

APPENDIX C

Updated Traffic Analysis

JOHN COLLINS ENGINEERS, P.C.

TRAFFIC • TRANSPORTATION ENGINEERS

===== 11 BRADHURST AVENUE • HAWTHORNE, N.Y. • 10532 • (914) 347-7500 • FAX (914) 347-7266 =====

MEMORANDUM

TO:

FROM: Philip J. Grealy, Ph.D., P.E.

DATE: November 8 2006

SUBJECT: Summary of Responses to the October 24, 2006 Draft Letter from Ken Wersted

PROJECT: No. 837

COPY TO:

Traffic

1. Appendix "G" contains copies of the accident reports and Table A is the summary of this data. The hard copy contained in the DEIS will be added to the online version. The hard copy of the accident rates which is shown in the online version will be added to Appendix "G".
2. Section 3.6.7 Existing Conditions: Table 3.6-2 there is no eastbound right turn lane at Route 52 at Route 300. It is a right lane shoulder which is used by right turning vehicles. A footnote has been added to reflect this. The northbound approach at Route 52 at I-84 ramp does provide a separate right turn lane and the table will show the movement delays for this and not just the overall approach delays. Under the existing conditions, Route 300 at the south Newburgh Mall driveway does not have a southbound right turn lane on Route 300. This was an improvement being considered under future conditions only.
3. The revised figures indicate the traffic volumes entering and exiting the Thruway Exit 17 ramp for both PM and Saturday peak hours.

4. See DFEIS Response 3.6-29. The list of other developments included in Section 3.6.8 has been incorporated into the updated traffic analysis contained in the FEIS. Those other development traffic volumes are shown on Figures No. ___ and ___. A bank and office project at the intersection of Route 300 and Old South Plank Road was not one of the projects specifically listed however, based upon a review of the information, their traffic would be accounted for as part of the background growth as it relates to the key intersections analyzed in the DEIS and FEIS.
5. Same response as #1 above.
6. The original traffic study included a 25% pass-by credit. As requested by NYSDOT, a sensitivity analysis utilizing a 15% pass-by credit was completed. This pass-by credit is significantly lower than our experience at other centers and for a Saturday condition the ITE data even indicates it would be approximately 21%. Additional figures identifying the primary and pass-by trips have been compiled and are shown on the attached.
7. See previous responses 3.6-40 and 3.6-66 in the draft FEIS.
8. Comment noted. The eastbound right turn lane at Route 52 and Route 300 is identified under future conditions and the delays and Levels of Service for the existing northbound right turn lane on Route 52 at I-84 has been indicated in the table. It was already included separately in the analysis.
9. The traffic signal phasing at the intersection of Route 300 and the south Newburgh Mall driveway/Marketplace has been corrected for the Saturday peak hours to reflect the proper signal phasing. (See FEIS Response 3.6-55)
10. Figure 3.6-11A has been corrected to indicate the Saturday volumes for the Route 32 and Route 17K intersections.

11. Comment noted. The traffic volumes at the Route 300 NB/I-84 WB ramp have been updated for both the PM and Saturday conditions.
12. See draft FEIS Response 3.6-22 sub item 5. This alternative can be pursued further if the Town requires.
13. Text on Section 3.6.9.7/8, has been revised to reflect the correct location.
14. The delay increases at the ramp referenced are without consideration of the signal coordination along this corridor, which will improve these Levels of Service. The final details of this design will be coordinated with New York State Department of Transportation and New York State Thruway Authority as part of the Highway Work Permit process.
15. The delay increases from No-Build to Build conditions are shown in the revised Level of Services summary table.
16. The queues referenced will be controlled by the traffic signal system. The signal green time allocation will be controlled by NYSDOT and during peak periods, exiting traffic from the Marketplace will stack on the exit road which has several thousand feet of vehicle storage.
17. The provision of a southbound right turn lane at the Newburgh Mall south driveway was considered as an alternate improvement plan. The final determination on this lane will be made by the New York State Department of Transportation as part of the Highway Work Permit process.
18. The southbound right turn lane will be provided as part of the shoulder reconstruction as part of the intersection improvements and will be noted in Item 3.

19. The Route 300 signal coordination improvements will be updated to include the Stop & Shop signal and Route 52 signal.
20. The signal preemption for the Route 300 and Route 52 intersection will be provided if required by the Town. The details will be coordinated with the New York State Department of Transportation as part of the Highway Work Permit process. (See also DFEIS Response 3.6-4) ,
21. A roundabout is not proposed at the primary internal intersection. This is proposed as a four way intersection which will be monitored for signalization in the future. Furthermore, as part of the site plan review process, the other key internal intersections will be analyzed in more detail at that time since there are ongoing changes with the site plan.
22. The internal roads are proposed to be private but it will be determined by the Town whether or not they want them to be dedicated.
23. The revised site plans have incorporated site plan revisions including sidewalks where noted.
24. Figures No. 2A and 3A are attached and show the seasonally adjusted traffic counts for the area intersections. The peak shopping season analyses reflect the increased base traffic volumes and the ITE Christmas Season trip generation for this size shopping center.
25. SYNCHRO Models
 - a. The Route 300 models will be revised to reflect the modifications to the signal system including replacing the pre-time signals with actuated and coordinated signals along this corridor.

- b. The Route 52 models have been revised for future conditions to incorporate the interconnection and actuation which was requested by NYSDOT.
26. The Level of Service report printouts summarized in the Level of Service tables are attached in Appendix “C” of the Traffic Impact Study.
27. Coordination with the Town Planning Board regarding internal and external sidewalk considerations will be finalized during the site plan approval process.

Site Plan

28. The site plan will be revised to label internal roads, i.e., Road A, Road B, Road C.
29. Sidewalks have been provided in various areas and labeled on the revised site plan.
30. The lifestyle center traffic is included as part of the overall traffic generation for the entire development. At this time no separate breakdown of these volumes has been compiled for individual intersections. However, as part of the site plan review, the individual key intersections will be analyzed as the design and layout of this area is finalized.
31. There is currently no proposed exit from the lifestyle center onto the Route 300 collector road. Traffic will be allowed to enter in the form of a right turn from the collector however, will exit at the main intersection located to the east which is expected to be a signal controlled intersection at the full build out of the site. This intersection is proposed to be monitored as the development occurs to determine when this signalization will be needed.

32. In some areas, due to grading considerations, traffic has to use the internal ring road in front of the stores to access the exit drives. However, the final site plans will be reviewed with the Town Planning Board to determine if other options can be implemented to cut down on the amount of traffic which needs to pass in front of the stores.

Traffic

1. Section 3.6.6 Traffic Accident Data: The calculated accident rates and comparison to statewide averages was not found in Appendix G of the hardcopy of the DEIS but was found on the online version. Table A – Accident Summary, contained in the hardcopy of the DEIS under appendix G, is not included in the online version.
2. Section 3.6.7 Existing Conditions: Table 3.6-2 includes a non-existent eastbound right turn lane on Route 52 at Route 300. The northbound approach of Route 52 at I-84 Eastbound on/off ramps provides a right turn lane. The Traffic Impact Study (TIS) included in Appendix G assumes the existence of a southbound right turn lane on Route 300 at the south Newburgh Mall driveway.
3. No traffic volumes are shown entering or exiting the Thruway Exit 17 ramp to Route 300 for the PM or Saturday peak hours.
4. Section 3.6.8 No-Build Traffic Conditions: The other developments listed to be added on top of a 1.5% per year background growth rates are not included. A bank/office project proposed on the northeast corner of Route 300 and Old South Plank Road is not included in the analysis.
5. Section 3.6.8 No-Build Conditions: Table 3.6.3, same comments as #1 above.
6. Section 3.6.9 Potential Impacts– Build Conditions: Table 3.6-4 Trip Generation Rates: Based on the trip generation rates contained in this table, the project should generate approximately 2570 trips during the PM peak hour and 3470 trips during the Saturday peak hour. This is the total amount of traffic that will enter and exit the site. Figures 3.6-9 through 3.6-10a have a total of 2065 trips entering/exiting the site during the PM peak hour and 2792 trips during the Saturday peak hour. Pass-by rates for land uses of this size equate to approximately 21% versus the 25% used in the analysis, see Trip Generation Handbook, 2nd Edition Figure 5.5. Primary and pass-by trips should be shown on separate figures or differentiated on the diagrams.
7. Summarizing the trip distribution figures, approximately 29% of trips are expected to arrive from the east on I-84, 12% from the southeast on Route 52, 4% from the east on Route 17K, 8% from the south on Route 300, 1% from the west on Route 17K, 5% from the Thruway, 15% from the west on I-84, 5% from the Newburgh Mall, 3% from the west on Meadow Avenue, 4% from the northwest on Route 52, 10% from the north on Route 300, and 4% from the northeast on Powder Mill Road/Fifth Avenue. The trip distribution realized by the project will be dependant on the types of tenants secured for the center. Tenants similar to other local retail services will not generate a high demand as a regional trip destination, where as, unique tenants offer services or merchandise unique to Orange County will generate a lower local demand but a higher regional demand. The arrival and departure trip distribution to and from I-84 differs in that traffic is estimated to arrive from I-84 eastbound and enter the site from Route 300 (16%), with approximately half leaving the site via Route 300 and half via Route 52. Please elaborate on this estimation.
8. Section 3.6.9: Table 3.6-6 should note the addition of an eastbound right turn lane on Route 52 at Route 300, and include the existing northbound right turn lane on Route 52 at I-84 eastbound ramp intersection.
9. The Build calculations for the Route 300/South Mall/Marketplace intersection include eastbound and westbound permitted left turn phase, where the left/through, right turn lane approaches of the mall oppose double lefts, a through, and a right turn lane. This phasing is generally not permitted by NYSDOT.
10. Figure 3.6-11A incorrectly shows Saturday traffic volumes when it should include PM traffic volumes for the Route 32 and Route 17K intersections.
11. Section 3.6.8: The No-Build traffic volumes at the Route 300 NB/I-84 WB on-ramp (NB right) indicate a PM peak hour volume of 208 vph. Presumably, this volume includes Thruway traffic traveling north on Route 300 destined from I-84 west. The Exit 17 project calls for a direct connection from the toll plaza to I-84. Therefore, the NB left turn volume (208 vph) on the I-84 realignment figure (in the Appendix G traffic study) at the westbound on-ramp from Route 300 should be lower.

The No-Build traffic volume at the Route 300 NB/I-84 westbound off-ramp (WB right) during the PM peak hour volume is 505 vph. The interchange project makes no changes to access for WB drivers destined for Route 300 north; however, on the I-84 realignment figures this volume decreases to 341 vph. Similarly the No-Build SB right of 104 vph increases to a No-Build volume of 483 vph with the realignment.

The northbound traffic volume on Route 300 exiting the I-84 WB off ramp (intersection 11) is 1838 vph (Figure 3.6-5), but under the realigned condition, it is 2420 vph.

Please explain these differences, which are also applicable to the Saturday peak hour.

12. Section 3.6.9.6: The proposed relocation of Meadow Avenue to "T" into the site driveway favors the project entrance which has less traffic volume than Meadow Avenue has using the intersection. The center to center distances of this intersection to Route 52 is only 200 feet. A roundabout was considered as an alternative to realigning Meadow Avenue and installing a second traffic signal but dismissed. We request to see this alternative and additional explanation of its dismissal.
13. Section 3.6.9.7/8: Build analysis and improvement discussions (intersection #7 & 8) indicates that construction of the site access is approximately ¼ mile north (1,300 feet) of the Route 52/I-84 interchange, when it is actually only 350 feet north of the interchange.
14. Section 3.6.9.11/12: The delay on the Route 300 southbound left turn movement at the I-84 eastbound on-ramp will increase by approximately 50 seconds and degrade from LOS C to LOS E during the PM peak hour and double during the Saturday peak hour and degrade from LOS B to LOS D.
15. Section 3.6.9.14: The delay on the Route 300 southbound left turn movement at Route 17K will increase by approximately 20 seconds and degrade from LOS D to LOS E during the PM peak hour and double during the Saturday peak hour and degrade from LOS C to LOS E.
16. Section 3.6.10: The queuing analysis indicates that the southbound approach of Route 52 at the Exit 8 interchange will queue past the entrance to Marketplace by close to 500 feet (95th percentile). The southbound left turn queue at the I-84 eastbound ramp is expected to operate beyond capacity and spill into the through lane. The northbound through movement queue on Route 52 at the eastbound ramp is expected to increase by 275 feet (50th percentile) and 400 feet (95th percentile). The northbound and southbound queues on Route 300 at Route 52 are expected to double from No-Build to Build (PM peak hour). The queues entering Route 52 from the realigned Meadow Avenue and from the site will extend beyond the new intersection proposed.
17. Section 3.6.11.1: The DEIS notes that a southbound right turn lane will be provided on Route 300 into the Newburgh Mall but none is shown on Figure 3.6-13.
18. Section 3.6.11.3: The DEIS does not note that a southbound right turn lane will also be provided as shown on Figure 3.6-15.
19. Section 3.6.11.6: Signal coordination should include the Stop & Shop signal (intersection #16) and Route 52 (intersection #5).
20. Emergency vehicle signal pre-emption improvements should be considered on Route 300 and Route 52.
21. Section 3.6.12: A roundabout analysis of the primary internal intersection should be included. Additional analysis on other key internal intersection is requested.
22. Section 3.6.12: Under which jurisdiction will the internal roads fall under, i.e., will these roads be private or Town roads?
23. Section 3.6.13: The site plans do not include the location of any sidewalk provisions.
24. Section 3.6.16: Seasonal traffic counts were not found on Figures 2a and 3a in the appendix G. The ITE trip generation estimate indicates that the Christmas season is only about 10% higher than the non-holiday shopping season. Based on a review of the raw traffic counts from the Christmas season,

background traffic volumes are approximately 30% higher. Therefore, the No-Build traffic volumes should be adjusted appropriately to account for background holiday volumes, with the slightly higher trip generation estimate added to it to estimate the peak shopping season and calculate the operating conditions.

25. Synchro Models

- a) Union Ave models – Add Stop & Shop intersection and correct NB/SB lane geometry error between Meadow Avenue and Route 52. Check right turn storage length on Route 52 EB at Route 300. There is no left turn lane out of Newburgh Mall south driveway. Remove Autozone driveway. The Newburgh Mall driveways are coded as pretimed signals versus coordinated at the other intersections to the north.
- b) Route 52 models - Pre-timed signals are coded at the Route 52/I-84 interchange. The proposed improvements are not accurately reflected in the Route 52 models.

26. The level of service reports summarized in the level of service tables are requested.

27. Section 4.2: No pedestrian access is proposed out to Route 52 near Exit 8 due to resident and potential tenant concerns. It is doubtful that many adults will walk from any nearby residence to the Marketplace or to the Newburgh mall to shop. However, malls are popular for kids to hang out in after school or during the summer. Kids walking or biking from Fifth Avenue to the Newburgh Mall would have to travel up Route 52 and across on Meadow Avenue. With the Marketplace, kids would be able to cut straight across to the mall, but would have to walk/ride in the Marketplace access road.

Site Plan

- 28. Internal roads should be temporarily named to aid in the review and discussion process.
- 29. The site plans do not include the location of any sidewalk provisions.
- 30. How much traffic is expected to use/frequent the lifestyle center?
- 31. Exiting the lifestyle center onto the Route 300 collector road: will drivers have adequate sight distance?
- 32. To exit any parking lot, a driver must first drive by the front of store to access a driveway leading out to the collector roads.

If you have any questions regarding these comments or recommendations, please feel free to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

DRAFT

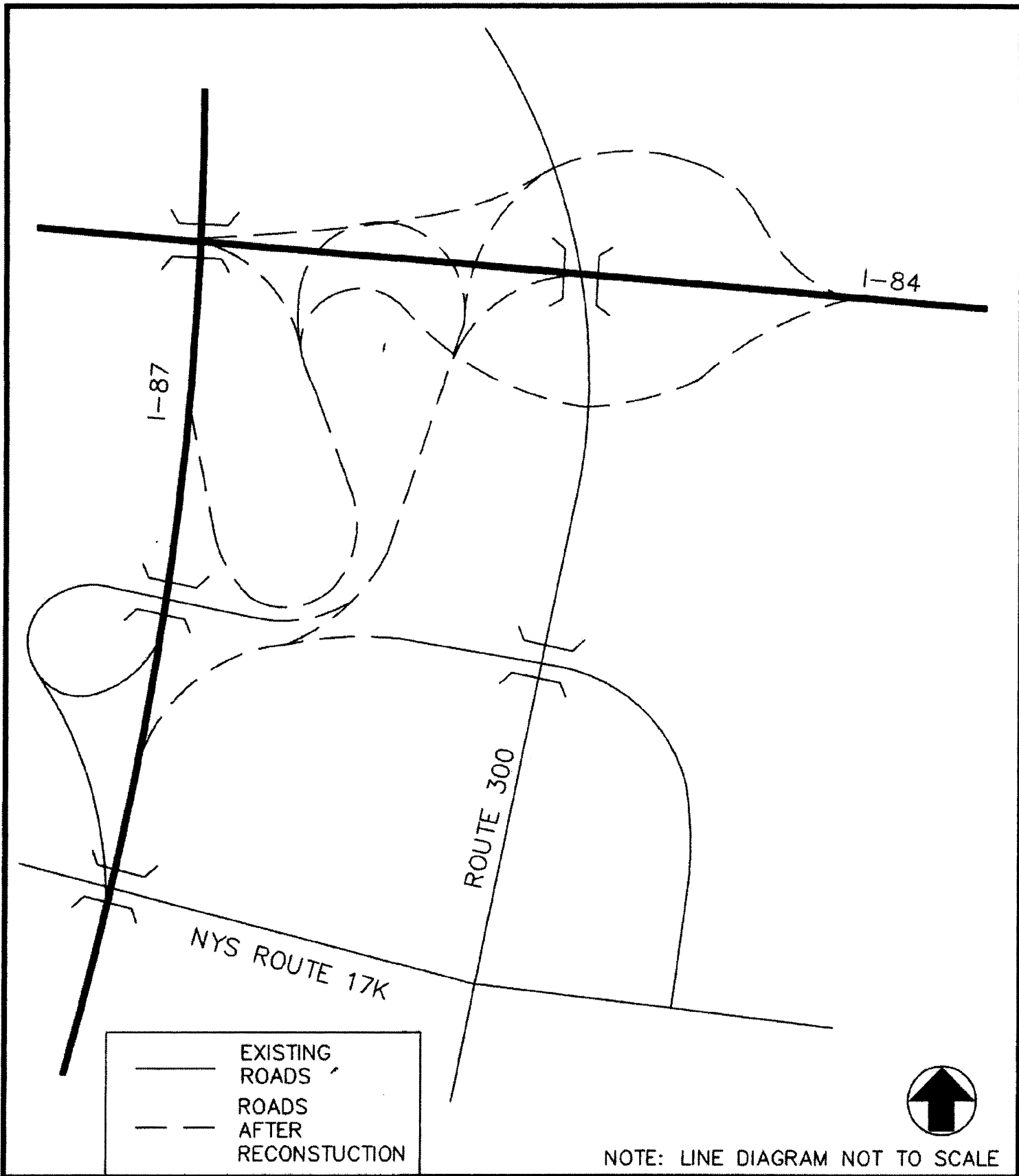
Kenneth Wersted, P.E.
Project Engineer

Cc: Ed Garling – Town Planner
Jim Osborne – Town Engineer
Pat Hines – MHE
Tim Miller – Tim Miller Associates

Michael Donnelly – PB Attorney
Gerry Canfield – Code Enforcement
Karen Arent – KALA

APPENDIX "A"

FIGURES

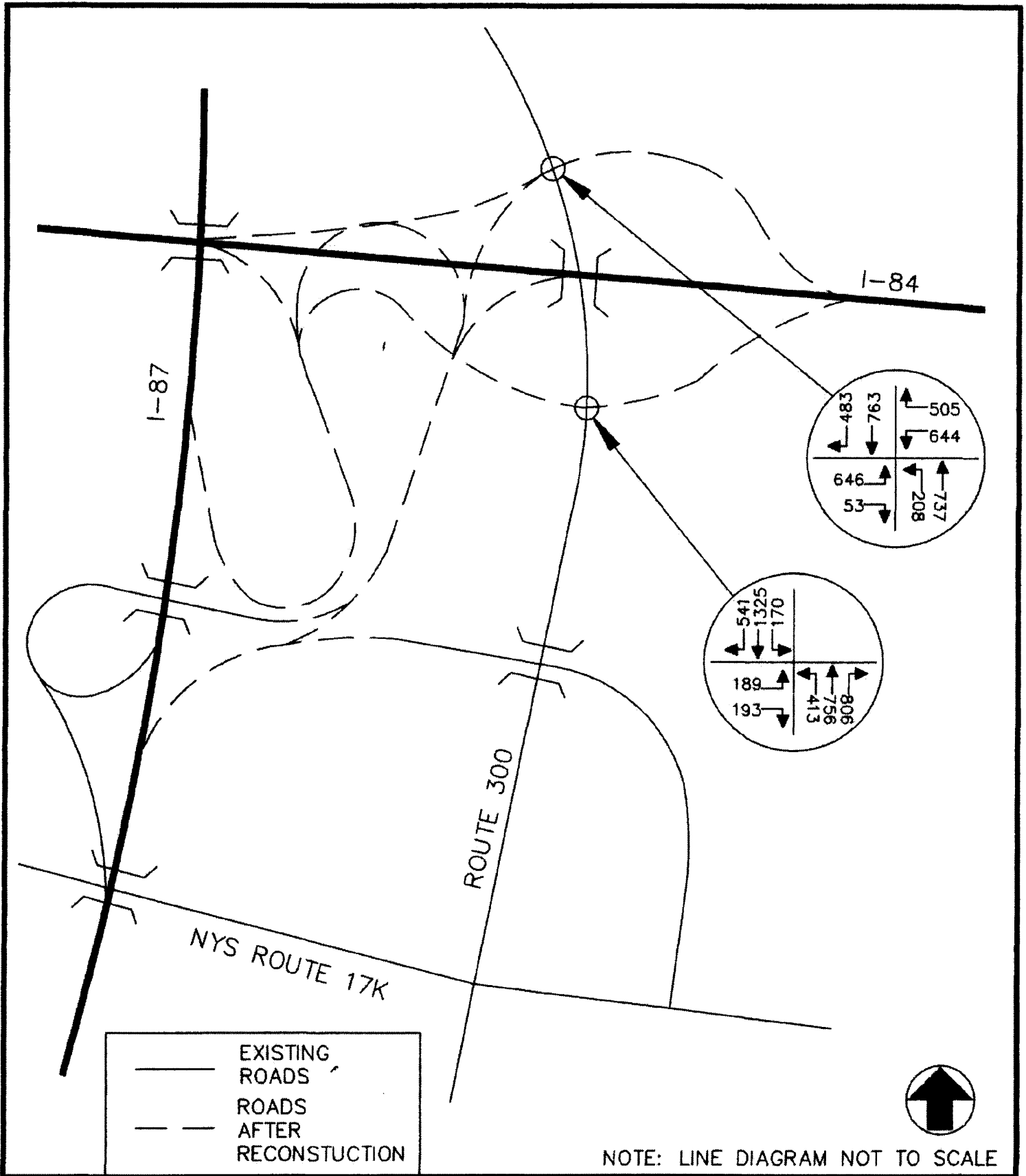


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

JOHN COLLINS ENGINEERS, P.C.
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WITH NEW I-84 / I-87
 INTERCHANGE IMPROVEMENTS
 (PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 1T

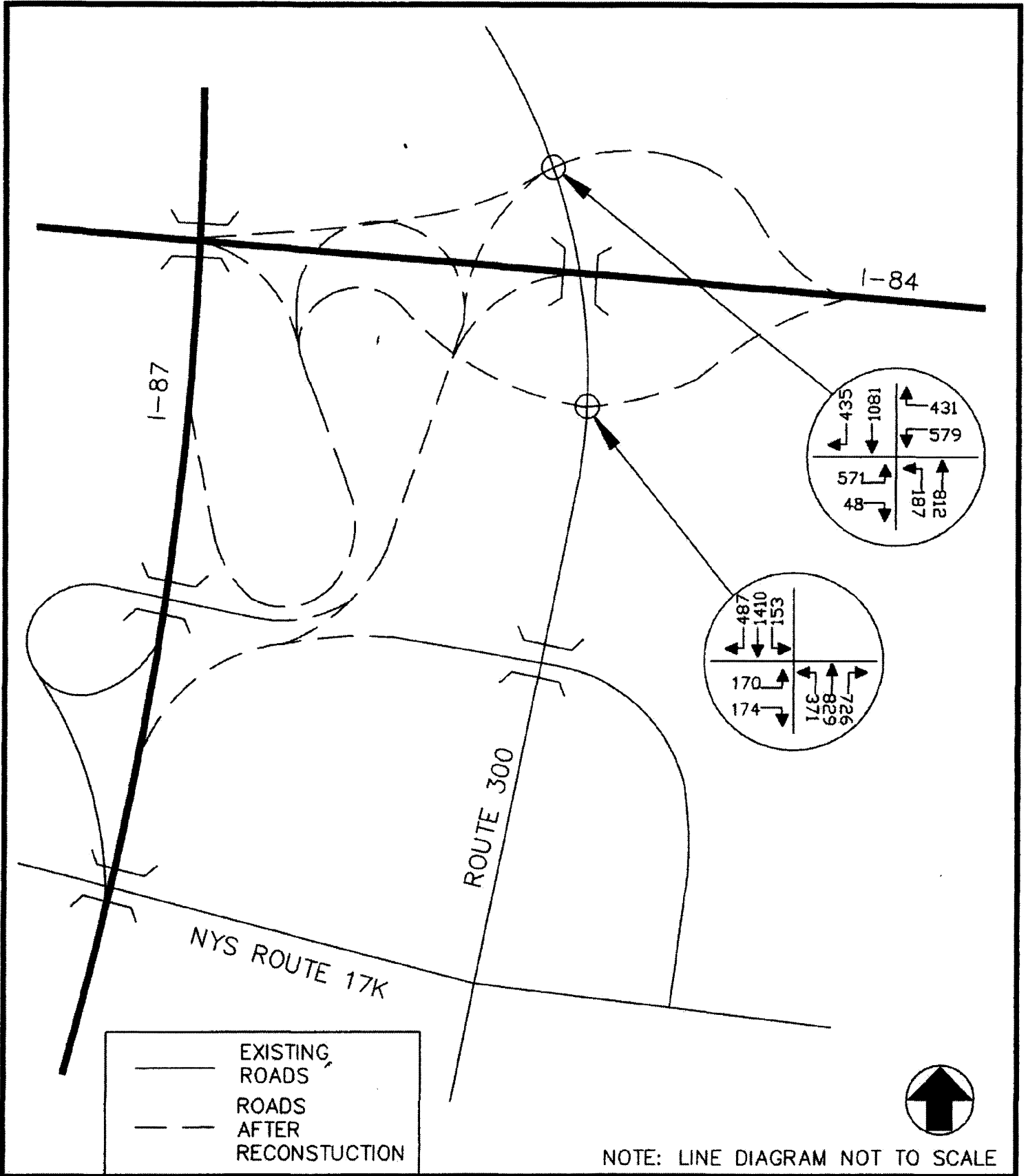


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 NO-BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 2T

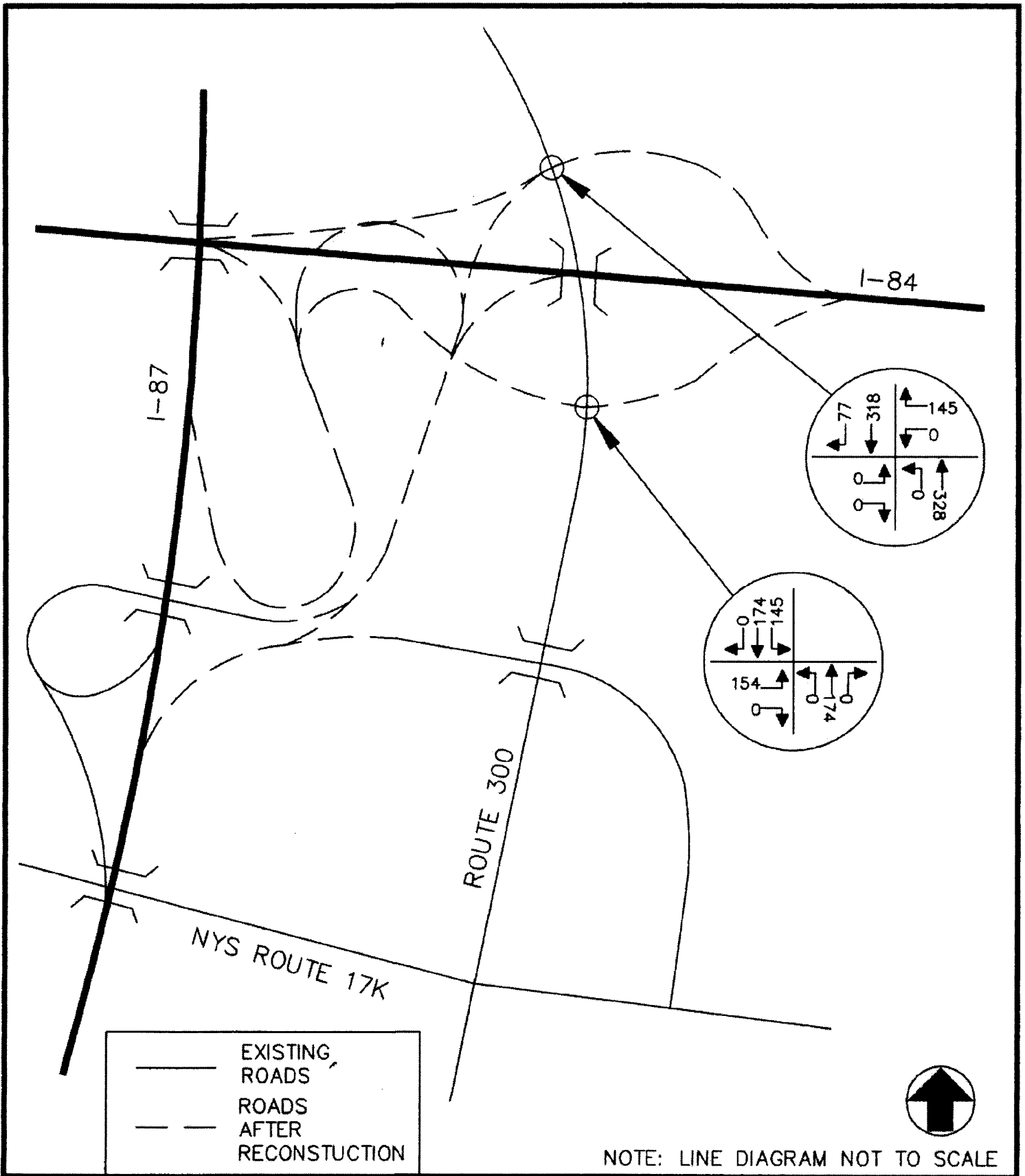


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 NO-BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

