 | | 0.2 |

| hRT-adj | -0.6 | -0.6 | -0.6 | -0.6 |
|----------------|-------------|-------------------|------------|-------|
| hHV-adj | 1.7 | 1.7 | 1.7 | 1.7 |
| hadj, computed | 0.2 | -0.1 | 0.2 | -0.1 |
| | Workshoot 4 | Damantina Handini | and Carria | Time. |

| hadj, computed | 0.2 | | -0.1 | | 0.2 | | -0.1 | |
|-------------------|--------|---------|----------|----------|------------|----------|-------|-------|
| Wor | ksheet | 4 - Dep | arture I | Headway | and Ser | vice Tim | ıe | |
| | East | oound | West | oound | North | oound | South | oound |
| | L1 | L2 | L1 | L2 | $_{ m L1}$ | L2 | L1 | L2 |
| Flow rate | 115 | | 34 | | 46 | | 161 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.10 | | 0.03 | | 0.04 | | 0.14 | |
| hd, final value | 4.59 | | 4.45 | | 4.66 | | 4.18 | |
| x, final value | 0.15 | | 0.04 | | 0.06 | | 0.19 | |
| Move-up time, m | | 2.0 | , | 2.0 | | 2.0 | 2 | 2.0 |
| Service Time | 2.6 | | 2.4 | | 2.7 | | 2.2 | |
| Wor | ksheet | 5 - Cap | acity am | nd Level | of Ser | vice | | |
| | Eastl | oound | West | oound | North | oound | South | oound |
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate | 115 | | 34 | | 46 | | 161 | |
| Service Time | 2.6 | | 2.4 | | 2.7 | | 2.2 | |
| Utilization, x | 0.15 | | 0.04 | | 0.06 | | 0.19 | |

Utilization, x Dep. headway, hd 0.19 4.180.04 0.06 4.59 4.45 4.66 Capacity 296 411 365 284 Delay 8.38 7.96 8.14 7.64 LOS Α Α Α Α Approach: Delay 8.14 7.96 8.38 7.64 LOS Α Α Α Intersection Delay 8.15 Intersection LOS A

TWO-WAY STOP CONTROL SUMMARY

Analyst: APFAgency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

BROWNING LN & GRACEMERE/SITE Intersection:

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX7

East/West Street: GRACEMERE/SITE DRIVEWAY North/South Street: BROWNING LANE

Intersection Orientation: EW Study period (hrs): 0.25

| und 3 R | 4 I | | 6 R 16 75 0.90 17 0 TR | |
|-------------------|----------|------------------------------|--|-------------|
| 75 | • | 7 0.7 9 1 No | R 16 75 0.90 17 0 TR | |
| 75 | - / | 7 0.7 9 1 No | 16 75 0.90 17 0 TR | |
| | - / | 0.7 9 1 No | 0.90 17 0 TR | |
| | - / | 9 1 No | 17 0 TR | |
| | | 1 No | 0 TR | |
| | | No | TR | |
| | | | | |
| | | Southbo | ound | |
| ound | | DOUCHOL | | |
| 9 |] | 10 11 | 12 | |
| R | ļ I | T | R | |
| | - | 7 | 2 | |
| | (|).75 | 0.75 | • |
| | 9 | 9 | 2 | |
| |] | LO | 10 | |
| | | 0 | | |
| | / | | No | / |
| | | 0 | 0 | |
| | | LR | | |
| | | / | / 0 | / No 0 0 |

| Approach | _Delay, B | Queue WB | Le | ngt | h, and Lev Northbour | | Ser | | outhbour | ıd |
|------------------|---------------|-------------|----|-----|-------------------------|---|-----|----|----------|----|
| Movement | 1 | 4 | 1 | 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | \mathtt{LT} | | Ì | | | | 1 | | LR | |
| v (vph) | 8 | | - | | | | | | 11 | |
| C(m) (vph) | 1538 | | | | | | | | 967 | |
| v/c | 0.01 | | | | | | | | 0.01 | |
| 95% queue length | 0.02 | | | | | | | | 0.03 | |
| Control Delay | 7.4 | | | | | | | | 8.8 | |
| LOS | A | | | | | | | | Α | |
| Approach Delay | | | | | | | | | 8.8 | |
| Approach LOS | | | | | | | | | А | |

HCS+: Unsignalized Intersections Release 5.3

TWO-WAY STOP CONTROL SUMMARY_

Analyst: Agency/Co.:

APF JCE

Date Performed:

9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection:

BROWNING LN & GRACEMERE/SITE

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457PMEX7

East/West Street: GRACEMERE/SITE DRIVEWAY

North/South Street:

BROWNING LANE

Intersection Orientation: EW

Study period (hrs): 0.25

| | | cle Volu | | Adjus | tme | | | | |
|-----------------|--------------|--------------|---------|---------------------------------------|-----|-----|----------|--------|---|
| Major Street: | Approach | Eas | stbound | | | Į. | Westbou: | | |
| | Movement | 1 | 2 | 3 | | 4 | 5 | 6 | |
| | | \mathbf{L} | Т | R | | L | T | R | |
| Volume | .,, . | 7 | 6 | | | | 0 | 6 | |
| Peak-Hour Fact | or PHF | 0.90 | 0.75 | | | | 0.7 | 5 0.90 | |
| Hourly Flow Ra | • | 7 | 8 | | | | 0 | 6 | |
| Percent Heavy | | 10 | | | | | | | |
| Median Type/St | | Undivi | ded | | | / | | | |
| RT Channelized | - | | | | | | | | |
| Lanes | | 0 | 1 | | | | 1 | 0 | |
| Configuration | | Γ_{J} | ľ | | | | | TR | |
| Upstream Signa | 1? | | No | | | | No | | |
| Minor Street: | Approach | Noi | thbound | · · · · · · · · · · · · · · · · · · · | | | Southbo | und | |
| 1111101 551000. | Movement | 7 | 8 | 9 | 1 | 10 | 11 | 12 | |
| | | L L | T | R | Ì | L | ${f T}$ | R | |
| Volume | | | | | | 7 | | 2 | |
| Peak Hour Fact | or DUE | | | | | 0.7 | 5 | 0.75 | |
| Hourly Flow Ra | ** | | | | | 9 | | 2 | |
| Percent Heavy | | | | | | 10 | | 10 | |
| Percent Grade | | | 0 | | | | 0 | | |
| Flared Approac | | Storage | O | | / | , | • | No | / |
| Lanes | AL. EALSUS:/ | Diorage | | | , | | 0 | 0 | • |
| Configuration | | | | | | | LR | - | |
| Confraguracion | | | | | | | | | |
| | | | | | | | | | |

| Approach | Delay, EВ | Queue WB | ье | пус | h, and Le Northbou | nd | DCI | Sc | outhbour | ıd |
|------------------|--------------|-------------|------|-----|-----------------------|----|-----|----|----------|----|
| Movement | 1 | 4 | l | 7 | 8 | 9 | | 10 | 1.1 | 12 |
| Lane Config | $_{ m LT}$ | | | | | | | | LR | |
| v (vph) | 7 | | ···· | | | | | | 11 | |
| C(m) (vph) | 1564 | | | | | | | | 982 | |
| v/c | 0.00 | | | | | | | | 0.01 | |
| 95% queue length | 0.01 | | | | | | | | 0.03 | |
| Control Delay | 7.3 | | | | | | | | 8.7 | |
| LOS | A | | | | | | | | A | ÷ |
| Approach Delay | | | | | | | | | 8.7 | |
| Approach LOS | | | | | | | | | A | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

BROWNING LN & GRACEMERE/SITE Intersection:

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB7

East/West Street: GRACEMERE/SITE DRIVEWAY

| North/South Stree | | WNING LAN | | V 1111111 | | | | | |
|------------------------|---------|-----------|---------|--------------------|----------|-------|-----------------|---------|----|
| Intersection Orie | | | | S | tudy | peri | lod (hr | s): 0.2 | 25 |
| | | | | | _ | - | | | |
| | Veh | icle Volu | umes an | ıd Adju | ıstmer | nts | | | |
| Major Street: Ap | proach | Eas | stbound | l | | V | Vestbou | | |
| Mo | ovement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | ${f L}$ | ${f T}$ | R | I | L | Т | R | |
| | | | | | | | 8 | 17 | |
| Volume | D. C. | 9 | 2 | | | | 0.7 | | 1 |
| Peak-Hour Factor, | | 0.90 | 0.75 | | | | 10 | 18 | , |
| Hourly Flow Rate, | | 10 | 2 | | | | 10 | 10 | |
| Percent Heavy Veh | | 10 | | | | , | | | |
| Median Type/Stora | age | Undivi | Lded | | • | / | | | |
| RT Channelized? | | 0 | 1 | | | | 1 | 0 | |
| Lanes Configuration | | Li | | | | | | TR | |
| | | ـ بـ | No | | | | No | 121 | |
| Upstream Signal? | | | NO | | | | 110 | | |
| Minor Street: Ap | proach | Noi | thbour | nd | | (| Southbo | und | |
| - | vement | 7 | 8 | 9 | 1 | 10 | 11 | 12 | |
| | | ${ m L}$ | ${f T}$ | R | Ì | L | ${f T}$ | R | |
| | | | | | | | | | |
| Volume | | | | | | 8 | | 2 | _ |
| Peak Hour Factor, | PHF | | | | | 0.7 | 5 | 0.75 | 0 |
| Hourly Flow Rate, | HFR | | | | | 10 | | 2 | |
| Percent Heavy Veh | nicles | | | | | 10 | | 10 | |
| Percent Grade (%) | | | 0 | | | | 0 | | |
| Flared Approach: | Exists? | /Storage | | | / | | | No | / |
| Lanes | | _ | | | | (| 0 | 0 | |
| Configuration | | | | | | | LR | | |
| | | | | | | | | | |
| | | | ()- | 1 T | 1 | £ 00 | ~~~! ~ ^ | | |
| 7 | | Queue Ler | ngtn, a | and Lev cthbour | чет о | r 26. | TATCE | uthboun | |
| Approach | EB | WB | | | | | | 11 | 12 |
| Movement | 1 | 4 | 7 | 8 | 9 | • | 10 | | 12 |
| Lane Config | LT | l | | | | 1 | | LR | |
| v (vph) | 10 | | | | <u> </u> | | | 12 | |
| C(m) (vph) | 1535 | | | | | | | 958 | |
| | | | | | | | | 0.01 | |
| V/C | 0.01 | | | | | | | 0.04 | |
| 95% queue length | 0.02 | | | | | | | 8.8 | |
| Control Delay | 7.4 | | | | | | | A. | |
| LOS | A | | | | | | | 8.8 | |
| Approach Delay | | | | | | | | | |
| Approach LOS | | | | | | | | Α | |

HCS+: Unsignalized Intersections Release 5.3

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: BROWNING LN & GRACEMERE/SITE

Jurisdiction:

Approach Delay

Approach LOS

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB7

East/West Street: GRACEMERE/SITE DRIVEWAY

North/South Street: BROWNING LANE

| Intersection Orie | | NING LAN EW | 1E | 5 | Study | period | (hrs) | : 0.25 | |
|-----------------------------------|----------|----------------|---------|-------------|----------|---------|------------|--------|----|
| | Vehi | cle Volu | | d Adju | ıstme | nts | | | |
| | proach | Eas | stbound | | | | tbound | | |
| Mo | vement | 1 | 2 | 3 | ļ | 4 | 5 | 6 | |
| | | L | T | R | 1 | L | T | R | |
| Volume | | 8 | 6 | | | · | 0 | 6 | |
| Peak-Hour Factor, | PHF | 0.90 | 0.75 | | | | 0.75 | 0.90 | |
| Hourly Flow Rate, | HFR | 8 | 8 | | | | 0 | 6 | |
| Percent Heavy Veh | icles | 10 | | | | | | | |
| Median Type/Stora RT Channelized? | ge | Undivi | .ded | | | / | | | |
| Lanes | | 0 | 1 | | | | 1 | 0 | |
| Configuration | | LI | | | | | Т | R | |
| Upstream Signal? | | | No | | | | No | | |
| Minor Street: Ap | proach | | thbound | | | Sou | ıthboun | | |
| Mo | vement | 7 | 8 | 9 | | 10 | 11 | 12 | |
| | | L | T | R | | L | T | R | |
| Volume | | | | | | 8 | | 2 | |
| Peak Hour Factor, | | | | | | 0.75 | | 0.75 | |
| Hourly Flow Rate, | HFR | | | | | 10 | | 2 | |
| Percent Heavy Veh | icles | | | | | 10 | | 10 | |
| Percent Grade (%) | | | 0 | | | | 0 | | |
| Flared Approach: | Exists?/ | Storage | | | / | | | No | / |
| Lanes | | | | | | 0 | | 0 | |
| Configuration | | | | | | | LR | | |
| | Doles- 0 | ueue Ler | arth | od T == | | f Corre | i ce | | |
| Description of the second | | | | hbour | | T SELV | Sout | hbound | |
| Approach | EB | WB 4 (| 7 | tnoout 8 | 11u 9 | i · | 30ut 10 | 11 | 12 |
| Movement | 1 | 4 | / | 0 | 9 | - | LO | LR | 12 |
| Lane Config | LT | ţ | | | | | | ПК | |
| v (vph) | 8 | | | | | | | 12 | |
| C(m) (vph) | 1564 | | | | | | | 978 | |
| v/c | 0.01 | | | | | | | 0.01 | |
| 95% queue length | 0.02 | | | | | | | 0.04 | |
| Control Delay | 7.3 | | | | | | | 8.7 | |
| LOS | A | | | | | | | A | |
| | | | | | | | | ^ = | |

8.7

HCS+: Unsignalized Intersections Release 5.3

TWO-WAY STOP CONTROL SUMMARY__

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

BROWNING LN & GRACEMERE/SITE Intersection:

Jurisdiction:

Approach LOS

Units: U. S. Customary
Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD7

| Vehicle Volumes and Adjustments Major Street: Approach Eastbound Westbound Movement 1 | East/West Street: North/South Street: Intersection Orienta | GRACE BROWN | ING LA | ITE DRI NE | | Study | perio | d (hrs) | : 0.2 | 5 |
|---|--|----------------|---------|---------------|--------|----------|--------|---------|--------|------|
| Major Street: Approach Movement 1 2 3 4 5 6 6 L T R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R R L T R | | Vehic | de Vol | umes and | d Adin | ıstme | nts | | | |
| Movement 1 2 3 4 5 6 L T R L T R Volume 9 3 11 21 Peak-Hour Factor, PHF 0.90 0.75 0.75 0.90 Hourly Flow Rate, HFR 10 4 14 23 Percent Heavy Vehicles 10 Median Type/Storage Undivided / / RT Channelized? / Incompany of the com | Major Street: Appro | | | | _ | io cinoi | | stbound |) | |
| L T R L T R L T R Volume 9 3 | | | | | | ı | | | | |
| Volume 9 3 11 21 Peak-Hour Factor, PHF 0.90 0.75 0.75 0.90 Hourly Flow Rate, HFR 10 4 14 23 Percent Heavy Vehicles 10 Median Type/Storage Undivided / / RT Channelized? 1 0 0 0 1 0 | 110 V CI | MCII C | | | | l | | | | |
| Peak-Hour Factor, PHF 0.90 0.75 0.75 0.90 Hourly Flow Rate, HFR 10 4 14 23 Percent Heavy Vehicles 10 Median Type/Storage Undivided / / RT Channelized? 1 0 | | | | | | | | | | **** |
| Hourly Flow Rate, HFR 10 4 14 23 Percent Heavy Vehicles 10 | Volume | | 9 | 3 | | | | | | |
| Percent Heavy Vehicles 10 < | Peak-Hour Factor, P | HF | 0.90 | 0.75 | | | | 0.75 | 0.90 | |
| Median Type/Storage RT Channelized? Lanes 0 1 1 0 Configuration LT TR Upstream Signal? No No Minor Street: Approach Movement 7 8 9 10 11 12 L T R L T R Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles Percent Grade (%) 0 0 | Hourly Flow Rate, H | FR | 10 | 4 | | | | 14 | 23 | |
| ### RT Channelized? Lanes | Percent Heavy Vehic | les | 10 | | | | | | | |
| Lanes 0 1 0 Configuration LT TR Upstream Signal? No No Minor Street: Approach Northbound Southbound Movement 7 8 9 10 11 12 L T R L T R Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | Median Type/Storage | | Undiv | ided | | | / | | | |
| Configuration LT TR Upstream Signal? No No Minor Street: Approach Movement Northbound Southbound 7 8 9 10 11 12 L T R L T R Volume 9 2 2 2 2 2 2 2 3 3 4 | RT Channelized? | | | | | | | | | |
| Configuration LT TR Upstream Signal? No No Minor Street: Approach Movement Northbound Southbound 7 8 9 10 11 12 L T R L T R Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | Lanes | | 0 | 1 | | | | 1 | 0 | |
| Upstream Signal? No No Minor Street: Approach Movement Northbound Southbound 7 8 9 10 11 12 L T R L T R Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | Configuration | | | | | | | T | 'R | |
| Movement 7 8 9 10 11 12 | | | | No | | | | No | | |
| Movement 7 8 9 10 11 12 | | | | | | | | | | |
| L T R L T R Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | - - | | | | d | | | | | |
| Volume 9 2 Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | Mover | nent | 7 | 8 | 9 | | 10 | | | |
| Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | | | ${f L}$ | ${f T}$ | R | | m L | ${f T}$ | R | |
| Peak Hour Factor, PHF 0.75 0.75 Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | Volume | | | | | | a | | 2 | |
| Hourly Flow Rate, HFR 12 2 Percent Heavy Vehicles 10 10 Percent Grade (%) 0 0 | | J Fr | | | | | | | | |
| Percent Heavy Vehicles 10 10 Percent Grade (%) 0 | | | | | | | | | | |
| Percent Grade (%) 0 0 | - | | | | | | | | | |
| | | Les | | 0 | | | 10 | 0 | 10 | |
| rlared Approach: Exists?/Storage / NO / | | | | = | | , | | U | Ma | , |
| | | Kists?/S | torage | | | / | 0 | | | / |
| Lanes 0 0 | | | | | | | Ü | T.D. | U | |
| Configuration LR | Configuration | | | | | | | ТК | | |
| | | | | | | | | | | |
| Delay, Queue Length, and Level of Service | D€ | elay, Qu | eue Le | ngth, a | nd Lev | rel o | f Serv | ice | | |
| Approach EB WB Northbound Southbound | | | | _ | | | | | hbound | |
| Movement 1 4 7 8 9 10 11 12 | | | | | | | 1 | | | |
| Lane Config LT LR | | _ | - 1 | | ū | _ | i | | | |
| | - - | ~~ | ľ | | | | ' | | | |
| v (vph) 10 14 | v (vph) | 10 | | | | | | | | |
| C(m) (vph) 1523 945 | C(m) (vph) | 1523 | | | | | | | 945 | |
| v/c 0.01 | | | | | | | | | 0.01 | |
| 95% queue length 0.02 0.05 | | | | | | | | | | |
| Control Delay 7.4 8.9 | | | | | | | | | | |
| LOS A A | | | | | | | | | | |
| Approach Delay 8.9 | | | | | | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: BROWNING LN & GRACEMERE/SITE

Jurisdiction:

Approach LOS

Units: U. S. Customary
Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD7

East/West Street: GRACEMERE/SITE DRIVEWAY
North/South Street: BROWNING LANE

| North/South Stree Intersection Orie | | NING LAN EW | 1E | S | Study | period | d (hrs) | : 0.25 | ; |
|--|------------|--------------------------|----------|--------|-------|--------------|---------|--------|----|
| | Vehic | cle Volu | ımes and | d Adiu | ıstme | nts | | | |
| Major Street: Ap | proach | | stbound | | | Wes | stbound | | |
| _ | vement | 1 | 2 | 3 | | 4 | 5 | 6 | |
| 110 | · Omorro | Ĺ | T | R | i | L | ${f T}$ | R | |
| | | | | | • | | | | |
| Volume | | 8 | 9 | | | | 2 | 9 | |
| Peak-Hour Factor, | PHF | 0.90 | 0.75 | | | | 0.75 | 0.90 | |
| Hourly Flow Rate, | | 8 | 12 | | | | 2 | 10 | |
| Percent Heavy Veh | | 10 | | | | | | | |
| Median Type/Stora | | Undivi | ded | | | / | | | |
| RT Channelized? | <i>J</i> - | | | | | | | | |
| Lanes | | 0 | 1 | | | | 1 | 0 | |
| Configuration | | $\mathbf{L}\mathfrak{I}$ | | | | | Т | R | |
| Upstream Signal? | | | No | | | | No | | |
| 1 3 | | | | | | | | | |
| Minor Street: Ap | proach | Noi | thbound | d | | So | ıthboun | d | |
| | vement | 7 | 8 | 9 | 1 | 10 | 11 | 12 | |
| | | L | T | R | | \mathbf{L} | T | R | |
| | | | | | | | | | |
| Volume | | | | | | 12 | | 2 | |
| Peak Hour Factor, | PHF | | | | | 0.75 | | 0.75 | |
| Hourly Flow Rate, | HFR | | | | | 16 | | 2 | |
| Percent Heavy Veh | icles | | | | | 10 | | 10 | |
| Percent Grade (%) | | | 0 | | | | 0 | | |
| Flared Approach: | Exists?/S | Storage | | | / | | | No | / |
| Lanes | | _ | | | | 0 | | 0 | |
| Configuration | | | | | | | LR | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | _Delay, Qu | ueue Ler | | | | f Serv | | | |
| Approach | EB | WB | Nort | thbour | nd | | | hbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | | 10 | 11 | 12 |
| Lane Config | $_{ m LT}$ | 1 | | | | | | LR | |
| | | | | | | | | | |
| v (vph) | 8 | | | | | | | 18 | |
| C(m) (vph) | 1556 | | | | | | | 963 | |
| v/c | 0.01 | | | | | | | 0.02 | |
| 95% queue length | 0.02 | | | | | | | 0.06 | |
| Control Delay | 7.3 | | | | | | | 8.8 | |
| LOS | A | | | | | | | A | |
| Approach Delay | | | | | | | | 8.8 | |