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 HAWTHORNE, NEW YORK

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 3T

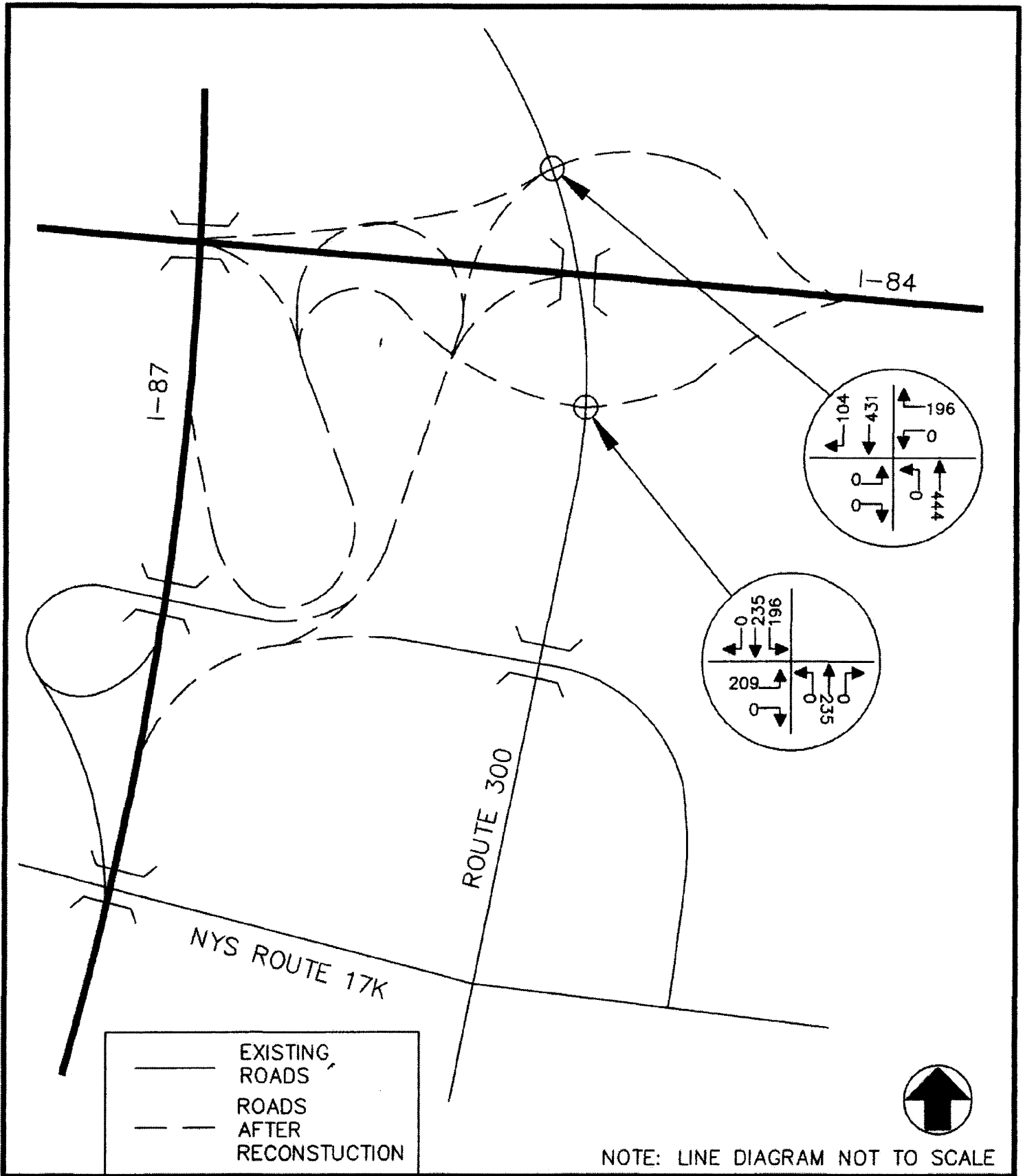


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

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

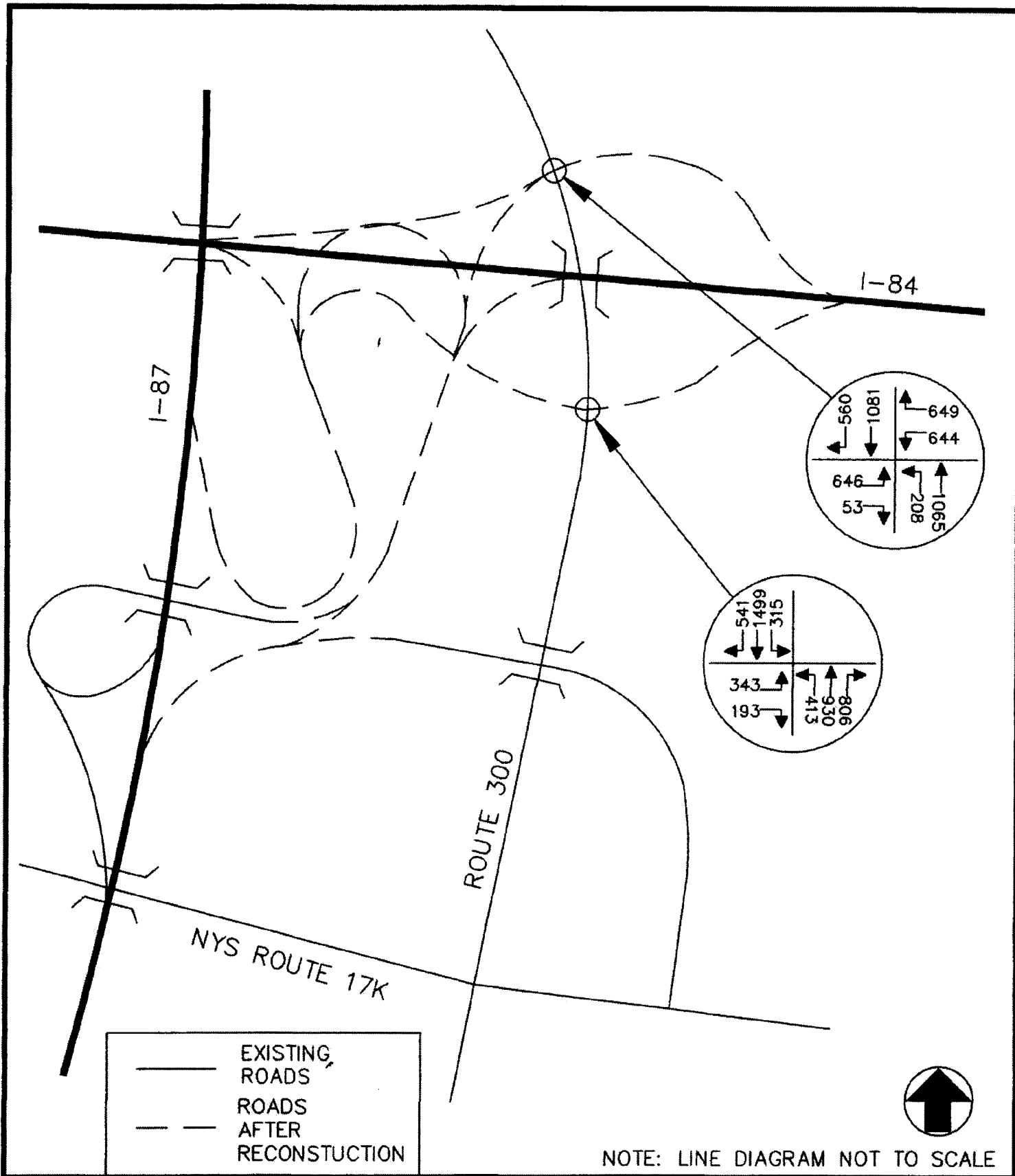
PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 4T



THE MARKET PLACE AT NEWBURGH SITE GENERATED TRAFFIC VOLUMES
 NEWBURGH, NEW YORK WEEKEND PEAK SAT HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

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 HAWTHORNE, NEW YORK

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 5T

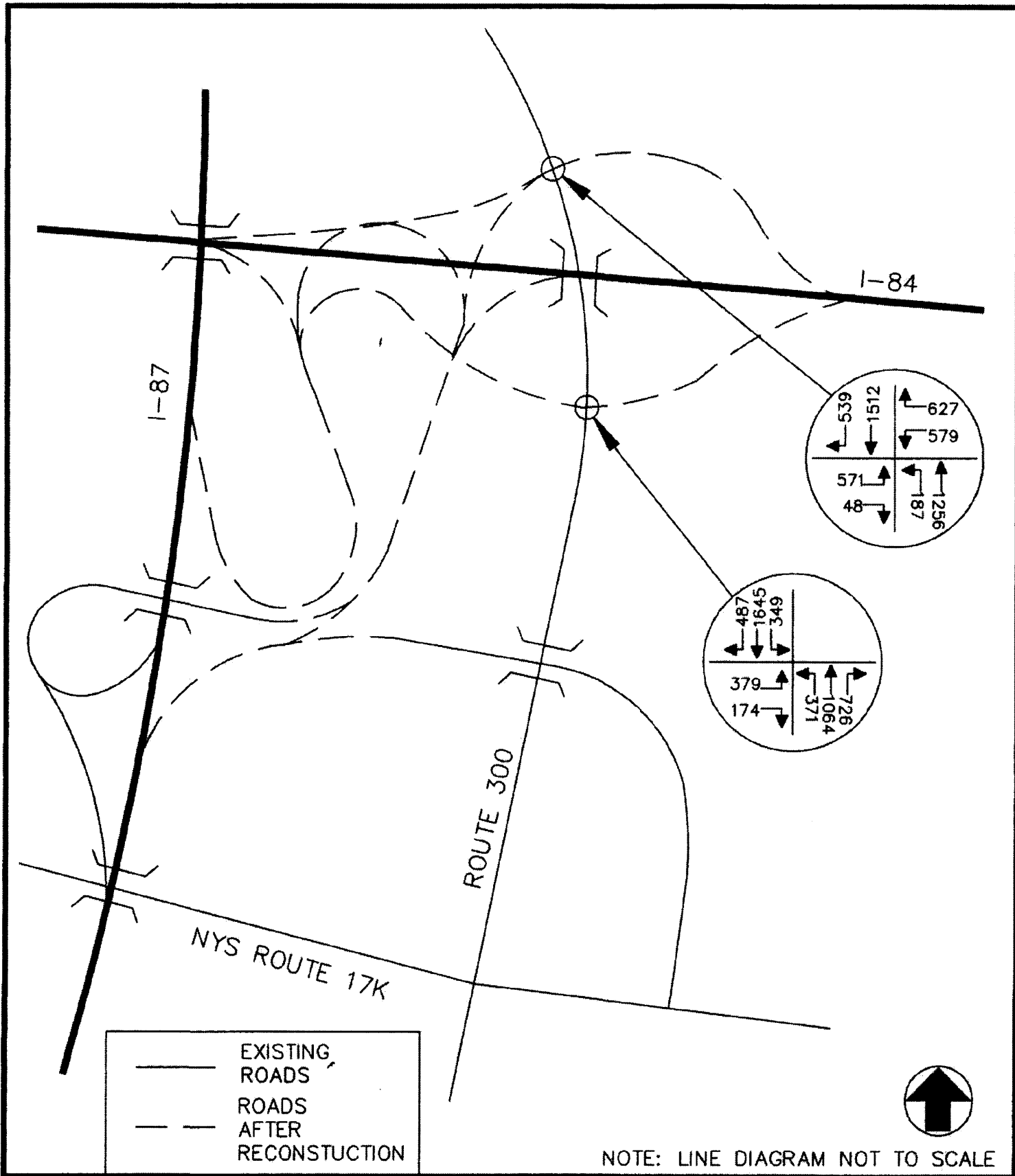


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 6T

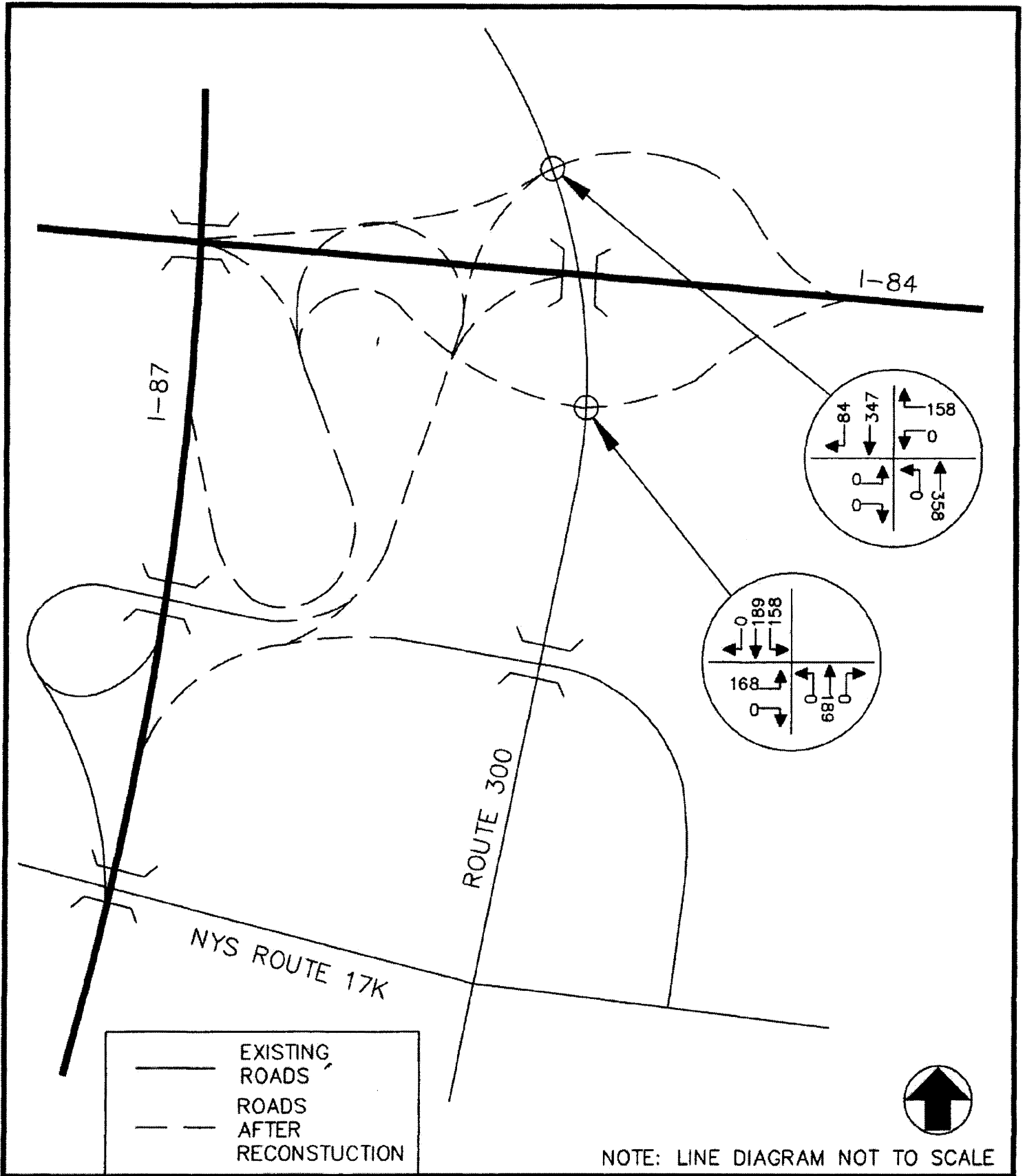


THE MARKET PLACE AT NEWBURGH
NEWBURGH, NEW YORK

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HAWTHORNE, NEW YORK

2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 7T

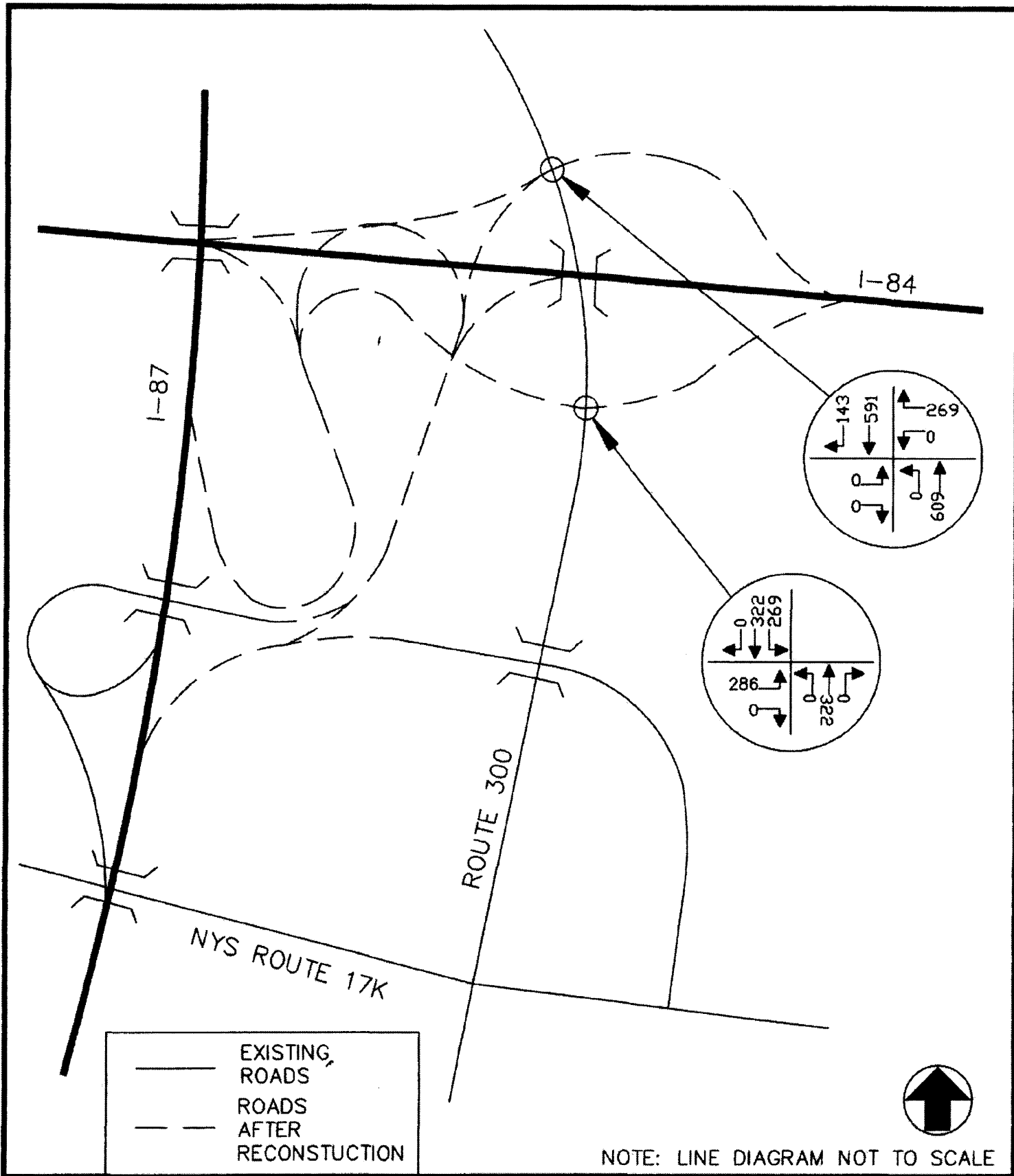


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 8T

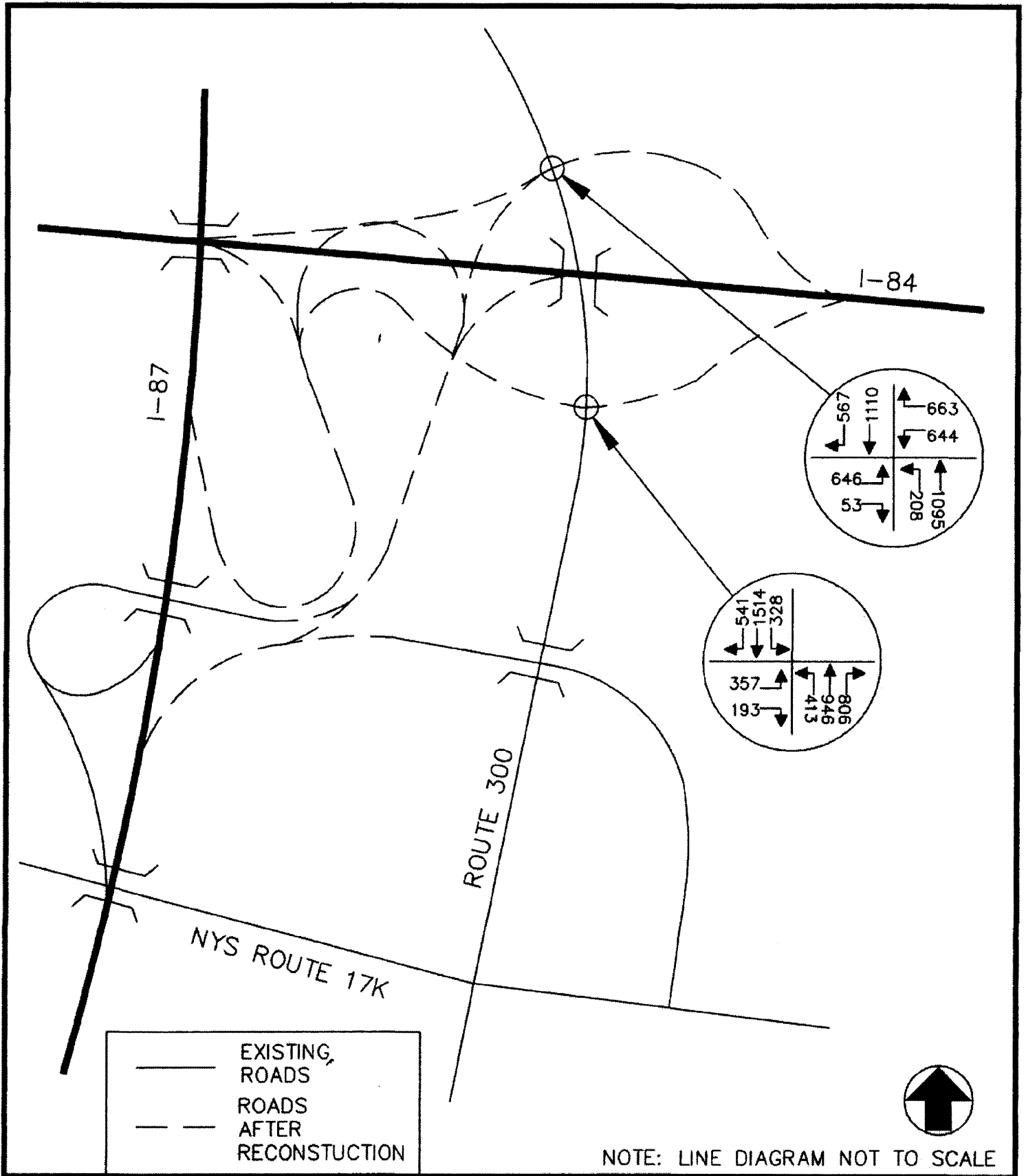


NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH SITE GENERATED TRAFFIC VOLUMES
 NEWBURGH, NEW YORK WEEKEND PEAK SAT HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

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

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 9T

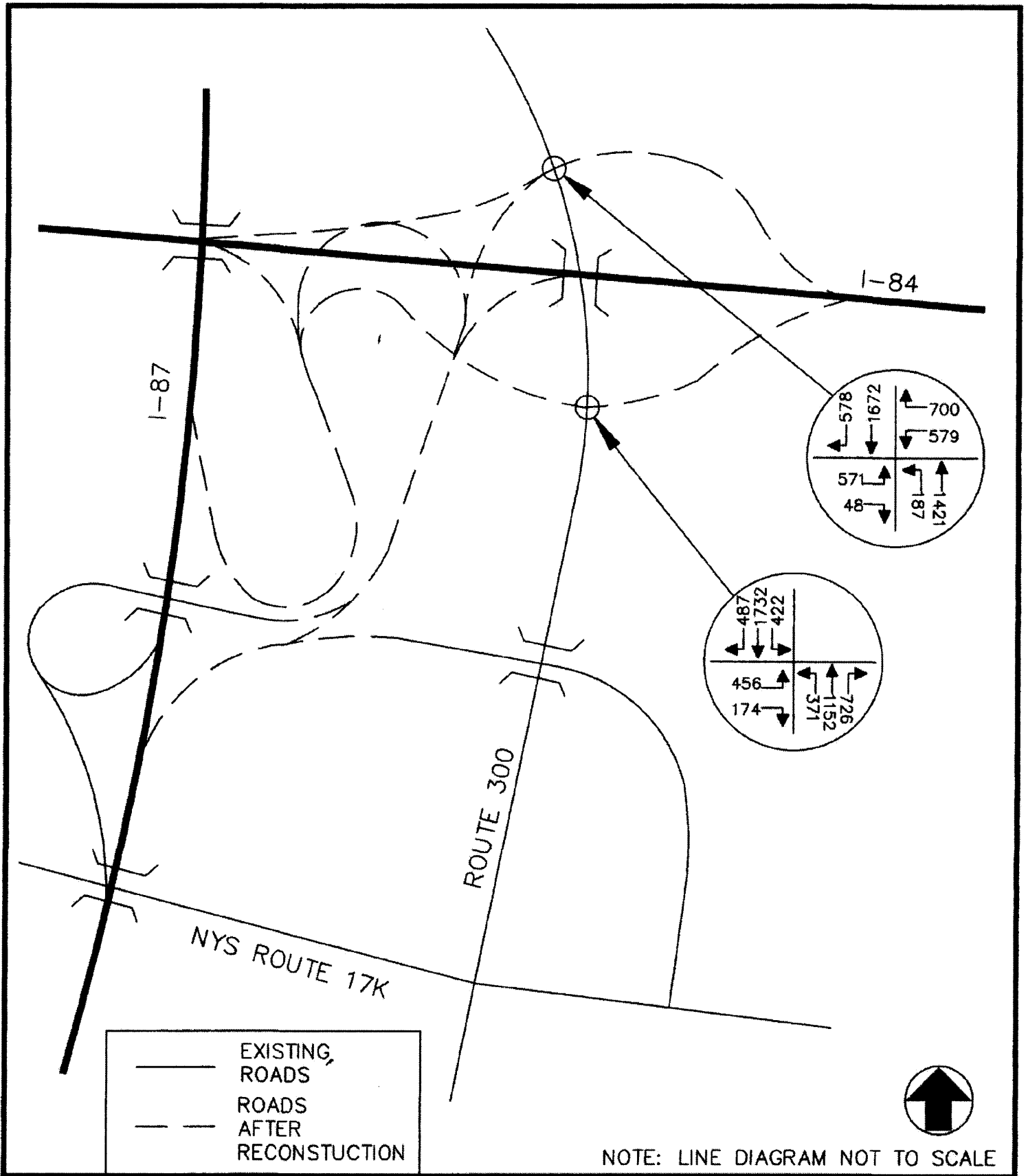


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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 HAWTHORNE, NEW YORK

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (PROPOSED I-84 RAMP ALIGNMENT)

PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 10T

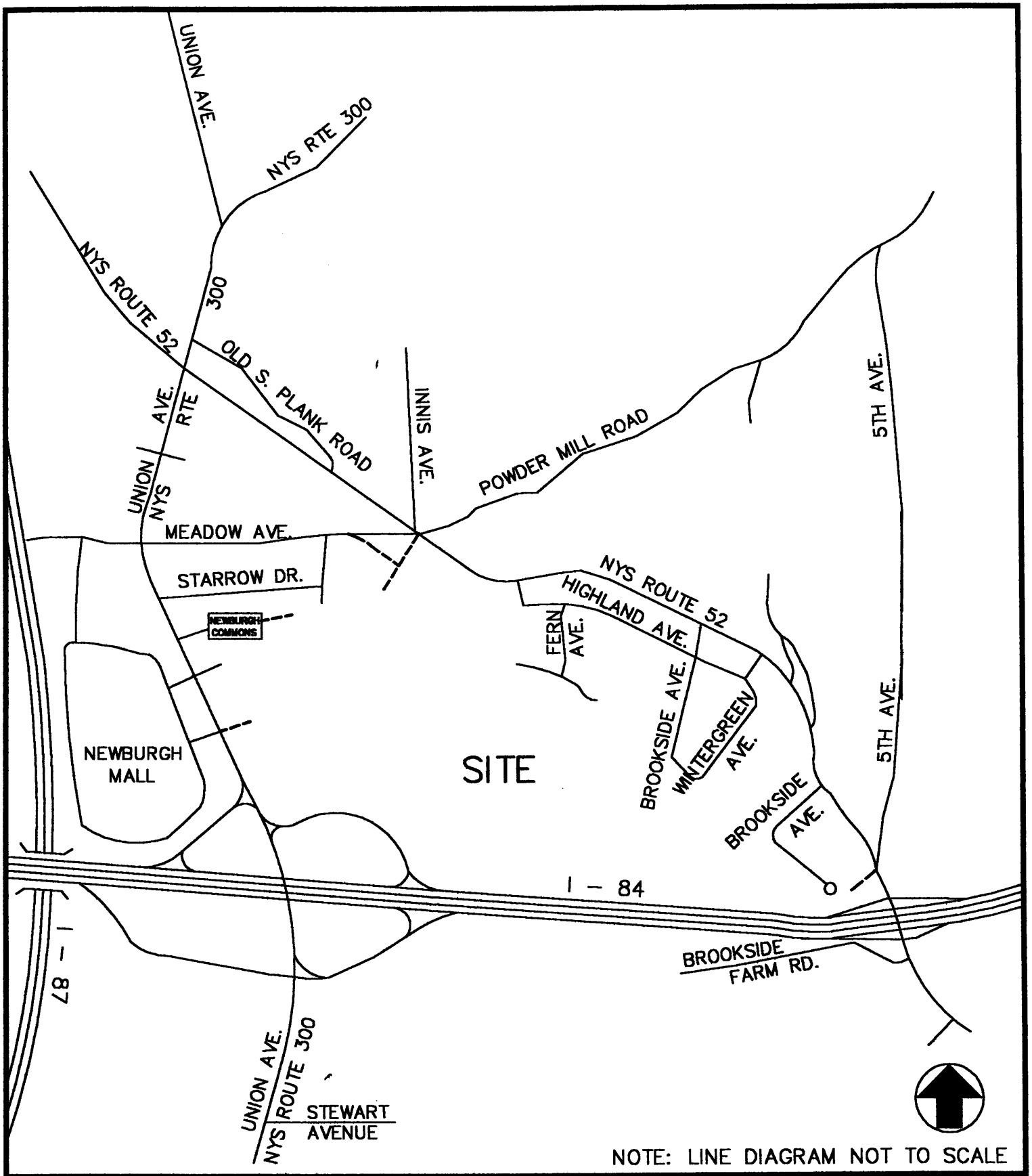


THE MARKET PLACE AT NEWBURGH
NEWBURGH, NEW YORK

2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(PROPOSED I-84 RAMP ALIGNMENT)

JOHN COLLINS ENGINEERS, P.C.
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PROJECT NO. 837 DATE: NOV. 2006 FIG. NO. 11T



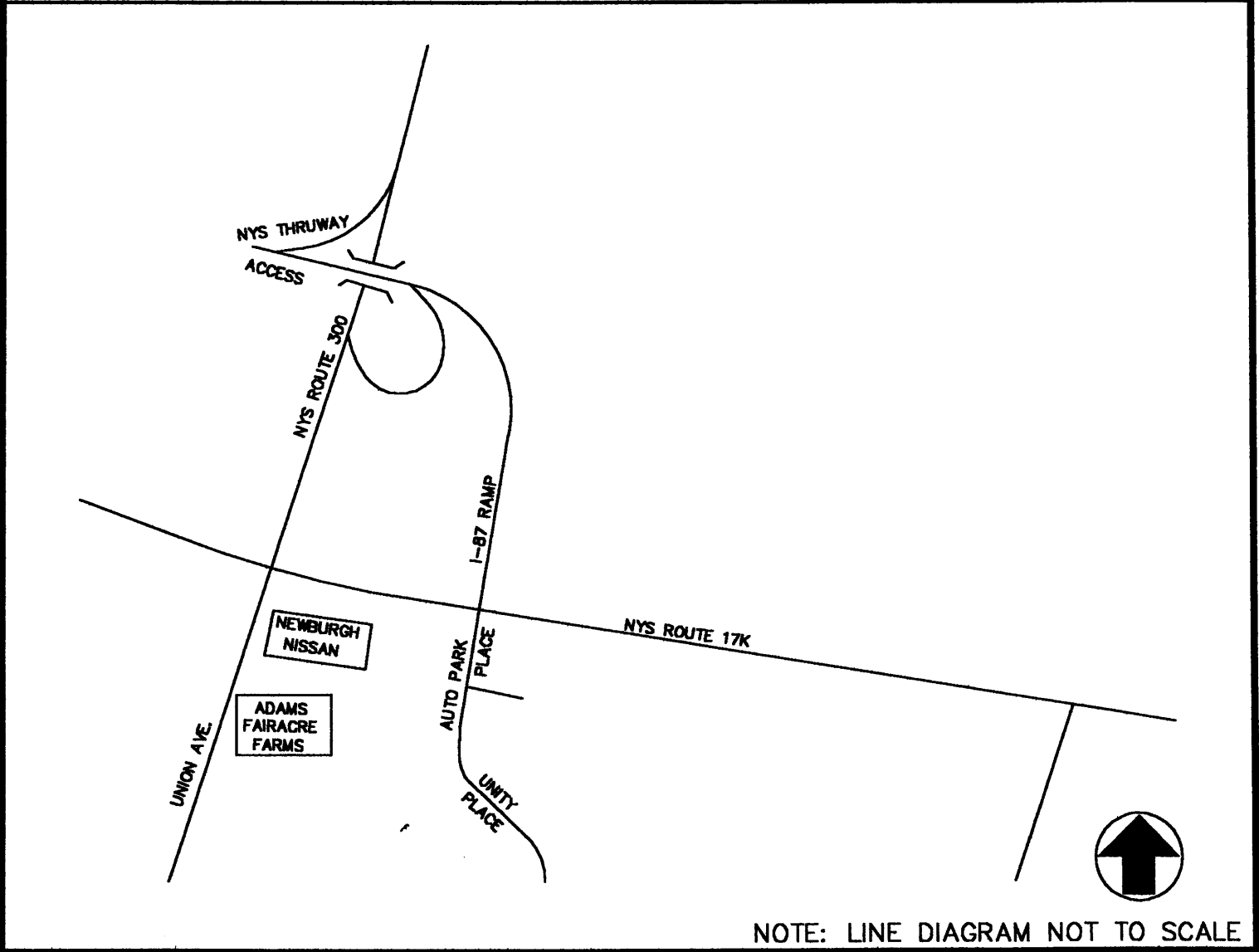
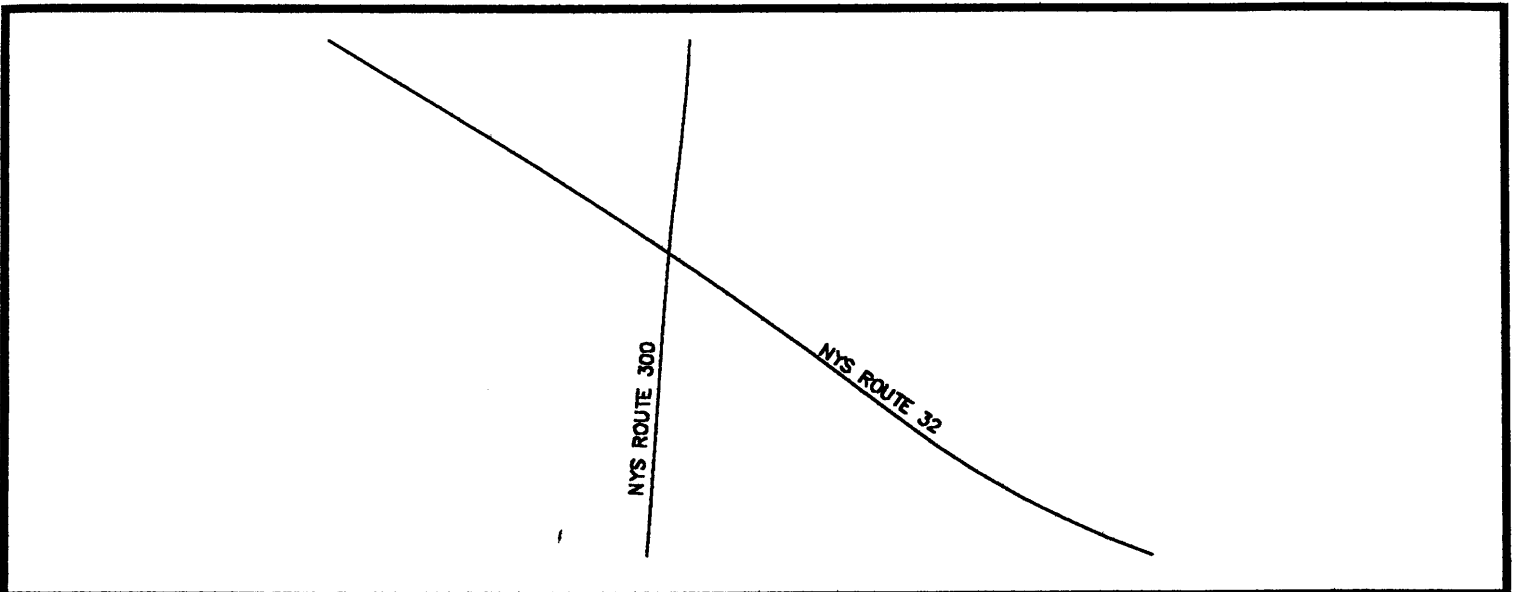
THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

SITE LOCATION MAP

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

(850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 1



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

SITE LOCATION

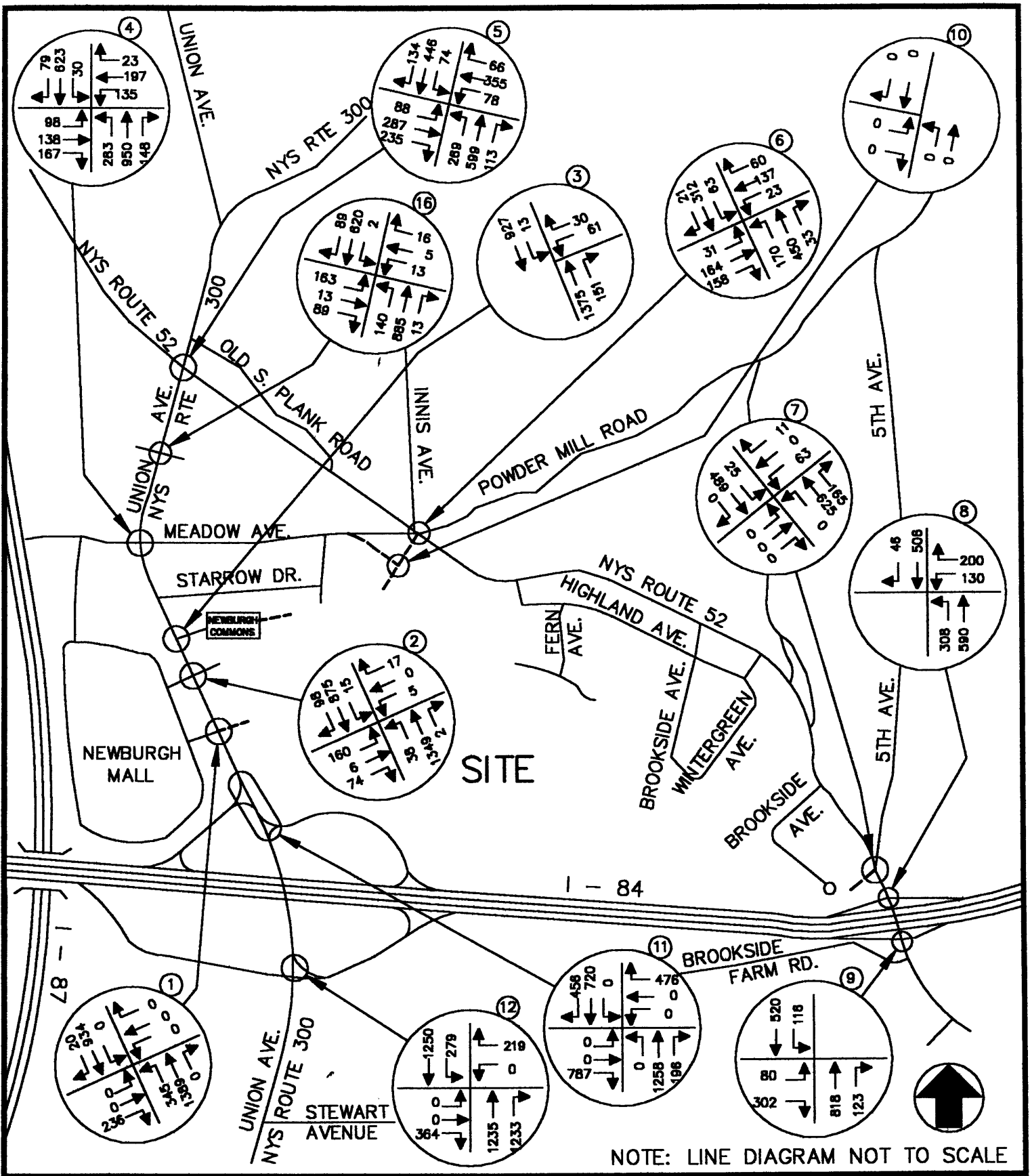
(850,000 S.F.)

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 HAWTHORNE, NEW YORK

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 1

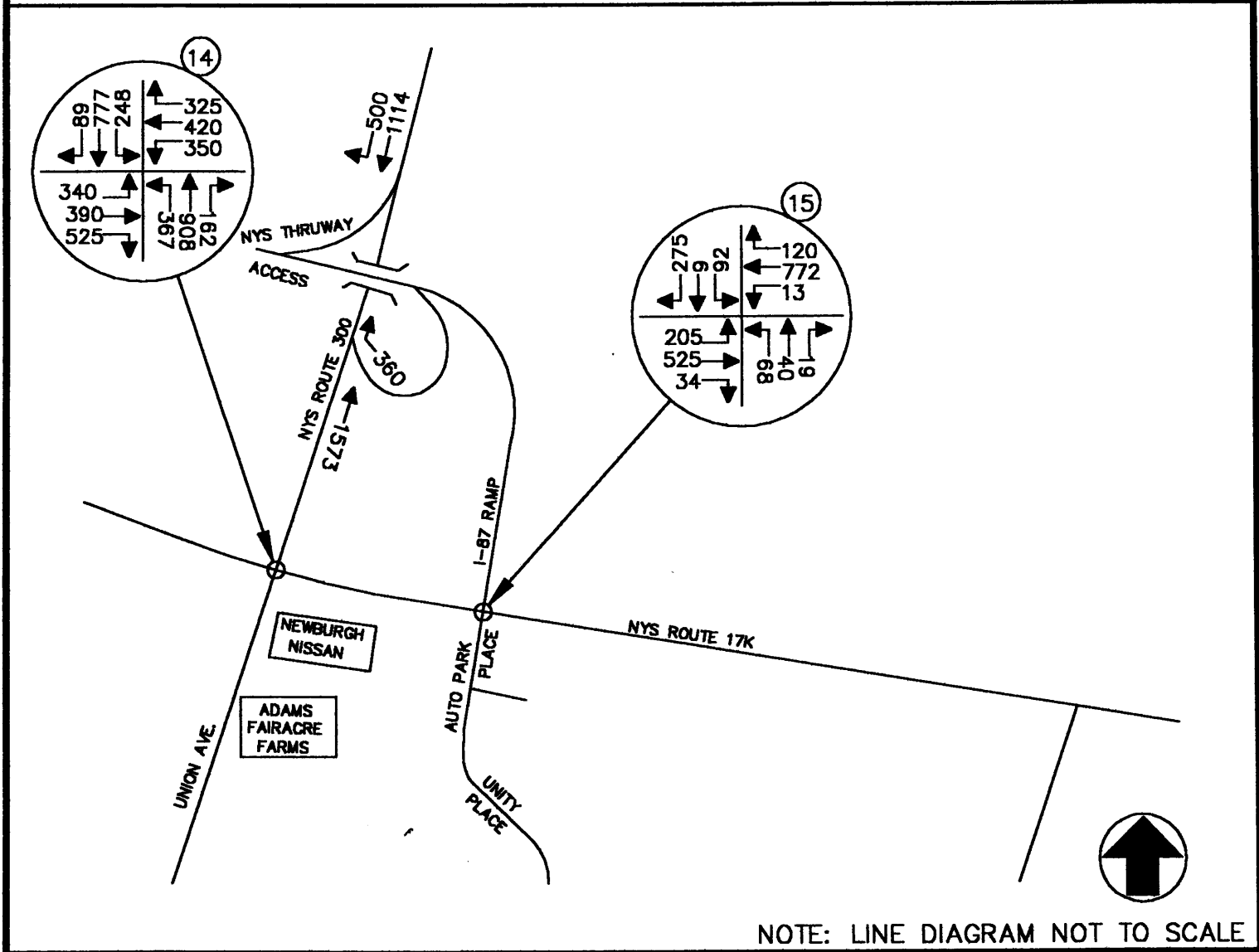
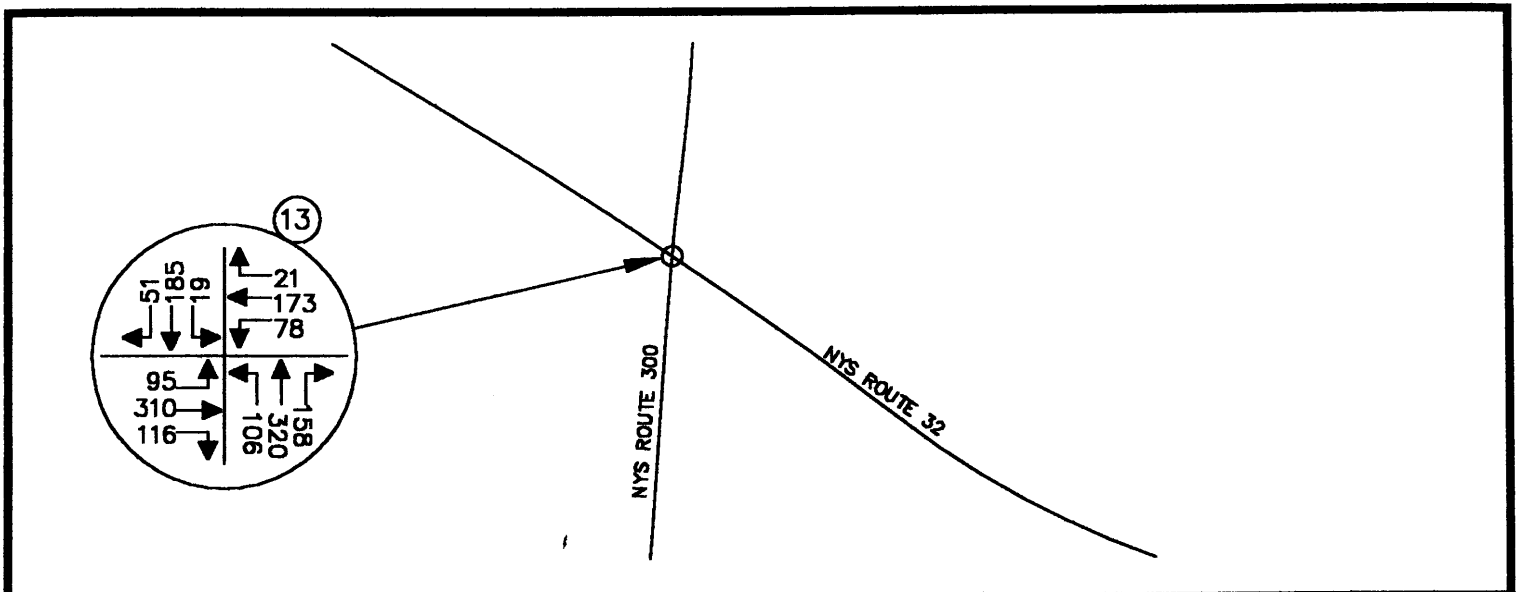


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2004 EXISTING TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 2



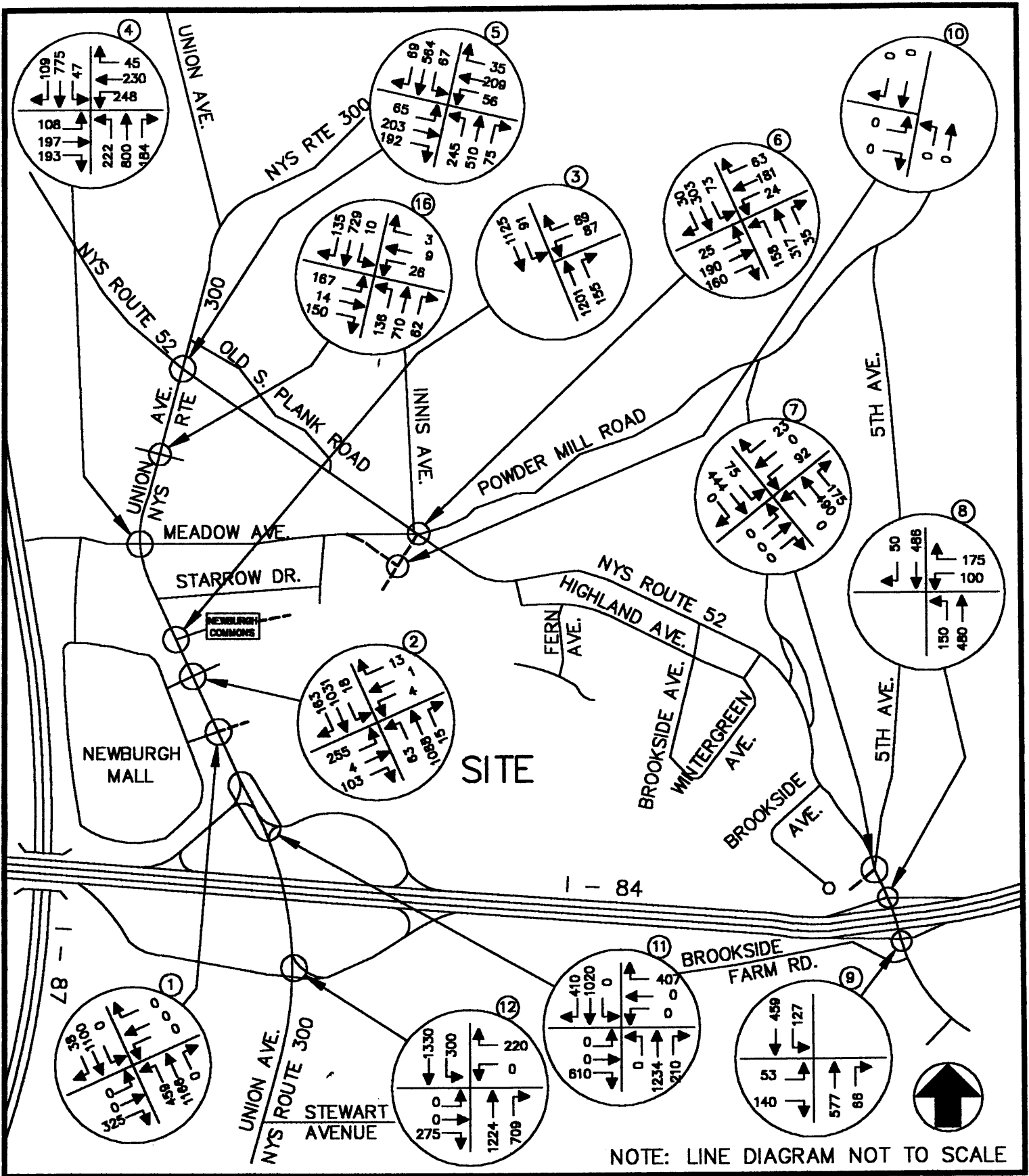
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2004 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)

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HAWTHORNE, NEW YORK

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 2A

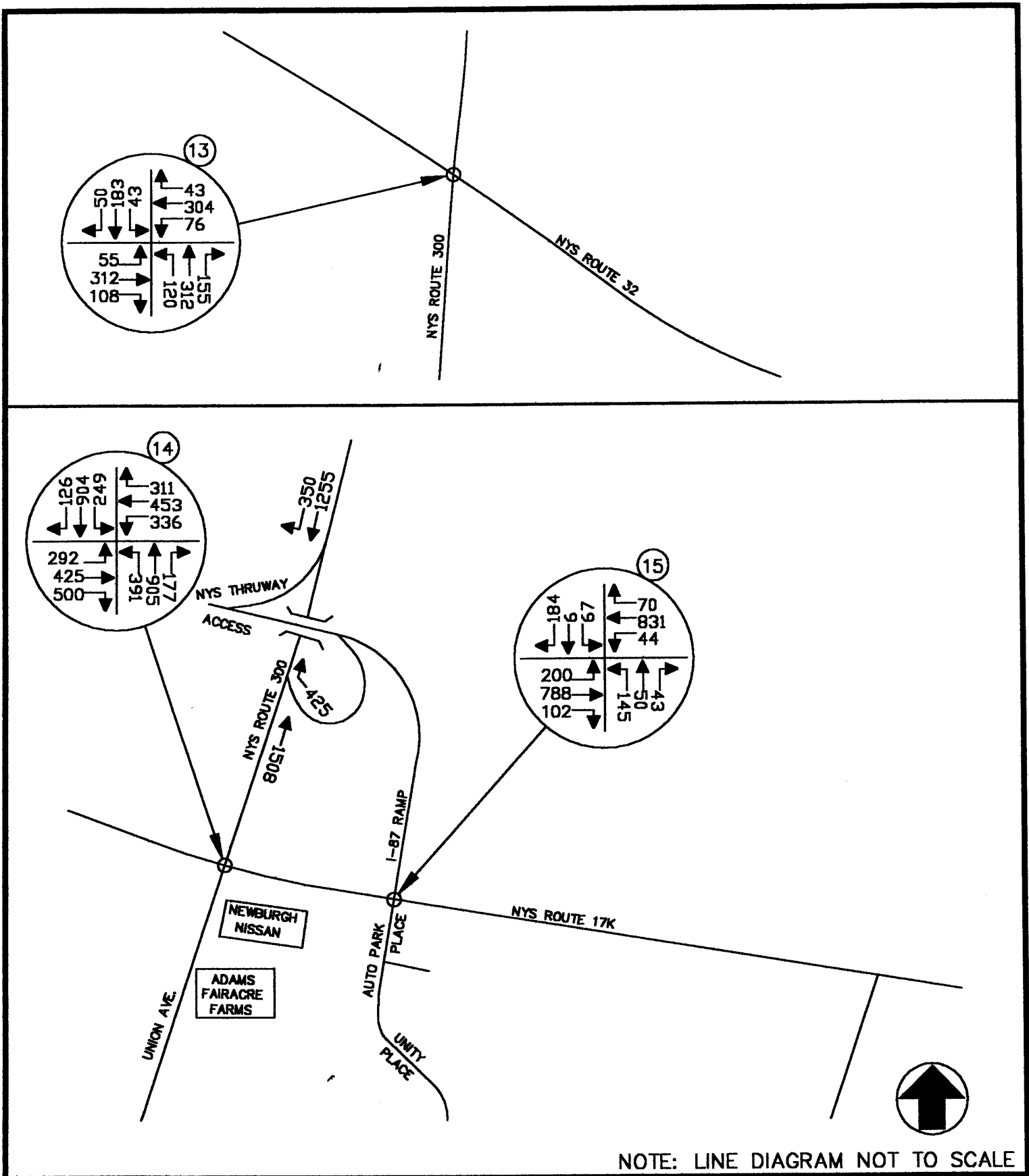


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2004 EXISTING TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 3



NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY**

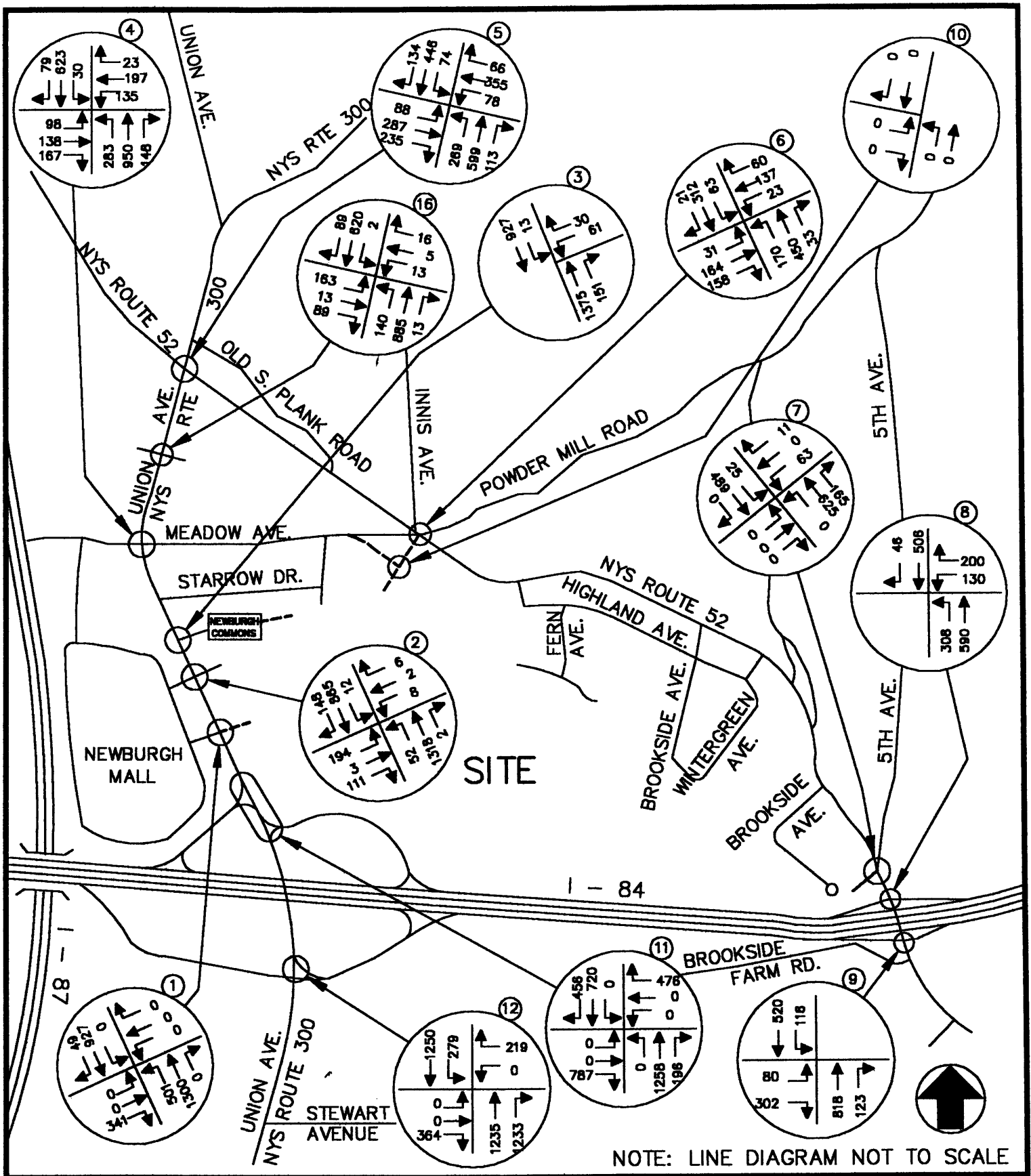
**2004 EXISTING TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)**

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PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 3A

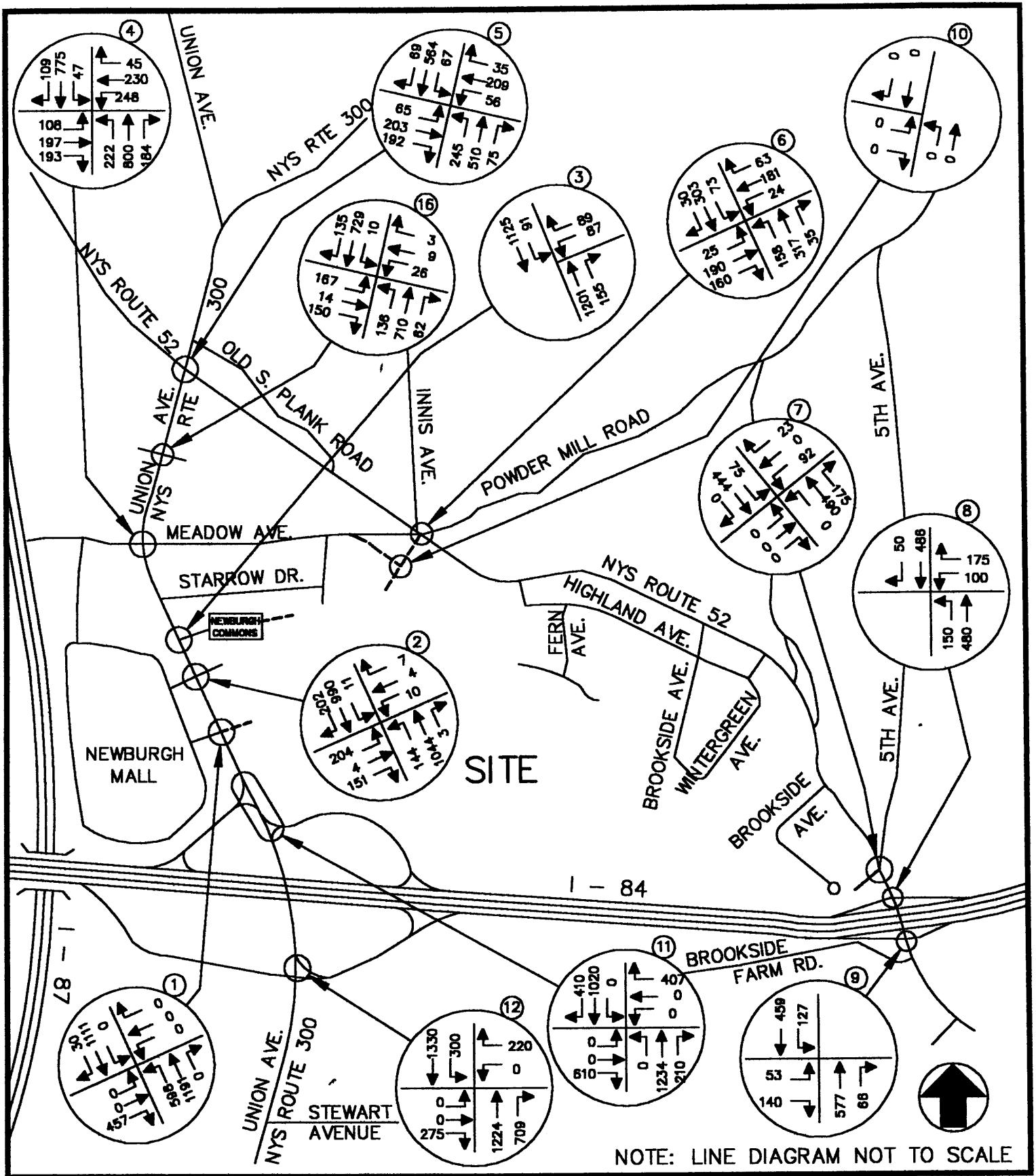


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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2004 EXISTING TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (CHRISTMAS SEASON) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 2CS

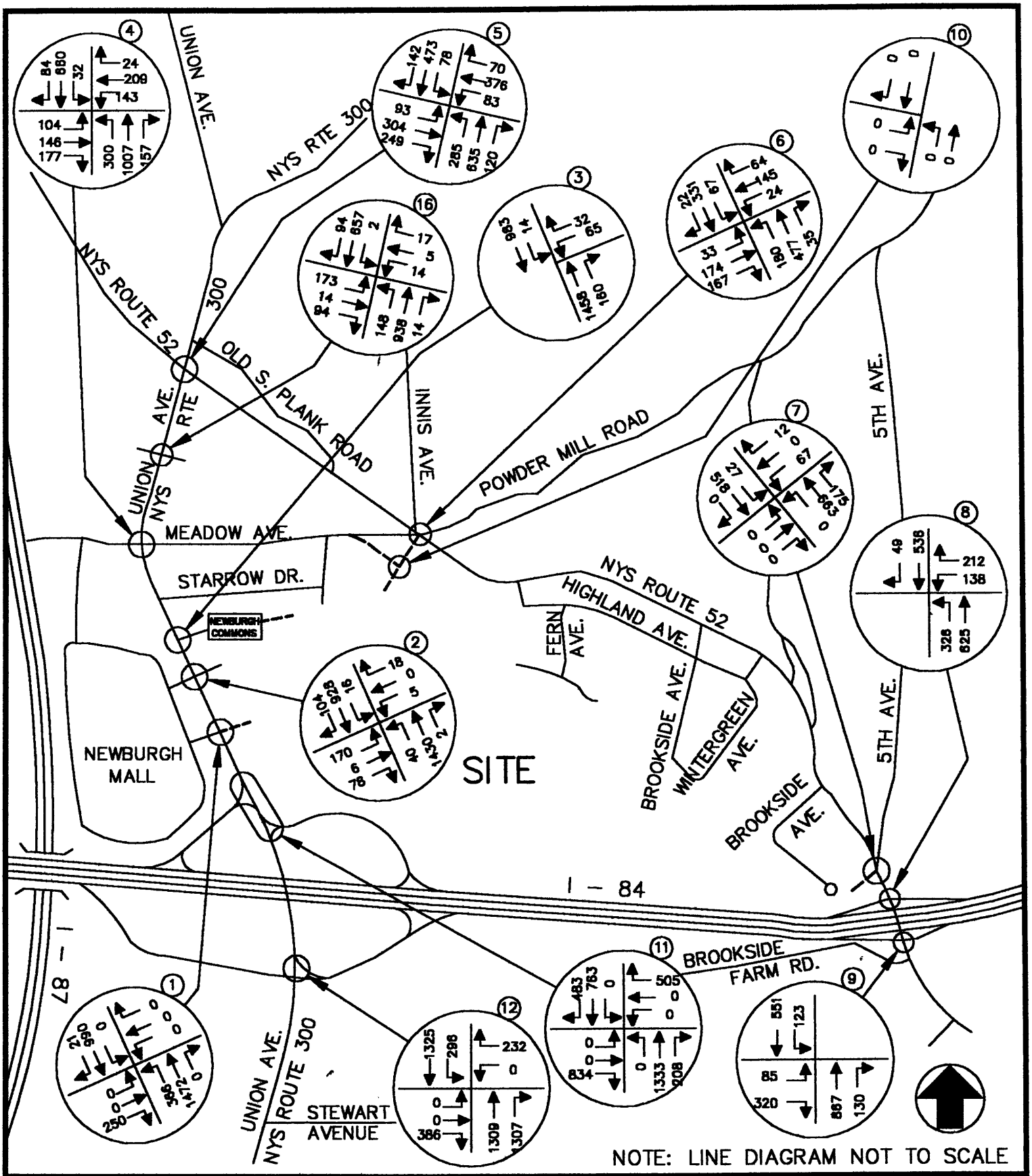


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2004 EXISTING TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (CHRISTMAS SEASON) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 3CS