HCS+: Unsignalized Intersections Release 5.3

TWO-WAY STOP CONTROL SUMMARY_

Analyst: APFAgency/Co.:

JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

Intersection:

SHELDON AVENUE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX8

East/West Street: SHELDON AVENUE North/South Street: EMERALD WOODS

Intersection Orientation: EW

Study period (hrs): 0.25

| | 1 | | | Adjust | | | | | |
|--------------------|-----------|--------------|---------|--------|---|------------|---------|----|---|
| | proach | East | tbound | | | West | bound | | |
| Мот | vement | 1 | 2 | 3 | | 4 | 5 | 6 | |
| | | L | Т | R | | L | T | R | |
| Volume | | | 69 | 4 | | 13 | 92 | | |
| Peak-Hour Factor, | PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | | |
| Hourly Flow Rate, | | | 92 | 5 | | 17 | 122 | | |
| Percent Heavy Veh: | | | | **** | | 10 | | | |
| Median Type/Storag | | Undivi | ded | | | / | | | |
| RT Channelized? | | | | | | | | | |
| Lanes | | | 1 0 | | | 0 | 1 | | |
| Configuration | | | TR | | | $_{ m LT}$ | | | |
| Upstream Signal? | | | No | | | | No | | |
| | | | | | | | | | |
| | proach | Nor | thbound | | | | thbound | | |
| Мот | vement | 7 | 8 | 9 | | 10 | 11 | 12 | |
| | | \mathbf{L} | Т | R | | L | Т | R | |
| Volume | | 0 | | 6 | | | | | |
| Peak Hour Factor, | PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rate, | | 0 | | 6 | | | | | |
| Percent Heavy Veh: | | 0 | | 0 | | | | | |
| Percent Grade (%) | | | 0 | | | | 0 | | |
| Flared Approach: | Exists?/S | torage | | No | / | | | | / |
| Lanes | , - | 0 | 0 | | | | | | |
| Configuration | | | LR | | | | | | |

| Approach Movement Lane Config | _Delay, EB 1 | Queue WB 4 LT | Le | ngt 7 | h, and Leve Northbound 8 LR | Ser | outhbour 11 | nd 12 | |
|-------------------------------------|--------------------|------------------------|----|----------|--------------------------------------|--------------|----------------|----------|--|
| v (vph) | | 17 | | | 6 | <u></u> | | | |
| C(m) (vph) | | 1448 | } | | 968 | | | | |
| v/c | | 0.01 | L | | 0.01 | | | | |
| 95% queue length | | 0.04 | i | | 0.02 | | | | |
| Control Delay | | 7.5 | | | 8.7 | | | | |
| LOS | | A | | | A | | | | |
| Approach Delay | | | | | 8.7 | | | | |
| Approach LOS | | | | | A | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: SHELDON AVENUE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457PMEX8

East/West Street: SHELDON AVENUE North/South Street: EMERALD WOODS

Intersection Orientation: EW Study period (hrs): 0.25

| Major Street: | veni Approach | | umes and stbound | Aajus | tme | Mes | tbound | · · · · · · · · · · · · · · · · · · · | |
|----------------|------------------|----------|---------------------|-------|-----|----------|----------------|---------------------------------------|---|
| Major Screec. | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | Movement | L | T T | R | | L | T | Ř | |
| | | _ | | | • | | | | |
| Volume | | | 60 | 1 | | 6 | 72 | | |
| Peak-Hour Fact | or, PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | | |
| Hourly Flow Ra | ite, HFR | | 80 | 1 | | 8 | 96 | | |
| Percent Heavy | | | | | | 10 | | | |
| Median Type/St | | Undiv. | ided | | | / | | | |
| RT Channelized | | | | | | | | | |
| Lanes | | | 1 0 | | | 0 | 1 | | |
| Configuration | | | TR | | | LT | 1 | | |
| Upstréam Signa | 1? | | No | | | | No | | |
| M' Ob b | | NT - | | | | Con | ıthbound | | |
| Minor Street: | Approach | | rthbound | | | | ichbound 11 | 12 | |
| | Movement | 7 | 8 | 9 | | 10 | | | |
| | | L | Т | R | İ | L | ${f T}$ | R | |
| Volume | | 2 | | 14 | | | | | |
| Peak Hour Fact | or, PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Ra | te, HFR | 2 | | 15 | | | | | |
| Percent Heavy | | 0 | | 0 | | | | | |
| Percent Grade | | | 0 | | | | 0 | | |
| Flared Approac | h: Exists? | 'Storage | | No | / | <i>'</i> | | | / |
| Lanes | | ó | C | l | | | | | |
| Configuration | | | LR | | | | | | |
| | | | | | | | | | |

| Approach | _Delay, EB | Queue WB | Le | ngt | h, and Leve Northbound | | Ser | | outhbou | nd |
|------------------|---------------|---------------------|----|-----|---------------------------|---|-----|----|---------|----|
| Movement | 1 | 4 | ı | 7 | 8 | 9 | ſ | 10 | 11 | 12 |
| Lane Config | | LT | - | | LR | | 1 | | | |
| v (vph) | | 8 | | | 17 | | | | | |
| C(m) (vph) | | 146 | 7 | | 959 | | | | | |
| v/c | | 0.0 | 1 | | 0.02 | | | | | |
| 95% queue length | | 0.0 | 2 | | 0.05 | | | | | |
| Control Delay | | 7.5 | | | 8.8 | | | | | |
| LOS | | A | | | Α | | | | | |
| Approach Delay | | | | | 8.8 | | | | | |
| Approach LOS | | | | | A | | | | | |

TWO-WAY STOP CONTROL SUMMARY_

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

SHELDON AVENUE & EMERALD WOODS Intersection:

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457AMNB8

East/West Street: SHELDON AVENUE North/South Street: EMERALD WOODS

Study period (hrs): 0.25 Intersection Orientation: EW

| | | • | | | 1 | | • | | |
|----------------|---------------------------------------|-----------|----------|---------|-----|--------------|---------|--------|----|
| | Ve: | hicle Vol | umes and | d Adjus | tme | nts | | | |
| Major Street: | Approach | | stbound | _ | | | stbound | | |
| y | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | 110 / 04110110 | L | T | R | i | L | T | R | |
| | | | | | | | | | |
| Volume | | | 75 | 5 | | 15 | 99 | | |
| Peak-Hour Fact | or, PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | | |
| Hourly Flow Ra | ate, HFR | | 100 | 6 | | 20 | 132 | | |
| Percent Heavy | Vehicles | | | | | 10 | | | |
| Median Type/St | corage | Undiv | ided | | | / | | | |
| RT Channelized | | | | | | | | | |
| Lanes | | | 1 | 0 | | 0 | 1 | | |
| Configuration | | | T | R | | Γ_{i} | Г | | |
| Upstream Signa | 1)? | | No | | | | No | | |
| opocioum bigne | | | 110 | | | | | | |
| Minor Street: | Approach | No | rthboun | d | | So | uthboun | | |
| | Movement | 7 | 8 | 9 | [| 10 | 11 | 12 | |
| | | L | T | R | *** | L | Т | R | |
| Volume | · · · · · · · · · · · · · · · · · · · | 4 | | 10 | | | | | |
| Peak Hour Fact | or, PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Ra | • | 4 | | 11 | | | | | |
| Percent Heavy | * | 0 | | 0 | | | | | |
| Percent Grade | | _ | 0 | | | | 0 | | |
| Flared Approac | • • | ?/Storage | - | No | / | , | | | / |
| Lanes | | ő | | 0 | | | | | |
| Configuration | | | LR | | | | | | |
| | | | | | | | | | |
| | Delay, | | | | | of Serv | ice | bhound | |
| Approach | EB | WB | | thbound | | | | hbound | 10 |
| Movement | 1 | 4 | 7 | 8 | 9 | Į. | 10 | 11 | 12 |

| Approach | EB | Queue WB | | _ | Northbound | Ė | | | outhbour | nd |
|------------------|----|-------------|---|---|---------------|---|---|----|----------|----|
| Movement | 1 | 4 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Lane Config | | LT | - | | $\mathbf{L}R$ | | 1 | | | |
| v (vph) | | 20 | | | 15 | | | | | |
| C(m) (vph) | | 143 | 7 | | 875 | | | | | |
| v/c | | 0.0 | 1 | | 0.02 | | | | | |
| 95% queue length | | 0.0 | 4 | | 0.05 | | | | | |
| Control Delay | | 7.5 | | | 9.2 | | | | | |
| LOS | | Α | | | Α | | | | | |
| Approach Delay | | | | | 9.2 | | | | | |
| Approach LOS | | | | | A | | | | | |

HCS+: Unsignalized Intersections Release 5.3

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: SHELDON AVENUE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary
Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB8

East/West Street: SHELDON AVENUE North/South Street: EMERALD WOODS

Intersection Orientation: EW Study period (hrs): 0.25

| | Vehi | cle Vo | lumes a | nd Adjus | tme | | | | |
|-----------------|----------|---------|----------|----------|-------|--------------------|---------|----|---|
| Major Street: | Approach | E | astbound | d | | Wes | stbound | | |
| | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | L | T | R | | L | Т | R | |
| Volume | | | 65 | 4 | | 10 | 78 | | |
| Peak-Hour Facto | or, PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | | |
| Hourly Flow Rat | te, HFR | | 86 | 5 | | 13 | 104 | | |
| Percent Heavy V | | | | | | 10 | | | |
| Median Type/Sto | | Undi | vided | | | / | | | |
| RT Channelized | | | | | | | | | |
| Lanes | | | 1 | 0 | | 0 | 1 | | |
| Configuration | | | | ľR | | Γ_{\bullet} | Г | | |
| Upstream Signal | l? | | No | | | | No | | |
| Minor Street: | Approach | N | orthbou | nd | | Sot | uthboun | d | |
| | Movement | 7 | 8 | 9 | 1 | 10 | 11 | 12 | |
| | | ${f L}$ | T | R | ***** | L | T | R | |
| Volume | | 5 | | 17 | | | | | |
| Peak Hour Facto | or, PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rat | ce, HFR | 5 | | 18 | | | | | |
| Percent Heavy V | /ehicles | 0 | | 0 | | | | | |
| Percent Grade | | | 0 | | | | 0 | | |
| Flared Approach | | Storage | е | No | / | • | | | / |
| Lanes | | ő | | 0 | | | | | |
| Configuration | | | LR | | | | | | |

| Approach | EB | WB | 1101 | 90 | h, and Leve Northboun | | | | outhbou | nd |
|------------------|----|------|------|----|--------------------------|---|---|----|---------|----|
| Movement | 1 | 4 | 1 | 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | | LT | | | LR | | 1 | | | |
| v (vph) | | 13 | | | 23 | | | | | |
| C(m) (vph) | | 1455 | 5 | | 922 | | | | | |
| v/c | | 0.01 | L | | 0.02 | | | | | |
| 95% queue length | | 0.03 | 3 | | 0.08 | | | | | |
| Control Delay | | 7.5 | | | 9.0 | | | | | |
| LOS | | Α | | | Α | | | | | |
| Approach Delay | | | | | 9.0 | | | | | |
| Approach LOS | | | | | A | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK AM HOUR

Intersection: SHELDON AVENUE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD8

East/West Street: SHELDON AVENUE North/South Street: EMERALD WOODS

Intersection Orientation: EW Study period (hrs): 0.25

| intersection of | rrentation | EW | | ى د | udy | berro | a (IIIS) | , 0.20 | · |
|-----------------|------------|------------|----------|---------|-----|----------|----------|------------|----|
| | Vel | nicle Volu | mes and | l Adius | tme | nts | | | |
| Major Street: | Approach | | tbound | . , | | | stbound | | |
| | Movement | 1 | 2 | 3 | 1 | 4 | 5 | 6 | |
| | | $ m_L$ | T | R | i | L | T | R | |
| | | | | | | | | | |
| Volume | | | 75 | 5 | | 15 | 100 | | |
| Peak-Hour Facto | or, PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | | |
| Hourly Flow Rat | te, HFR | | 100 | 6 | | 20 | 133 | | |
| Percent Heavy | Vehicles | | | | | 10 | | | |
| Median Type/Sto | | Undiv: | ided | | | / | | | |
| RT Channelized | ? | | | | | | | | |
| Lanes | | | 1 (|) | | 0 | 1 | | |
| Configuration | | | TF | } | | Γ | T | | |
| Upstream Signal | 1? | | No | | | | No | | |
| • | | | | | | | | | |
| Minor Street: | Approach | No | rthbound | i | | | uthboun | | |
| | Movement | 7 | 8 | 9 | • | 10 | 11 | 12 | |
| | | m L | T | R | 1 | L | T | R | |
| Volume | | 4 | | 10 | | | | | |
| Peak Hour Facto | or, PHF | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rat | • | 4 | | 11 | | | | | |
| Percent Heavy | • | 0 | | 0 | | | | | |
| Percent Grade | | | 0 | | | | 0 | | |
| Flared Approach | n: Exists | ?/Storage | | No | / | | | | / |
| Lanes | | Ō | (|) | | | | | |
| Configuration | | | LR | | | | | | |
| | | | | | | | | | |
| | _ | _ | | | , | C G | | | |
| | Delay, | | | | | r serv | TC6 | hbound | |
| Approach | EB | WB | | chbound | | 1 | | 11 | 12 |
| Movement | 1 | 4 | 7 | 8 | 9 | 1 | ΤΛ | T T | 14 |
| Lane Config | | LT | | LR | | I | | | |
| | | | | | | | | | |

| | Delay, | Queue | Le | ngt | h, and Le | vel of | Ser | | · | |
|------------------|--------|-------|----|-----|-----------|--------|-----|----|----------|----|
| Approach | EB | WB | | | Northbou | nd | | S | outhbour | nd |
| Movement | 1 | 4 | 1 | 7 | 8 | 9 | 1 | 10 | 11 | 12 |
| Lane Config | | LT | | | LR | | 1 | | | |
| v (vph) | | 20 | | | 15 | | | | | |
| C(m) (vph) | | 143 | 7 | | 875 | | | | | |
| v/c | | 0.0 | 1 | | 0.02 | • | | | | |
| 95% queue length | | 0.0 | 4 | | 0.05 | | | | | |
| Control Delay | | 7.5 | | | 9.2 | | | | | |
| LOS | | Α | | | A | | | | | |
| Approach Delay | | | | | 9.2 | | | | | |
| Approach LOS | | | | | A | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst:

APF

Agency/Co.:

JCE

Date Performed:

9/11/2009

Analysis Time Period: PEAK PM HOUR

Intersection:

SHELDON AVENUE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD8

v/c

95% queue length

Control Delay

Approach Delay

Approach LOS

East/West Street: SHELDON AVENUE

North/South Street: EMERALD WOODS

0.01

0.03

7.5

Α

Intersection Orientation: EW

Study period (hrs): 0.25

| Major Street: | Approach | nicle Volu Eas | tbound | | | | stbound | |
|----------------------------------|------------|-------------------|---------|----------|------|--------------|---------|--------|
| J | Movement | 1 | 2 | 3 | | 4 | 5 | 6 |
| | | L | T | R | Ì | L | ${f T}$ | R |
| Volume | | | 66 | 4 | | 10 | 78 | |
| Peak-Hour Fact | or, PHF | | 0.75 | 0.75 | | 0.75 | 0.75 | |
| Hourly Flow Ra | te, HFR | | 88 | 5 | | 13 | 104 | |
| Percent Heavy | | | | | | 10 | | |
| Median Type/St RT Channelized | | Undivi | _ded | | | / | | |
| Lanes | • | | 1 | 0 | | 0 | 1 | |
| Configuration | | | | ľŔ | | L' | | |
| Upstream Signa | 1? | | No | | | | No | |
| Minor Street: | Approach | Nor | thbour | nd | | Sot | ıthboun | d |
| | Movement | 7 | 8 | 9 | | 10 | 11 | 12 |
| | | ${f L}$ | T | R | 1 | \mathbf{L} | T | R |
| Volume | | 5 | | 17 | | | | |
| Peak Hour Fact | or, PHF | 0.90 | | 0.90 | | | | |
| Hourly Flow Ra | te, HFR | 5 | | 18 | | | | |
| Percent Heavy | Vehicles | 0 | | 0 | | | | |
| Percent Grade | (용) | | 0 | | | | 0 | |
| Flared Approach | h: Exists? | ?/Storage | | No | / | • | | / |
| Lanes | | 0 | | 0 | | | | |
| Configuration | | | LR | | | | | |
| | Delay. | Queue Ler | nath. a | and Leve | el c | of Serv | ice | |
| Approach | EB | WB | | thbound | | | | hbound |
| Movement | 1 | 4 1 | 7 | 8 | 9 | 1 | | 11 12 |
| Lane Config | _ | LT | | LR | | İ | | |
| v (vph) | | 13 | | 23 | | | | |
| C(m) (vph) | | 1453 | | 919 | | | | |
| 77/0 | | 0.01 | | 0 02 | | | | |

0.03

0.08

9.0 Α

9.0

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS_____

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK AM HOUR

Intersection: GRACEMERE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457AMEX9

East/West Street: GRACEMERE ROAD North/South Street: EMERALD WOODS

______Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | E | astbo | und | W | estboi | und | l N | orthb | ound | S | outhbo | ound | 1 |
|------------|--------|-------|-----|----|--------|-----|-----|-------|------|----|--------|------|---|
| | l L | T | R | L | T | R | L | T | R | L | T | R | Į |
| | [| | | 1 | | | 1 | | | 1 | | | |
| Volume | 6 | 9 | 0 | 10 | 10 | 1 | 10 | 0 | 0 | 10 | 0 | 13 | |
| o mbassa t | oft to | | | | | | | | | | | | |

% Thrus Left Lane

| | Eastbound | | Westb | ound | Northbound | | Southbound | |
|-------------------|-----------|----|-------|------|------------|----|------------|----|
| | L1 | L2 | L1 | Ь2 | L1 | L2 | L1 | L2 |
| Configuration | LT | | TR | | | | LR | |
| PHF | 0.90 | | 0.90 | | | | 0.90 | |
| Flow Rate | 16 | | 12 | | | | 14 | |
| % Heavy Veh | 10 | | 10 | | | | 10 | |
| No. Lanes | 1 | | 1 | | | | 1 | |
| Opposing-Lanes | 1 | | 1 | - | | | 0 | 1 |
| Conflicting-lanes | 1 | | 1 | | | | 1 | • |
| Geometry group | 1 | | 1 | | | | 1 | |
| Duration, T 0.25 | hrs. | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|--------------------|-----------|-----|-----------|-----|------------|----|------------|-----|
| | L1 | L2 | L1 | L2 | L1 | ь2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 16 | | 12 | | | | 14 | |
| Left-Turn | 6 | | 0 | | | | 0 | |
| Right-Turn | 0 | | 1 | | | | 14 | |
| Prop. Left-Turns | 0.4 | | 0.0 | | | | 0.0 | |
| Prop. Right-Turns | 0.0 | | 0.1 | | | | 1.0 | |
| Prop. Heavy Vehicl | e0.1 | | 0.1 | | | | 0.1 | |
| Geometry Group | 1 | | | 1 | | | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | 0 | . 2 | | 0.2 | | | | 0.2 |

hRT-adj -0.6 -0.6 hHV-adj 1.7 1.7 hadj, computed 0.2 0.1 -0.4

Worksheet 4 - Departure Headway and Service Time_____

| | Eastbound | | Westh | oound | North | oound | Southbound | |
|-------------------|-----------|------|-------|-------|-------|-------|------------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | $_{ m L1}$ | L2 |
| Flow rate | 16 | | 12 | | | | 14 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.01 | | 0.01 | | | | 0.01 | |
| hd, final value | 4.18 | | 4.06 | | | | 3.53 | |
| x, final value | 0.02 | | 0.01 | | | | 0.01 | |
| Move-up time, m | | 2.0 | , | 2.0 | | | | 2.0 |
| Service Time | 2.2 | | 2.1 | | | | 1.5 | |