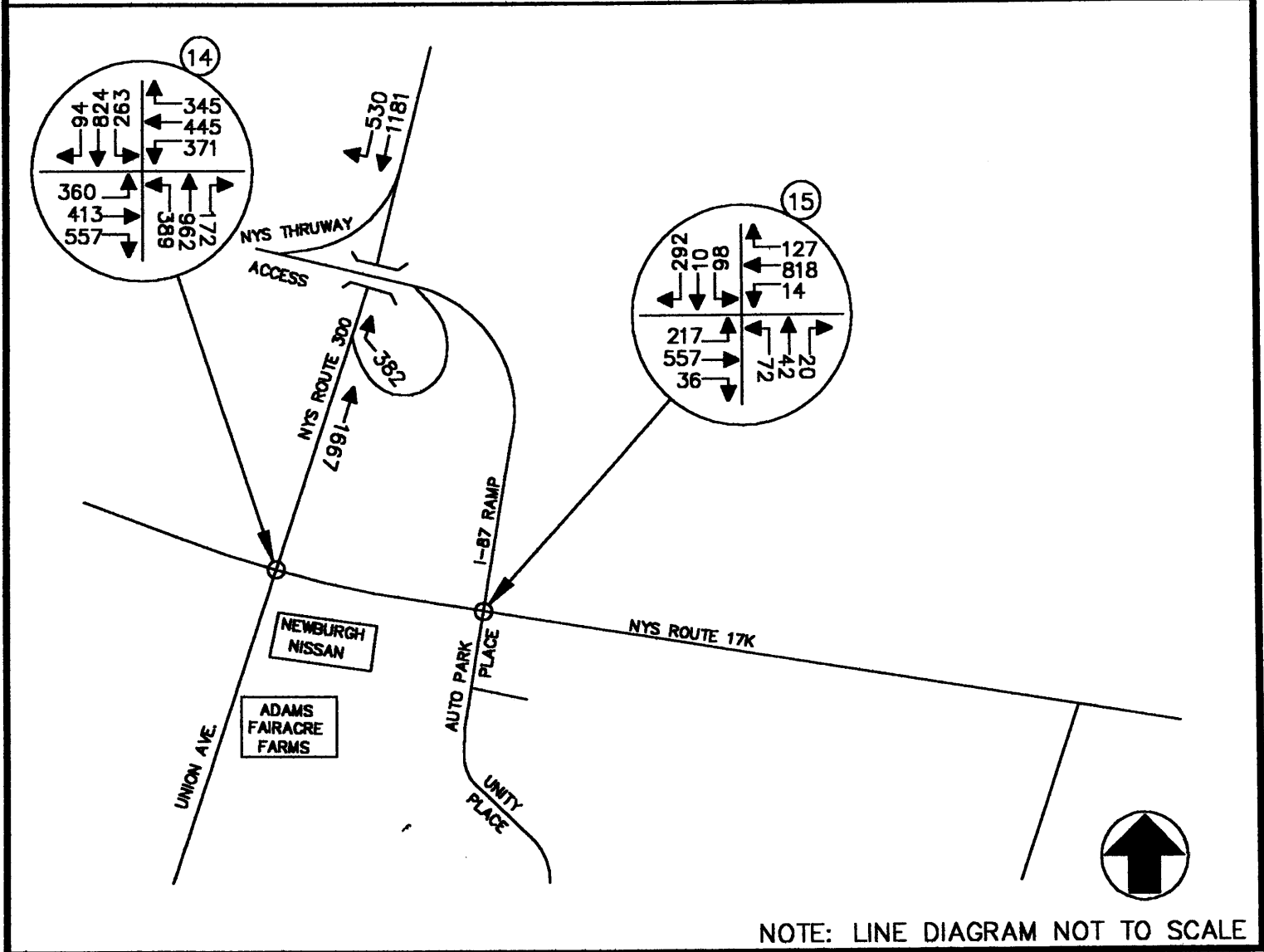
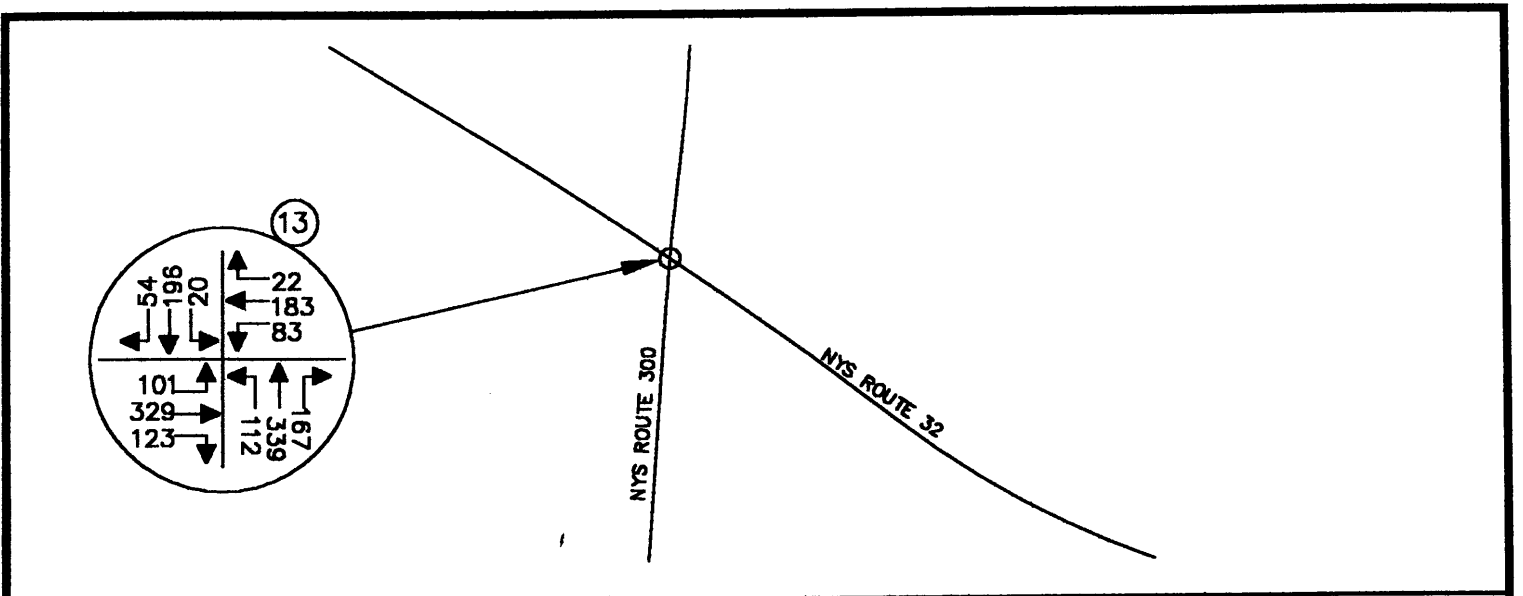


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 PROJECTED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 4



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

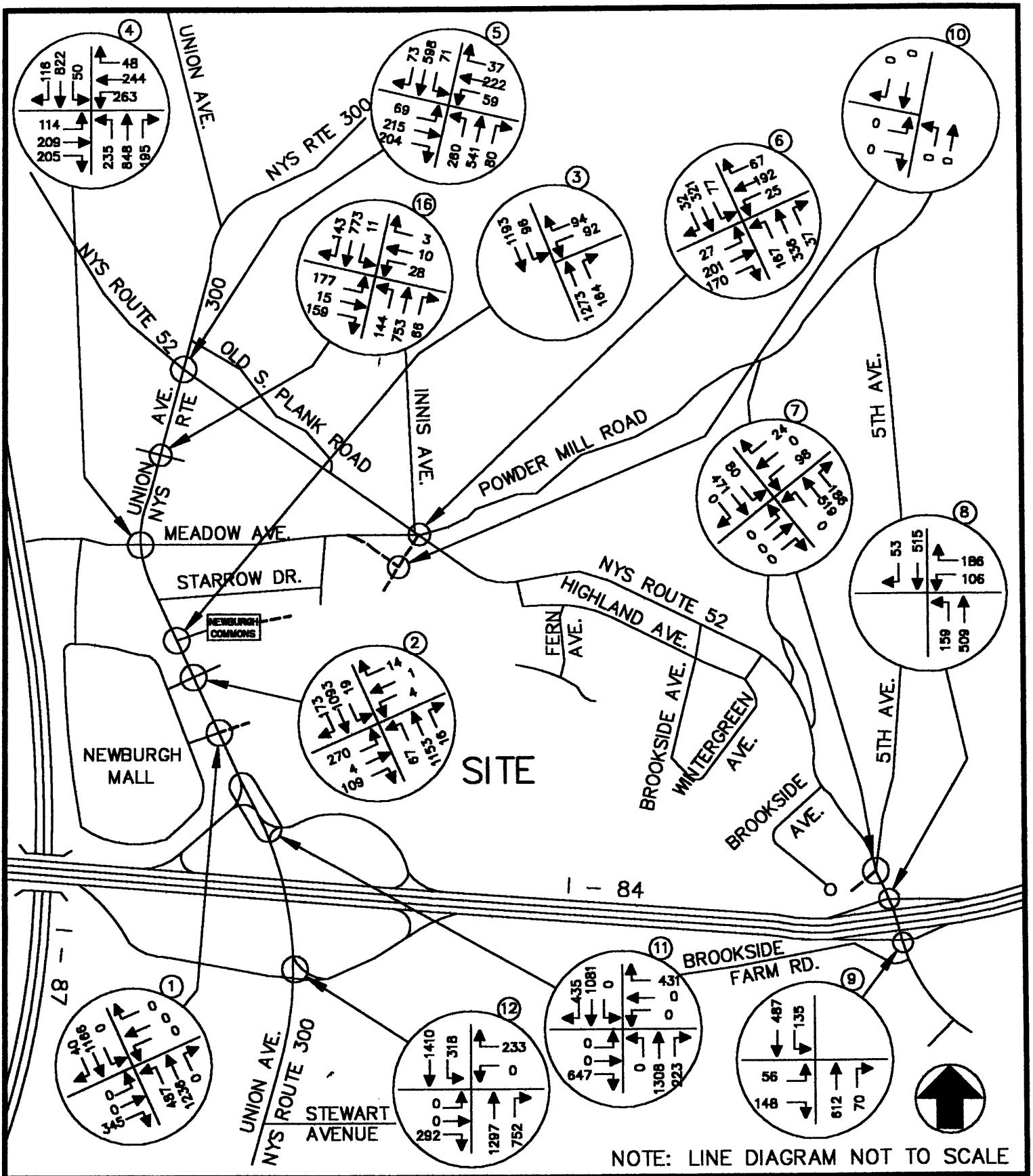
2008 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 4A

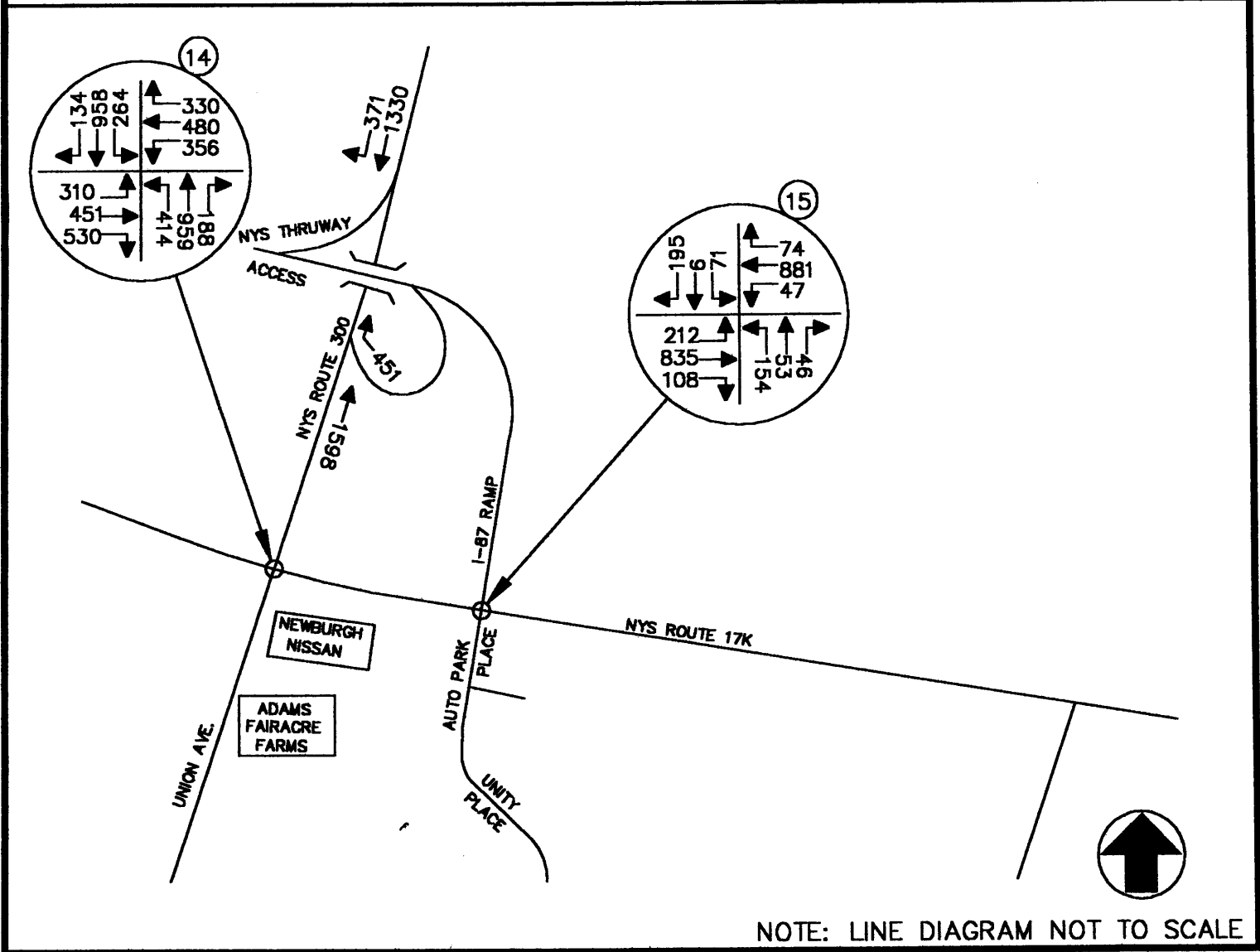
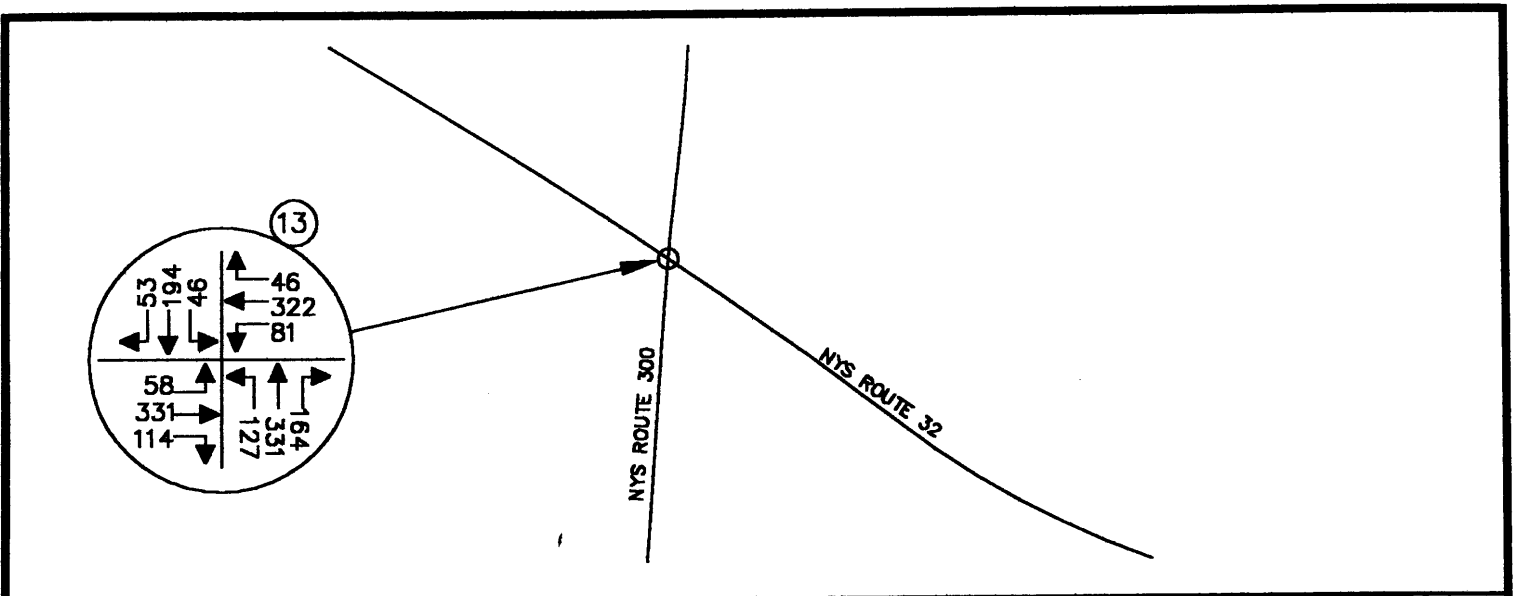


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 PROJECTED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 5



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

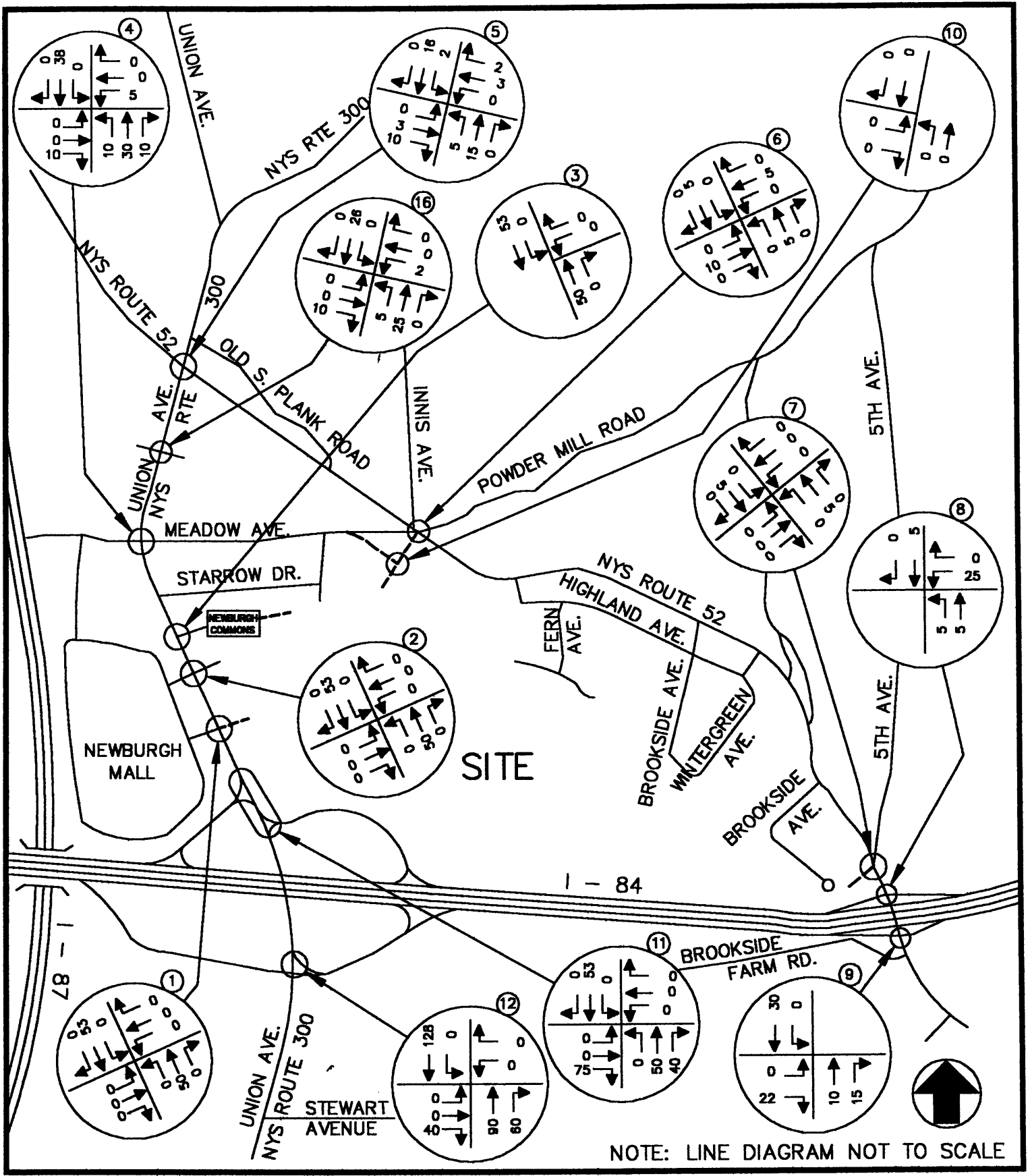
2008 PROJECTED TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 5A

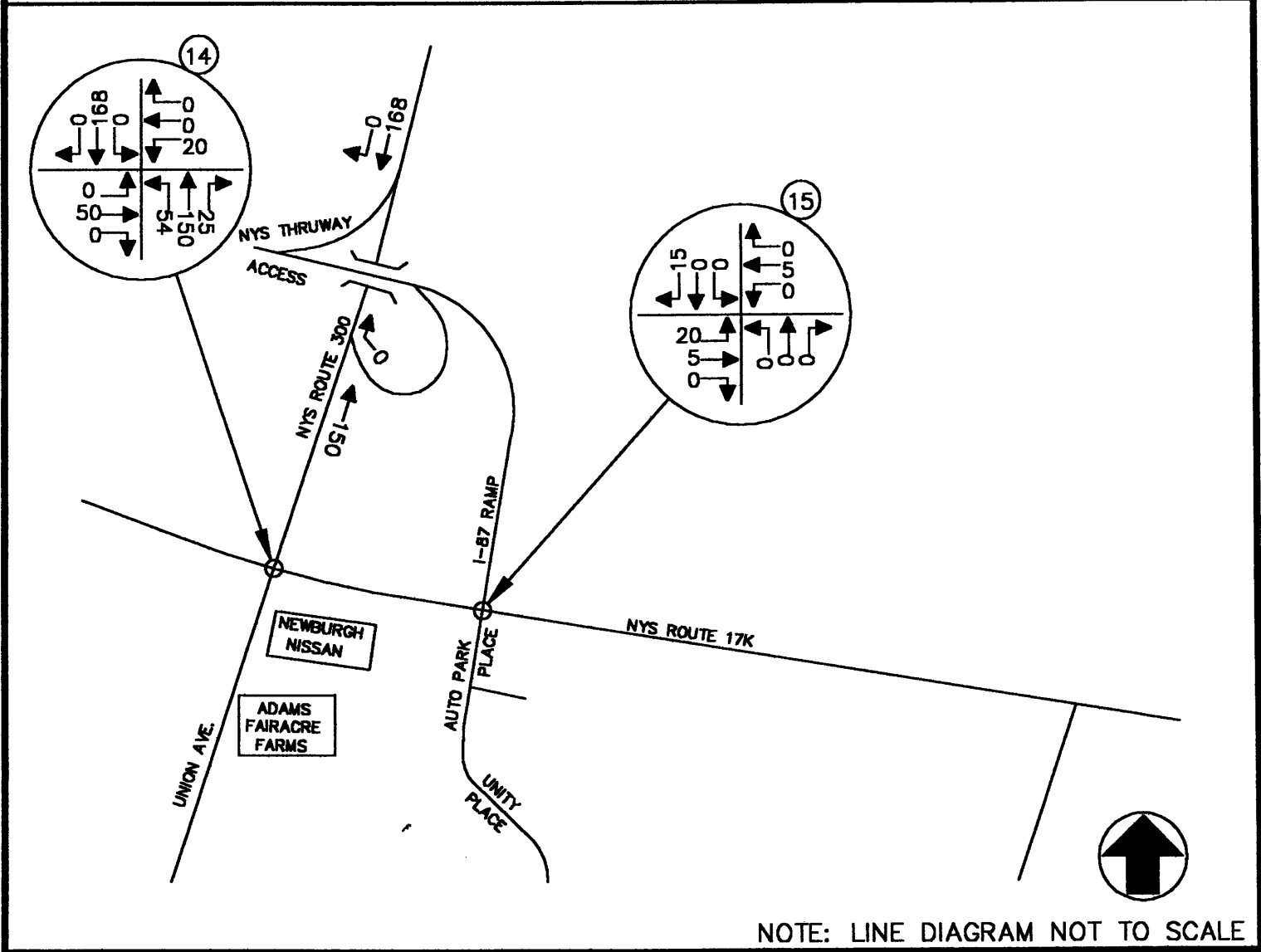
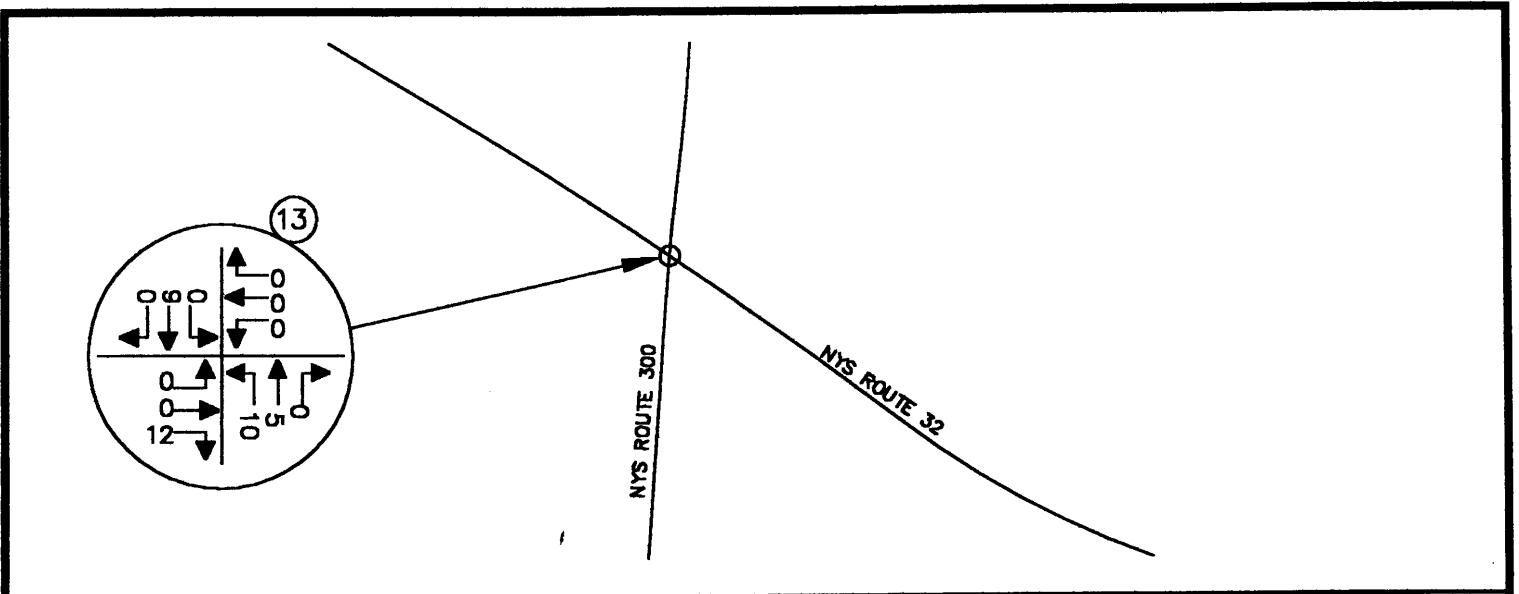


THE MARKET PLACE AT NEWBURGH OTHER DEVELOPMENT TRAFFIC VOLUMES
NEWBURGH, NEW YORK

WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 6



NOTE: LINE DIAGRAM NOT TO SCALE

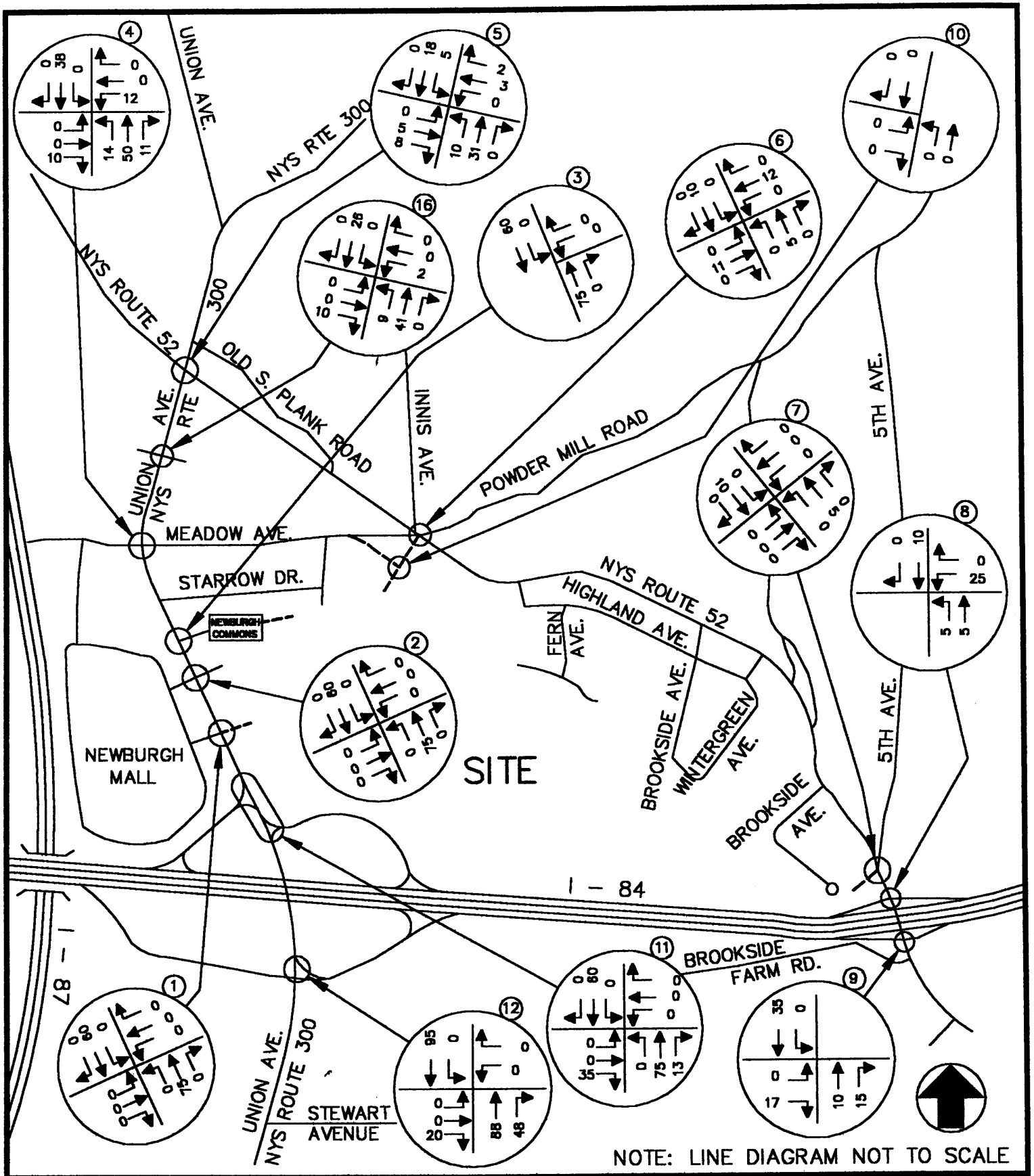
THE MARKET PLACE AT NEWBURGH OTHER DEVELOPMENT TRAFFIC VOLUMES
NEWBURGH, NY
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 6A

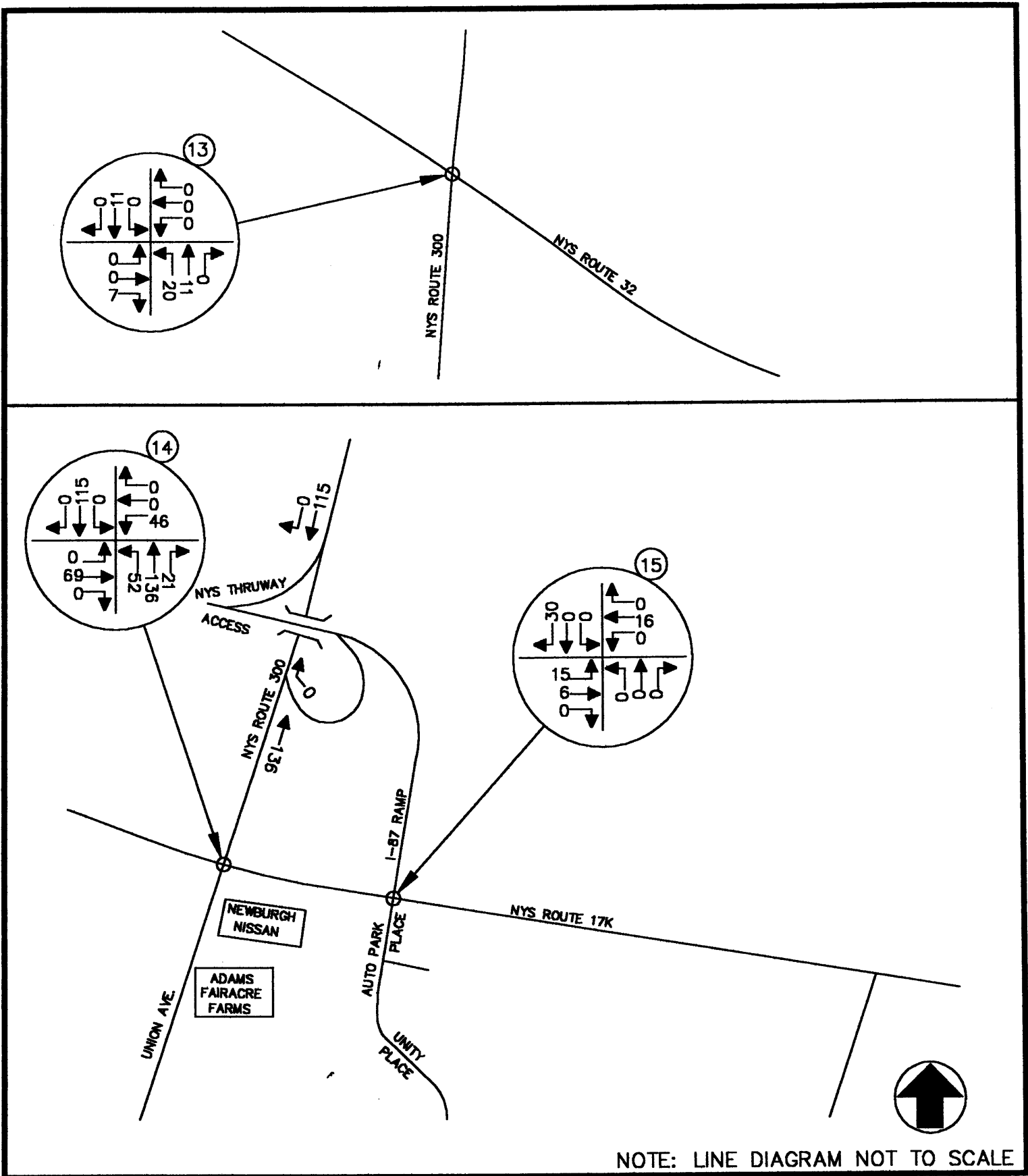


THE MARKET PLACE AT NEWBURGH OTHER DEVELOPMENT TRAFFIC VOLUMES
NEWBURGH, NEW YORK

WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 7



NOTE: LINE DIAGRAM NOT TO SCALE

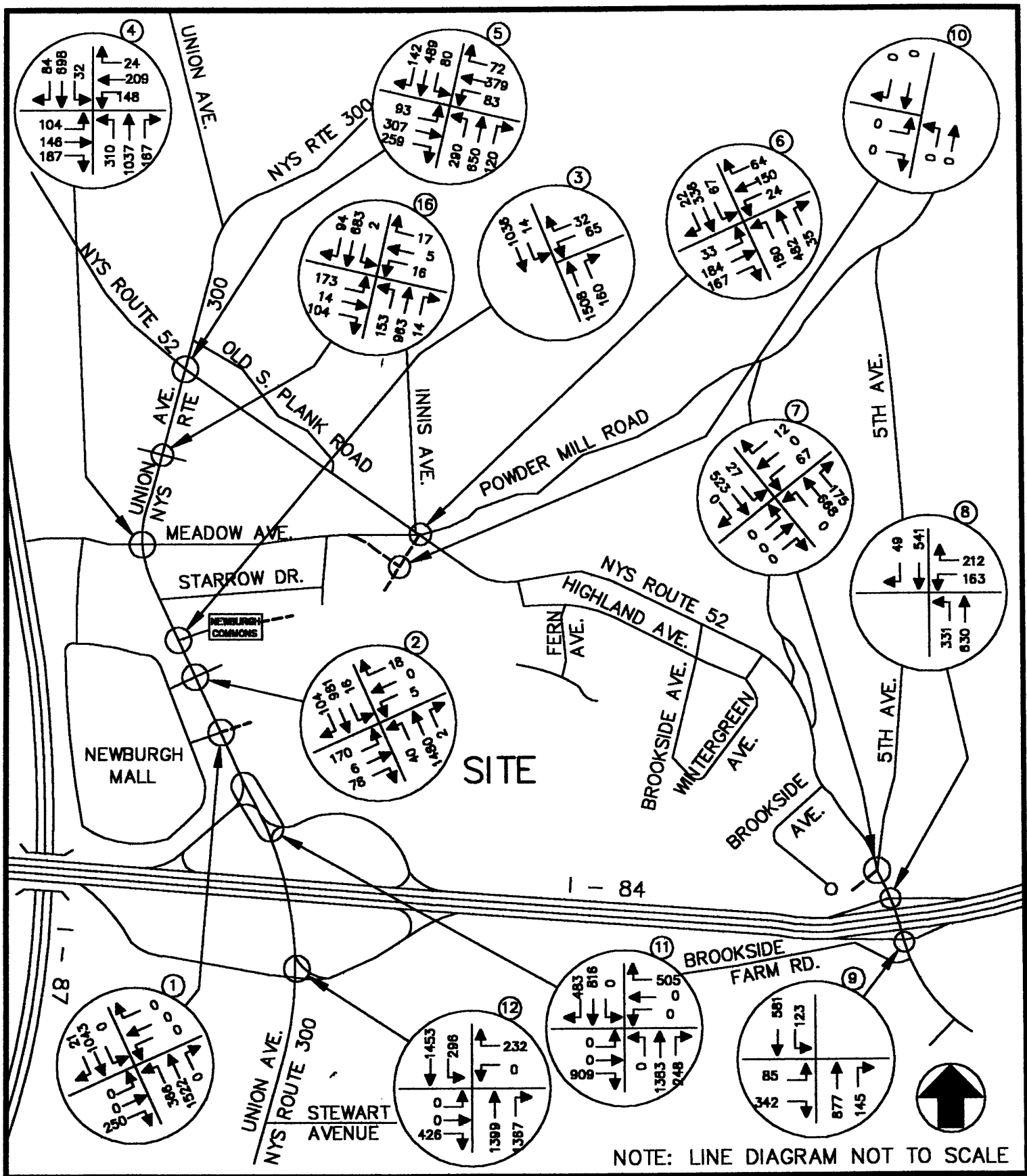
THE MARKET PLACE AT NEWBURGH OTHER DEVELOPMENT TRAFFIC VOLUMES
NEWBURGH, NY WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 7A

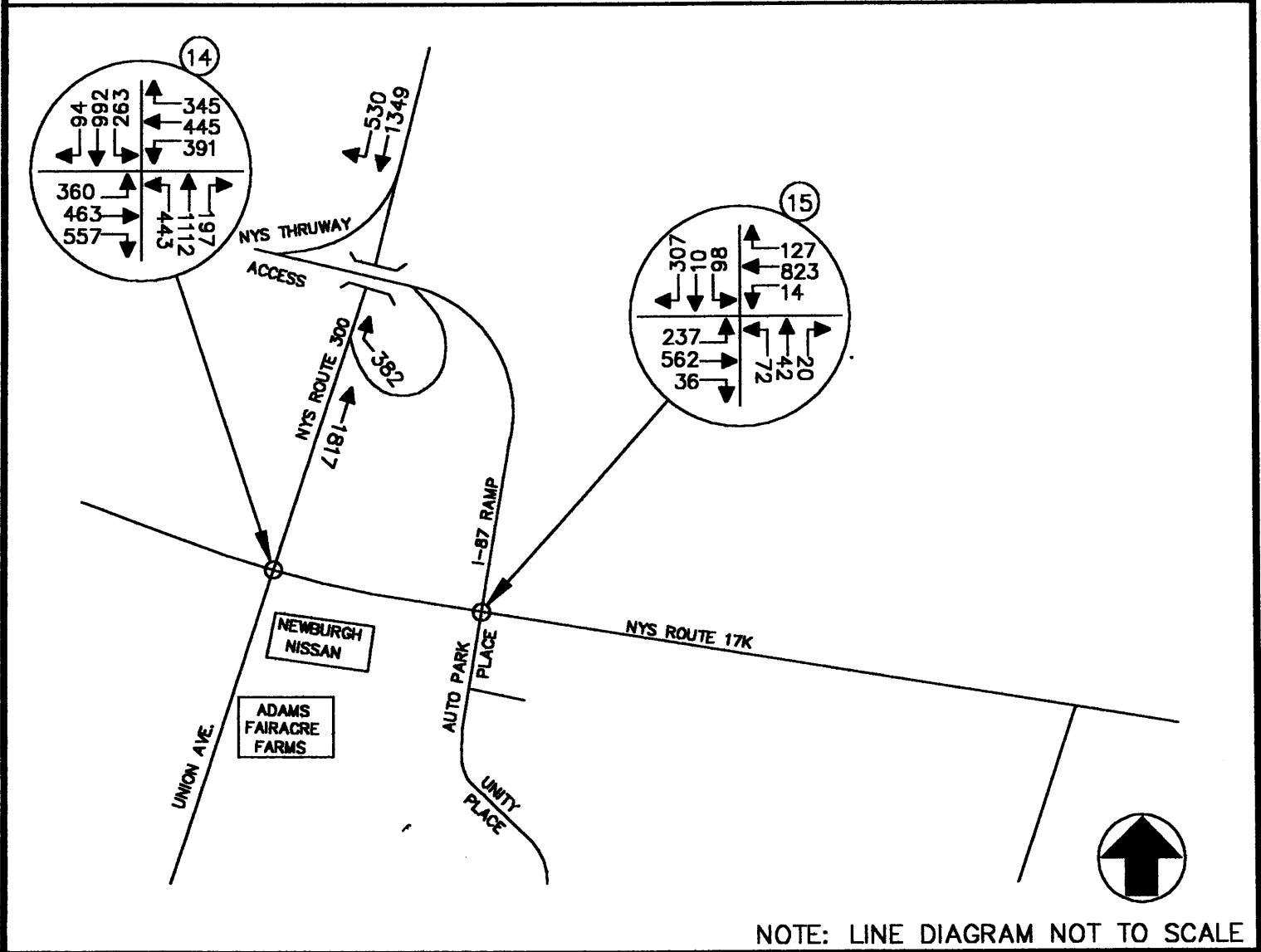
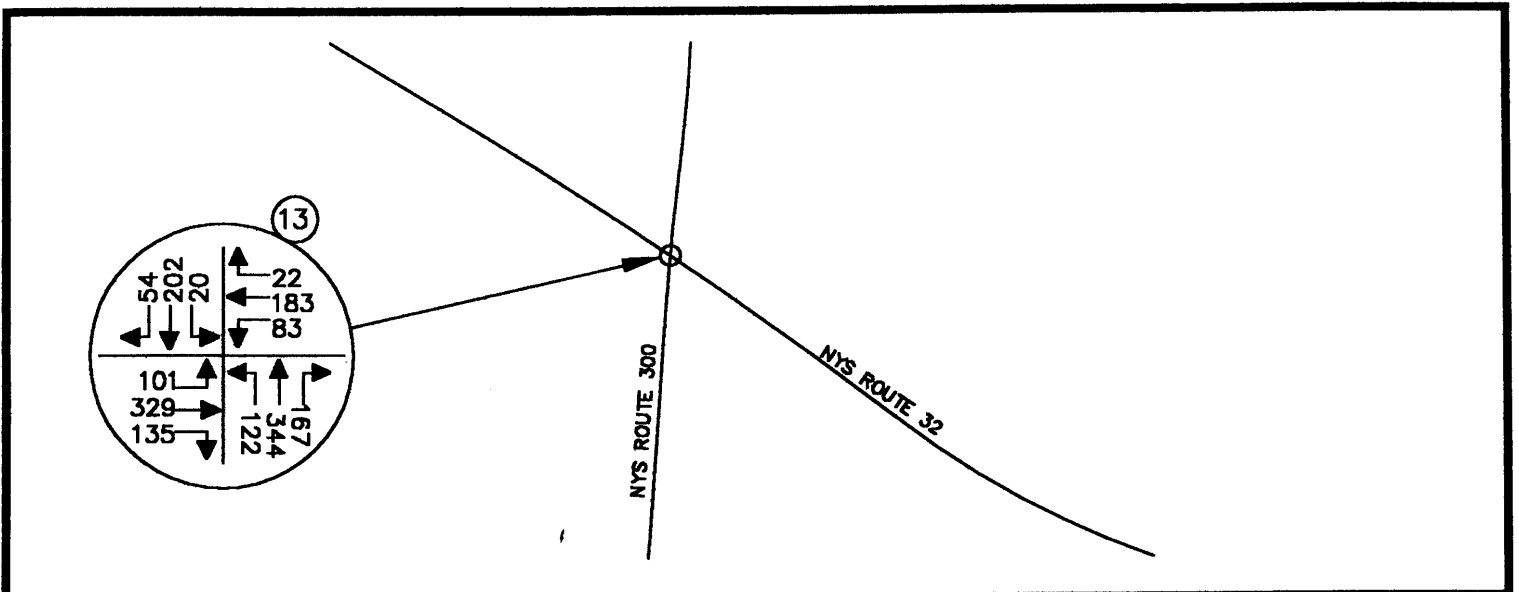


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 NO-BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 8



NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY**

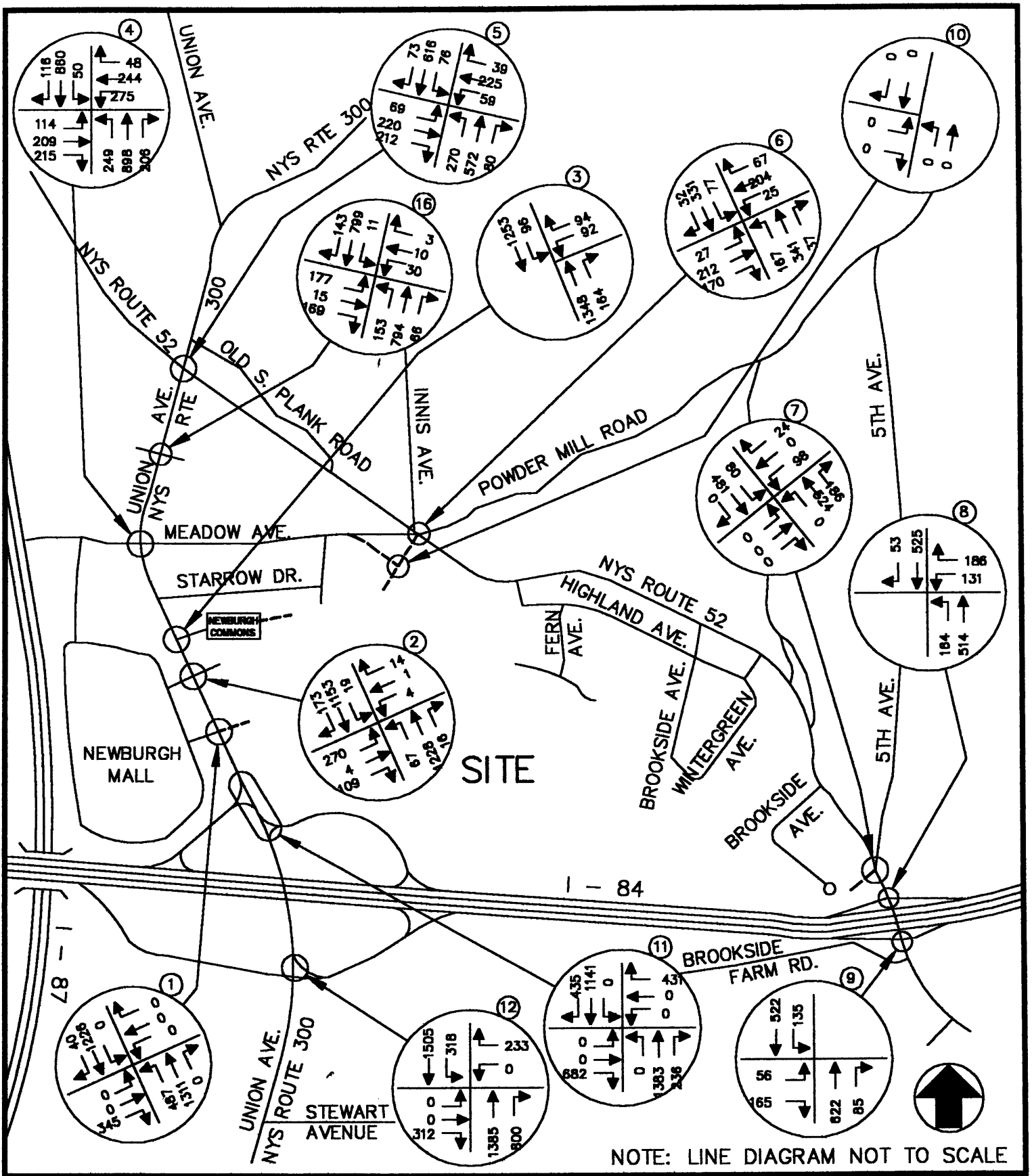
**2008 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)**

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.8A

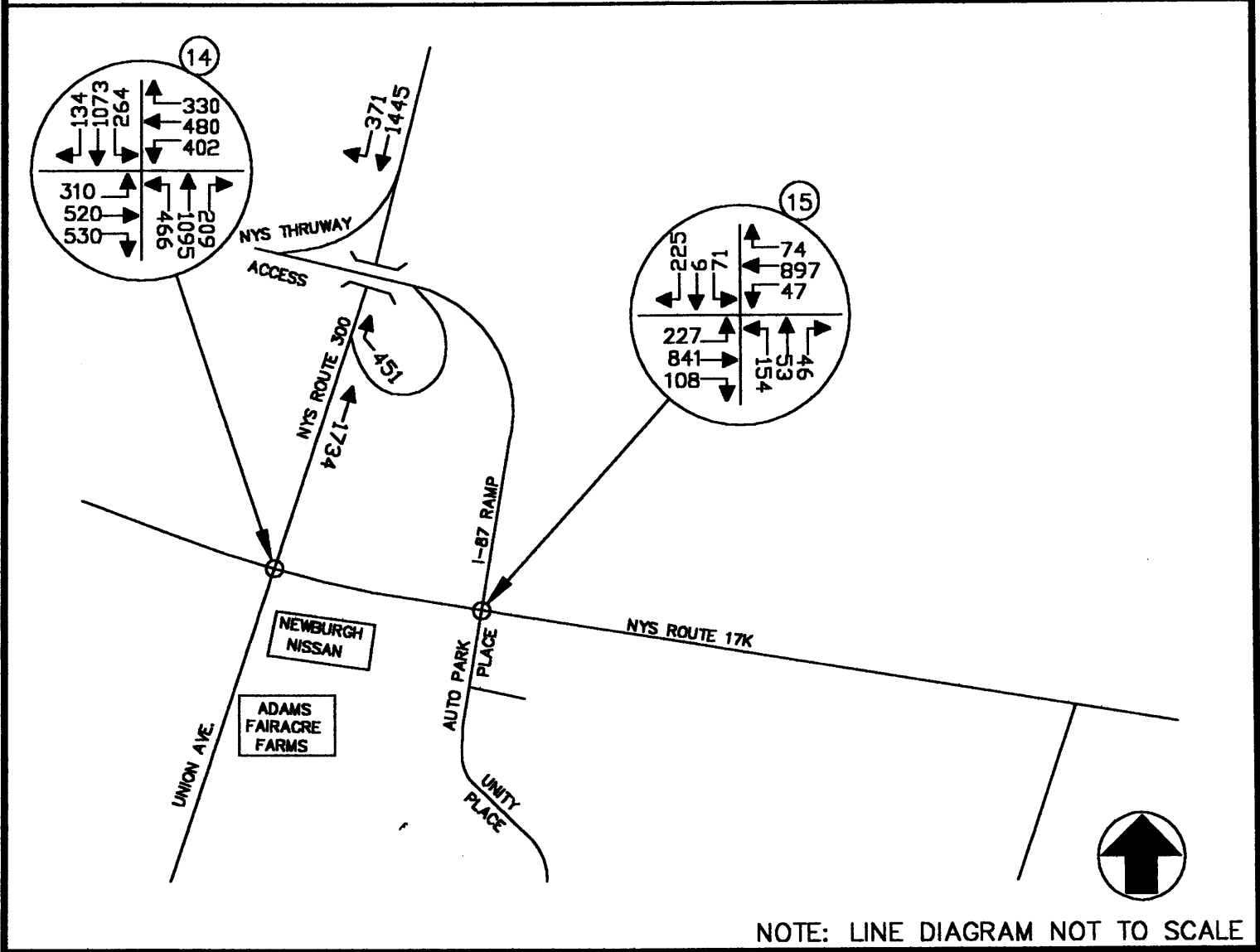
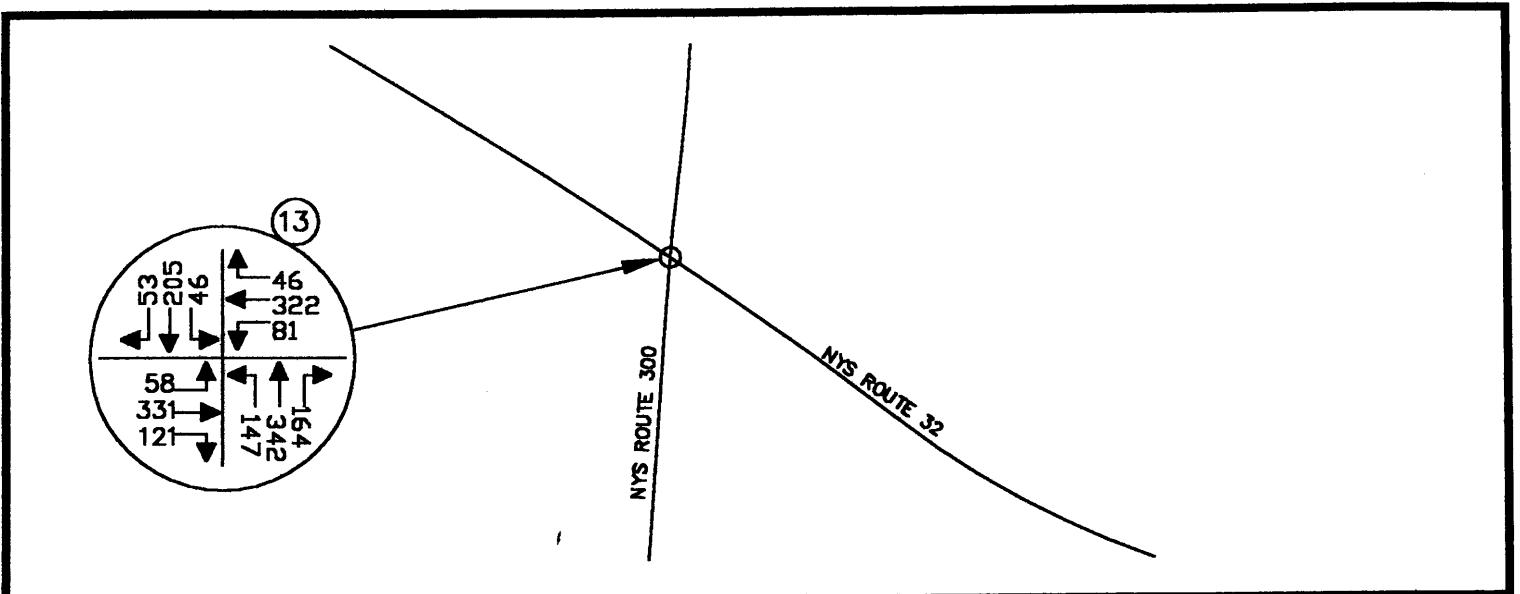


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 NO-BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 9



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

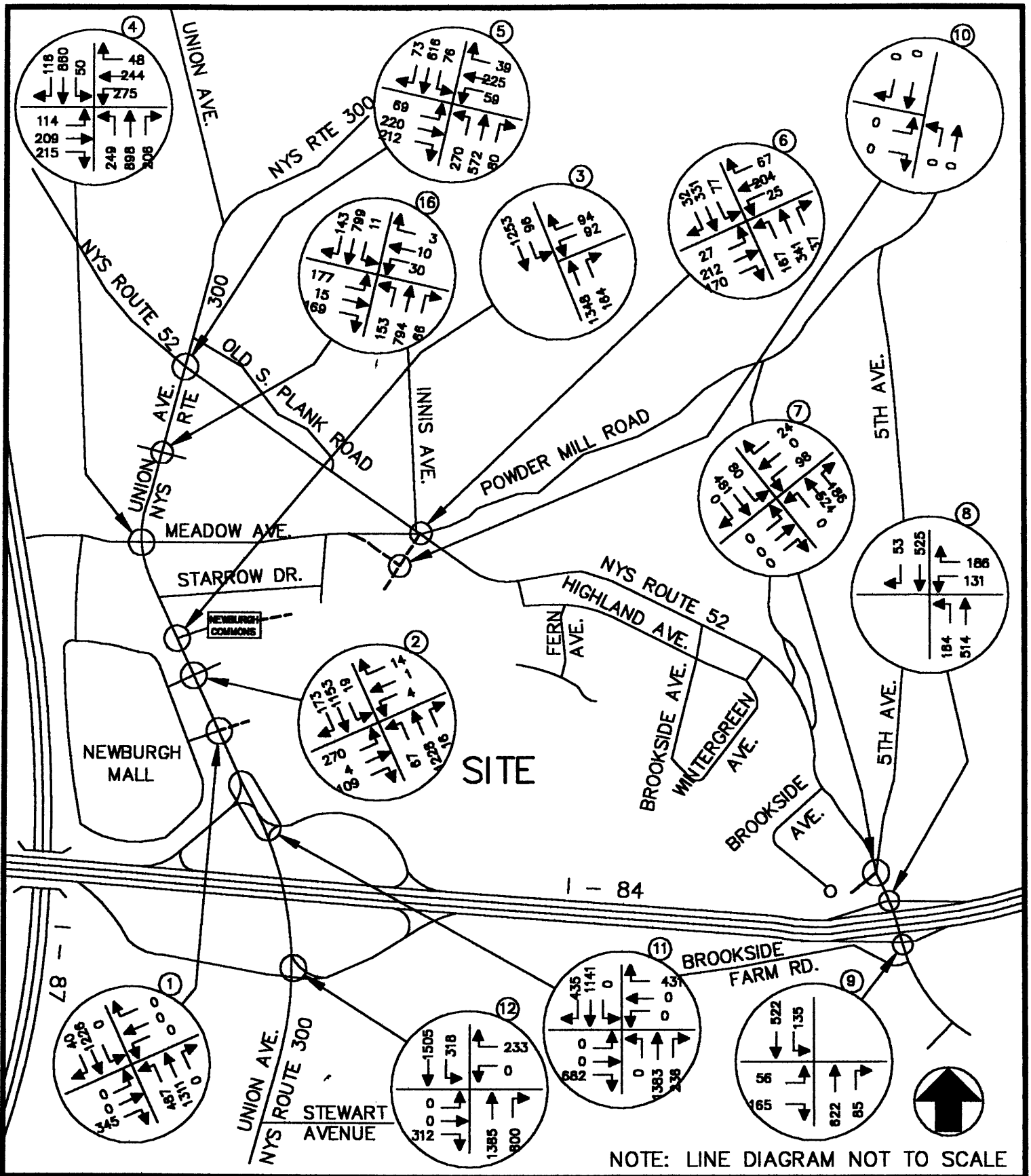
2008 NO-BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.9A