Worksheet 5 - Capacity and Level of Service_____

| | Eastbound L1 L2 | _ | Northbound L1 L2 | Southbound L1 L2 |
|---|---|---|---------------------|--|
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity Delay LOS | 16 2.2 0.02 4.18 266 7.26 A | 12 2.1 0.01 4.06 262 7.12 A | | 14 1.5 0.01 3.53 264 6.58 |
| Approach: Delay LOS Intersection Delay | 7.26 A 7 6.99 | 7.12 A Intersection | n LOS A | 6.58 A |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS_____

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK PM HOUR

Intersection: GRACEMERE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2008/2009 EXISTING VOLUMES

Project ID: 1457PMEX9

East/West Street: GRACEMERE ROAD North/South Street: EMERALD WOODS

Worksheet 2 - Volume Adjustments and Site Characteristics_____

| Westbound | Northbound | Southbound | | Eastbound L T 1 L T R T R R L 0 0 6 1 10 17 12 0 10 Volume

% Thrus Left Lane

| | Eastbound | | West | oound | North | oound | Southbound | |
|-------------------|-----------|----|------|-------|-------|-------|------------|----|
| | L1 | L2 | L1 | L2 | L1 | ь2 | L1 | L2 |
| Configuration | LT | | TR | | | | LR | |
| PHF | 0.90 | | 0.90 | | | | 0.90 | |
| Flow Rate | 31 | | 7 | | | | 14 | |
| % Heavy Veh | 10 | | 10 | | | | 10 | |
| No. Lanes | 1 | | | 1 | | | 1 | L |
| Opposing-Lanes | 1 | | | 1 | | | (|) |
| Conflicting-lanes | 1 | | | 1 | | | 1 | L |
| Geometry group | 1 | | | 1 | | | 1 | L |
| Duration, T 0.25 | hrs. | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|--------------------|-----------|-----|-----------|-----|------------|----|------------|-----|
| | L1 | ь2 | L1 | L2 | L1 | L2 | L1 | ь2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 31 | | 7 | | | | 14 | |
| Left-Turn | 18 | | 0 | | | | 1 | |
| Right-Turn | 0 | | 1 | | | | 13 | |
| Prop. Left-Turns | 0.6 | | 0.0 | | | | 0.1 | |
| Prop. Right-Turns | 0.0 | | 0.1 | | | | 0.9 | |
| Prop. Heavy Vehic1 | e0.1 | | 0.1 | | | | 0.1 | |
| Geometry Group | 1 | | | 1 | | | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | • | | | _ |
| hLT-adj | 0 | , 2 | | 0.2 | | | | 0.2 |

hRT-adj -0.6 -0.6 -0.6 hHV-adj 1.7 1.7 1.7 hadj, computed 0.3 0.1 -0.4

Worksheet 4 - Departure Headway and Service Time_____

| | Eastbound | | Westbound | | Northbound | | South | bound |
|-------------------|-----------|------|-----------|------|------------|------|-------|-------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow rate | 31 | | 7 | | | | 14 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.03 | | 0.01 | | | | 0.01 | |
| hd, final value | 4.22 | | 4.04 | | | | 3.61 | |
| x, final value | 0.04 | | 0.01 | | | | 0.01 | |
| Move-up time, m | | 2.0 | 2 | 2.0 | | | | 2.0 |
| Service Time | 2.2 | | 2.0 | | | | 1.6 | |

_Worksheet 5 - Capacity and Level of Service_____

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|--------------------|-----------|------|-----------|----------|------------|----|------------|--|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 L2 | |
| Flow Rate | 31 | | 7 | | | | 14 | |
| Service Time | 2.2 | | 2.0 | | | | 1.6 | |
| Utilization, x | 0.04 | | 0.01 | | | | 0.01 | |
| Dep. headway, hd | 4.22 | | 4.04 | | | | 3.61 | |
| Capacity | 281 | | 257 | | | | 264 | |
| Delay | 7.38 | | 7.07 | | | | 6.66 | |
| LOS | A | | A | | | | A | |
| Approach: | | | | | | | | |
| Delay | | 7.38 | • | 7.07 | | | 6.66 | |
| LOS | | Α | 7 | E | | | A | |
| Intersection Delay | 7.15 | | Inte | ersectio | on LOS A | | | |

Fax: Phone: E-Mail: ALL-WAY STOP CONTROL (AWSC) ANALYSIS_____ APF Analyst: Agency/Co.: JCE 9/11/2009 Date Performed: Analysis Time Period: PEAK AM HOUR GRACEMERE & EMERALD WOODS Intersection: Jurisdiction: Units: U. S. Customary Analysis Year: 2014/2015 NO-BUILD VOLUMES Project ID: 1457AMNB9 East/West Street: GRACEMERE ROAD North/South Street: EMERALD WOODS Worksheet 2 - Volume Adjustments and Site Characteristics_____ Southbound | Northbound | Westbound Eastbound L L Т R T R l L R 0 10 11 1 17 10 0 10 Volume % Thrus Left Lane Northbound Southbound Westbound Eastbound L2L1L1 L2 Ь2 L1L2Ll LRConfiguration LT TR0.90 0.90 PHF 0.90 18 13 Flow Rate 18 10 10 % Heavy Veh 10 1 No. Lanes 1 1 1 Opposing-Lanes 1 Conflicting-lanes 1 1 1 Geometry group 1 Duration, T 0.25 hrs. Worksheet 3 - Saturation Headway Adjustment Worksheet_____ Northbound Southbound Eastbound Westbound L1L2L1 L2 L1 L2 Ll L2Flow Rates: 18 13 Total in Lane 18 0 0 Left-Turn 7 18 Right-Turn 0 1 0.0 Prop. Left-Turns 0.4 0.0 1.0 Prop. Right-Turns 0.0 0.1 0.1 Prop. Heavy Vehicle0.1 0.1

1

0.2

Geometry Group

hLT-adj

Adjustments Exhibit 17-33:

0.2

1

0.2

hRT-adj -0.6 -0.6 hHV-adj 1.7 1.7 hadj, computed 0.2 0.1 -0.4

Worksheet 4 - Departure Headway and Service Time_____

| | Eastbound | | West! | oound | North | oound | South | oound |
|-------------------|-----------|---------|---------|----------|---------|-------|-------|-------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow rate | 18 | | 13 | | | | 18 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3,20 |
| x, initial | 0.02 | | 0.01 | | | | 0.02 | |
| hd, final value | 4.19 | | 4.08 | | | | 3.54 | |
| x, final value | 0.02 | | 0.01 | | | | 0.02 | |
| Move-up time, m | - | 2.0 | : | 2.0 | | | : | 2.0 |
| Service Time | 2.2 | | 2.1 | | | | 1.5 | |
| Wor | ksheet | 5 - Cap | acity a | nd Level | of Serv | vice | | |
| | | _ | - | | | | g+b1 | |

| | Eastb | ound | ınd Westbou | | Northbo | | | bound |
|--------------------|-------|------|-------------|-----------|----------|----|------|-------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate | 18 | | 13 | | | | 18 | |
| Service Time | 2.2 | | 2.1 | | | | 1.5 | |
| Utilization, x | 0.02 | | 0.01 | | | | 0.02 | |
| Dep. headway, hd | 4.19 | | 4.08 | | | | 3.54 | |
| Capacity | 268 | | 263 | | | | 268 | |
| Delay | 7.28 | | 7.14 | | | | 6.60 | |
| LOS | Α | | A | | | | A | |
| Approach: | | | | | | | | |
| Delay | 7 | .28 | 7 | 1.14 | | | | 6.60 |
| LOS | A | | P | - | | | | A |
| Intersection Delay | 6.99 | | Inte | ersection | on LOS A | | | |

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS_____

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009
Analysis Time Period: PEAK PM HOUR

Intersection: GRACEMERE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 NO-BUILD VOLUMES

Project ID: 1457PMNB9

East/West Street: GRACEMERE ROAD North/South Street: EMERALD WOODS

Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | Ea | astbou | and | Westbound | | und | N | orthb | ound | S | I | | |
|------------|--------|---------|-----|---------------|---------|-----|-----|---------|------|-----|---------|----|---|
| | L | ${f T}$ | R | L | ${f T}$ | R | L | ${f T}$ | R | l L | ${f T}$ | R | |
| | 1 | | | i | | | 1 | | | 1 | | | |
| Volume | 123 | 13 | 0 | i | 6 | 1 | i 0 | 0 | 0 | 1 | 0 | 15 | 1 |
| o mbassa T | oft To | | | | | | | | | | | | |

% Thrus Left Lane

| | Eastb | ound | West | bound | Northl | oound | Southbound | | |
|-------------------|-------|------|------|-------|--------|-------|------------|----|--|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 | |
| Configuration | LT | | TR | | | | LR | | |
| PHF | 0.90 | | 0.90 | | | | 0.90 | | |
| Flow Rate | 39 | | 7 | | | | 17 | | |
| % Heavy Veh | 10 | | 10 | | | | 10 | | |
| No. Lanes | 1 | | | 1 | | | | 1 | |
| Opposing-Lanes | 1 | | | 1 | | | | 0 | |
| Conflicting-lanes | 1 | | | 1 | | | | 1 | |
| Geometry group | 1 | | | 1 | | | | 1 | |
| Duration, T 0.25 | hrs. | | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | West | bound | Northbo | ound | | nbound |
|--------------------|-----------|-----|------|-------|---------|------|-----|------------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L 2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 39 | | 7 | | | | 17 | |
| Left-Turn | 25 | | 0 | | | | 1 | |
| Right-Turn | 0 | | 1 | | | | 16 | |
| Prop. Left-Turns | 0.6 | | 0.0 | | | | 0.1 | |
| Prop. Right-Turns | 0.0 | | 0.1 | | | | 0.9 | |
| Prop. Heavy Vehicl | e0.1 | | 0.1 | | | | 0.1 | |
| Geometry Group | 1 | | | 1 | | | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | 0 | . 2 | | 0.2 | | | | 0.2 |

| Worksheet | Δ | | Denarture | Headway | and | Service | Time | |
|-----------|---|---|-----------|---------|-----|---------|-------|--|
| MOTVDHEEL | 4 | _ | Departure | пеациач | anu | DGTATCE | TTIME | |

| | Eastbound | | West | oound | North | oound | South | oound |
|-------------------|-----------|------|------|-------|------------|-------|-------|-------|
| | L1 | L2 | L1 | L2 | $_{ m L1}$ | L2 | L1 | L2 |
| Flow rate | 39 | | 7 | | | | 17 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| x, initial | 0.03 | | 0.01 | | | | 0.02 | |
| hd, final value | 4.24 | | 4.06 | | | | 3.62 | |
| x, final value | 0.05 | | 0.01 | | | | 0.02 | |
| Move-up time, m | | 2.0 | 2 | 2.0 | | | 2 | 2.0 |
| Service Time | 2.2 | | 2.1 | | | | 1.6 | |

Worksheet 5 - Capacity and Level of Service_____

| | East | bound | nd Westboun | | d Northboun | | South | nbound |
|--------------------|------|-------|-------------|-----------|-------------|----|-------|--------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate | 39 | | 7 | | | | 17 | |
| Service Time | 2.2 | | 2.1 | | | | 1.6 | |
| Utilization, x | 0.05 | | 0.01 | | | | 0.02 | |
| Dep. headway, hd | 4.24 | | 4.06 | | | | 3.62 | |
| Capacity | 289 | | 257 | | | | 267 | |
| Delay | 7.44 | | 7.09 | | | | 6.68 | |
| LOS | A | | Α | | | | Α | |
| Approach: | | | | | | | | |
| Delay | | 7.44 | | 7.09 | | | | 6.68 |
| LOS | | A | | A | | | | A |
| Intersection Delay | 7.20 | | In | tersectio | n LOS A | | | |

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS_____

Analyst: Agency/Co.:

APF

Agency/Co.: JCE
Date Performed: 9/11/2009

Analysis Time Period: PEAK AM HOUR

Intersection:

GRACEMERE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457AMBD9

East/West Street: GRACEMERE ROAD

North/South Street: EMERALD WOODS

Worksheet 2 - Volume Adjustments and Site Characteristics

| | E | Eastbound | | ınd Westbound | | N | orthb | ound | l S | Southbound | | | |
|-------------|----------|-----------|---|-----------------|---------|---|-------|---------|-----|------------|---|----|---|
| | L | ${f T}$ | R | L | ${f T}$ | R | L | ${f T}$ | R | L | T | R | |
| _ | <u> </u> | | | | | | | | | | | | 1 |
| Volume | 17 | 11 | 0 | 10 | 14 | | 10 | 0 | 0 | [0 | 0 | 17 | |
| O The serve | TALL T. | | | | | | | | | | | | |

% Thrus Left Lane

| | Eastbound | Westbound | Northbound | Southbound | |
|-------------------|-----------|-----------|------------|------------|--|
| | L1 L2 | L1 L2 | L1 L2 | L1 L2 | |
| Configuration | LT | TR | | LR | |
| PHF | 0.90 | 0.90 | | 0.90 | |
| Flow Rate | 19 | 16 | | 18 | |
| % Heavy Veh | 10 | 10 | | 10 | |
| No. Lanes | 1 | 1 | | 1 | |
| Opposing-Lanes | 1 | 1 | | 0 | |
| Conflicting-lanes | 1 | 1 | | 1 | |
| Geometry group | 1 | 1 | | 1 | |
| Duration, T 0.25 | hrs. | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet_____

| | Eastbound | | Westbound | | Northbound | | Southbound | |
|--------------------|-----------|-----|-----------|-----|------------|----|------------|-------------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | 1 .2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 19 | | 16 | | | | 18 | |
| Left-Turn | 7 | | 0 | | | | 0 | |
| Right-Turn | 0 | | 1 | | | | 18 | |
| Prop. Left-Turns | 0.4 | | 0.0 | | | | 0.0 | |
| Prop. Right-Turns | | | 0.1 | | | | 1.0 | |
| Prop. Heavy Vehicl | e0.1 | | 0.1 | | | | 0.1 | |
| Geometry Group | 1 | | 1 | • | | | | 1 |
| Adjustments Exhibi | t 17-33 | : | | | | | | |
| hLT-adj | 0 | . 2 | C |).2 | | | | 0.2 |

__Worksheet 4 - Departure Headway and Service Time_____

| | Eastbound | | West | oound | North) | oound | Southbound | | |
|---|------------------------------|------|------------------------------|-------|--------|-------|------------------------------|------|--|
| Flow rate | L1 19 | L2 | L1 16 | L2 | L1 | L2 | L1 18 | L2 | |
| hd, initial value x, initial hd, final value x, final value | 3.20 0.02 4.19 0.02 | 3.20 | 3.20 0.01 4.09 0.02 | 3.20 | 3.20 | 3.20 | 3.20 0.02 3.55 0.02 | 3.20 | |
| Move-up time, m Service Time | 2.2 | 2.0 | 2.1 | 2.0 | | | | 2.0 | |

_Worksheet 5 - Capacity and Level of Service

| | Eastb | ound | Westh | ound | North | oound | Southb | ound |
|--------------------|-------|------|-------|----------|---------|-------|--------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate | 19 | | 16 | | | | 18 | |
| Service Time | 2.2 | | 2.1 | | | | 1.5 | |
| Utilization, x | 0.02 | | 0.02 | | | | 0.02 | |
| Dep. headway, hd | 4.19 | | 4.09 | | | | 3.55 | |
| Capacity | 269 | | 266 | | | | 268 | |
| Delay | 7.29 | | 7.16 | | | | 6.61 | |
| LOS | Α | | Α | | | | А | |
| Approach: | | | | | | | | |
| Delay | 7 | .29 | 7 | .16 | | | 6 | .61 |
| LOS | A | | P | 1 | | | A | L |
| Intersection Delay | 7.02 | | Inte | ersectio | n LOS A | | | |

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: APF Agency/Co.: JCE

Date Performed: 9/11/2009 Analysis Time Period: PEAK PM HOUR

Intersection: GRACEMERE & EMERALD WOODS

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2014/2015 BUILD VOLUMES

Project ID: 1457PMBD9

East/West Street: GRACEMERE ROAD North/South Street: EMERALD WOODS

Worksheet 2 - Volume Adjustments and Site Characteristics_____

| | E | astbou | ınd | W | estbo | und | l N | orthb | ound | S | outhb | ound | ļ |
|--------|---------|---------|-----|-----|-------|-----|-----|---------|------|-------------|-------|------|---|
| | L | ${f T}$ | R | L | T | R | L | ${f T}$ | R | L | T | R | į |
| | <u></u> | | | - 1 | | | 1 | | | - 1 | | | į |
| Volume | 123 | 18 | 0 | 10 | 8 | 1 | 10 | 0 | 0 | <u> </u> 1 | 0 | 15 | { |

% Thrus Left Lane

| | Eastb | ound | Westb | ound | Northb | oound | Southb | ound |
|-------------------|-------|------|-------|------|--------|-------|--------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Configuration | LT | | TR | | | | LR | |
| PHF | 0.90 | | 0.90 | | | | 0.90 | |
| Flow Rate | 45 | | 9 | | | | 17 | |
| % Heavy Veh | 10 | | 10 | | | | 10 | |
| No. Lanes | 1 | | 1 | | | | 1 | |
| Opposing-Lanes | 1 | | 1 | | | | 0 | |
| Conflicting-lanes | 1 | | 1 | | | | 1 | |
| Geometry group | 1 | | 1 | | | | 1 | |
| Duration, T 0.25 | hrs. | | | | | | | |

Worksheet 3 - Saturation Headway Adjustment Worksheet

| | Eastl | oound | Wes | tbound | Northb | ound | Southb | ound |
|---------------------|---------|-------|-----|--------|--------|------|--------|------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rates: | | | | | | | | |
| Total in Lane | 45 | | 9 | | | | 17 | |
| Left-Turn | 25 | | 0 | | | | 1 | |
| Right-Turn | 0 | | 1 | | | | 16 | |
| Prop. Left-Turns | 0.6 | | 0.0 | | | | 0.1 | |
| Prop. Right-Turns | 0.0 | | 0.1 | | | | 0.9 | |
| Prop. Heavy Vehicle | e0.1 | | 0.1 | | | | 0.1 | |
| Geometry Group |] | _ | | 1 | | | 1 | |
| Adjustments Exhibit | t 17-33 | 3: | | | | | | |
| hLT-adj | (| .2 | | 0.2 | | | 0 | .2 |

| Worksheet | 4 | _ | Departure | Headway | and | Service | Time |
|-----------|---|---|-----------|---------|-----|---------|------|
|-----------|---|---|-----------|---------|-----|---------|------|

| | East | bound | West | oound | North | oound | South | oound |
|-------------------|------|-------|------|-------|-------|-------|-------|-------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow rate | 45 | | 9 | | | | 17 | |
| hd, initial value | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3,20 |
| x, initial | 0.04 | | 0.01 | | | | 0.02 | |
| hd, final value | 4.22 | | 4.08 | | | | 3.64 | |
| x, final value | 0.05 | | 0.01 | | | | 0.02 | |
| Move-up time, m | | 2.0 | , | 2.0 | | | 2 | 2.0 |
| Service Time | 2.2 | | 2.1 | | | | 1.6 | |

_Worksheet 5 - Capacity and Level of Service_____

| | East | bound | West] | oound | Northb | ound | Southl | oound |
|---|--|-----------|---|------------------------|---------|------|--|-----------|
| | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
| Flow Rate Service Time Utilization, x Dep. headway, hd Capacity Delay | 45 2.2 0.05 4.22 295 7.46 | | 9 2.1 0.01 4.08 259 7.12 | | · | | 17 1.6 0.02 3.64 267 6.70 | |
| LOS Approach: Delay LOS Intersection Delay | A | 7.46 A | A . | 7.12 A ersection | n LOS A | | A | 5.70 A |

APPENDIX "E" SHELDON AVENUE - ACCIDENT DATA

Page: 1

Accident Location Information System (ALIS)