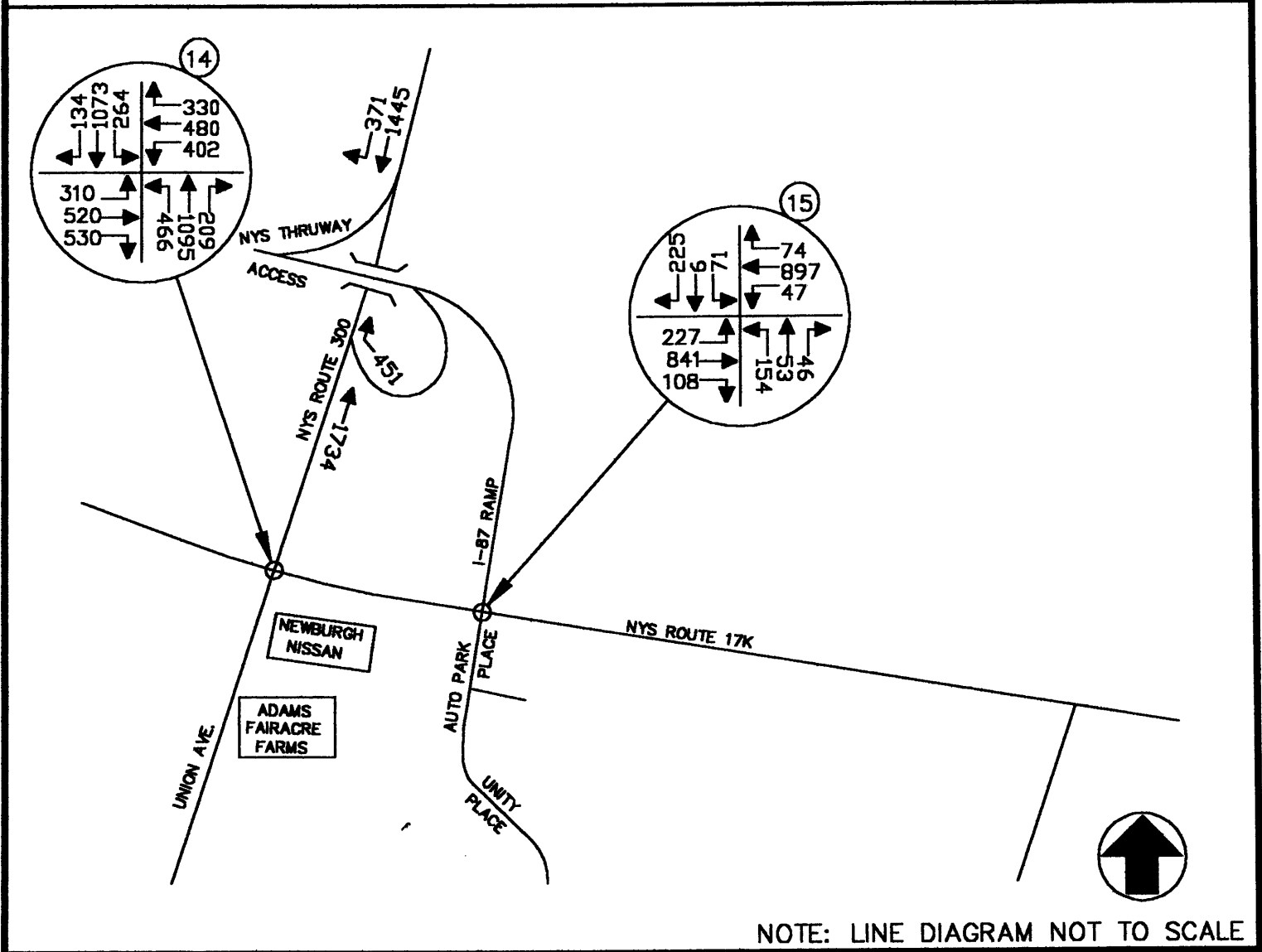
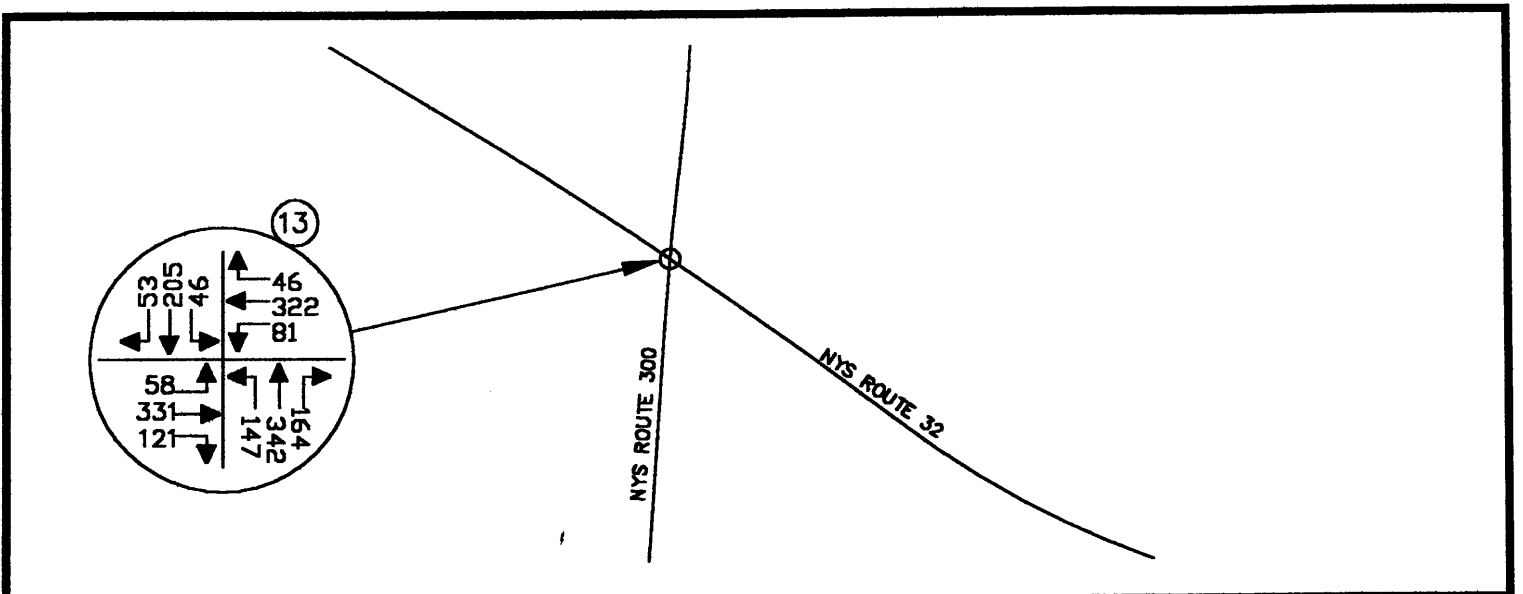


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 NO-BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 9



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

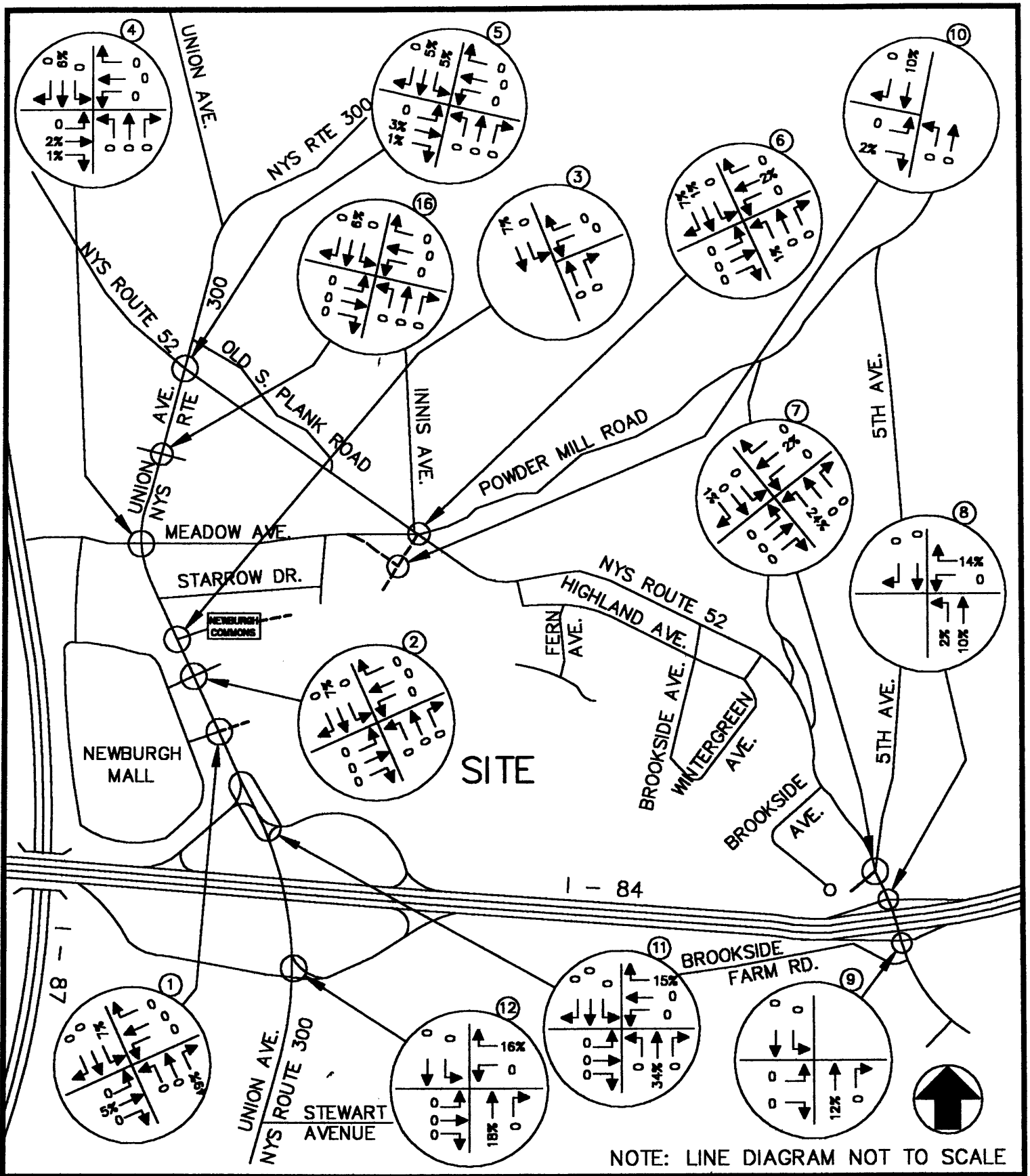
2008 NO-BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.9A



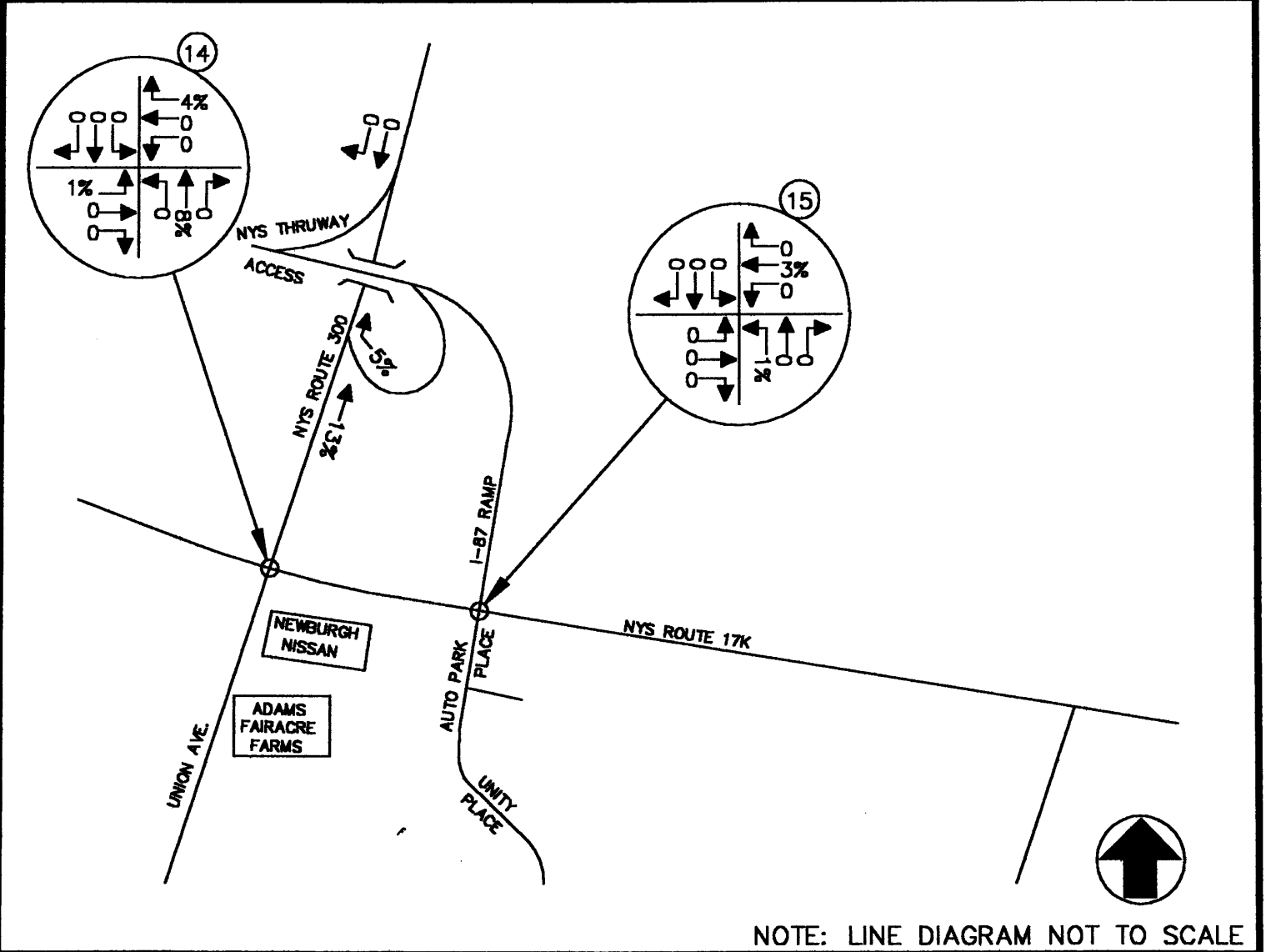
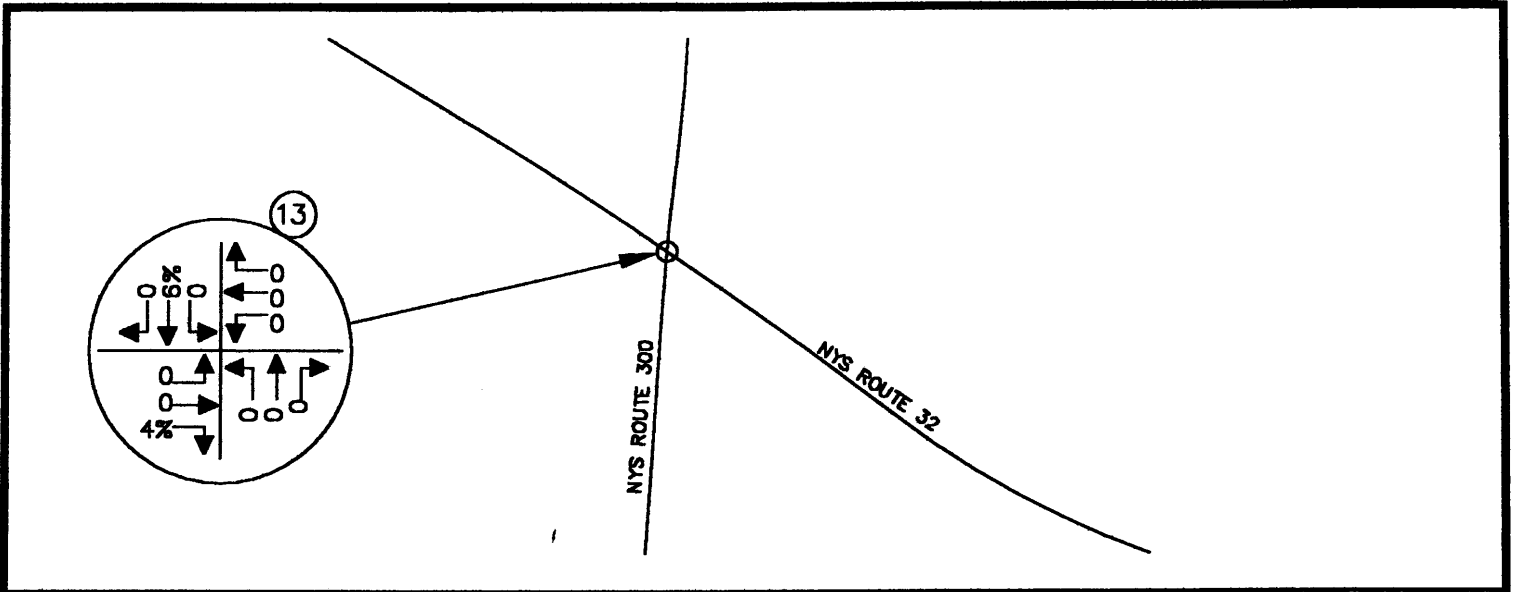
THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

ARRIVAL DISTRIBUTION

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

(850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 10



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

ARRIVAL DISTRIBUTION

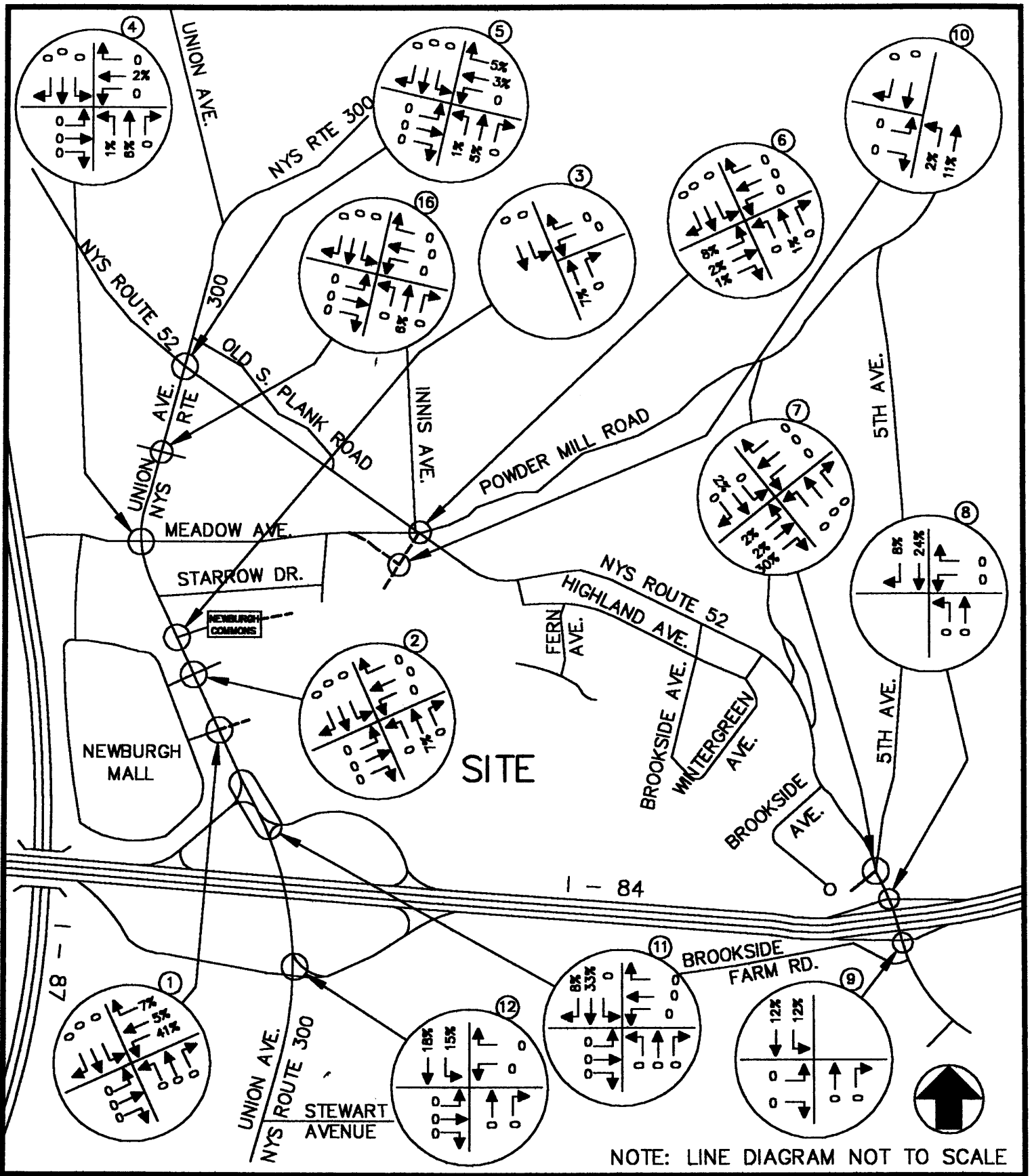
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.10A



NOTE: LINE DIAGRAM NOT TO SCALE

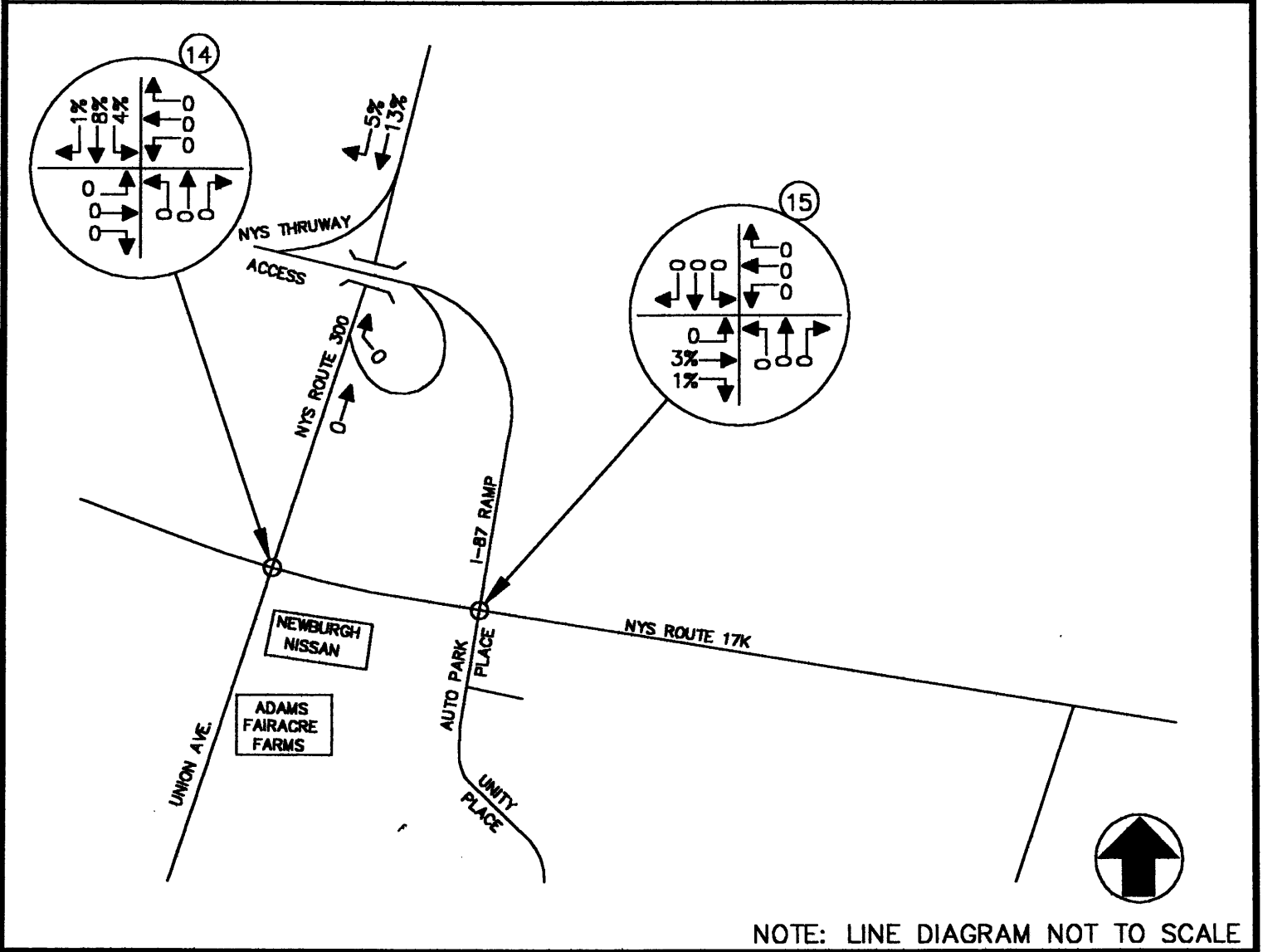
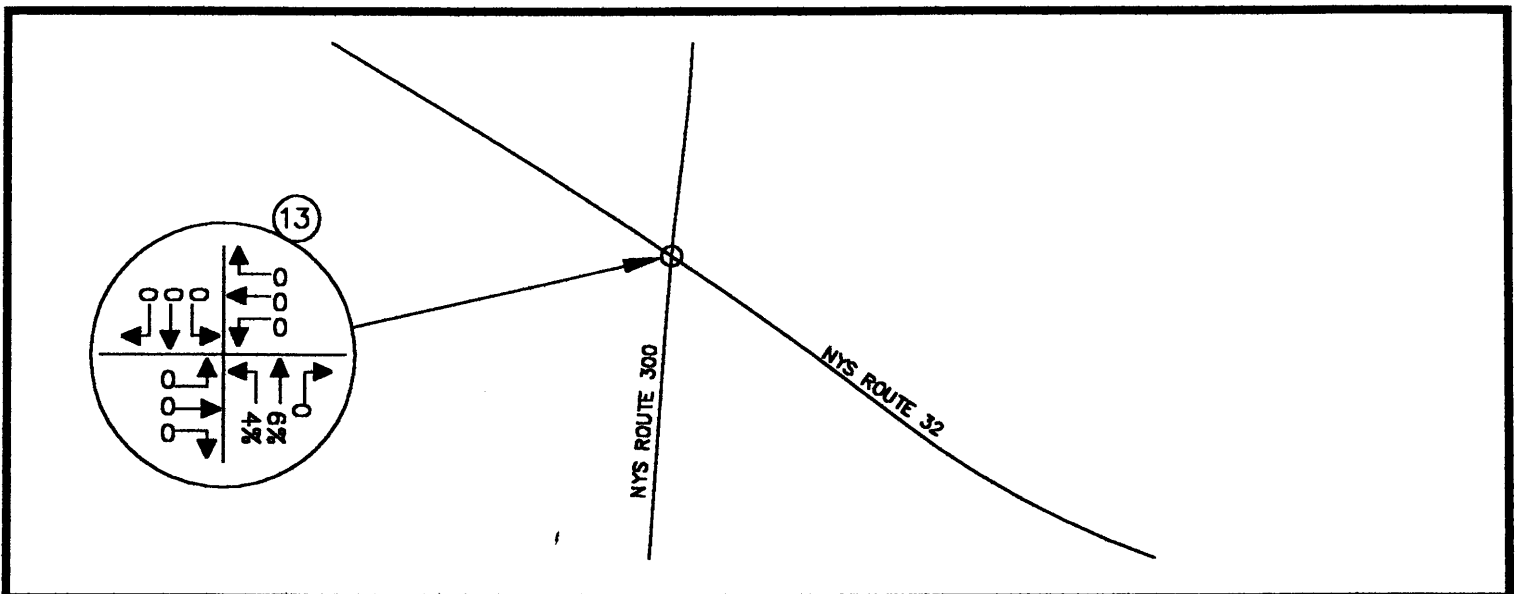
THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

DEPARTURE DISTRIBUTION

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

(850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 11



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

DEPARTURE DISTRIBUTION

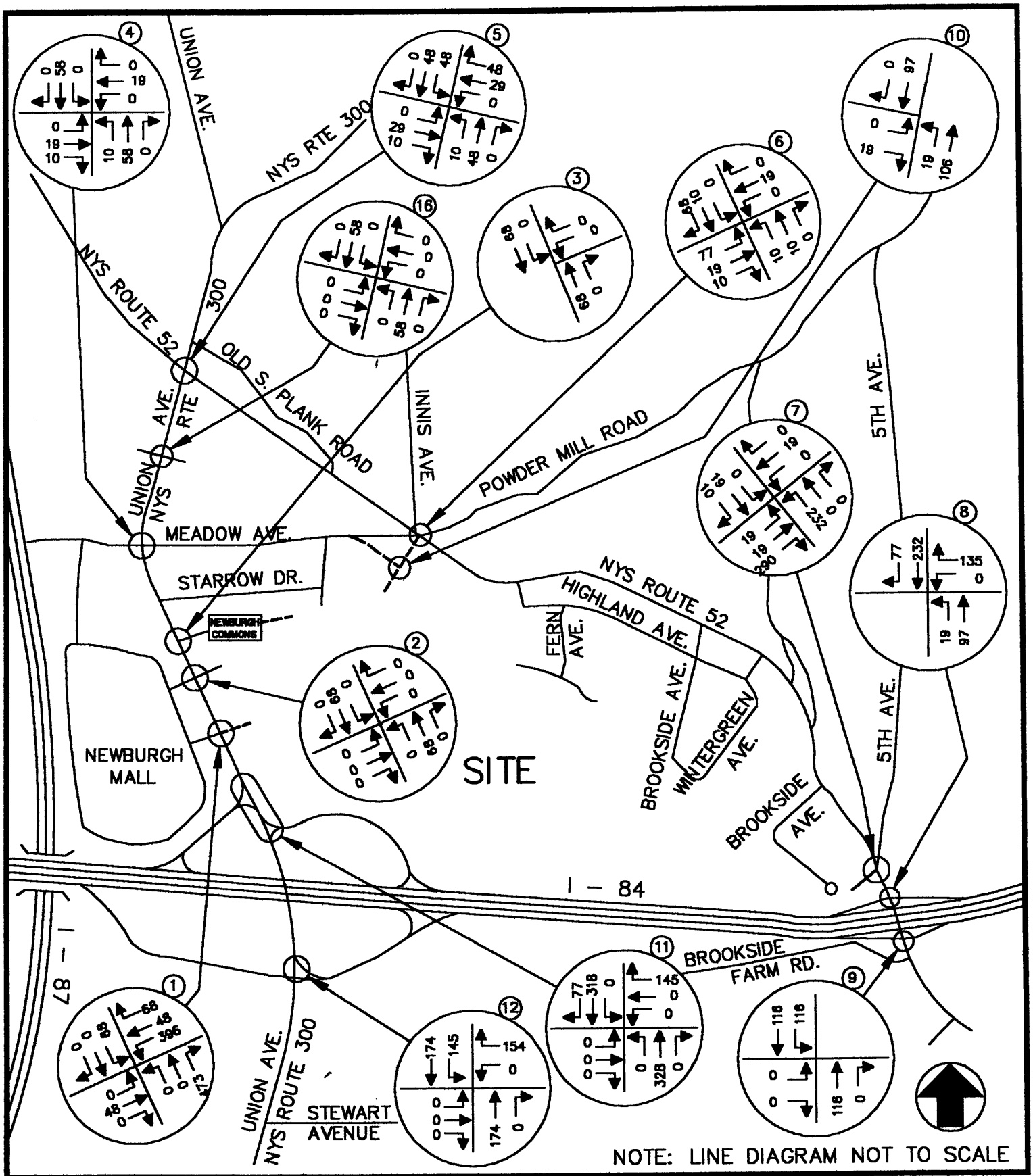
JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE, NEW YORK

(850,000 S.F.)

PROJECT NO. 837

DATE: NOV 2006

FIG. NO. 11A

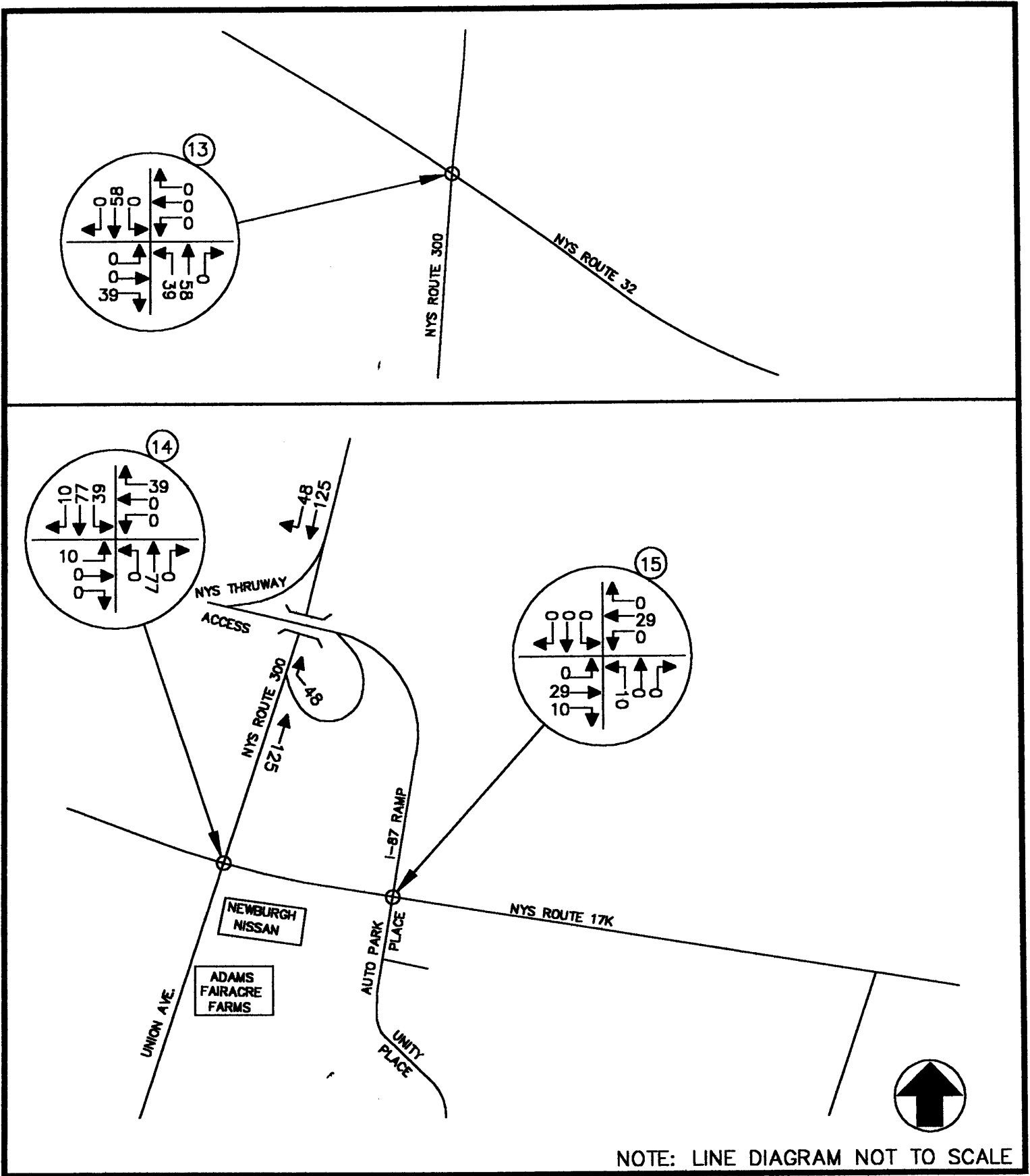


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 12



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

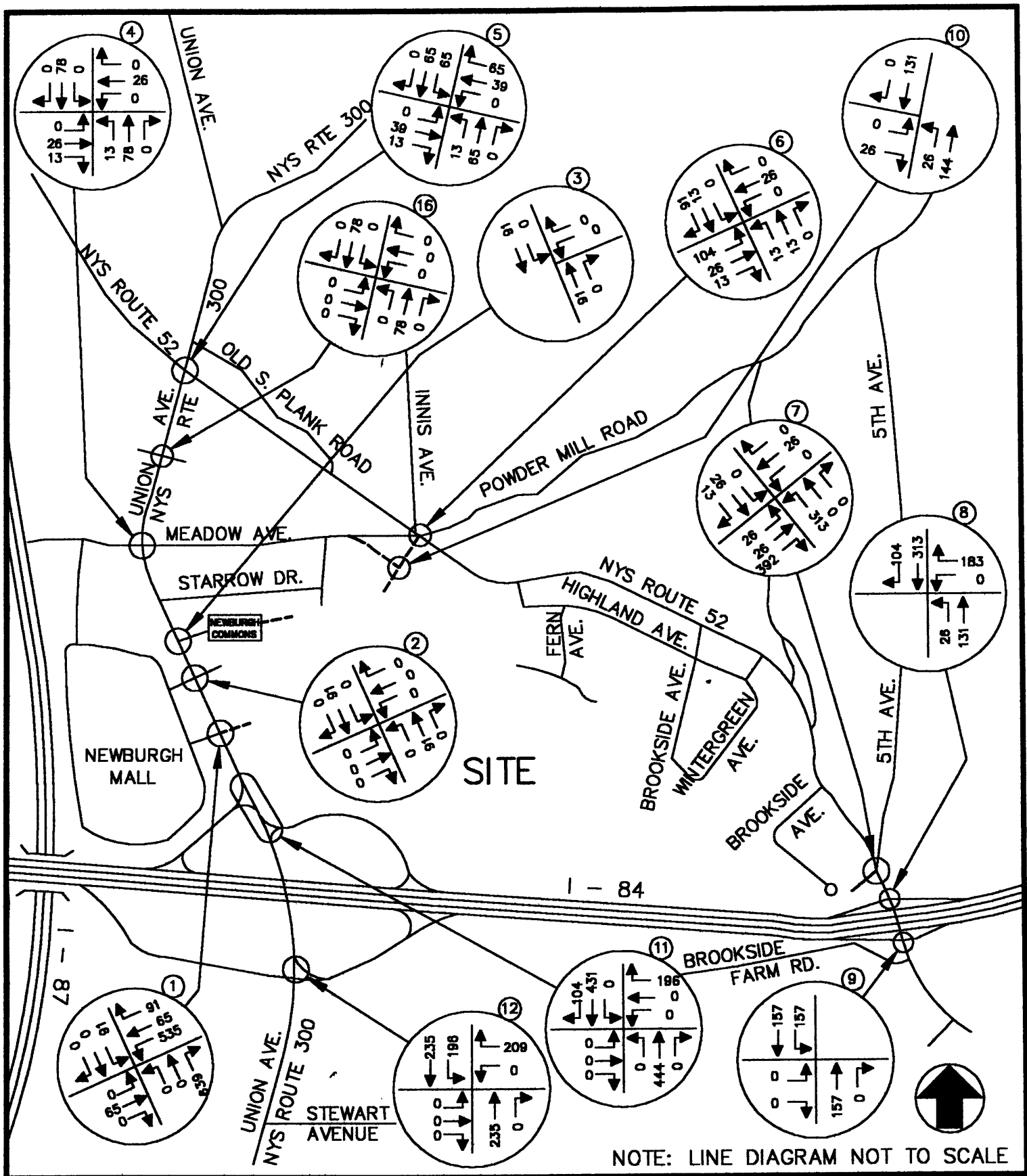
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.12A

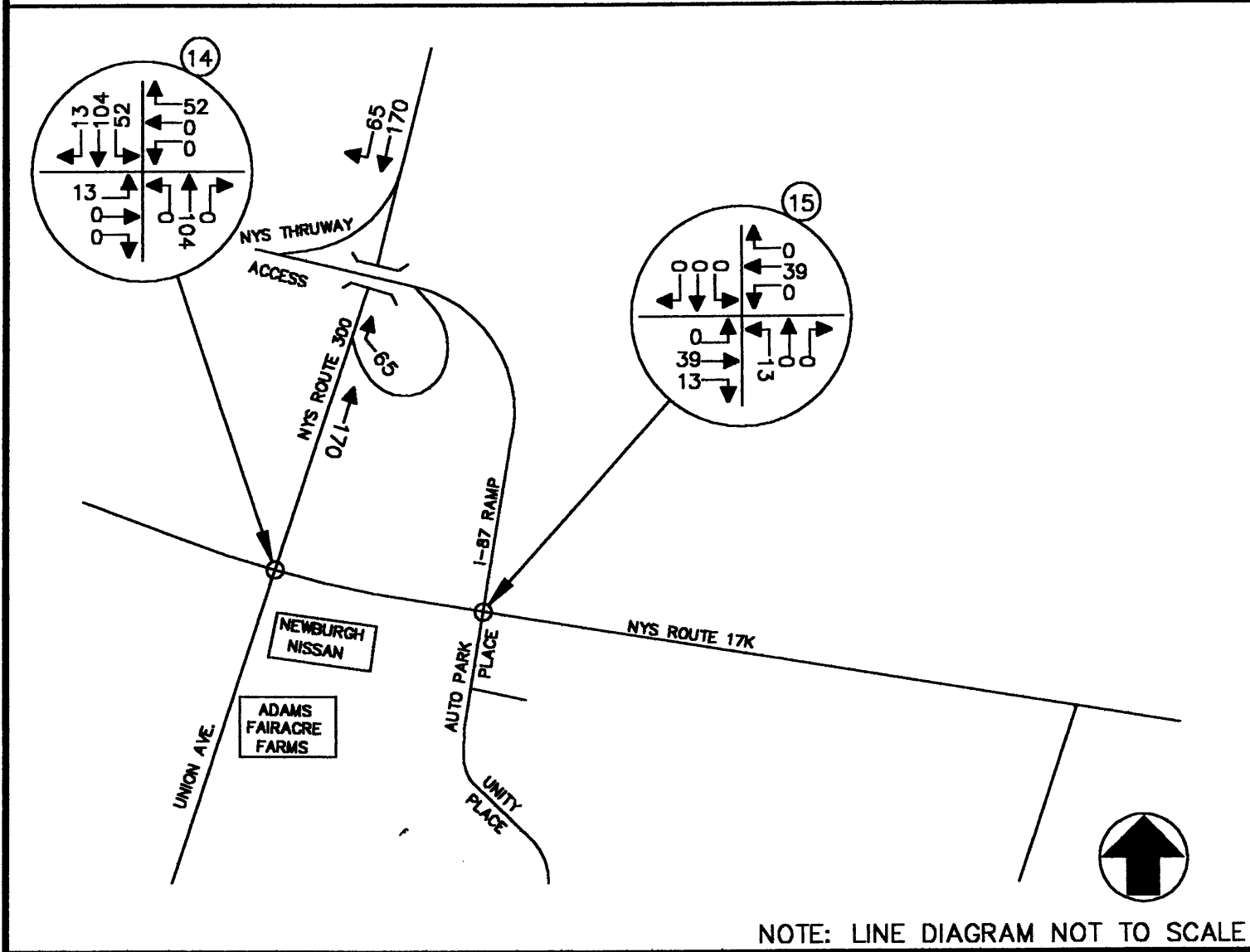
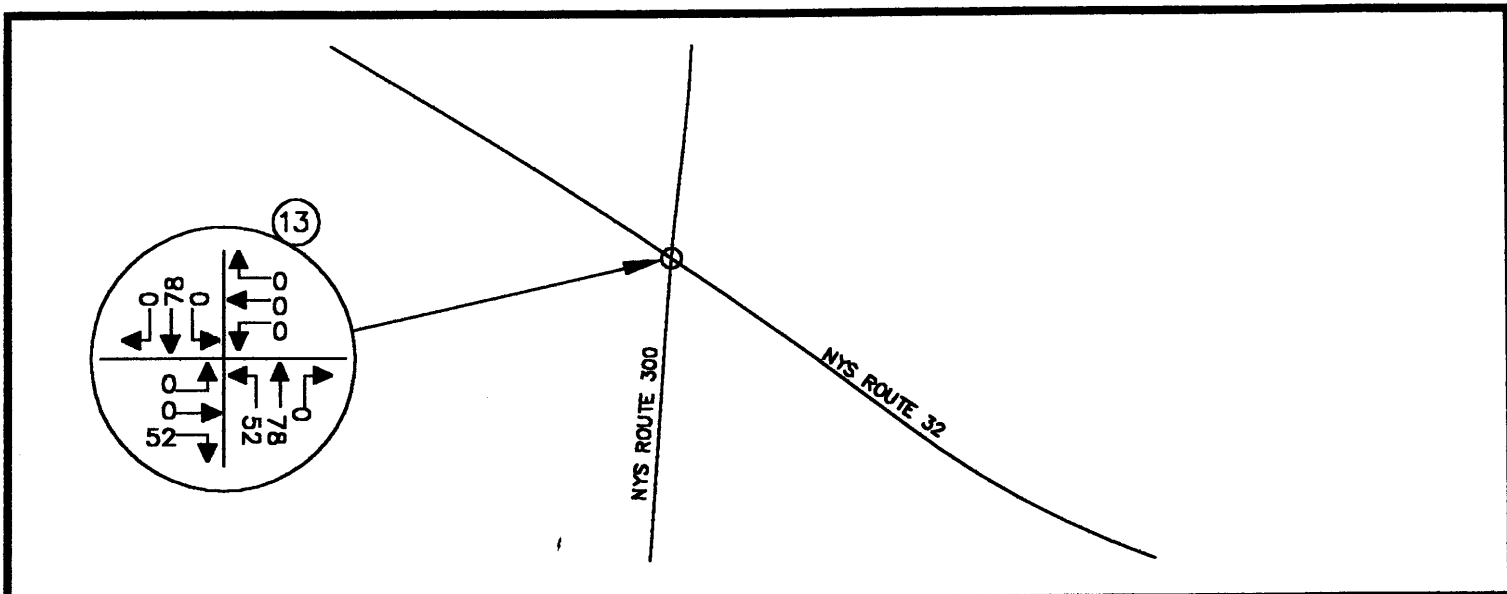


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 13



NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY**

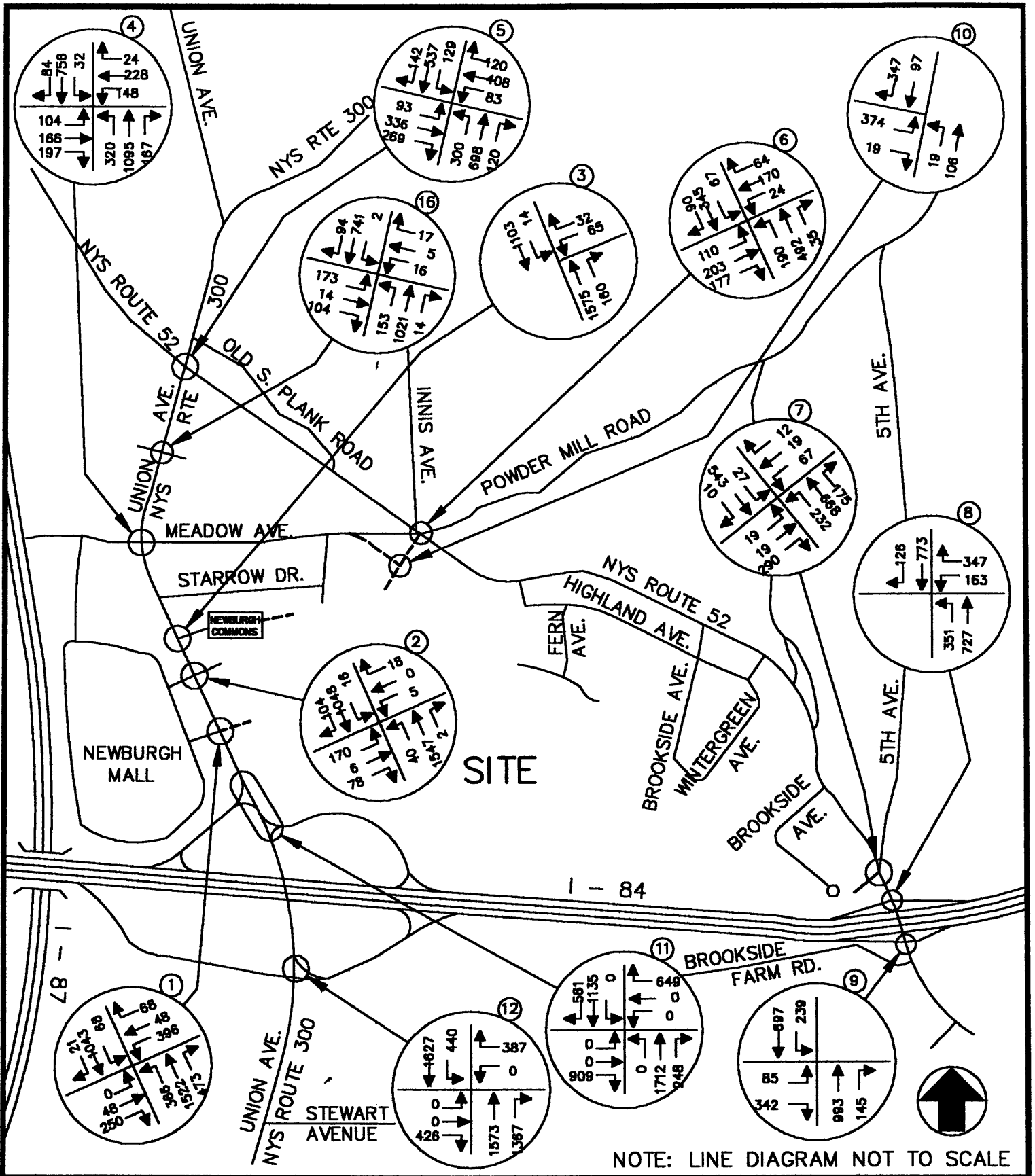
**SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)**

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.13A

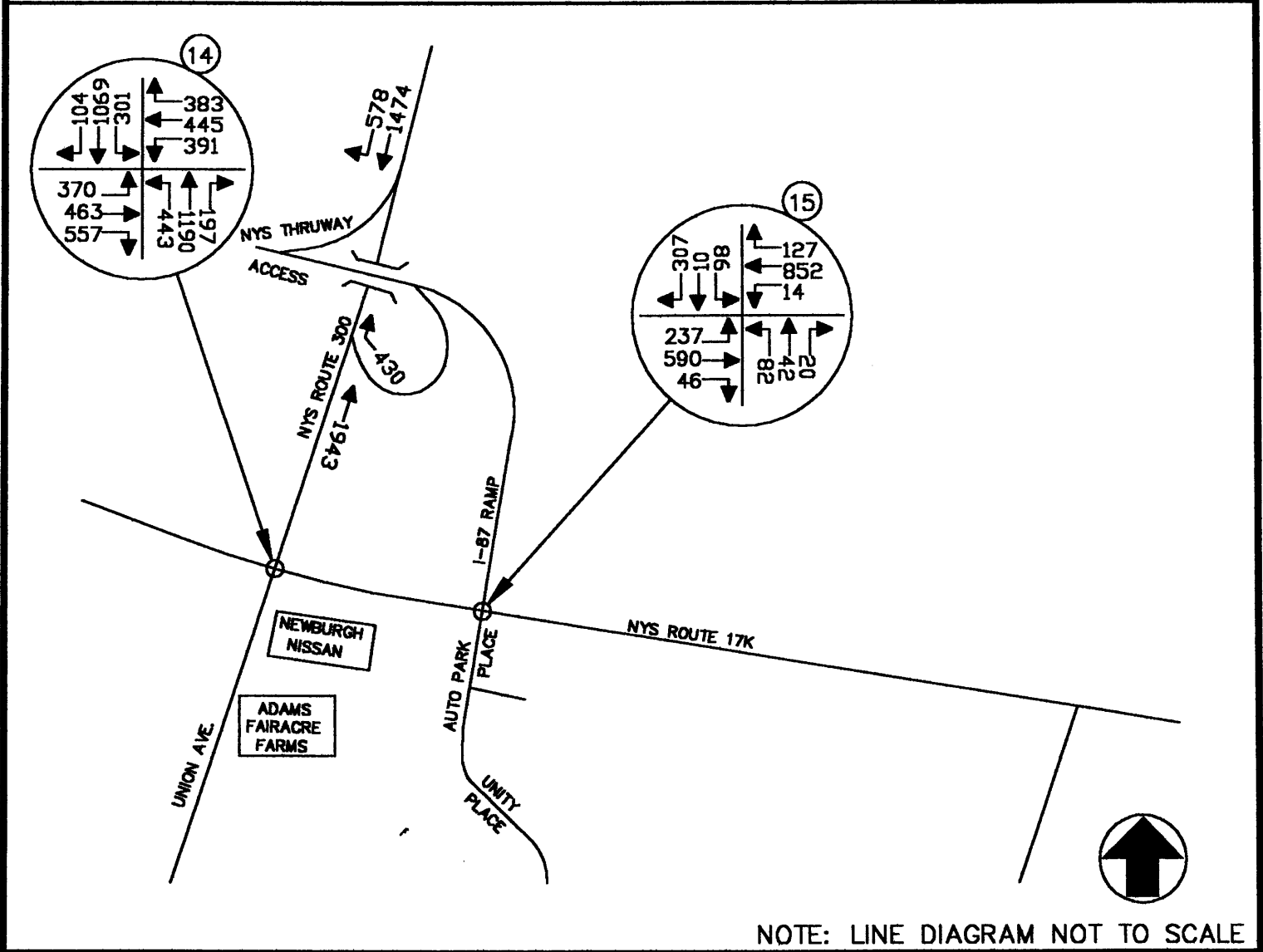
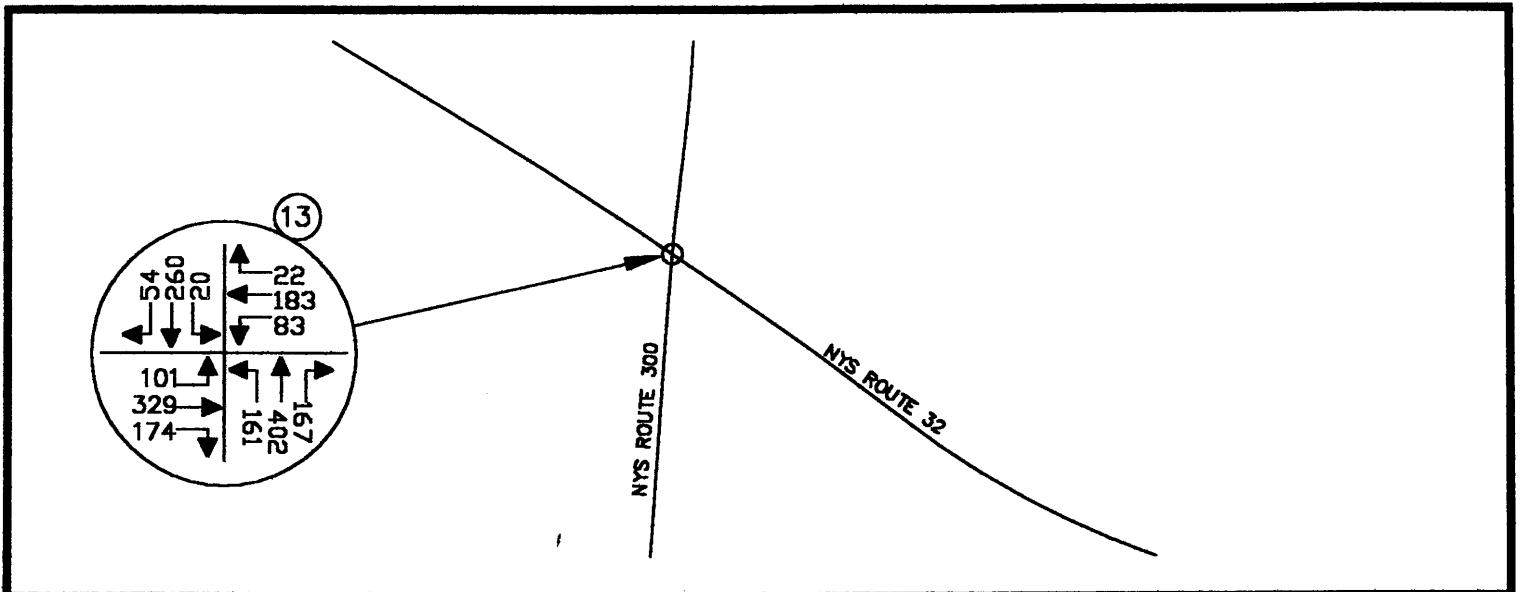


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 14



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

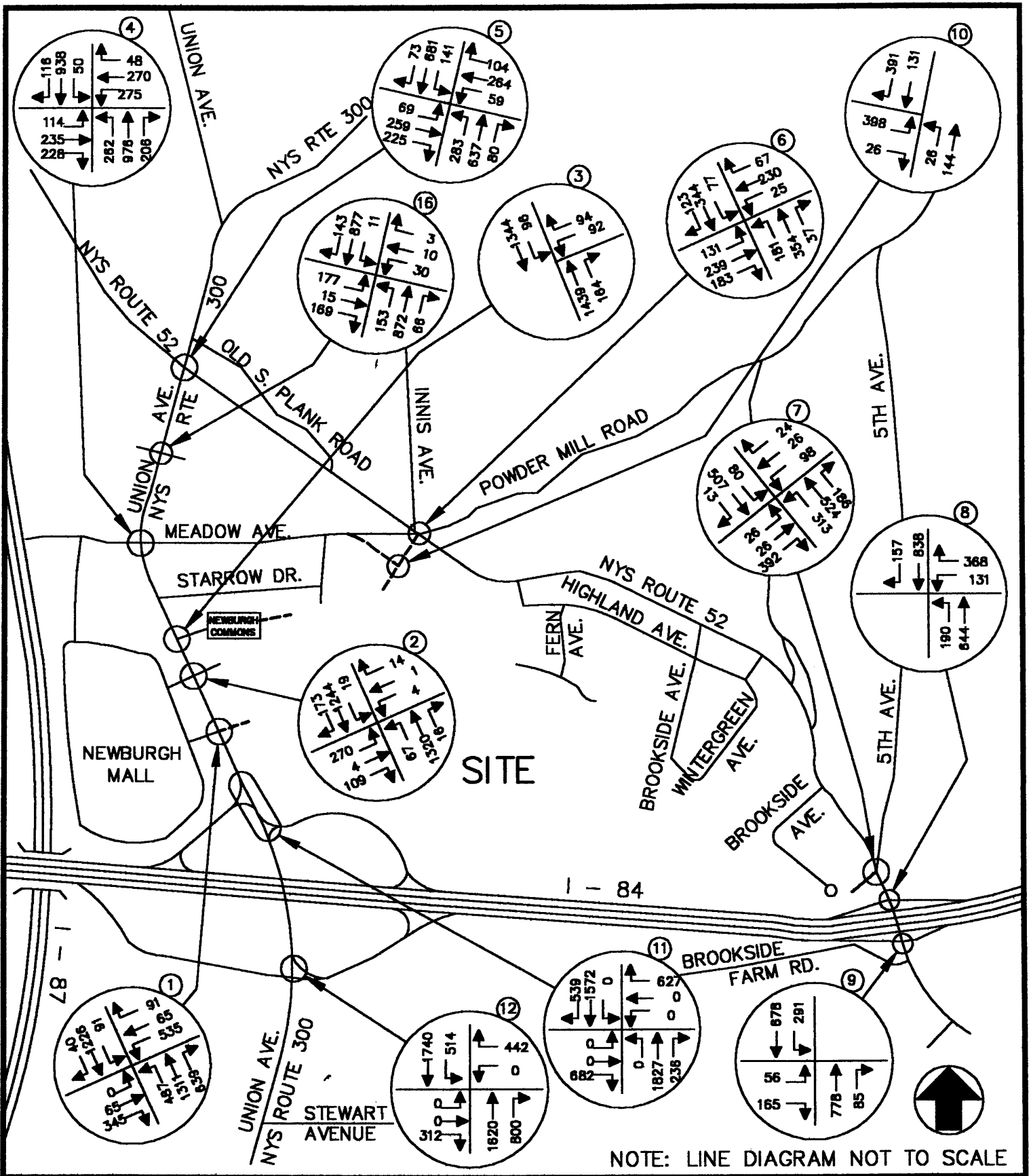
2008 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.14A

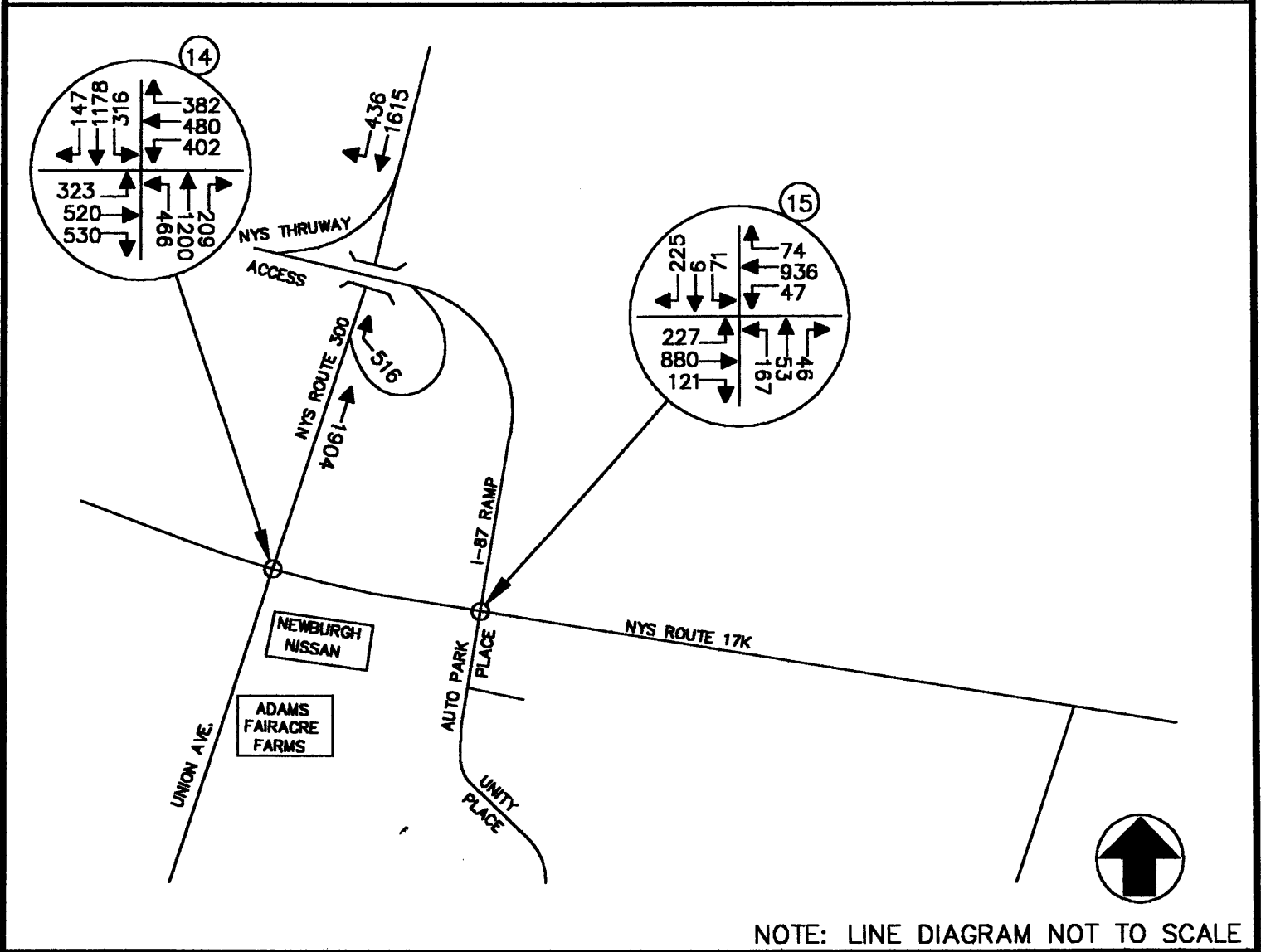
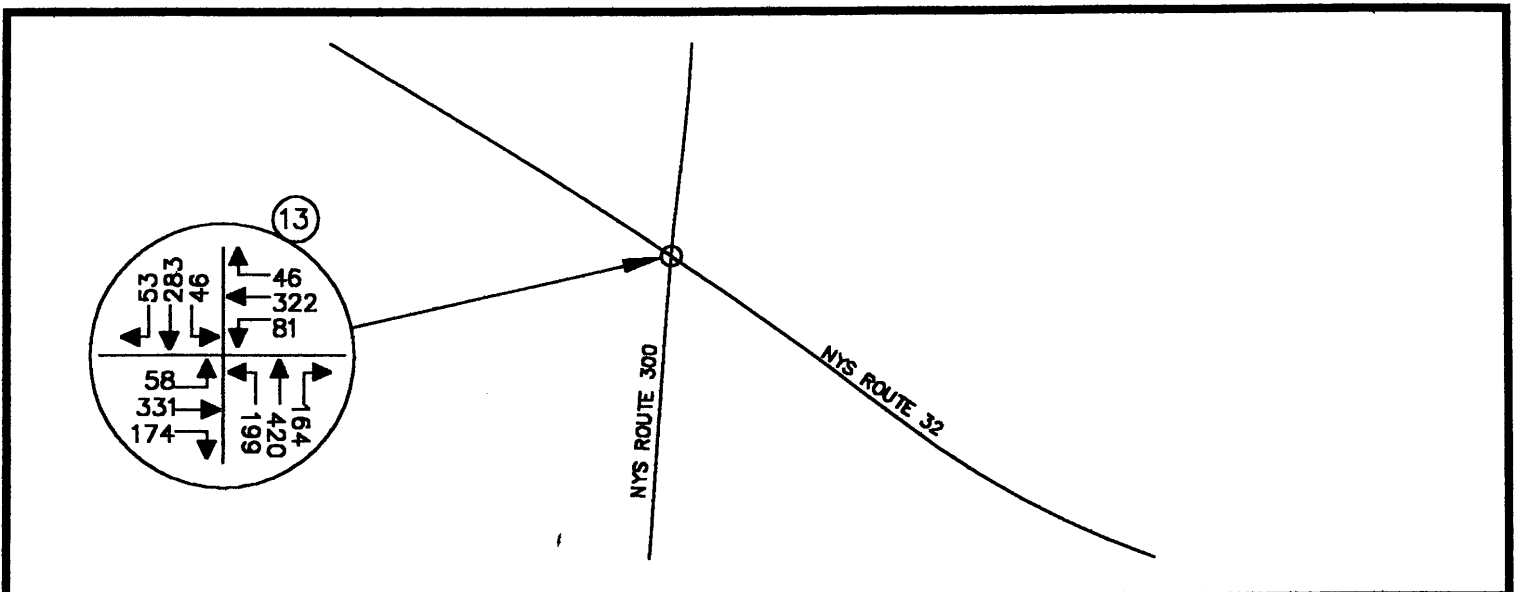


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 15



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

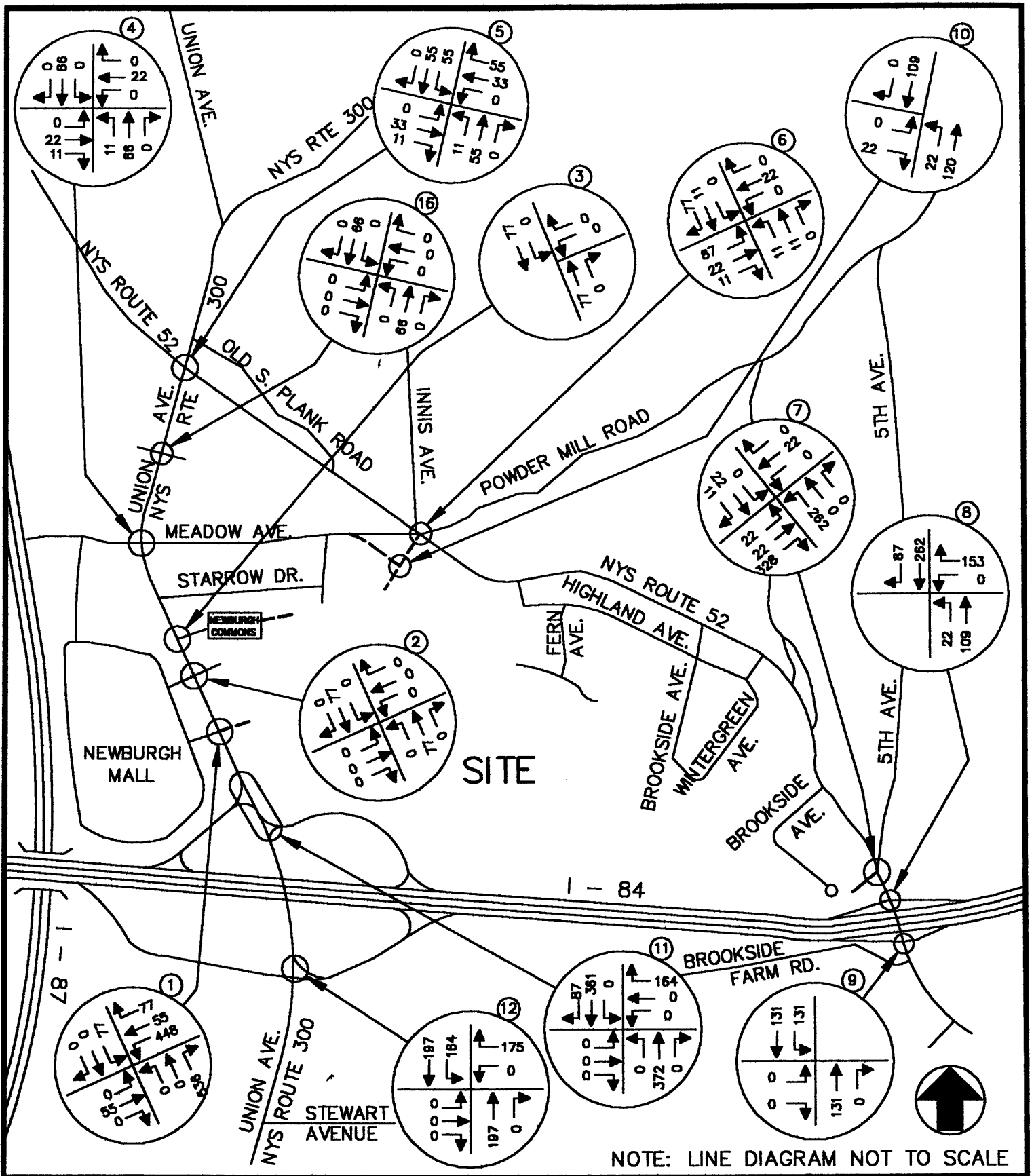
2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(850,000 S.F.)