Accident Verbal Description Report

SHELDON AVE

Data in this report covers the period Jan 01, 2007 - Jan 31, 2009

Complete Accident data from NVSDMV is only available thru 1/31/2009

Street: SHELDON AVE County: Westchester Muni: Tarrytown(V) Ref. Marker: AT INTERSECTION WITH E MEADOW ST

Persons Killed: 0

12/8/2007

Persons Injured: 0 Accident Class: PROPERTY DAMAGE

Type Of Accident: COLL. WILIGHT SUPPORT/UTILITY POLE

Road Surface Condition: UNKNOWN Loc. of Ped/Bicycle: NOT APPLICABLE Manner of Collision: OTHER

Veh:1

Action of Ped/Bicycle: NOT APPLICABLE Registered Weight: 2388 CAR/VAN/PICKUP

Public Property Damage: N Driver's Age: 35 Direction of Travel: UNKNOWN Num of Occupants: 1

Apparent Factors: UNKNOWN, UNKNOWN Pre-Accd Action: UNKNOWN

Street: SHELDON AVE County: Westchester Muni: Tarrytown(V) Ref. Marker:

Persons Killed: 0 21 Meters East of CHESTNUT AVE Mon 19:08 PM 4/14/2008

Accident Class: PROPERTY DAMAGE AND INJURY

Persons Injured: 1

ype Of Accident: COLLISION WITH MOTOR VEHICLE

Manner of Collision: RIGHT ANGLE

Road Surface Condition: DRY

Road Char.: STRAIGHT/ GRADE Loc. of Ped/Bicycle: NOT APPLICABLE

Driver's Age: 108 Registered Weight: Num of Occupants: 1 CAR/VAN/PICKUP

Public Property Damage: N

Pre-Accd Action: GOING STRAIGHT AHEAD

Direction of Travel: EAST

Veh:1

Apparent Factors: UNKNOWN, UNKNOWN

Driver's Age: 17 Registered Weight: 2991 CAR/VAN/PICKUP Veh:2

Direction of Travel: SOUTH Num of Occupants: 1

Pre-Accd Action: BACKING

Apparent Factors: UNKNOWN, UNKNOWN

Police Agency:

Extent of Injuries:

Case: 2007-32450138 Num of Veh: 1 Traffic Control: UNKNOWN

Light Condition: UNKNOWN Weather: UNKNOWN Road Char.: UNKNOWN

Citation Issued: N State of Registration: NY Sex: F

School Bus Involved: N

Num of Veh: 2 Case: 2008-32581848 Extent of Injuries: B Police Agency:

Traffic Control: STOP SIGN Weather: CLEAR

Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE

Citation Issued: N State of Registration: NY Sex: M School Bus Involved: N

Citation Issued: N State of Registration: NY Sex: M School Bus Involved: N

Public Property Damage: N

APPENDIX "F" OTHER DEVELOPMENT TRAFFIC TABLE

OTHER DEVELOPMENT TRAFFIC TABLE

| EMERALD WOODS (JARDIM ESTATES WEST) | | | | | | | |
|-------------------------------------|-------|------|-------|--|--|--|--|
| 15 SINGLE FAMILY HOMES | ENTRY | EXIT | TOTAL | | | | |
| PEAK AM HIGHWAY HOUR | 3 | 11 | 14 | | | | |
| PEAK PM HIGHWAY HOUR | 12 | 7 | 19 | | | | |

| AVALON GREEN II | | | | | | |
|----------------------|-------|------|-------|--|--|--|
| 444 DWELLING UNITS | ENTRY | EXIT | TOTAL | | | |
| PEAK AM HIGHWAY HOUR | 88 | 163 | 251 | | | |
| PEAK PM HIGHWAY HOUR | 163 | 88 | 251 | | | |

| 600 TARRYTOWN ROAD | | | | | | |
|---------------------------------------|-------|------|-------|--|--|--|
| 250,000 s.f. OF APPROVED OFFICE SPACE | ENTRY | EXIT | TOTAL | | | |
| PEAK AM HIGHWAY HOUR | 310 | 62 | 372 | | | |
| PEAK PM HIGHWAY HOUR | 62 | 310 | 372 | | | |

APPENDIX "G" COMPARISON OF ITE TRIP RATES & ACTUAL TRAFFIC VOLUMES AT VARIOUS SUBDIVISIONS

Single-Family Detached Housing

(210)

Average Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

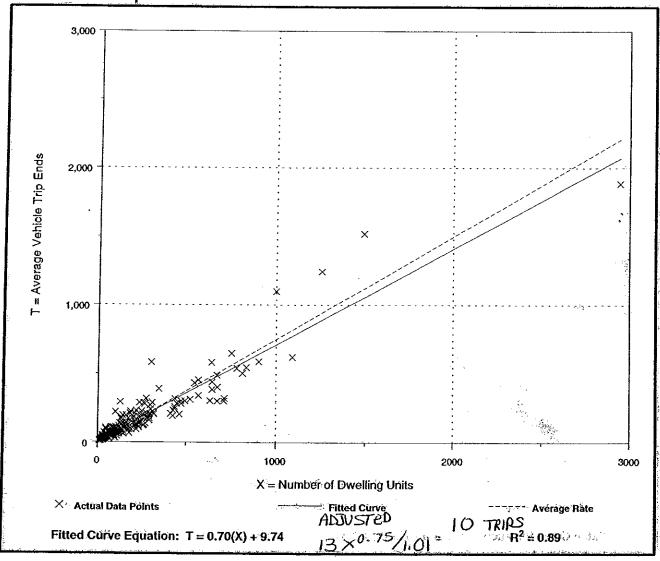
Number of Studies: 286 Avg. Number of Dwelling Units: 194

Directional Distribution: 25% entering, 75% exiting

Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| (0,75) | 0.33 - 2.27 | 0.90 |





Single-Family Detached Housing

(210)

Average Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Number of Studies: 314

208

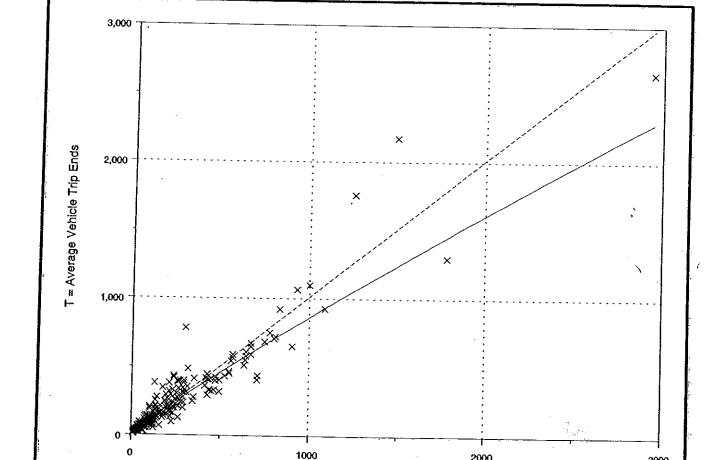
Avg. Number of Dwelling Units:

Directional Distribution: 63% entering, 37% exiting

Trip Generation per Dwelling Unit

Data Plot and Equation

| | - | |
|--------------|----------------|--------------------|
| Average Rate | Range of Rates | Standard Deviation |
| (1.01) | 0.42 - 2.98 | 1.05 |



X Actual Data Points

Fitted Curve Equation: Ln(T) = 0.90 Ln(X) + 0.51

X = Number of Dwelling Units

Fitted Curve

- Average Rate

 $R^2 = 0.91$

3000

2000

13 TRIPS

Comparison of Institute of Transportation Engineers Formula with Actual Traffic Volumes at various Subdivisions

Topland Drive, White Plains -7 new four-bedroom, two-car-garage homes in mature middle class neighborhood

Peak AM Highway Hour (8:15 to 9:15 a.m.) Peak PM Highway Hour (4:45 to 5:45 p.m.)

ITE 14 10 Actual 8 12

ITE projections were, on average, 20% higher than actual observed volumes.

Indian Mill Road, Greenwich -Twelve, thirty-year-old in mature upper-middle class neighborhood

Peak AM Highway Hour (8:00 to 9:00 a.m.) Peak PM Highway Hour (5:00 to 6:00 p.m.)

ITE 18 16 Actual 16 9

ITE projections were, on average, 36% higher than actual observed volumes.

Roundabend Road & Wagon Circle, Tarrytown -23 homes in mature middle class neighborhood

Peak AM Highway Hour (7:45 to 8:45 a.m.) Peak PM Highway Hour

ITE 26 Not Available Actual 19 Not Available

ITE projections were, on average, 37% higher than actual observed volumes.

Dogwood Lane, Irvington -20 homes in mature middle class neighborhood

Peak AM Highway Hour (7:45 to 8:45 a.m.) Peak PM Highway Hour

ITE 23 Not Available Actual 14 Not Available

ITE projections were, on average, 64% higher than actual observed volumes.

Legend Hollow, Irvington -19 new homes in upper class neighborhood

Peak AM Highway Hour (7:45 to 8:45 a.m.) Peak PM Highway Hour

ITE Not Available Actual 18 Not Available

ITE projections were, on average, 28% higher than actual observed volumes.

> As can be seen from the above analysis, the Institute of Transportation Engineers "Trip Generation" Manual consistantly over estimates the number of trips that are generated by small residential developments.

Jardim Estates WEST (EMERALD WOODS)

Peak AM Highway Hour Peak PM Highway Hour

(15 Homes) ITE 20 19 Modified ITE* 14 Na Surveys 14 17

* (ITE Peak PM Hour Trips for 15 homes / ITE Peak PM Hour average trip rate x ITE Peak AM Hour average rate, 11/1.01*.75=14) NA, Not Available Na, Not Applicable Note the Bold Values above were used for analysis purposes.

| | | : |
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APPENDIX "H" SCHOOL BUS ROUTE INFORMATION

ARDSLEY-DOBBS FERRY-HASTINGS-IRVINGTON

SW BOCES Transportation Consortium
40 N. Broadway
1rvington, NY 10533
914-591-3052
fax: 914-591-4035

September 9, 2009

Andrew P. Fish
John Collins Engineers, P.C.
11 Bradhurst Ave
Hawthorne, NY 10532

Dear Mr. Fish:

Regarding your request of August 27 for information about school buses from Irvington UFSD in the Sheldon Ave. area of Tarrytown, the district sends four big buses through the Sheldon neighborhood each school morning between approximately 7:00 and 8:30 and five buses between 2:30 and 4:30 each afternoon. The buses stop at about every other side street along Sheldon, Browning, Walnut, Lincoln and Meadow.

In addition, about five small school vans make pick ups and drop offs at the homes of out-of-district students in the Sheldon Ave neighborhood during these same hours.

If further information is needed, please contact me again.

Sincerely,

Douglas Carter

Coordinator of Transportation

c: James Reese, Ass't Sup't for Business, Irvington UFSD Cheryl Fitzgibbons, Dir. of Transportation, SW BOCES

Fish

| | | : |
|--|--|-------------|
| | | : - - |
| | | |
| | | |
| | | |

APPENDIX "I" PEDESTRIAN/BICYCLE ACTIVITY

| | · | | |
|--|---|--|--|
| | | | |

TABLE NO. 2

PEDESTRIAN / BICYCLE ACTIVITY ALONG EMERALD WOODS, GRACEMERE ROAD, BROWNING LANE AND SHELDON AVENUE

| | EMERALD WOODS | GRACEMERE ROAD | BROWNING LANE | SHELDON AVENUE |
|---------------------|--|--|--|--|
| TIME PERIOD | (Between Sheldon Avenue & Gracemere Road) | (Between Emerald Woods & Browning Lane/Lake Drive) | Voods & Browning Lane/Lake Drive) (Between Gracemere Road/Lake Drive & Sheldon Avenue) | (Between Browning Lane & Emerald Woods) |
| 7:00 AM - 7:30 AM | 0 | 0 | 0 | 0 |
| 7:30 AM - 8:00 AM | | 2 | 0 | 0 |
| 8:00 AM - 8:30 AM | 0 | 0 | 2 | 3+1 |
| 8:30 AM - 9:00 AM | | 0 | 0 | 0 |
| 9:00 AM - 9:30 AM | 0 | 0 | | The state of the s |
| 9:30 AM - 10:00 AM | 0 | 0 | | 0 |
| 10:00 AM - 10:30 AM | 0 | က | 2 | 2 |
| 10:30 AM - 11:00 AM | 0 | 0 | 0 | 0 |
| 11:00 AM - 11:30 AM | 0 | 13 | 13 | |
| 11:30 AM - 12:00 PM | 0 | 0 | 0 | 0 |
| 12:00 PM - 12:30 PM | 0 | 0 | 0 | 0 |
| 12:30 PM - 1:00 PM | 0 | 0 | 0 | |
| 1:00 PM - 1:30 PM | 0 | 0 | 0 | ****** |
| 1:30 PM - 2:00 PM | 0 | 0 | 0 | 2 |
| 2:00 PM - 2:30 PM | 0 | 0 | 0 | 0 |
| 2:30 PM - 3:00 PM | 0 | 0 | 0 | 0 |
| 3:00 PM - 3:30 PM | 0 | 0 | 2 | 0 |
| 3:30 PM - 4:00 PM | 0 | | 0 | The second section of the section of the second section of the section of t |
| 4:00 PM - 4:30 PM | 0 | 2 | 0 | 4+1 |
| 4:30 PM - 5:00 PM | 0 | 0 | 2 | 0 |
| 5:00 PM - 5:30 PM | Annual designation of the second seco | 0 | 1 | 2 |
| 5:30 PM - 6:00 PM | 0 | - | 0 | - |
| 6:00 PM - 6:30 PM | The state of the s |) | 2 | က |
| 6:30 PM - 7:00 PM | The state of the s | 0 | 3 | |

PEDESTRIANS + BICYCLISTS

BASED ON PEDESTRIAN/BICYCLIST SURVEY CONDUCTED BY JOHN COLLINS ENGINEERS, P.C. ON JULY 15, 2009.

TABLE NO. 3

PEDESTRIAN / BICYCLE ACTIVITY AT BROWNING LANE/MEADOW STREET/SHELDON AVENUE

| | MEADOW STREET | BROWNING LANE | SHELDON AVENUE | SHELDON AVENUE |
|---------------------|---------------|---------------|----------------|---|
| TIME PERIOD | SOUTHBOUND | NORTHBOUND | EASTBOUND | WESTBOUND |
| 7:00 AM - 7:30 AM | 1 | 0 | | 2 |
| 7:30 AM - 8:00 AM | 2 | 1 | ~ | 2+2 |
| 8:00 AM - 8:30 AM | 0+2 | 1 | 2 | 0 |
| 8:30 AM - 9:00 AM | 0 | 0 | 0 | 0 |
| 9:00 AM - 9:30 AM | 1 | | 0 | *************************************** |
| 9:30 AM - 10:00 AM | 0 | 0 | 0 | |
| 10:00 AM - 10:30 AM | 0 | 1 | _ | Е |
| 10:30 AM - 11:00 AM | 0 | 0 | | 0 |
| 11:00 AM - 11:30 AM | 0 | 13 | 0 | 0 |
| 11:30 AM - 12:00 PM | Ó | 0 | 0 | 0 |
| 12:00 PM - 12:30 PM | 0 | Ô | 0 | 0 |
| 12:30 PM - 1:00 PM | 1 | 0 | | 0 |
| 1:00 PM - 1:30 PM | 2 | 0 | _ | _ |
| 1:30 PM - 2:00 PM | 0 | 4 | င | က |
| 2:00 PM - 2:30 PM | 0 | Ô | 0 | 0 |
| 2:30 PM - 3:00 PM | 0 | 0 | 0 | 0 |
| 3:00 PM - 3:30 PM | 0 | Ô | 2 | 0 |
| 3:30 PM - 4:00 PM | 1 | 0 | 0 | દ |
| 4:00 PM - 4:30 PM | 1+1 | 2 | 1 | 5 |
| 4:30 PM - 5:00 PM | 0+1 | 1+1 | 0 | Ö |
| 5:00 PM - 5:30 PM | | - | 2 | 1 |
| 5:30 PM - 6:00 PM | 2 | 0 | | 3 |
| 6:00 PM - 6:30 PM | 2 | 2 | 3 | ļ |
| 6:30 PM - 7:00 PM | • | 3 | 1 | 0 |

PEDESTRIANS + BICYCLISTS

BASED ON PEDESTRIAN/BICYCLIST SURVEY CONDUCTED BY JOHN COLLINS ENGINEERS, P.C. ON JULY 15, 2009.

TABLE NO. 4

PEDESTRIAN / BICYCLE ACTIVITY AT GRACEMERE ROAD/BROWNING LANE/LAKE DRIVE

| L L | GRACEMERE ROAD | BROWNING LANE | LAKE DRIVE |
|---------------------|----------------|---------------|------------|
| IIME PERIOD | EASTBOUND | SOUTHBOUND | WESTBOUND |
| 7:00 AM - 7:30 AM | 0 | 0 | 1 |
| 7:30 AM - 8:00 AM | 2 | 2 | 0 |
| 8:00 AM - 8:30 AM | 0 | 0 | 0 |
| 8:30 AM - 9:00 AM | 1 | 0 | 0 |
| 9:00 AM - 9:30 AM | 1 | 1 | 0 |
| 9:30 AM - 10:00 AM | 0 | 0 | 0 |
| 10:00 AM - 10:30 AM | ೯ | 0 | 0 |
| 10:30 AM - 11:00 AM | 0 | 0 | 0 |
| 11:00 AM - 11:30 AM | 13 | 0 | 0 |
| 11:30 AM - 12:00 PM | 0 | 0 | 0 |
| 12:00 PM - 12:30 PM | 0 | 0 | 0 |
| 12:30 PM - 1:00 PM | 0 | 0 | 0 |
| 1:00 PM - 1:30 PM | 0 | 0 | 0 |
| 1:30 PM - 2:00 PM | 0 | 0 | 0+1 |
| 2:00 PM - 2:30 PM | 0 | 0 | 0 |
| 2:30 PM - 3:00 PM | 0 | 0 | 0 |
| 3:00 PM - 3:30 PM | 0 | 1 | 0 |
| 3:30 PM - 4:00 PM | | 1 | _ |
| 4:00 PM - 4:30 PM | 2 | 0 | - |
| 4:30 PM - 5:00 PM | 0+1 | 0 | 0 |
| 5:00 PM - 5:30 PM | 0 | 1 | - |
| 5:30 PM - 6:00 PM | 1 | 0 | 0 |
| 6:00 PM - 6:30 PM | 1 | 1 | 0 |
| 6:30 PM - 7:00 PM | 0 | 1 | - |

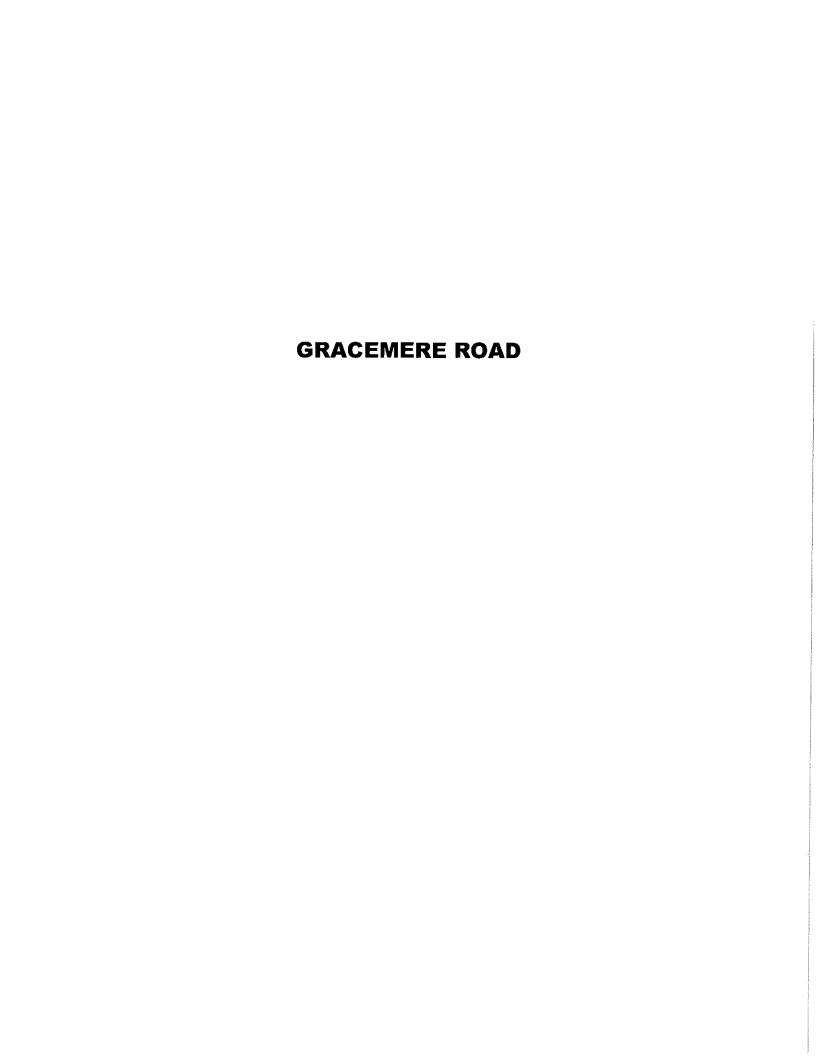
PEDESTRIANS + BICYCLISTS

BASED ON PEDESTRIAN/BICYCLIST SURVEY CONDUCTED BY JOHN COLLINS ENGINEERS, P.C. ON JULY 15, 2009.

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APPENDIX "J" ATR DATA OPERATING SPEEDS

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Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Site Code: 457000000222 Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

| Undefined | 95th | Percent | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 36 | 32 | 32 | 33 | 30 | 8 | 3 | 33 | | | | | |
|------------------------------|-------|--------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|--------------|-------|--------------|-------|-------------|-------|-------|-------|---------|---------|-------------|---|
| Latitude: 0' 0.000 Undefined | 85th | Percent | * | * | * | * | * | * | * | • | * | * | * | * | * | * | • | * | 35 | 29 | સ | 3 | 29 | 33 | 30 | 32 | | | | | |
| Latitude | | Total | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 29 | 24 | 17 | 17 | 4 | თ | 12 | 4 | 117 | | | 17:00 24 | |
| La | 4 | 666 | * | * | * | * | * | • | • | * | * | * | * | • | * | * | * | • | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | , | 0.9% | | 22:00 1 | |
| | 37 | 33 | * | * | * | * | * | * | * | * | * | * | • | ¥ | * | * | * | * | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1.7% | | 16:00 1 | |
| | 34 | 36 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | • | _ | 0 | 0 | τ- | 0 | | 0 | 0 | 3 | 2.6% | | 16:00 | |
| | 34 | 33 | * | * | * | * | * | • | * | * | * | * | * | * | * | * | * | , | က | 7 | 49 | ო | τ- | - | _ | ღ | 19 | 16.2% | | 18:00 | |
| | 788 | 30 | * | • | * | * | * | * | * | * | * | * | * | * | * | * | * | * | က | S. | - | - | ო | ო | _ | - | 18 | 15.4% | | 17:00 5 | |
| | 25 | 27 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | , | ٧ | - | ιΩ | IJ | 4 | ო | τ- | 0 | 26 | 22.2% | | 16:00 7 | |
| | 22 | 24 | * | • | * | * | * | * | * | * | * | * | • | *, | * | * | * | * | 7 | œ | 5 | 4 | 4 | - | 4 | | | 23.9% | | 17:00 8 | |
| | 19 | 21 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | - | - | - | - | 7 | Ö | 4 | | 10 | | | 22:00 4 | |
| | 16 | 2 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | τ- | ო | 0 | 7 | 0 | 0 | 0 | 0 | 9 | 5.1% | | 17:00 3 | |
| | 13 | 15 | * | * | * | * | * | * | * | ¥ | * | * | * | * | * | * | * | * | - | 7 | 0 | 0 | 0 | 0 | 0 | 0 | ဗ | 2.6% | | 17:00 2 | J |
| | 5 | 12 | * | * | * | * | * | *. | * | * | * | * | * | * | * | ŧ | * | , | 0 | . | 0 | 0 | 0 | 0 | 0 | 0 | 1 | %6.0 | | 17:00 | |
| | 7 | 6 | * | * , | * | • | * | * | * | * | * | * | * | * | * | | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0:0 | | | |
| | 4 | 9 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | Ö | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | |
| | 1 | 3 | * | * | * | * | * | • | * | • | * | * | * | * | * | | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0:0 | | | |
| EB, WB | Start | Time | 07/14/09 | 01:00 | 05:00 | 03:00 | 04:00 | 02:00 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | PM Peak | ; |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000222 Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

| 95th | Percent | 32 | 55 | * | 3 | 31 | * | 4 | 32 | င္က | 31 | 34 | င္က | 31 | ဗ္ဗ | 28 | 59 | 3 | 39 | 33 | 32 | ଚ | 22 | સ | 88 | | | | | |
|-----------|---------|----------|-------|-------|-------|------------|-------|-------|----------|-------|-------|--------------|----------------|-------|-------|-------|--------------|-------|--------------|--------------|--------------|----------|----------------|-------|----------|-------|---------|---------|-----|-----------------|
| 85th 95th | Percent | ઝ | 22 | * | સ | 9 | * | ဓ္ဌ | ઝ | 29 | 27 | ଚ | 59 | 8 | 59 | 27 | 27 | ဓ | 33 | 59 | ଚ | 58 | 22 | 26 | 37 | | | | | |
| | Total | 6 | - | 0 | 7 | ო | 0 | 80 | 13 | 13 | 7 | 7 | 1 9 | 5 | 2 | 23 | 9 | 17 | 5 0 | 4 | 8 | 19 | ღ | မ | 9 | 298 | | 00:60 | 21 | 17:90 26 |
| 8 | 666 | 0 | 0 | 0 | 0 | 0 | 0 | ~ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | o | - | - | 0 | 0 | 0 | 4 | 1.3% | 00:90 | 1 | 17:00 1 |
| 37 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | - | ~ | Ψ- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 7 | 9 | 2.0% | 00:90 | 1 | 23:00 2 |
| 8 | 98 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | | 0 | 7 | - | 0 | 0 | 0 | 0 | - | 9 | 2.0% | | | 17:00 2 |
| સ | 33 | 2 | 0 | 0 | _ | Ψ- | 0 | Ψ- | 7 | 0 | 7 | 7 | Ψ- | 7 | Ψ- | 0 | 0 | 7 | 2 | - | 7 | 0 | 0 | _ | Ö | 23 | 7.7% | 00:00 | 2 | 12:00 2 |
| 28 | ଚ | 0 | 0 | 0 | 0 | ~ - | 0 | α | 7 | 9 | 0 | - | Ŋ | 0 | 4 | 7 | 7 | 9 | ဖ | 4 | - | 2 | 0 | 0 | - | 48 | 16.1% | 08:00 | 9 | 16:00 6 |
| 25 | 27 | 4 | 0 | 0 | _ | 0 | 0 | N | 7 | က | တ | 4 | 4 | 7 | 4 | თ | თ | 2 | ဖ | 2 | 7 | Ŋ | τ- | N | _ | 85 | 28.5% | 00:60 | 6 | 14:00 9 |
| 22 | 24 | - | τ- | 0 | 0 | - | 0 | 0 | ധ | 9 | 4 | 7 | ဖ ့ | 9 | Ŋ | ဖ | 4 | 4 | 4 | ည | ဖ | 2 | - | ო | 0 | 73 | 24.5% | 08:00 | 9 | 12:00 6 |
| 19 | 21 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | α | 4 | N | N | ო | ო | _ | _ | 0 | ĸ | - | N | - | | 0 | - | 30 | 10.1% | 00:60 | 4 | 12:00 3 |
| 16 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | - | _ | 0 | _ | - | 0 | - | 7 | - | 0 | 0 | τ- | 0 | - | N | o [°] | 0 | 0 | 12 | 4.0% | 00:90 | 1 | 13:00 2 |
| 13 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ~ | _ | - | 0 | - | ~ | 0 | 0 | 0 | 0 | 0 | 2 | 1.7% | | | 13:00 1 |
| 10 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | o | o | 0 | Ö | છ | 1.0% | 11:00 | - | 14:00 2 |
| 7 | თ | 0 | 0 | Ö | 0 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | 0.3% | | | 14:00 1 |
| 4 | 9 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | o | O | o | o | o | o | 0 | O | 0 | 0 | 0 | 0 | 0 | %0:0 | | | |
| - 1 | ო | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.7% | 00:60 | 1 | 12:00 1 |
| Start | Тіле | 07/15/09 | 04:00 | 05:00 | 03:00 | 04:00 | 02:00 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | Vol | PM Peak Vol. |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

| GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE) Latitude: 0' 0.000 Undefined | 95th | Percent | 25 | 37 | * | * | 78 | 28 | 31 | 40 | 36 | 35 | 29 | 30 | 8 | 8 | 27 | 35 | 35 | 27 | ၉ | 33 | સ | 35 | 3 | 34 | | | | | |
|---|--------------|-----------|------------|----------|-------|-------|----------|-------|--------------|-------|-------|--------------|--------------|--------------|----------|------------|----------|-------|--------------|----------------|-------|--------------|-------|--------------|--------------|-------|-------|---------|----------------|----------|------|
| EMERALC BROWNII : 0' 0.000 | 85th | Percent | 24 | 37 | * | • | 28 | 78 | 56 | 53 | 53 | g | 78 | 83 | 28 | ଚ | 27 | 53 | జ | 27 | 83 | 8 | ၉ | સ | က် | 34 | | | | | |
| AND WEST OF BROWNING LANE Latitude: 0' 0.000 Undefine | | Total | 4 | - | 0 | 0 | - | - | 4 | 7 | 23 | 18 | ∞ | 73 | 9 | Ξ | 33 | 54 | 8 | 24 | 13 | ∞ | œ | 11 | ო | က | 251 | | 08:00 | 15.00 | 3 |
| 2 | 40 | 666 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ψ- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.8% | 02:00 | 16:00 | 3. |
| | 37 | 39 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | τ- | , | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1.2% | 01:00 | - | |
| | 34 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | τ- | 7 | 0 | 0 | 0 | - | _ | 0 | 7 | 0 | 0 | - | 0 | - | 0 | 1 | 10 | 4.0% | 00:60 C | 18:00 | 3 |
| | स्र ह | 33 | 0 | 0 | 0 | | 0 | 0 | - | 0 | ~ | 7 | 0 | - | 0 | _ | 0 | ٣ | ო | 0 | _ | - | _ | 7 | Ψ- | ₩. | 19 | 7.6% | 00:60 00:60 | 15:00 | 20.5 |
| | 8 8 | တ္က | 0 | 0 | 0 | 0 | - | - | 0 | 2 | ιΩ | ო | 8 | 4 | ო | - | 0 | ო | - | _ | S | ო | - | - | 0 | 0 | 37 | 14.7% | 08:00 '' | 0 60 | 000 |
| | 3 22 | 17. | ~ | 0 | 0 | 0 | 0 | 0 | 2 | τ- | တ | 4 | က | 2 | 0 | က | တ | ω | Ð | o o | 2 | ς. | ო | ო | Ψ- | 0 | 70 | 27.9% | 08:00 00:30 | 14.00 | 5.5 |
| | 5 5 | 74 | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | က | - | 7 | - | • | 4 | œ | 4 | 4 | 0 | ς. | 7 | 7 | 0 | 0 | 42 | 16.7% | 08:00 | 15:00 | 3 |
| , | <u>0</u> 2 | 17 | _ | 0 | 0 | 0 | 0 | 0 | 0 | • | 7 | 7 | ~ | 0 | 4 | 0 ! | 7 | 2 | 7 | 4 | 4 | ო | τ- | - | - | - | 37 | 14.7% | 08:00 | 14.00 | 3 |
| Ç | <u>5</u> | 9 | 5 | 0 | 0 | 0 | 0 | o . | 0 | • | 7 | 0 | 0 | α | 0 | 7 1 | | ó | 0 | - | - | 0 | 0 | • | 0 | 0 | 11 | 4.4% | 08:00 | 13:00 | 3 |
| 5 | र्ध प | <u>ri</u> | o (| 0 | 0 | 0 | 0 | 0 | 0 | ₹~ ' | ₹- | τ- | . | 7 | 0 | 0 , | _ | 0 | - | - | 0 | 0 | Ö | 0. | 0 | ٥ | 6 | 3.6% | 11:90 | 14:00 | 3 |
| | 5 t | 7 | 5 (| 0 | 0 | 0 | 0 | 0 | <u>.</u> | 0 | 0 | 0 | 0 | 0 | 0 | τ. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ٥ | 2 | 0.8% | 06:00 1 | 13:00 | 3 |
| | ~ 0 | 0 |) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 (| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ٥ | 0 | %0.0 | | | |
| • | 4 α | | ه د | 0 | 0 | 0 | 0 | 0 | 0 (| 0 | 0 | 0 (| 0 | 0, | 0 | 0 (| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | |
| - | — · (r |) - | - (| ٥, | 0 | 0 | 0 | 0 (| o (| 0 | m (| o (| 0 | 0 | 7 | - (|) | 0 | - | . ' | 0 | 0 | 0 | 0 | 0 | 0 | თ | 3.6% | 08:00 08:00 | 12:00 | 3 |
| ticto | Jime Time | 07/46/00 | 60/03 | 01:00 | 02:00 | 03:00 | 04:00 | 02:00 | 06:00 | 00:70 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | DIM Dook | יייי |

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000222

Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

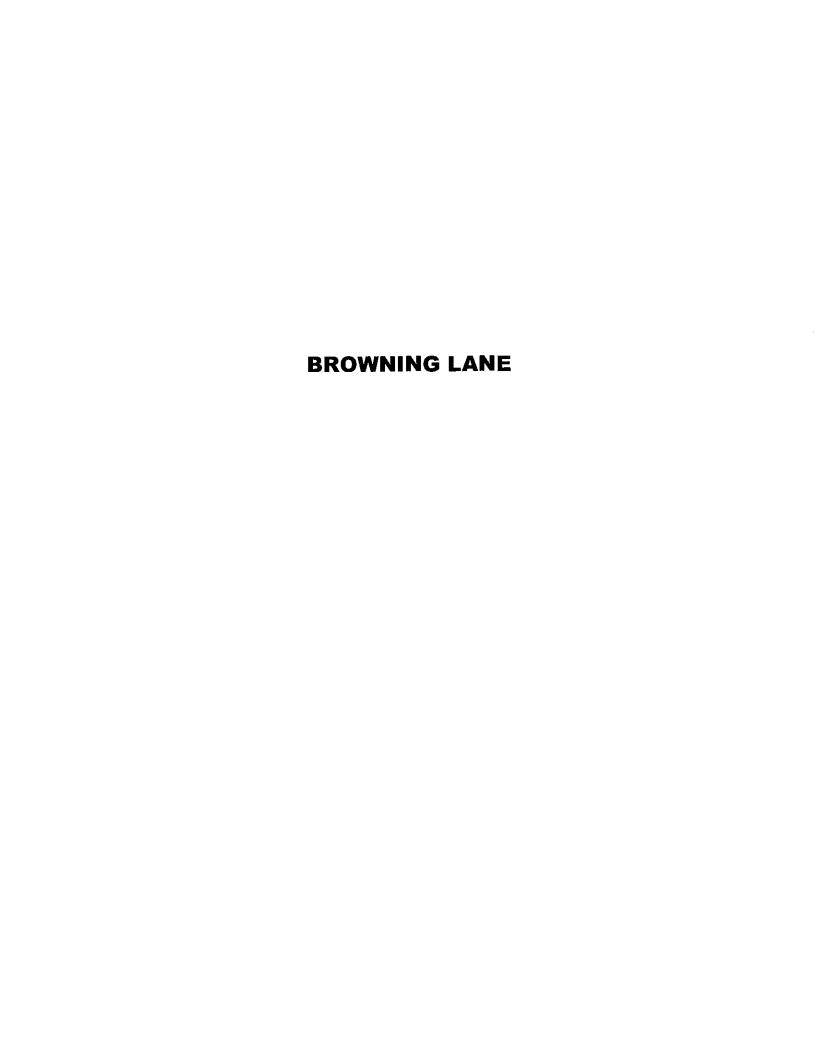
| Judefined | 95th | Percent | 35 | 31 | * | * | 22 | 1* | 3 | - e | 3 6 | 3 6 | 37 | 3. | 5 * | * | * | * | * | * | * | • | * | * | * | * | | | | | | | | |
|------------------------------|---------------|---------|---------|--------------|------------|-------|-------|-------|----------|----------------|----------------|----------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|---------|------------|---------|------|----------------|---------|--|
| Latitude: 0' 0.000 Undefined | 85th | Percent | 34 | 33 | * | * | 2 | * | 8 | 5 8 | 3 2 | 5 E | 8 8 | ě | * | * | * | * | * | * | * | * | * | * | * | * | | | | | | | | |
| Latitude | | Total | 7 | 7 | 0 | 0 | • | . 0 | , , | 1 1 | ÷ | - 4 | 1 | 5 | * | * | * | * | * | * | * | * | * | * | * | * | 8 | | 11:00 | 7 | | 747 | | |
| 2 | 40 | 666 | 0 | 0 | 0 | 0 | 0 | 0 | · c |) C | o c | o c | 0 | C | * | * | * | * | * | * | * | * | * | * | * | * | 0 | %0.0 | | | | 7 | %6.0 | |
| | 37 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | c | · c | · | - c | ~ ~1 | ٥. | * | * | * | * | * | * | * | * | * | * | * | * | 5 | 6.2% | 10:00 | 1 | | 16 | 2.1% | |
| | ᄷ | 98 | 2 | 0 | 0 | 0 | 0 | 0 | o | 0 | 0 | · - | - | 0 | * | * | * | * | * | * | * | * | • | * | * | * | 4 | 4.9% | 00:00 | 4 | | 23 | 3.1% | |
| | 31 | 33 | 0 | ٣- | 0 | 0 | 0 | 0 | • | . 0 | 0 | ٠. | · 173 | 8 | * | * | * | * | * | * | * | * | * | * | * | * | 5 | 12.3% | 10:00 | , | | 74 | 9.5% | |
| | 28 | 30 | ო | 0 | 0 | 0 | 0 | o | 0 | m | 2 | 140 | 4 | 7 | * | * | * | * | * | * | * | * | * | * | * | * | | | 00:60 | , | | 122 | 16.3% | |
| | 25 | 27 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | ı 4 | 4 | 4 | 10 | * | * | * | * | * | * | * | * | ¥ | * | * | * | | | 11:00 | | | 202 | 27.0% | |
| | 8 | 24 | 0 | - | 0 | 0 | _ | 0 | 0 | 0 | 7 | 7 | 0 | g | * | * | * | * | * | * | * | 4 | * | * | * | * | 12 | 14.8% | 11:00 6 | | | 155 | 20.7% | |
| | <u>დ</u> | 21 | 0 | ٥. | o | 0 | 0 | 0 | 0 | Ψ- | 0 | 0 | • | 0 | * | * | * | * | * | * | * | * | * | * | * | * | 2 | 2.5% | 07:00 | | | 79 | 10.6% | |
| | 9 : | 18 | 0 | 0 | 0 | 0 | o | 0 | - | · - | 0 | . | | 7 | * | ٠ | • | * | * | * | * | * | * | * | * | * | 7 | 8.6% | 10:00 | | | 36 | 4.8% | |
| ļ | 13 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | * | ŧ | * | 0 | %0.0 | | | | 17 | 2.3% | 20 MPH 25 MPH 31 MPH 35 MPH |
| | 10 | 12 | 0 (| 0 (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ψ- | * | * | * | * | * | * | * | * | * | * | * | * | ,_ | 1.2% | 11:00 | - | | 7 | %6.0 | |
| [| <u> </u> | o (| 0 (| 5 (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | ¥ | * | * | 0 | %0.0 | | | | 1 | 0.1% | 15th Percentile: 50th Percentile: 85th Percentile: 95th Percentile: |
| | 4 (| و | ۰ د |) | o (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | * | * | * | 0 | %0.0 | | | | 0 | %0.0 | 15H 50H 85H |
| | | n (| 0 (| 5 (| 5 (| 0 (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | * | * | * | * | * | * | * | * | * | * | * | 0 | %0:0 | | | | 7 | 1.5% | |
| EB, WB | otart High | I'Me | 80/1//0 | 00.00 | 02:00 | 03:00 | 04:00 | 02:00 | 06:00 | 00:20 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | PM Peak | Vol. | Grand Total | Percent | |

Statistics

21-30 MPH 506 67.7%

10 MPH Pace Speed:
Number in Pace:
Percent in Pace:
Number of Vehicles > 55 MPH:
Percent of Vehicles > 55 MPH:

0.9% 26 MPH Mean Speed(Average):



Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Site Code: 45700000333 Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| 07/14/09 * 01:00 * | 40 | 6 | 1 12 | 13 15 | 5 8 | 2 19 | 2 % | 25 27 | 30 88 | | 33 | | 31 34 33 36 | 33 | 31 34 37 33 36 39 9 | 31 34 37 40 33 36 39 999 |
|-----------------------|---|------|--------------|--------------|------------|-------|----------|----------|-------|----------|------|-----|----------------|-----------|------------------------|-----------------------------|
| 1.00 | * | * | * | * | * | * | * | * | * | | 8 | | * | * | ** | * * * |
| | * | * | * | * | * | * | * | * | * | | * | * | * | * | * | * * |
| 02:00 | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * | * * * * * |
| 13:00 | F. 1 | * 1 | * 1 | * 11 | • • | * • | * | * | * | | * | * | * | * * * * * | * * * * * | * * * * * * * |
| 04:00 | * * | * * | * * | * * | * * | * * | * * | * • | * * | | * 1 | * * | * 1 | * 1 | * 1 | * * * * * |
| * 00:9 | * | * | * | * | * | * | * | * | * | * | | * * | * * | x * | K * * | x * * |
| * 00:2 | *. | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * |
| ¥ 00:8 | * | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * * |
| ¥ 00:6 | * | * | * | * | * | * | * | * | * | * | | * | * | * * | * * | * * * * |
| 00:00 | * | * | * | * | * | * | * | * | * | * | | * | * | * | * * * | * * * |
| * 00:1 | * | * | * | * | * | * | * | * | * | * | | * | * | * | * | * * |
| * Wd. | * | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * |
| * | * | * | • | ŧ | * | * | * | * | * | * | | | * | * | * * | * * * |
| * 00: | * | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * |
| * 00:5 | * | * | * | * | * | * | * | * | * | * | | * | * | * | * * | * * |
| 6:00 1 | 0 | 0 | 0 | 7 | 9 | တ | 2 | 7 | - | 0 | | 0 | 0 | 0 0 | | 46 |
| 7:00 | Ö | 0 | _ | τ- | 9 | 18 | <u>£</u> | 2 | 7 | 0 | | 0 | 0 | 0 0 | | 47 |
| 9:00 | 0 | 0 | 0 | ~ | ო | 7 | ω | 5 | 0 | ~ | | 0 | 0 | 0 | 0 | 0 0 25 |
| 9:00 | 0 | 0 | - | 4 | ∞ | თ | တ | 7 | 7 | 0 | | 0 | 0 | | 0 | 0 |
| 0 | 0 | 0 | _ | τ- | œ | 7 | 6 | S | 7 | 0 | | 0 | 0 | 0 | 0 | 0 0 38 |
| 00 | 0 | 0 | Ψ- | ო | 7 | 5 | 4 | 7 | - | _ | | 0 | 0 | 0 | 0 | 0 0 25 |
| 2:00 0 | 0 | 0 | 0 | - | S | æ | 5 | 7 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 0 21 |
| 3:00 | 0 | 0 | 0 | 0 | - | 4 | 2 | 4 | 0 | 0 | | 0 | 0 0 | 0 | 0 0 | 0 0 11 |
| 4 | 0 | 0 | 4 | 13 | 39 | 71 | 71 | 37 | 8 | 2 | | 0 | 0 | 0 | 0 0 | 0 0 |
| Percent 1.6% 0. | %0.0 | %0.0 | 1.6% | 5.2% | 15.7% | 28.5% | 28.5% | 14.9% | 3.2% | 0.8% | 0.0% | % | %0.0 % | | %0.0 | %0.0 |
| Peak Vol. | | | | | | | | | | | | | | | | |
| PM Peak 16:00 | *************************************** | | 17:00 | 19:00 | 19:00 | 17:00 | 16:00 | 16:00 | 17:00 | 18:00 | | | | | 17:00 | 17:00 |
| Vol. | | | - | 4 | x | 22 | 70 | , | 7 | , | | | | | 47 | 47 |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000333 Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Indefined | 95th | Percent | 26 | 21 | : £ | 22.52 | 25 | 3 5 | 8 8 | 3 1 | 20 30 30 30 30 30 30 30 30 30 30 30 30 30 | 5 <u>6</u> | 24 | 27 | 27 | 56 | 59 | 59 | 25 | 28 | 27 | 28 | 25 | 56 | 78 | 56 | | | *************************************** | | | |
|---------------------------------------|------------|---------|----------|----------|-------|---------|----------|----------|-------|--------|--|------------|--------------|------------|-------|----------|-------|-------|----------|----------|-------|-------|-------|--------------|--------------|-------|-------|---------|---|------|------------|--------------|
| Latitude: 0' 0.000 Undefined | 85th | Percent | 25 | 21 | 22 | 55 | 25 | <u> </u> | 25 | 8 | 25 | 3 2 | 23 | 5 8 | 8 | 52 | 27 | 56 | 24 | 27 | 24 | 74 | 24 | 74 | 27 | 22 | | | | | | |
| Latitude | | Total | 5 | ო | 4 | 'n | ^ | i ru | 12 | 20. | 4 5 | 14 | 58 | 8 | 30 | 31 | 24 | 39 | 39 | 42 | 35 | 22 | 6 | 18 | 6 | 7 | 528 | | 08:00 | 42 | 17:00 | 42 |
| | 40 | 666 | o | o | 0 | 0 | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | 0 | 0 | 0 | o | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | | |
| | 37 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | | |
| | 34 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ψ. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | 0 | 0 | 0 | 0 | 0 | 7 | 0.4% | 08:00 | 1 | 18:00 | - - |
| | 31 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2% | | | 15:00 | - |
| | 28 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | က | 0 | τ- | _ | 7 | - | ო | 4 | 0 | ო | _ | 7 | 0 | 0 | _ | _ | 23 | 4.4% | 08:00 | က | 15:00 | 4 |
| | 25 | 27 | 4 | 0 | 0 | | - | o | ო | 7 | က | ∞ | 0 | 6 | 10 | ß | ∞ | ო | 4 | 13 | ო | 2 | 7 | ო | 4 | 7 | 95 | 18.0% | 11:00 | 6 | 17:00 | 5 |
| | 22 | 24 | 7 | 0 | 7 | _ | Ψ- | 0 | ო | Ŋ | 5 | 6 | 7 | 5 | 7 | 14 | 7 | 4 | 7 | 9 | 7 | 9 | 7 | 4 | 7 | 7 | 149 | 28.2% | 08:00 | 13 | 13:00 | 4 |
| | 19 | 21 | • | ო | • | τ- | 0 | 7 | 7 | ო | œ | 13 | 10 | 12 | 80 | Θ | ო | 7 | 13 | 7 | 15 | 7 | 5 | S | Ψ- | 7 | 136 | 25.8% | 00:60 | 13 | 16:00 | . |
| | 16 | 18 | N : | 0 | - | 0 | 0 | 0 | 7 | m | 3 | _ | φ | S. | ო | ო | 0 | თ | œ | 4 | 9 | ო | 4 | 7 | - | 0 | 82 | 15.5% | 08:00 | 13 | 15:00 | တ |
| | <u>რ</u> : | 15 | 0 1 | 0 | 0 | 0 | 0 | 7 | 7 | - | 0 | 4 | - | 7 | 0 | <u>,</u> | 8 | 0 | - | - | 7 | | Ψ- | - | 0 | 0 | 22 | 4.2% | 00:60 | 4 | 14:00 , | 2 |
| | ę ; | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ო | 0 | 0 | • | ~ | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 1.3% | 10:00 | က | 21:00 | 7 |
| | ~ ' | တ | 0 (| 0 | 0 | o | Ö | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | | |
| | 4 (| ۰ | 0 (| o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0, | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ö | 0 | 0 | 0 | %0:0 | | | | |
| , , , , , , , , , , , , , , , , , , , | ~-∙(| , n | - (| ο (| 0 | 0 | 0 | - | 0 | - | - | 0 | - | 0 | 0 | 0 | 0 | - | - | 0 | က | 0 | 0 | - | 0 | 0 | 11 | 2.1% | 00:00 | - | 18:00 | က |
| NB, SB | Start | I III e | 60/51//0 | 96 | 05:00 | 03:00 | 04:00 | 02:00 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | Vol. | PM Peak | \ <u>\</u> |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000333 Station ID: Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Jndefined | 95th | Percent | 22 | 27 | 28 | 28 | 23 | 22 | 52 | 24 | 27 | 29 | 58 | 73 | 27 | 3 | 88 | 30 | 27 | 28 | 27 | 30 | 31 | 5 8 | 27 | 24 | | | | | | |
|------------------------------|----------------|----------|----------------|------------|---------------|---------------|------------|--------------|-------|----------------|--------------|------------|--------------|-------|-------|------------|------------|-------|----------|--------------|-------|--------------|----------|------------|--------------|----------|-------|---------|---------|------|---------|------|
| Latitude: 0' 0.000 Undefined | 85th | Percent | 22 | 56 | 28 | 28 | 23 | 20 | ន | 22 | 25 | 27 | 25 | 56 | 53 | 27 | 5 9 | 27 | 24 | 5 8 | 53 | 92 | 92 | 24 | 5 6 | 23 | | | | | | |
| Latitude | | Total | 3 | 2 | ო | ო | 2 | ဖ | 9 | 19 | 43 | 45 | ጀ | 35 | 8 | 28 | 33 | 4 | સ | 4 | 45 | 32 | 20 | 21 | 7 | 9 | 554 | | 00:60 | 45 | 18:00 | 45 |
| | 40 | 666 | O | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | | |
| | 37 | 39 | 0 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | | |
| | 34 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | o | 0 | - | 0 | - | 0.2% | | | 22:00 | - |
| | 31 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | , 7 | - | 7 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 10 | 1.8% | 11:00 | 1 | 13:00 | 7 |
| | 28 | ဓ္က | 0 | 0 | ~ - | | 0 | 0 | 0 | 0 | - | φ | ო | ო | 7 | <u>-</u> | 7 | 4 | 7 | ო | 7 | 7 | ~ | 0 | 0 | 0 | 34 | 6.1% | 00:60 | 9 | 15:00 | 4 |
| | 25 | 2/ | 0 | ო | _ | - | 0 | 0 | ۲- | τ- | ۵ | ω | ო | 2 | τO | ဖ | 7 | o | ო | 9 | ဖ | τĊ | 7 | ო | 4 | <u>.</u> | 85 | 15.3% | 08:00 | 8 | 15:00 | თ |
| | 22 2 | 24 | · | 0 | 0 | - | 7 | _ | 7 | 4 | ø | 7 | - | 7 | 15 | ဆ | 9 | 6 | <u>5</u> | 4 | 17 | ø | 9 | 4 | - | 4 | 162 | 29.2% | 00:60 | 11 | 18:00 | 17 |
| | <u>6</u> 8 | 17 | - (| 7 | 0 | 0 | 0 | 7 | - | œ | 18 | ၈ ၊ | 7 | თ | 7 | 7 | ø | Ŋ | 9 | 12 | 우 | œ | 4 | 6 | വ | 2 | 139 | 25.1% | 08:00 | 18 | 17:00 | 7 |
| | <u>φ</u> ξ | 0 | > (| Э, | - | 0 | 0 | - | 7 | 7 | 4 | o i | Ω. | က | S | က | 7 | 9 | 2 | ო | _ | 9 | ო | 4 | 0 | 2 | 78 | 14.1% | 00:60 | 6 | 14:00 | 7 |
| | ත ද | 0 |) | 5 (| o (| o · | 0 | 7 | 0 | m | თ - | _ | ı, | Ń | - | - | ო | က် | - | 0 | က | o | - | - | 0 | 1 | 31 | 5.6% | 10:00 | 2 | 14:00 | က |
| | 은 ¢ | 2 | o (| o (| o (| 0 | 0 | 0 | 0 | 0 | 0 | - 1 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | 0 | 0 | 0 | 4 | %2'0 | 00:60 | - | 16:00 | - |
| | ~ 0 | n | > (|) | > (|)) | 0 | 0 | 0 | 0 | ᠸ (| 0 (| 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.4% | 08:00 | - | | |
| | 4 (| | - | > 0 | 0 (| > (| 0 | 0 | 0 | 0 | 0 | 0 (| o (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | | |
| | - к | , | - c | ۰,۰ | > (| 5 (| o (| 0 | o · | . (| o (| 0 (| 5 (| 0 | 0 | 0 | _ | _ | 0 | 7 | 0 | . | 0 | - | 0 | 0 | 8 | 1.4% | 00:00 | - | 17:00 | 8 |
| NB, SB | otan Time | 07/48/00 | 60,100 | 8.5 | 02.00 | 03:00 | 04:00 | 02:00 | 00:90 | 00:70 | 00:30 | 06:00 | 00:01 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent | AM Peak | Vol. | PM Peak | Vol. |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000333 Station ID: Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Indefined 95th | Percent 27 | 52. | 121 | 17 | 19 | 22 | 25 | 27 | 8 | 56 | 27 | / 7 | * | * | * | * | * | * | * | * | * | * | * | | | | | | | | | | | | |
|------------------------------|---------------|----------------|------------|-------|-------|-------------|----------|-------|----------------|----------------|----------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------------|----------------|-------|--|-------------------|-----------------|-----------------------------|---|
| Latitude: 0' 0.000 Undefined | Percent | 5 2 | 22 | 17 | 19 | 50 | 24 | 56 | 56 | 5 7 | 9 H | Ω* | * | * | * | * | * | * | * | * | * | * | * | | | | | | | | | | | | |
| Latitude | Total | 5 0 | 7 | 7 | Ψ | 4 | 12 | 19 | 4 | တ္ထ | 3 83 | 7 * | * | * | * | * | * | * | * | * | * | * | * | 177 | | 08:00 | Ŧ | | 1508 | | | | | | |
| 40 | 666 C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | > * | * | * | * | * | * | * | * | * | * | * | * | ٥ | %0:0 | | | | 0 | %0:0 | | | | | |
| 37 | စ္က | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | 0 | 0 0 | > * | * | * | • | * | * | * | * | * | * | * | * | - | %9.0 | 08:00 | - | | ٦ | 0.1% | | | | | |
| 34 | မ္တ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | > * | * | * | * | * | * | * | * | • | * | * | * | 0 | 0.0% | | | | 3 | 0.5% | | | | | |
| 34 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - - | 0 1 | - |) * | * | * | * | * | * | * | * | * | * | + | * | - | %9.0 | 08:00 | - | | 14 | %6:0 | | | | | |
| 28 | ος Ο | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | . . | Ν τ | - * | • | * | * | * | * | * | * | * | * | * | * | 2 | 2.8% | 10:00 | 4 | | 20 | 4.6% | | | | | |
| 25 | 33 | - | 0 | 0 | 0 | 0 | 7 | ဖ | ဖ | ın I | ~ < | 4 * | * | * | * | * | * | * | * | * | * | * | * | 8 | 19.2% | 10:00 | , | | 251 | 16.6% | | | | | |
| 22 | 40 | 0 | _ | 0 | 0 | ~ | ო | 4 | Ξ: | <u>~</u> : | 11 | * | * | * | * | * | * | * | * | * | * | * | * | 50 | 28.2% | 09:00 | 71 | | 432 | 28.6% | | | | | |
| 19 | 2 | 0 | ~ - | 0 | - | 7 | 4 | 4 | ည (| <u>.</u> | oυ | o * | * | * | * | * | * | * | * | * | * | * | * | | | 08:00 | | : | 400 | 26.5% | | | | | |
| 6 6 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | ν- | 4 | 4 (| 7 6 |) * | * | * | * | * | * | | * | * | * | * | *. | | | 08:00 | İ | | 217 | 14.4% | | | | | |
| 13 | 0 | | 0 | 0 | 0 | | . | ᢏ-`(| 7 | 4, | c | * | * | * | * | * | * | • | * | * | * | * | * | 11 | | 09:00 | 1 | | 11 | | 17 MPH 22 MPH 26 MPH 28 MPH | 18-27 MPH | 1156 | e o ; | 0.0% 21 MPH |
| 5 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 (| ο, | - c | * | * | * | * | * | * | * | * | * | * | * | * | - | %9.0 | 10:00 | - | | 16 | 1.1% | | | | | |
| <u></u> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | 0 (| > c | o * | * | * | * | * | | | * | * | * | * | * | 0 | 0.0% | | | | 2 | 0.1% | 15th Percentile 50th Percentile 85th Percentile 95th Percentile | 10 MPH Pace Speed | Number in Pace: | Number of Vehicles > 55 MPH | Percent of Vehicles > 55 MPH Mean Speed(Average) |
| 4 (| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 (| 0 (| > c | o * | * | * | * | * | * | * | * | * | * | * | * | 0 | %0.0 | | | | 0 | %0:0 | 15t 50t 85t 95t | 10 MPH F | NuN | of Vehicles | of Vehicles Mean Spee |
| - c | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ~ • | 5 (|) C | * | * | | • | * | * | * | * | * | * | * | *. | 2 | 1.1% | 08:00 | 7 | | 25 | 1.7% | 1 | | | Number | Percent |
| NB, SB Start Time | 02/11/20 | 01:00 | 05:00 | 03:00 | 05:50 | 02:00 | 00:90 | 02:00 | 08:00 | 08:00 | 000 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | | | DM Dook | Var Vol. | Grand Total | | | Statistics | | | |

LAKE DRIVE

| | | representative proportion and the second sec |
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| | | |
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| | | |
| | | |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000666 Station ID: LAKE DRIVE (EAST OF BROWNING LANE/ GRACEMERE ROAD)

| ndefined | 95th | Percent | * | * | ;* | * | * | *: | * | * | * | * | * | * | . * | • | * | 58 | 3 | 31 | 78 | 23 | 78 | 53 | 33 | 28 | | | | | |
|------------------------------|-------|---------|----------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|--------------|-------|-------------|--------------|----------|-------|-------|-------|----------|--------------------|------|---------|------|
| Latitude: 0' 0.000 Undefined | 85th | Percent | | * | * | * | * | * | * | * | * | * | * | • | * | * | * | 28 | 30 | 59 | 56 | 22 | 56 | 28 | 8 | 27 | | | | | |
| Latitude | | Total | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 9 | 4 | 7 | 9 | 9 | တ | တ | 5 | 7 | 109 | | | 17:00 | 77 |
| | 40 | 666 | ŧ | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | 0 | .0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | |
| | 37 | 93 | * | * | * | *. | * | * | * | * | * | * | * | * | * | • | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | |
| | 34 | 36 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | • | : 0 | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 7 | 1.8% | | 18:00 | - |
| | 31 | 83 | ŧ | * | * | * | * | * | * | * | * | * | * | * | * | • | * | 0 | τ- | Ġ | 0 | 0 | 0 | 0 | - | 0 | 4 | 3.7% | | 17:00 | 7 |
| | 28 | 30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | ო | 8 | ო | - | - | - | 7 | - | - | 21 | 19.3% | | 16:00 | 80 |
| | 55 | 27 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 7 | 2 | 9 | 2 | 0 | 7 | 4 | 4 | ო | 30 | 27.5% | | 15:00 | 7 |
| | 22 | 24 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 4 | 7 | 9 | 7 | 7 | - | 7 | - | | | 19.3% | | 17:00 | 9 |
| | 19 | 74 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | ,- | - | ო | | က | ღ | 0 | 7 | 7 | | 14.7% | | 17:00 | ო |
| | 16 | 18 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | 0 | - | 7 | 0 | 7 | _ | ო | 0 | 6 | 8:3% | | 22:00 | ო |
| | 13 | 15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 | 2 | 1.8% | | 18:00 | - |
| | 10 | 12 | * | * | * | * | * | * | * | * | * | * | * | * | * | • | * | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | %6.0 | | 15:00 | - |
| | 7 | တ | * | * | * | * | * | * | * | * | * | * | * | * | * | • | * | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | 0.9% | | 19:00 | - |
| | 4 | 9 | * | * | * | * | * | * | ¥ | * | * | * | * | * | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | %0.0 | | | |
| | 1 | m | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 1.8% | | 19:00 | 7 |
| WB, EB | Start | Time | 07/14/09 | 01:00 | 05:00 | 03:00 | 04:00 | 02:00 | 00:90 | 07:00 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | Total | Percent AM Peak | Vol. | PM Peak | Vol. |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000666 Station ID: LAKE DRIVE (EAST OF BROWNING LANE/ GRACEMERE ROAD)

| Undefine | 95th | Percent | 31 | * | * | 26 | 2 | * | 8 | 27 | က | 27 | 3 | 29 | 78 | 78 | 23 | 27 | 26 | 78 | 27 | 28 | 28 | 26 | 33 | 29 | App., and a | | | | | ٠ |
|------------------------------|-------|---------|----------|-------|-------|-------|--------|----------|-------|----------|------------|--------------|-------|-------|-------|-------|-------|--------------|------------|--------|--------------|------------|------------|------------|---------------|-------|-------------|---------|------------------|-------|----------------|-------------|
| Latitude: 0' 0.000 Undefined | 85th | Percent | ı | * | * | | | * | | | 78 | | | | | | | | | | | | | ٠. | | | | | · · | - | 1 | |
| Latitud | | Total | 9 | 0 | | 7 | | - 0 | 00 | 4 | ম | 50 | 6 | 1 | 5 | 4 | 12 | 16 | 11 | 19 | 4 | Ţ | 10 | ෆ | ∞ | ιΩ | 218 | | 08:00 | 77 | 17:00 | 19 |
| | 9 | 666 | 0 | 0 | 0 | 0 | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ö | 0 | 0 | 0 | 0 | 0.0% | - Annual Control | | | |
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| | 31 | ဗ္ဗ | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ~ - | 0 | Υ- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 2.3% | 00:00 | ₩ | 22:00 | 7 |
| | 28 | ଚ | ~ | 0 | 0 | 0 | 0 | 0 | ო | 0 | က | - | - | ιO | 7 | N | ო | ₩. | 0 | 7 | - | Ċ | 7 | 0 | , - | 2 | 32 | 14.7% | 11:00 | 2 | 14:00 | ო |
| | 25 | 27 | က | 0 | 0 | 7 | - | 0 | 0 | ო | 7 | S | ო | ო | 9 | 2 | 4 | 5 | 5 | თ | 4 | S | ~ | N | 4 | 2 | 79 | 36.2% | 08:00 | 7 | 17:00 | တ |
| | 22 | 24 | Ψ. | 0 | 0 | 0 | 0 | 0 | 7 | o o | 4 | 9 | τ- | 7 | ო | 2 | 4 | & | 4 | 5 | 7 | 7 | ဖ | Ψ, | _ | - | 67 | 30.7% | 00:60 | 9 | 15:00 | œ |
| | 19 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | w | 7 | ო | _ | 0 | 0 | 0 | τ- | τ- | ო | τ- | - | 0 | 0 (| 0 | 0 | 19 | 8.7% | 08:00 | 5 | 17:00 | ო |
| | 16 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | Ψ. | τ- | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | • | , | 0 (| o • | 0 | 8 | 3.7% | 00:90 | _ | 12:00 | 7 |
| | 13 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | _ | 0 | 0 | o (| 0 (| 0 (| . | 0 | 3 | 1.4% | 00:90 | - | 14:00 | τ- |
| | 9 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | τ- | 0 | 0 | 0 | 0 | 0 | o (| o (| - | o (| 0 | 2 | %6.0 | 00:60 | - | 13:00 | - |
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| WB, EB | Start | Time | 07/15/09 | 01:00 | 05:00 | 03:00 | 8 9 | 02:00 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 00:61 | 00.0 | 00:71 | 38.00 | 00.60 | 20.00 | 22.00 | 22.00 | 73.00 | - otai | Percent | AM Peak | VOI. | Z Z | v Ö |

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

PROJECT: JARDIM ESTATES EAST LOCATION: TARRYTOWN, NEW YORK

JCE JOB# 457

Default Comments

Site Code: 45700000666 LAKE DRIVE (EAST OF BROWNING LANE) Station ID: GRACEMERE ROAD

Latitude: 0' 0.000 Undefined 08:00 28 %0.0 3.2% 14.4% 00:90 0.0% %0.0 2.8% 08:00 07/16/09 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 11:00 12 PM Percent AM Peak 13:00 14:00 15:00 16:00 17:00 18:00 22:00 22:00 23:00 70:00 70:00 70:00 70:00 70:00 70:00 Voi. PM Peak Voi. Time WB, EB

13:00

20:00 2

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

LOCATION: TARRYTOWN, NEW YORK JCE JOB# 457 PROJECT: JARDIM ESTATES EAST

Default Comments

Site Code: 45700000666 LAKE DRIVE (EAST OF BROWNING LANE/ Station ID:

GRACEMERE ROAD)

Latitude: 0' 0.000 Undefined Percent 282828 85th 8 0.0 8 61 0 0 0.0% 0.0% 0 %0.0 %0:0 0 0.0% 0.3% 1.5% 2.8% 20.6% 10:00 16.0% 30.4% 27.9% 08:00 23.5% 10:00 26.7% 13.1% 16.2% 10:00 8 5.2% 06:00 2.8% 20 MPH 24 MPH 28 MPH 30 MPH 21-30 MPH 2.9% 08:00 0.7% 0.0% 50th Percentile: 85th Percentile: 10 MPH Pace Speed: 15th Percentile 95th Percentile 0.2% 0.0% 0.0% %0:0 1.8% Ξ 07/17/09 01:00 02:00 03:00 94:00 95:00 96:00 PM Peak Total Percent AM Peak Grand Percent \$ Statistics Time WB, EB Start

Number of Vehicles > 55 MPH: Percent of Vehicles > 55 MPH: Number in Pace:

77.6% Percent in Pace

0.0% 24 MPH Mean Speed(Average)

APPENDIX "K"

ATR DATA

HOURLY TRAFFIC VOLUMES, VEHICLE CLASSIFICATION & POTENTIAL IMPACT TABLE

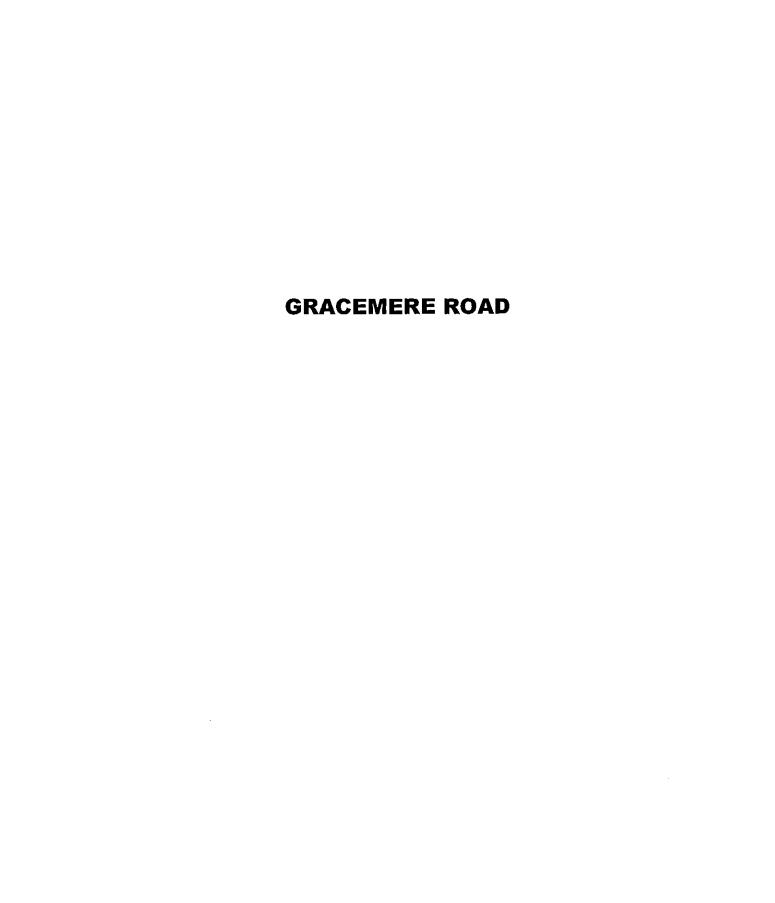
PROJECT IMPACT TABLE

| GRACEMERE ROAD | 2008/2009 EXISTING VOLUMES | PROJECT IMPACT 10 SINGLE FAMILY HOMES |
|------------------------|-------------------------------|---------------------------------------|
| WEEKDAY PEAK AM HOUR * | 19 | 4 |
| WEEKDAY PEAK PM HOUR * | 15 | 5 |
| DAILY ** | 298 | 45 |

| BROWNING LANE | 2008/2009 EXISTING VOLUMES | PROJECT IMPACT 10 SINGLE FAMILY HOMES | |
|------------------------|-------------------------------|--|--|
| WEEKDAY PEAK AM HOUR * | 33 | 5 | |
| WEEKDAY PEAK PM HOUR * | 22 | 7 | |
| DAILY ** | 554 | 68 | |

| LAKE DRIVE - (SITE ACCESS) | 2008/2009 EXISTING VOLUMES | PROJECT IMPACT 10 SINGLE FAMILY HOMES | |
|----------------------------|-------------------------------|--|--|
| WEEKDAY PEAK AM HOUR * | 32 | 9 | |
| WEEKDAY PEAK PM HOUR * | 19 | 12 | |
| DAILY ** | 218 | 113 | |

^{*} BASED ON MANUAL TRAFFIC COUNTS ** BASED ON ATR COUNTS



Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000222 Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE) Latitude: 0'0.000 Undefined

| Week Average | B WB | 4 | - | | | • | | 0 | 3 | . ~ | - 7 | | <u> </u> | יי פ | 2 * | 0 L | No. 18 Control of the least of | | | stre | কম | - r | | - K |) 4 | | 134 138 | 272 | | | | 15 12 | | 7/7 | |
|----------------------|-------|----------|-------|-------|-------|-------|------|----------|-------|-------|-------|---------------|------------|-------|----------|--------------|--|-------|----------|---------|-------|----------|----------|-------|-------|-------|---------|-----|---------|------|-------------|--------|-------------|-----|----------------|
| | WB | * | * | | | • | | • | • | * | | * | * | * | | · • | * | * | * | • | | * | * | * | * | * | 0 | | 08.00 | | 17:0 | 15 | ć | > | |
| SEL | EB | * | * | * | * | • | . • | | * | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | C | | | | | | | |
| Sat | WB | * | * | * | * | * | • | • | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 0 | 0 | | | | | ć | > | |
| | EB | * | * | * | * | * | • | • | * | * | | * | * | * | * | * | * | * | * | | * | * | * | * | * | * | 0 | _ | | | | | | | |
| <u>=</u> | WB | 4 | • | c | · c | 0 0 | 5 0 | > | _ | 5 | 00 | σ |) C | | 7 6 | o * | * | * | * | * | * | * | * | * | * | * | 56 | 83 | 10:00 | 13 | 12:00 | 3 | S | } | |
| | EB | ო | • | _ | | | - c | _ | _ | ~ | -60° | . | > 4 | F 100 | | * | * | * | * | * | * | * | * | * | * | * | 37 | | 11:00 | | 12:00 | | | | |
| 100 | WB | • | 7 | 0 | | , (| - • | _ | 2 | 9 | | | . c | | |) ((| | | | | C: | _ | . m | С | ~ | | 126 | 251 | | 20 | | | 25.4 | | |
| | B | 4 | _ | _ | | | , c | | 9 | | 8 | Samuel Samuel | | | | | ` | | 0 0 | 15 | | 7 | 6 | | 2 | | 7 125 | | 00:80 | | 0 17:00 | | œ | , | |
| ֓֞֝֝֞֝֓֞֝֓֓֓֓֓֓֓֓֓֡֝ | EB WB | ည | 0 | 0 | | | - c | . | 7 | 3 | 0 | | 4 | · α | | 8 | THE PROPERTY OF THE PARTY OF TH | | iα | 1512 | 0 | <u>ෆ</u> | <u>o</u> | 2 | | | 51 147 | 298 | 11:00 | | 30 13:00 | 15 1 | 298 | ì | į |
| | WB | * | * | * | * | * | * | | * | * | * | | • | * | * | * | * | * | 6 | ် | 7 | 8 | , О | 4 | 5 | | 55 151 | | 00:60 | | 17: | 6 | 117 | |) to } () * * |
| 2 | EB | * | * | | | * | | + | * | | * | * | * | | | * | * | | 11 Sept. | in S | 10 | o | 5 | 5 | 7 | | | 117 | | | 17:00 16:00 | 15 | ÷ | | |
| | WB | * | * | * | * | * | * | - | * | * | * | * | * | * | + | * | * | * | * | * | # | * | # | * | * | * | 0 | | | | 17 | | | | 170 FC A |
| 50-Inc-6 | EB , | * | • | * | * | * | | • | | | * | * | * | * | * | * | | * | * | * | * | * | * | * | * | * | 0 | 0 | | | | | 0 | | |
| i old | lime | 12:00 AM | 01:00 | 05:00 | 03:00 | 04:00 | 5.50 | 3.6 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | 12:00 PM | 01:00 | 05:00 | 03:00 | 04:00 | 02:00 | 00:90 | 02:00 | 08:00 | 00:60 | 10:00 | 11:00 | Lane | Day | AM Peak | Vol. | JM Jeak | , O | Comb. Total | | TUA |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000222

Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

| | | | | | | | 17:00 | | | | | 18:00 | 17:00 | |
|-------|------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|----------------|--------------------|-------|
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| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 15 | |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 10 | |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 2 | 9 | |
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| Total | Not | >6 Axl Multi | 6 Axle Multi | <6 Axl Multi | >6 Axl Double | 5 Axle Double | <5 Axí Double | 4 Axle Single | 3 Axle Single | 2 Axle 6 Tire | Buses | 2 Axle Long | Cars & Trailers | J |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000222

Station ID: GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

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| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 16 | 0 |
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11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000222

Station ID:
GRACEMERE ROAD (EAST OF EMERALD WOODS
AND WEST OF BROWNING LANE)
Latitude: 0' 0.000 Undefined

| 2 |
|-----------------------------------|
| Trailers Long Buses 6 Tire Single |
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| 0 0 0 |
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| 4 0 0 0 |
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| |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Station ID:

Site Code: 45700000222

GRACEMERE ROAD (EAST OF EMERALD WOODS AND WEST OF BROWNING LANE)

| EB, WB Start | | Cars & | 2 Axle | | 2 Axle | 3 Axle | 4 Axle | <5 Axl | 5 Axle | >6 Axl | <6 Axl | 6 Axle | >6 Axl | Not | |
|-----------------|-------|----------|----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Time | Bikes | Trailers | Long | Buses | 6 Tire | Single | Single | Double | Double | Double | Multi | Multi | Multi | Classed | Total |
| 07/17/09 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 00:90 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:00 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
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| 00:60 | 0 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 10:00 | 0 | 4 | 2 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 11:00 | 0 | 15 | ဗ | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | ĸ | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
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| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
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| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 0 | 99 | 12 | 0 | ~ | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 |
| Percent | %0.0 | 81.5% | 14.8% | %0.0 | 1.2% | 2.5% | %0.0 | %0.0 | %0.0 | 0.0% | %0.0 | %0.0 | %0.0 | %0.0 | |
| AM Peak | | 11:00 | 00:60 | | 10:00 | 11:00 | | | | | | | | | |
| Vol. | | 15 | 4 | | | 2 | | | | | | | | | |
| PM Peak Vol. | | | | | | | | | | | | | | | |
| Cuero | | | | | | | | | | | | | | | |
| Total | - | 220 | 152 | 0 | 7 | က | 0 | က | 0 | 0 | 0 | 0 | 0 | F | 747 |
| Percent | 0.1% | 76.3% | 20.3% | %0.0 | %6.0 | 0.4% | %0.0 | 0.4% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | 1.5% | |

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BROWNING LANE

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Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD) Site Code: 457000000333

Latitude: 0' 0.000 Undefined

| NB SB SB NB SB SB SB SB SB SB SB SB SB SB SB SB SB | otali I | SO-IDC-CI | | | en e | | Med Ved | | Thu | | F. | S | Sat | Sun | _ | Week Ave | rade |
|--|-------------|-----------|-------------|--------|--------------|---------|--|----------------------|--|------|----------|---|-----|-----|---|----------------|-------|
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| 1 | 04:00 | * | * | * | * | · • | · - | | · – | . ~ | ı C | * | * | * | * | > + | |
| 1 | 02:00 | * | * | * | * | m | ~ | ı. | Ψ. | | 0 0 | * | * | * | * | - (* | |
| 1 | 00:90 | * | * | * | * | 7 | ı ıc | ינט נ | | 1 00 | 1 4 | * | * | * | * | 7 C | |
| 1 | 02:00 | * | * | * | * | 4 | ý | σ | . 5 | , = | י ער, | * | * | * | + | | |
| 1 | 08:00 | * | * | * | * | | Section (Sec | | Participation of the second | 77 | 26 | * | * | * | * | 25 | - |
| 1 | 00:60 | • | * | * | * | 27 | erentalization de la compansion de la co | 100 N N N 15-01 | Astrophysical Actions | | 16 | * | * | | * | 27 | |
| 1 | 10:00 | + | * | * | * | 17 | | | • | | <u> </u> | * | * | * | * | 17 | |
| 15 | 11:00 | * | + | * | * | 17 | 17 | | • | | 7 | * | * | * | * | ÷ (| |
| 15 16 13 15 16 17 17 17 18 19 19 19 19 19 19 19 | ::00 PM | * | * | * | * | 17 | 13 | | | | oc | * | * | * | * | <u>.</u> | |
| 14 | 01:00 | * | + | • | * | 7 | 9 | | | | * | * | * | * | * | <u> 4</u> | |
| 15 | 05:00 | * | * | * | * | 7 | 17 | | | * | * | * | * | * | * | <u> 4</u> | |
| 18 | 03:00 | * | * | • | • | | | esteration continues | | * | * | * | * | * | * | 12 | |
| 18 | 94:00 | * | # | - 19 | 27 | 18 | 21 | | STATE OF THE PROPERTY OF THE PA | * | * | * | * | * | * | 8 | 2 |
| 13 14 21 19 26 19 14 15 15 15 15 15 15 15 | 02:00 | * | * | 19 | 28 | 19 | 23 | | | * | * | * | * | * | * | <u>~</u> | |
| 19 17 12 13 13 14 15 15 15 15 15 15 15 | 00:90 | * | * | 9 | 19 | 4 | 21 | | | * | * | * | * | * | * | <u>6</u> | |
| The control of the | 00:20 | * | * | 19 | 17 | 12 | 13 | | | * | * | * | * | * | * | 5 | 16 |
| * * 7 18 6 12 6 15 * | 08:00 | * | * | 11 | 27 | 4 | 15 | | 4 | * | * | 4 | * | * | * | 7 | • |
| * * 7 14 3 6 3 8 * | 00:60 | * | * | 7 | <u>&</u> | 9 | 12 | | 15 | * | * | * | * | * | * | 9 | |
| * * 4 7 3 9 2 8 * | 10:00 | * | + | 7 | 4 | ო | 9 | | | * | * | * | * | * | + | 4 | |
| 0 0 92 157 246 282 255 299 99 92 0 | 11:00 | * | * | 4 | 7 | 'n | ົດ | | | * | * | * | * | * | * | ო | |
| 0 249 528 554 191 0 0 08:00 | Lane | 0 | 0 | 92 | 157 | 246 | | 255 | | | 92 | 0 | 0 | 0 | 0 | 244 | 2 |
| 09:00 08:00 | Day | 0 | | 24 | 6 | ~ | | | 554 | | | 0 | | 0 | | 540 | |
| 16:00 17:00 17:00 16:00 14:00 15:00 12:00 12:00 12:00 12:00 10 12:00 12: | M Peak | | | | | 00:60 | 08:00 | | | 80 | 08:00 | | | | | 00:60 | 08:00 |
| 16:00 17:00 17:00 15:00 14:00 15:00 12:00 12:00 12:00 15:00 10:00 15:00 | Vol. | | | | | 27 | 17 | | | | 17 | | | | | 27 | |
| 0 249 528 554 191 0 0 0 ADT 541 AADT 541 | 'M Peak | | | 16:00 | 17:00 | 17:00 | 15:00 | | | | 12:00 | | | | Married Adams of the Control of the | 16:00 | 15:00 |
| 0 249 528 554 191 0 ADT 541 AADT 541 | Vol. | | | 19 | 78 | 19 | 27 | | | | 8 | | | | | 18 | |
| ADT 541 AADT 541 | Total | | c | | 249 | | 528 | | 7.74 | | 5 | | c | | c | | 25 |
| ADT 541 | 3 2 2 | | > | | 1 | | 3 | | 3 | | 5 | | > | | > | | } |
| | ADT | | ¥ | OT 541 | | AADT 54 | Ξ | | | | | | | | | | |

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000333 Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Start | | Cars & | 2 Axle | | 2 Axle | 3 Axle | 4 Axle | <5 Axl | 5 Axle | >6 Axl | <6 Axl | 6 Axle | >6 Axl | Not | |
|------------|-------|----------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Time | Bikes | Trailers | Long | Buses | 6 Tire | Single | Single | Double | Double | Double | Multi | Multi | Multi | Classed | Total |
| 07/14/09 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 03:00 | * | * | * | * | * | * | * | ¥ | * | * | * | * | * | * | • |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 02:00 | * | * | * | * | * | * | * | * | * | ٠ | * | * | * | * | |
| 00:90 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | • |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 00:60 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | , |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | • |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | • |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| 16:00 | 0 | 31 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 46 |
| 17:00 | 0 | 37 | ∞ | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 47 |
| 18:00 | 0 | 22 | က | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 19:00 | 0 | 30 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 36 |
| 20:00 | 0 | 32 | လ | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 21:00 | 0 | 21 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 25 |
| 22:00 | 0 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 23:00 | 0 | 10 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Total | 0 | 202 | 40 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 249 |
| Percent | %0.0 | 81.1% | 16.1% | %0.0 | %8.0 | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | 2.0% | |
| AM Peak | | | | | | | | | | | | | | | |
| A Dook | | 47.00 | 18.00 | | 47.00 | | | | | | | | 1 | 00.50 | |
| רואו דרומה | | 17.00 | 0.00 | | 00.7 | | | | | | | | | 21:00 | |
| VOI. | | 31 | 4 | | | | | | | | | | | 2 | |

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000333 Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Long Buses 6 Tire Single 2 0 | | 3 Axle | 4 Axle | <5 Axl | 5 Axle | >6 Axl | <6 Axl | 6 Axle | >6 Axl | Not | |
|---|--------------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|-------|
| 0 7 2 0 | Buses 6 Tire | Single | Single | Double | Double | Double | Multi | Multi | Multi | Classed | Total |
| 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 10 |
| 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | c |
| 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 4 |
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| 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 | o C | 00 |
| 0 10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | 0 0 | 1 40 |
| 0 14 2 0 3 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | 5 |
| 0 29 11 0 0 0 0 1 1 22 5 13 1 0 0 0 0 0 0 24 10 0 0 0 0 0 0 0 25 13 0 0 0 0 0 0 0 25 13 0 0 0 0 0 0 24 8 0 0 0 0 0 0 24 8 0 0 0 0 0 0 15 0 0 0 0 0 15 0 0 0 0 0 15 0 0 0 0 0 15 0 0 0 0 0 15 0 0 0 0 0 15 0 0 0 0 0 17 1 403 105 1 5 0 0 1 29 13 1 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 | · - | 2 2 |
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| 0 24 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 0 22 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
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| 0 25 13 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | , | 39 |
| 0 38 3 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | · - | 36 |
| 0 24 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 0 24 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n | 35 |
| 0 18 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 0 15 2 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 0 9 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | , | 92 |
| 0 12 0 1 0 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 403 105 1 5 0 0 1 0.2% 76.3% 19.9% 0.2% 0.9% 0.0% 0.0% 0.2% 10:00 08:00 09:00 07:00 07:00 08:00 1 29 13 1 3 1 1 1 17:00 16:00 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 0.2% 76.3% 19.9% 0.2% 0.9% 0.0% 0.0% 0.2% 10:00 08:00 09:00 09:00 07:00 08:00 1 29 13 1 3 1 17:00 16:00 15:00 | | 0 | 0 | • | 0 | 0 | 0 | 0 | 0 | 12 | 528 |
| 10:00 08:00 09:00 07:00 1 29 13 1 3 17:00 16:00 15:00 | | %0.0 | %0.0 | 0.2% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | 2.3% | |
| 1 29 13 1 17:00 16:00 | | | | 08:00 | | | | | | 02:00 | |
| 17:00 16:00 | 1 | | | • | | | | | | 2 | |
| | 15:00 | | | | | | | | | 18:00 | |
| Vol. 38 13 1 | - | | | | | | | | | e | |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000333 Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| Start | | Cars & | 2 Axle | | 2 Axle | 3 Axle | 4 Axle | <5 Axl | 5 Axle | >6 Axl | <6 Axl | 6 Axle | >6 Axl | Not | |
|----------|-------|----------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|---------|
| Time | Bikes | Trailers | Long | Buses | 6 Tire | Single | Single | Double | Double | Double | Multi | Multi | Multi | Classed | Total |
| 07/16/09 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 6 |
| 01:00 | 0 | 4 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 02:00 | 0 | က | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 03:00 | 0 | က | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | . (*) |
| 04:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | С | |
| 02:00 | 0 | Ω | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | 1 (0 |
| 00:90 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | · · · · |
| 07:00 | 0 | 16 | - | 0 | - | 0 | 0 | 0 | 0 | O | C | C | C | · - | 5 |
| 08:00 | 0 | 24 | 15 | 0 | 2 | • | 0 | ۲- | 0 | 0 | 0 | 0 | 0 | · c | . 4 |
| 00:60 | 0 | 39 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 10:00 | 0 | 24 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (1) |
| 11:00 | 0 | 28 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | m |
| 12 PM | 0 | 28 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | i m |
| 13:00 | 0 | 21 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 14:00 | 0 | 30 | 00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | • | m |
| 15:00 | 0 | 26 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | O | 0 | 0 | 0 | | 40 |
| 16:00 | 0 | 21 | თ | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | · co |
| 17:00 | 0 | 33 | 2 | 0 | ٢ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 |
| 18:00 | 0 | 41 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 19:00 | 0 | 26 | 4 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | • | 32 |
| 20:00 | 0 | 19 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 21:00 | 0 | 17 | က | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 22:00 | 0 | o | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 23:00 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| Total | 0 | 436 | 86 | 0 | 10 | | 0 | - | 0 | 0 | 0 | 0 | 0 | 00 | 554 |
| Percent | %0.0 | 78.7% | 17.7% | %0.0 | 1.8% | 0.2% | %0.0 | 0.2% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | 1.4% | |
| AM Peak | | 00:60 | 08:00 | | 08:00 | 08:00 | | 08:00 | | | | | | 00:00 | |
| Vol. | | 39 | 15 | | 2 | • | | - | | | | | | - | |
| PM Peak | | 18:00 | 15:00 | | 15:00 | | | | | | | | | 17:00 | |
| 10000 | | | | | | | | | | | | | | Dec 214-1076 | |

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000333

Station ID: BROWNING LANE (NORTH OF GRACEMERE ROAD)

| - 1 | Cars & | 2 Axle | ć | 2 Axle | 3 Axle | 4 Axle | <5 Axl | 5 Axle | >6 Axl | <6 Axl | 6 Axle | >6 Axl | Not | |
|----------------|--------|--------|-------|--------|--------|--------|--------|--------|--------|----------|--------|--------|---------|-------|
| I railers Long | Long | | Ruses | 6 Lire | Single | Single | Double | Double | Double | Multi | Multi | Multi | Classed | Total |
| 2 | _ | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | 3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| 7 | _ | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | c | C | 0 0 | 10 |
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| 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | c | C | 0 0 | 0 0 | - < |
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| 127 | | 41 | 2 | 4 | 0 | 0 | - | 0 | 0 | 0 | 0 | C | 6 | 177 |
| ij | 7 | 23.2% | 1.1% | 2.3% | %0.0 | %0.0 | %9.0 | %0.0 | %0.0 | %0.0 | 0.0% | %0.0 | 11% | - |
| 10:00 0 | 0 | 00:60 | 08:00 | 08:00 | | | 08:00 | | | | | | 08:00 | |
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| 1168 | | 284 | ю | 72 | - | 0 | m | 0 | 0 | 0 | 0 | 0 | 27 | 1508 |
| 77.5% 18. | 18 | 18.8% | 0.2% | 1.4% | 0.1% | %0.0 | 0.2% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | 1.8% | |
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LAKE DRIVE

11 BRADHURST AVENUE HAWTHORNE, NY, 10532 (914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: JARDIM ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 457000000666 Station ID: CAKE DRIVE (EAST OF BROWNING LANE/ GRACEMERE ROAD) Latitude: 0' 0.000 Undefined

| Start | 3-7n-09 | | Tue | | ≶ | ≪ed | _ | 룓 | | 퍞 | S | Sat | S | Sun | Week A | erage |
|-------------|---------|---------|------------|-------|---------------|------------|---|----------|--|--------------------------------------|----|---|----|-----|--------|-------|
| Time | WB | EB | WB | EB | WB | EB | WB | 8 | WB | EB | WB | EB | WB | 8 | WB | ъ |
| ::00 AM | * | ¥ | * | * | 2 | 4 | 0 | 1 | 2 | 2 | * | * | * | * | | |
| 04:00 | * | ¥ | * | * | c | 0 | - | | · C | 1 | * | * | * | * | · c | |
| 05:00 | * | * | * | * | o | c | c | C | · c | · c | * | * | * | * | o c | |
| 03:00 | * | * | * | * | · | 7 | ¢ | , - |) C |) C | * | * | * | * | o c | |
| 04:00 | * | * | * | * | • | c | ٠. | c | | 0 0 | * | * | * | * | , t | |
| 02:00 | * | * | • | * | · ¢ | 0 0 | | | o C | o C | * | • | * | * | - c | |
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| 02:00 | * | * | * | * | m | , — | . ~ | • | ٥١ | | * | * | • | * | , 0 | |
| 08:00 | * | * | * | # | | UL. | 77 | P | - | - C | * | * | * | * | 1 5 | 3 |
| 00:60 | * | * | | * | | O | 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | 0 | - vc |) (r) | * | * | * | * | | |
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| 11:00 | * | * | • | * | ιΩ | 9 | ო | | ω | 9 | * | * | * | * | i ro | |
| 12:00 PM | * | * | * | * | 4 | თ | œ | гO | | 9 | * | * | * | * | 4 | |
| 001:00 | * | * | * | * | 7 | | 4 | m | A temporary participation of the second property of the second participation of the se | A Transfer contraction of the second | * | * | * | * | · cc | |
| 05:00 | * | * | * | * | . L C7 | | · თ | · «c | * | * | * | * | * | * | ۰ ۲ | |
| 03:00 | | * | c c | œ | · c | The second | -13 | 15 | * | * | * | * | * | * | | ÷ |
| 04:00 | * | * | ယ | - α | ω | æ | 0 | 10 | * | * | * | * | * | * | . α | |
| 05.00 | * | 1 | • 6 | 12 | - α | | ^ | 4 | * | * | * | * | * | * | ο ας | |
| 00:90 | * | * | i co | 7 | 6 | гO | . m | · ro | * | * | * | * | * | * | ιΩ | |
| 00:20 | * | + | ı. | · LO | 4 | 7 | 4 | 0 | * | * | * | * | * | * | 4 | 7 |
| 08:00 | | * | m | 9 | D | ro | 8 | n | * | * | * | * | * | * | 'n | |
| 00:60 | * | * | ო | 9 | _ | 7 | 2 | 2 | * | * | * | * | * | * | 2 | |
| 10:00 | * | * | ဖ | 7 | 2 | 9 | 0 | 2 | • | ŧ | * | * | * | * | ო | |
| 11:00 | • | * | Ŋ | 7 | ဗ | 7 | - | 2 | * | 1 | * | * | * | + | က | |
| Lane | 0 | 0 | 48 | 61 | 107 | 111 | 108 | 108 | 41 | 8 | 0 | 0 | 0 | 0 | 105 | |
| Day | 0 | | 109 | œ | 218 | | 7 | 216 | . ~ | 75 | 0 | | 0 | | 213 | |
| AM Peak | | | | | 08:00 | 08:00 | 08:00 | 08:00 | 10:00 | 10:00 | | | | | 08:00 | 08:00 |
| ļo No | | | | | 7 | 5 | 4 | 4 | <u>1</u> | 7 | | | | | 1 | |
| PM Peak | | | 17:00 | 17:00 | 18:00 | 15:00 | 15:00 | 15:00 | 12:00 | 12:00 | | | | | 15:00 | 15:00 |
| Vol. | | | 6 | 12 | 6 | 11 | 73 | 15 | _ | 9 | | *************************************** | | | 6 | |
| Comb. Total | 0 | | | 109 | | 218 | | 216 | | 75 | | 0 | | 0 | | 213 |
| ! | | | | | 1 | | | | | | | | | | | |
| ADI | | ADI 21/ | /1/ | | AADI 217 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

PROJECT: JARDIN ESTATES EAST LOCATION: TARRYTOWN, NEW YORK JCE JOB# 457

Default Comments

Site Code: 45700000666 Station ID:

LAKE DRIVE (EAST OF BROWNING LANE/ GRACEMERE ROAD)

Latitude: 0' 0.000 Undefined Total Sol 19:00 Classed >6 Axl Multi 0.0% 6 Axle Multi <6 Axl Multi %0.0 >6 Axi Double Double 5 Axle <5 Axl %6.0 17:00 Double 4 Axle Single %0.0 3 Axle %0.0 2 Axle 15:00 2.8% Buses %0.0 17:00 2 Axle Long 12.8% 22:00 Cars & Trailers %0.0 00000000 Bikes 07/14/09 01:00 02:00 03:00 04:00 05:00 05:00 05:00 07:00 11:00 12:00 15:00 15:00 16:00 17:00 18:00 18:00 18:00 19: Vol. Vol. Percent AM Peak WB, EB Start Time

(914) 347-7500 / FAX (914) 347-7266 11 BRADHURST AVENUE HAWTHORNE, NY, 10532

PROJECT: JARDIN ESTATES EAST LOCATION: TARRYTOWN, NEW YORK

JCE JOB# 457

Default Comments

LAKE DRIVE (EAST OF BROWNING LANE/ Site Code: 45700000666 GRACEMERE ROAD Station ID:

Latitude: 0' 0.000 Undefined 5 218 Total 00001-0842202524255555 13:00 ş 6 Axle Multi <6 Axl Multi %0.0 >6 Axl Double 5 Axle <5 Axl 14:00 Double 08:00 4 Axle Single %0.0 3 Axle 2 Axle 6 Tire 00:60 15:00 Buses 2 Axle 15:00 40 08:00 Long 08:00 17:00 Cars & @0001-0@&64r555g@rr6@£@&@4 Trailers Bikes 000000000000000000000 %0.0 Time 07/15/09 01:00 02:00 03:00 04:00 06:00 06:00 07:00 06:00 07:00 08:00 07:00 11:0 Percent PM Peak Vol. AM Peak Vol. WB, EB Start

Default Comments
PROJECT: JARDIN ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000666 Station ID:

LAKE DRIVE (EAST OF BROWNING LANE/ GRACEMERE ROAD)

| | 2 | | | | | | ~ | | | 4 | | 9 | 19 | | Vol. |
|-------|---------|-------|--------|-------|--------|--------|--------|--------|--------|--------|-------|--------------|----------|-------|----------|
| | 20:00 | | | | | | 14:00 | | | 15:00 | | 14:00 | 15:00 | | PM Peak |
| | Ŋ | | | | | | - | | | က | | 4 | 2 | | Vol. |
| | 08:00 | | | | | | 08:00 | | | 08:00 | | 08:00 | 00:60 | | AM Peak |
| ĺ | 3.7% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | %6.0 | %0.0 | %0.0 | 6.5% | %0.0 | 19.4% | 69.4% | %0.0 | Percent |
| 216 | 80 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 45 | 150 | 0 | Total |
| n | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | က | 0 | 23:00 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (| ς- (| 0 (| 22:00 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | m | 0 | 21:00 |
| 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ന | 0 | 20:00 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | - | 11 | 0 | 19:00 |
| . 00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ÷ | 7 | 0 | 18:00 |
| 7 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | n | 7 | 0 | 17:00 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ო | 0 | 2 | 11 | 0 | 16:00 |
| 28.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 19 | 0 | 15:00 |
| , r. | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 9 | ω | 0 | 14:00 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | • | 9 | 0 | 13:00 |
| 7 0 | 0 0 | 0 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | Ø | 0 | 12 PM |
| 5 5 | 0 0 | 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | • | ത | 0 | 11:00 |
| 1 2 | | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 8 | 12 | 0 | 10:00 |
| 23 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 18 | 0 | 00:60 |
| 28 | 2 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | ო | 0 | 4 | 15 | 0 | 08:00 |
| 1 65 | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | · | 7 | 0 | 02:00 |
| | C | 0 | 0 | 0 | 0 | 0 | 0 | a | 0 | 0 | 0 | - | - | 0 | 00:90 |
| + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 02:00 |
| • • | c | o | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 04:00 |
| . ~ | c | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 03:00 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 02:00 |
| (C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | m | 0 | 01:00 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 02/16/09 |
| Total | Classed | Multi | Multi | Multi | Double | Double | Double | Single | Single | 6 Tire | Buses | Long | Trailers | Bikes | Time |
| | Not | >6 Ax | 6 Axle | <6 AX | X | 2 Axle | XY CY | 4 Axie | CAME | 25 | | Z AXIE | Calso | 75.55 | Start |

Default Comments
PROJECT: JARDIN ESTATES EAST
LOCATION: TARRYTOWN, NEW YORK
JCE JOB# 457

Site Code: 45700000666

Station ID: LAKE DRIVE (EAST OF BROWNING LANE) GRACEMERE ROAD)

| 77 | Total | - Old | 4 | - | 0 | 0 | C | 0 0 | 9 0 | 0 4 | 4 (| 5 | ກ | 20 | 14 | * | * | * | * | * | * | * | * | * | * | * | * | 89 | 3 | | | | | į | 611 | |
|--------|------------|----------|-------|-------|-------|------------|-------|---------------|-------|-------|-------|-------|-------|---------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|-------|--------|---------|----------|------|---------|------|-------|---|-------------|
| Mak | JON POSSES | Classed | 0 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 0 | 0 0 | 0 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | * | * | * | C | %00 | 0.0.0 | | | | Ş | 13 | |
| N 3 | Multi | O C | 0 0 | 0 | 0 | 0 | 0 | 0 | C | 0 0 | 0 0 | 0 0 | 0 | 0 (| 0 | * | ĸ | ¥ | * | * | * | * | * | * | * | * | * | 0 | %00 | 0.00 | | | | c | 0 | |
| S Avio | Mulfi | - | 0 0 | 0 (| 0 | 0 | 0 | 0 | C | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | * | K | * | * | * | * | * | * | * | * | * | * | 0 | %00 | | | | | c | 0 | |
| AS AV | Multi | C | 0 0 | 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | · c | 0 0 | 0 0 | > (| > + | k i | | k - | | * | ŧ | * | * | * | * | * | * | 0 | %0.0 | | | | | c | > | |
| >6 Avi | Double | C | | 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | c | 0 0 | 0 0 | 0 0 | o + | . , | . 4 | | | * | * | * | * | * | * | * | * | 0 | %0.0 | | | | | ç | > | |
| 5 Axle | Double | 0 | · c | 0 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 0 | 0 0 | 0 0 | * | * | | 14 | 4 4 | k . | | × | * | ¥ | * | * | * | 0 | %0.0 | | | | | c | 5 | |
| <5 Axl | Double | 0 | C | 0 0 | 0 0 | 0 (| 0 | 0 | 0 | 0 | • | C | | 0 0 | * | * | * | * | | | | | * | ¥ | * | * | * | - | 1.5% | 08:00 | - | | | ď | , | |
| 4 Axle | Single | 0 | C | 0 | 0 0 | o (| 3 | 0 | 0 | 0 | 0 | 0 | c | 0 0 | * | * | * | * | • | | | | N 4 | x | * | * | * | 0 | %0.0 | | | | | c | , | |
| 3 Axle | Single | 0 | 0 | c | 0 0 | o c | > | 0 | 0 | 0 | 0 | 0 | c | 0 0 | * | * | * | * | * | | * | | | k : 14 | ĸ · | * | * | 0 | %0.0 | | | | | 0 | | |
| 2 Axle | 6 Tire | 0 | 0 | C | | 0 | 0 | 0 | 0 | - | - | 0 | c | C | * | * | * | * | * | | * | | * * | . 4 | | * 1 | k | 2 | 7.4% | 10:00 | ო | | | 27 | | |
| | Buses | 0 | 0 | C | | 0 0 | > 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | | | * 4 | ĸ | 0 | %0.0 | | | | | 0 | | Contract of |
| 2 Axle | Long | 0 | 0 | 0 | C | 0 0 | 0 | o (| 2 | - | 4 | · | m | m | * | * | * | * | * | * | * | * | | * | | • | | 47 | 20.6% | 08:00 | 4 | | | 110 | | 3.5 |
| Cars & | Trailers | 4 | - | 0 | C | 0 0 | 0 0 | > 1 | - | 2 | 7 | œ | 7 | 7 | * | * | * | * | * | * | * | * | * | * | | * | | 48 | 10.6% | 10:00 | 14 | | | 455 | 100000000000000000000000000000000000000 | |
| | Bikes | 0 | 0 | 0 | O | 0 0 | 0 0 | 0 | 0 (| 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | * | * | * | | 0 20 0 | 0.0% | | | | | 0 | | 1000 |
| Start | Time | 07/17/09 | 01:00 | 05:00 | 03:00 | 04.00 | 00:50 | 00:00 | 00.00 | 00:20 | 08:00 | 00:60 | 10:00 | 11:00 | 12 PM | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19.00 | 20.00 | 24.00 | 20.00 | 23:00 | Z3.00 | lotal | rercent | AIN Peak | Vol. | PM Peak | Vol. | Grand | - כומו | - |