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

PROJECT NO. 837

DATE: NOV 2006

FIG. NO.15A

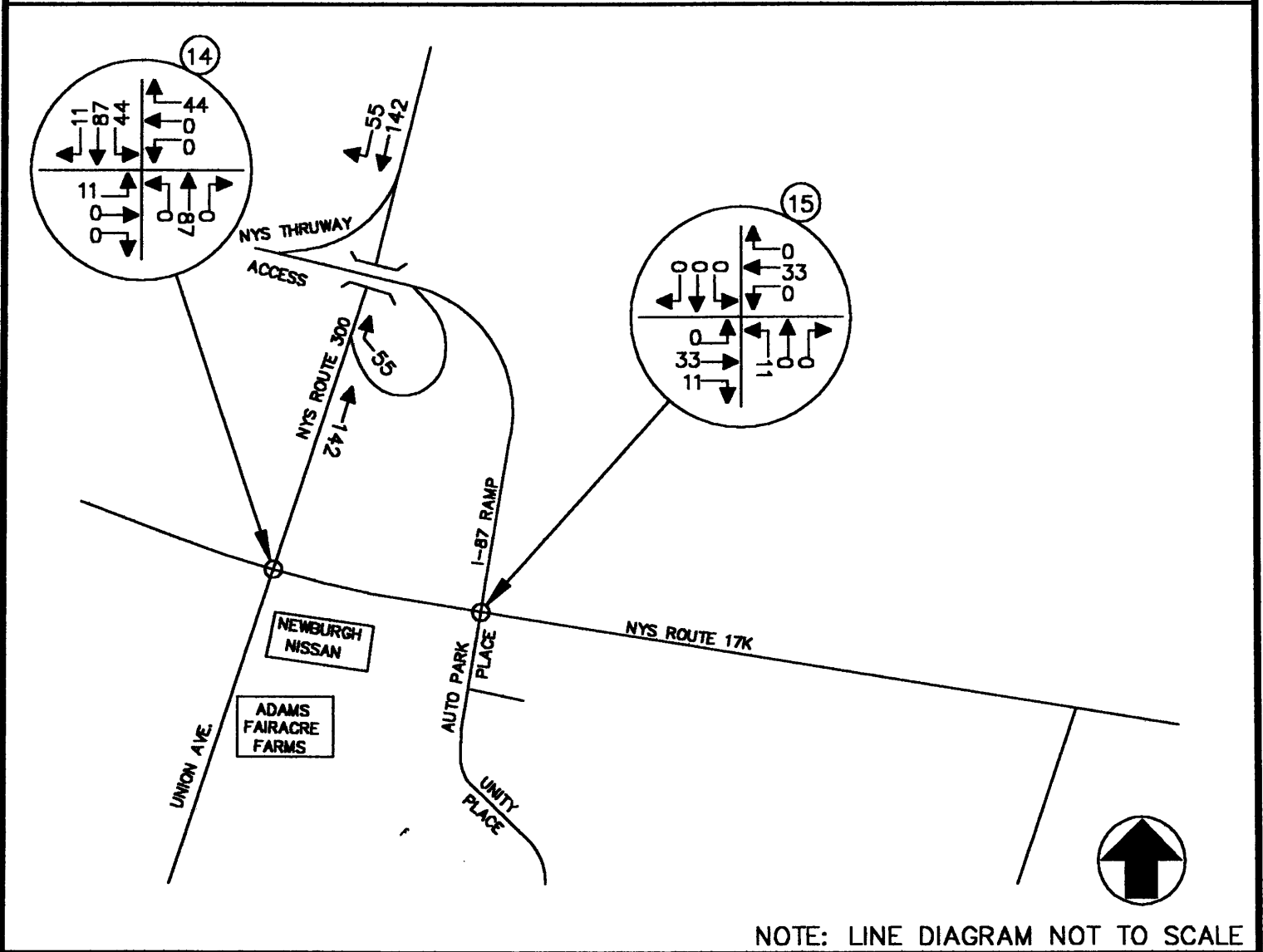
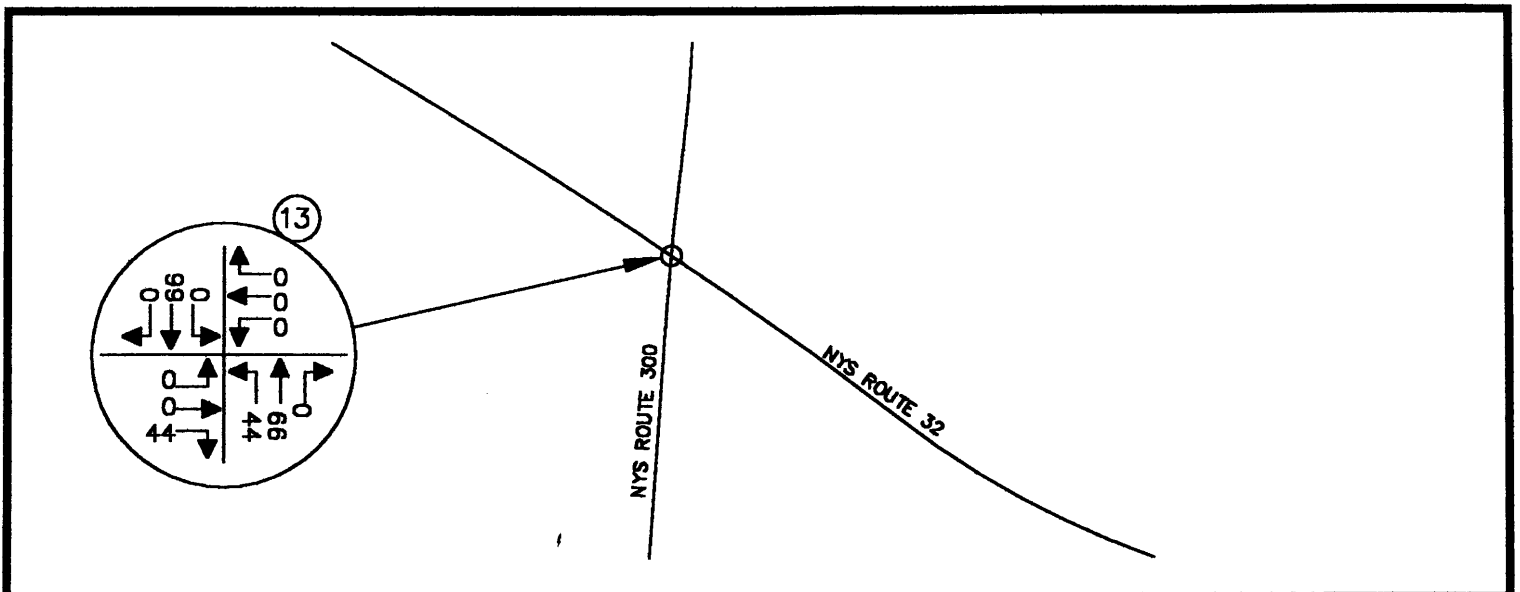


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 12



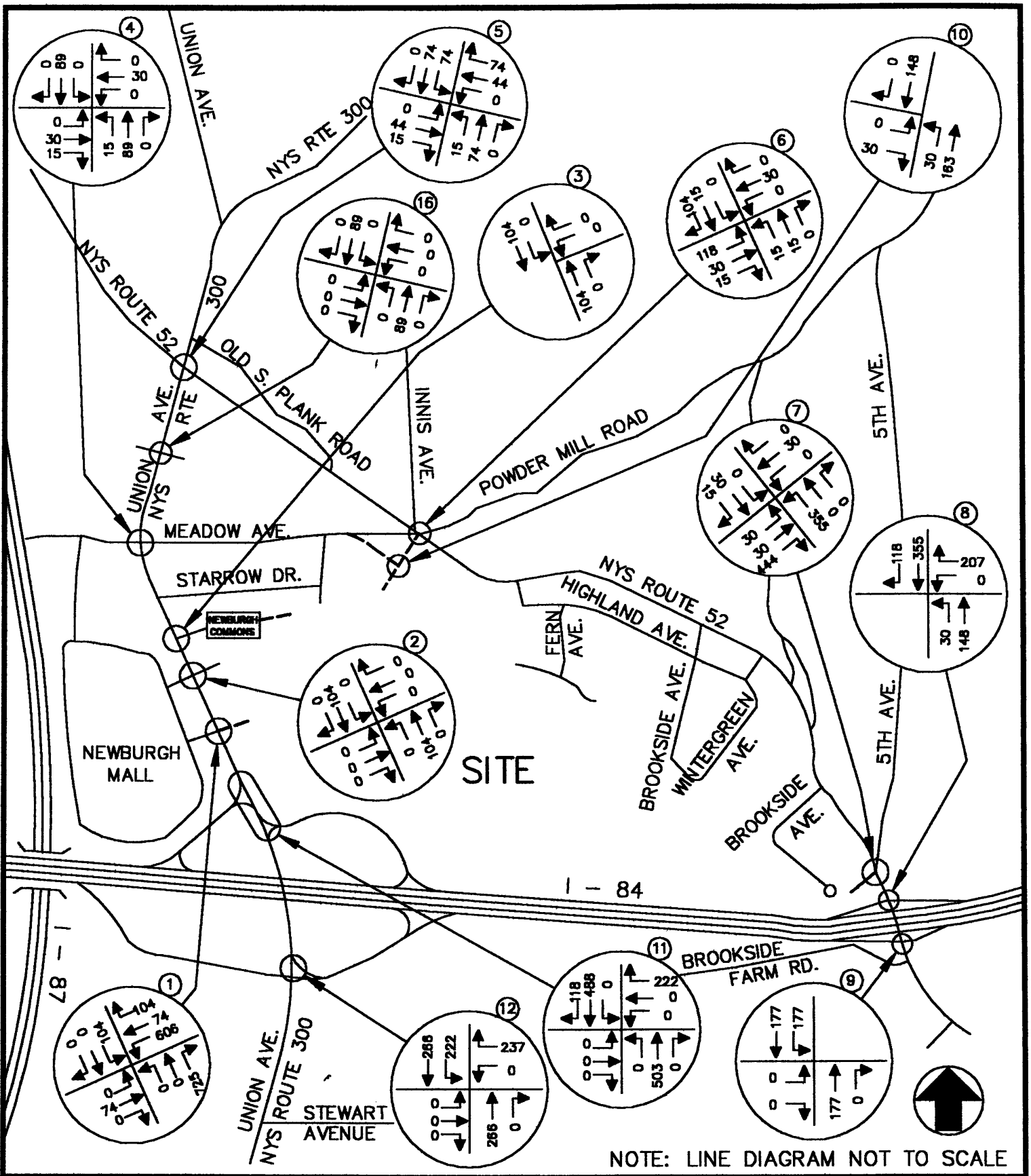
NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY**

**SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(15% PASS-BY) (850,000 S.F.)**

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO.12A



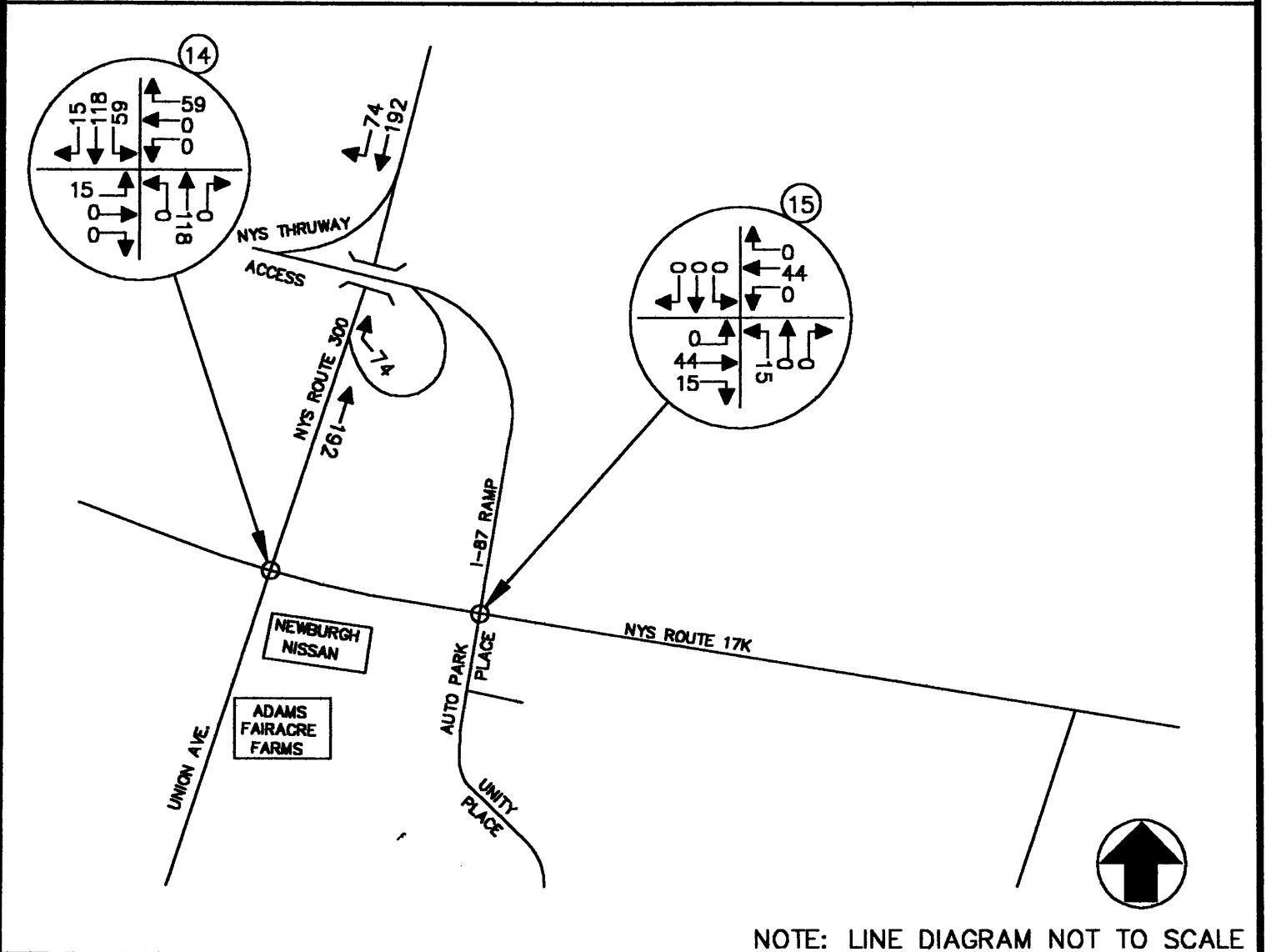
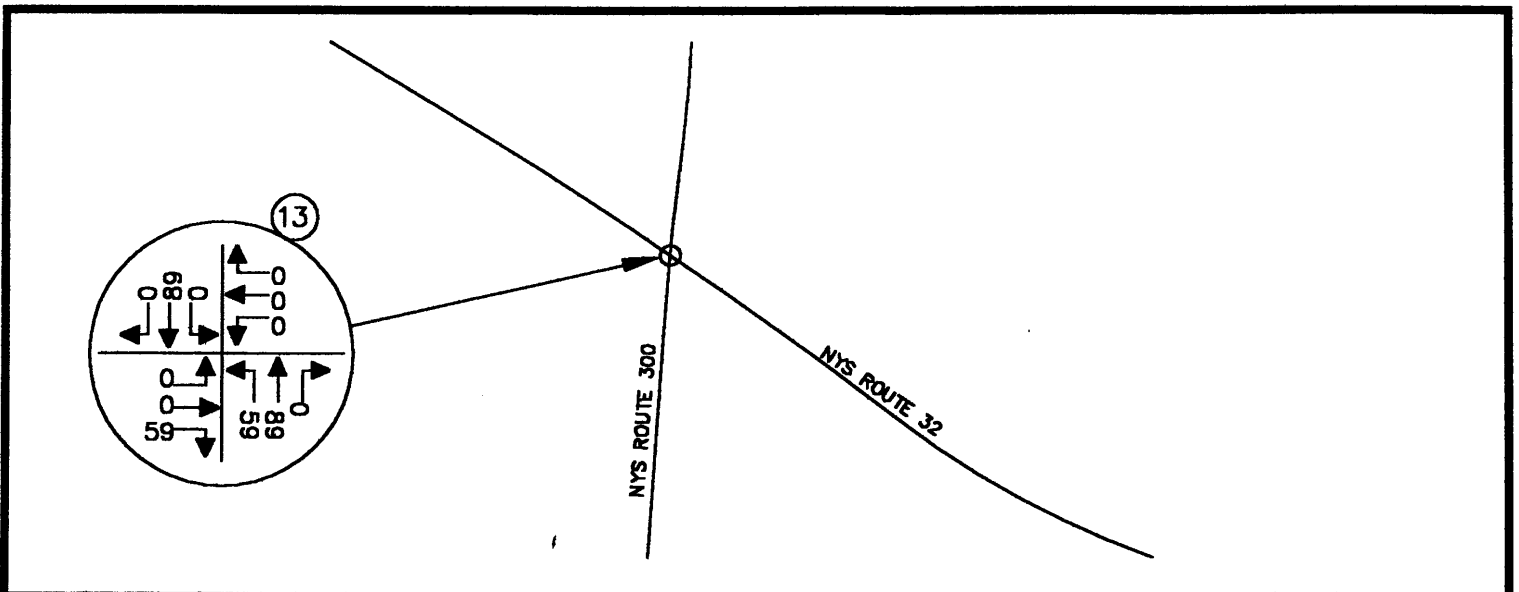
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 13



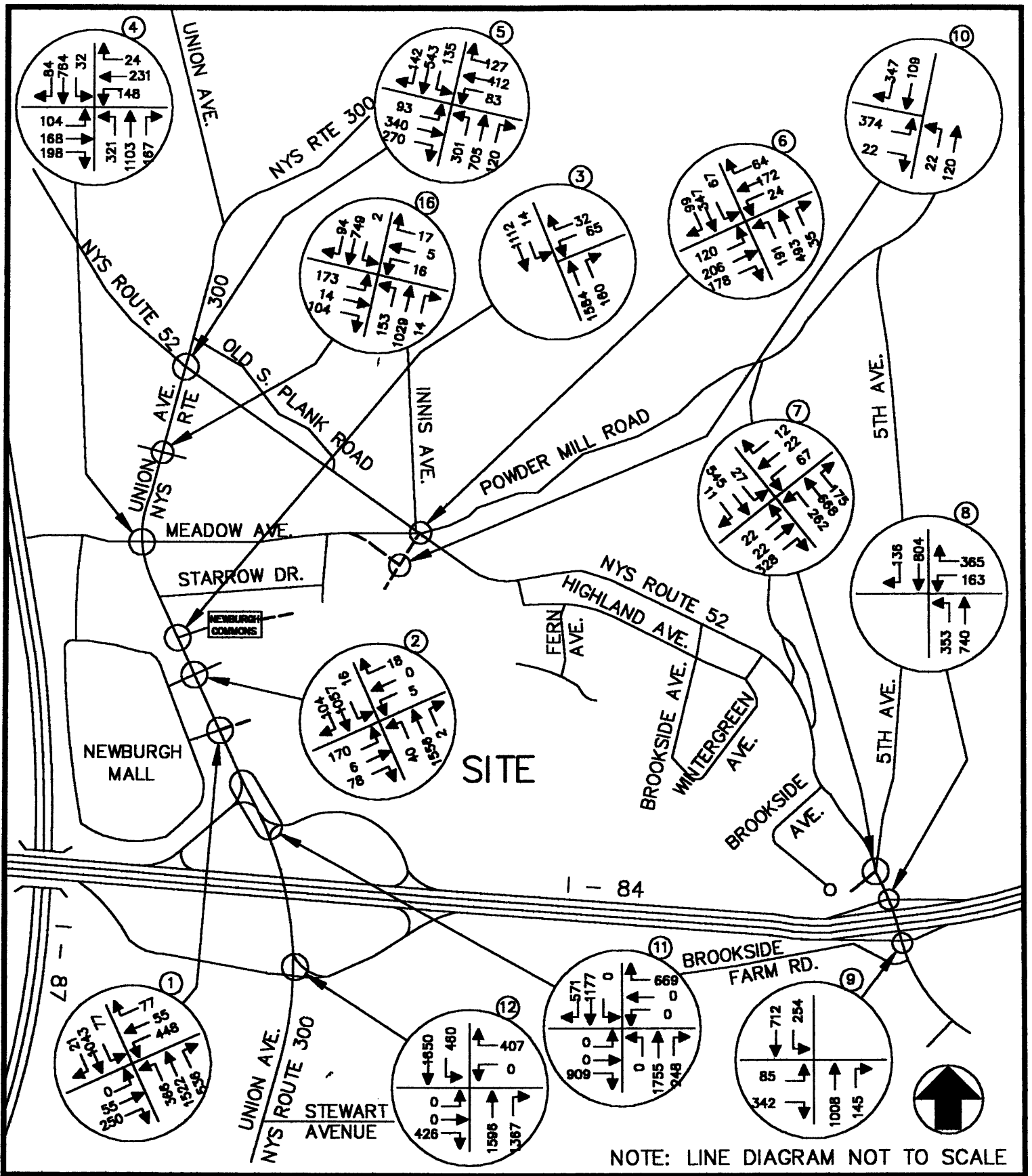
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO.13A

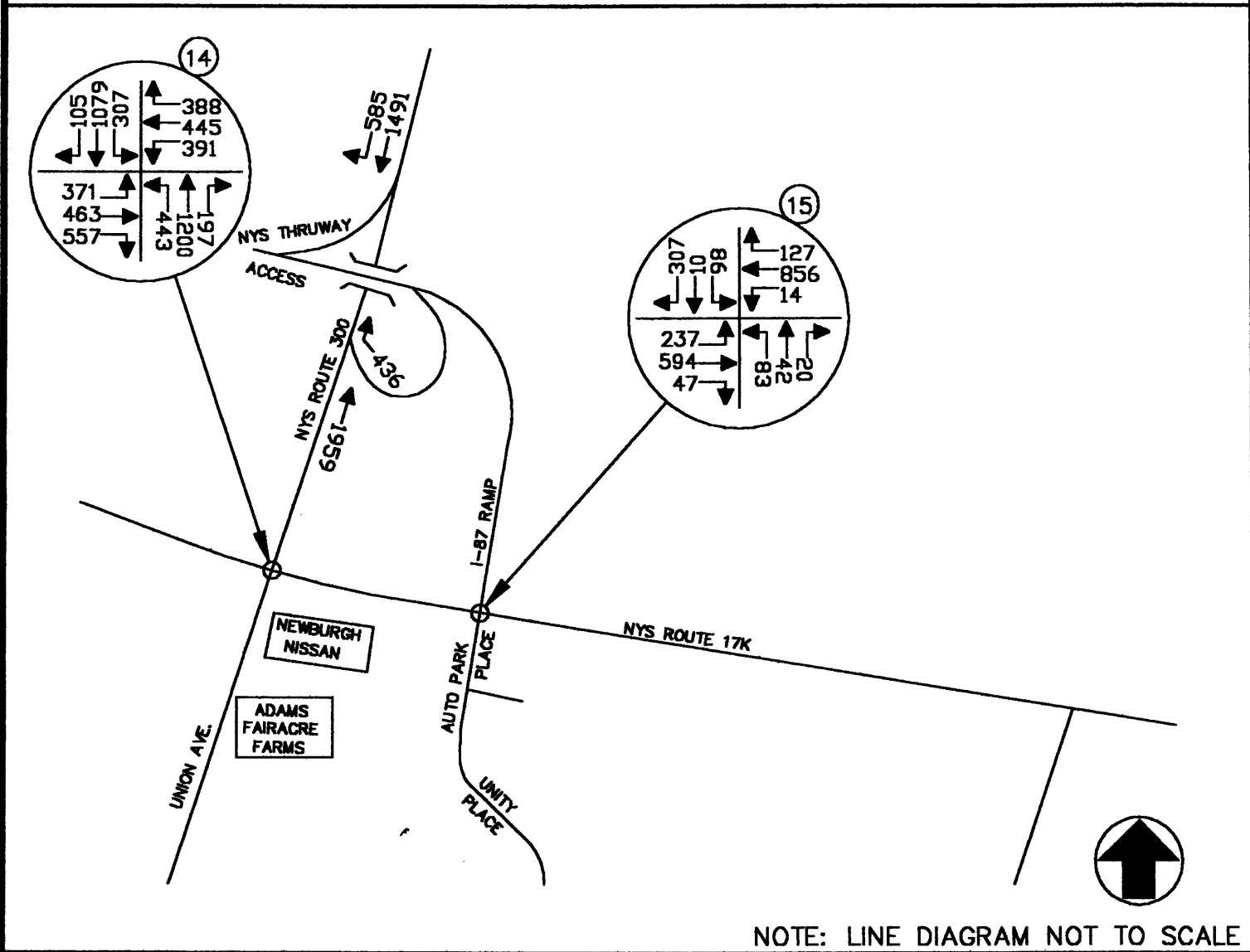
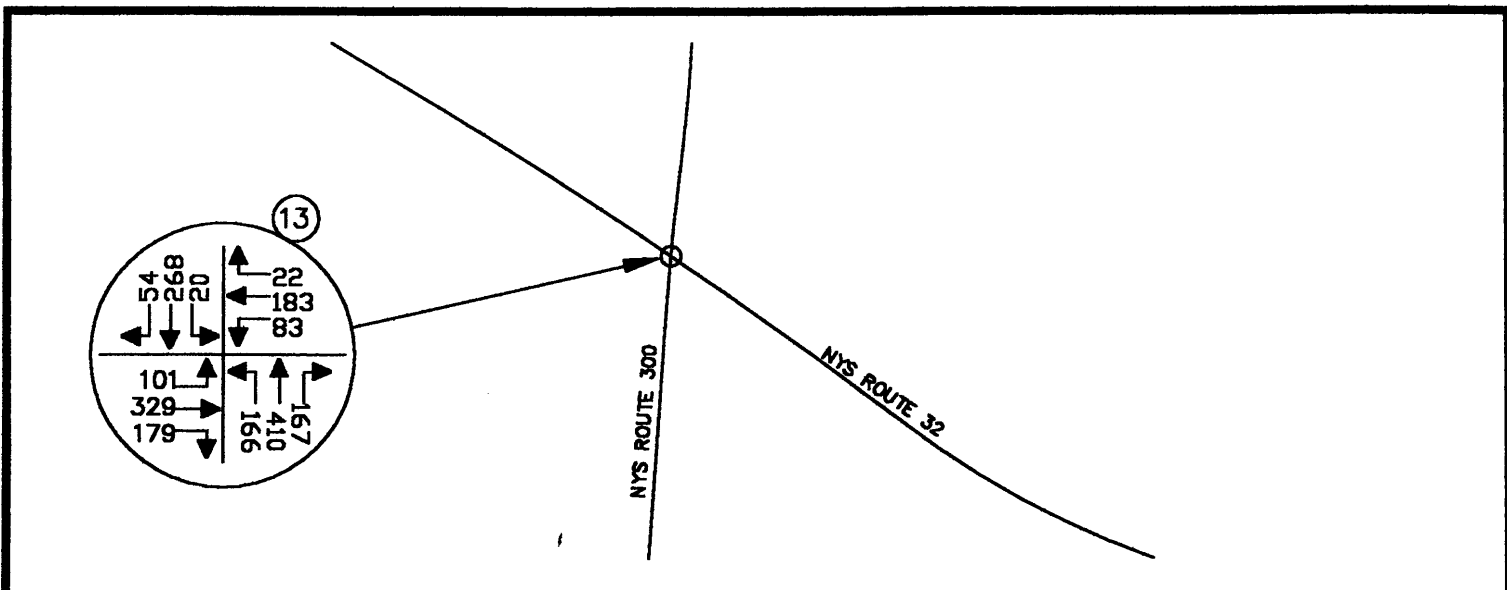


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 14



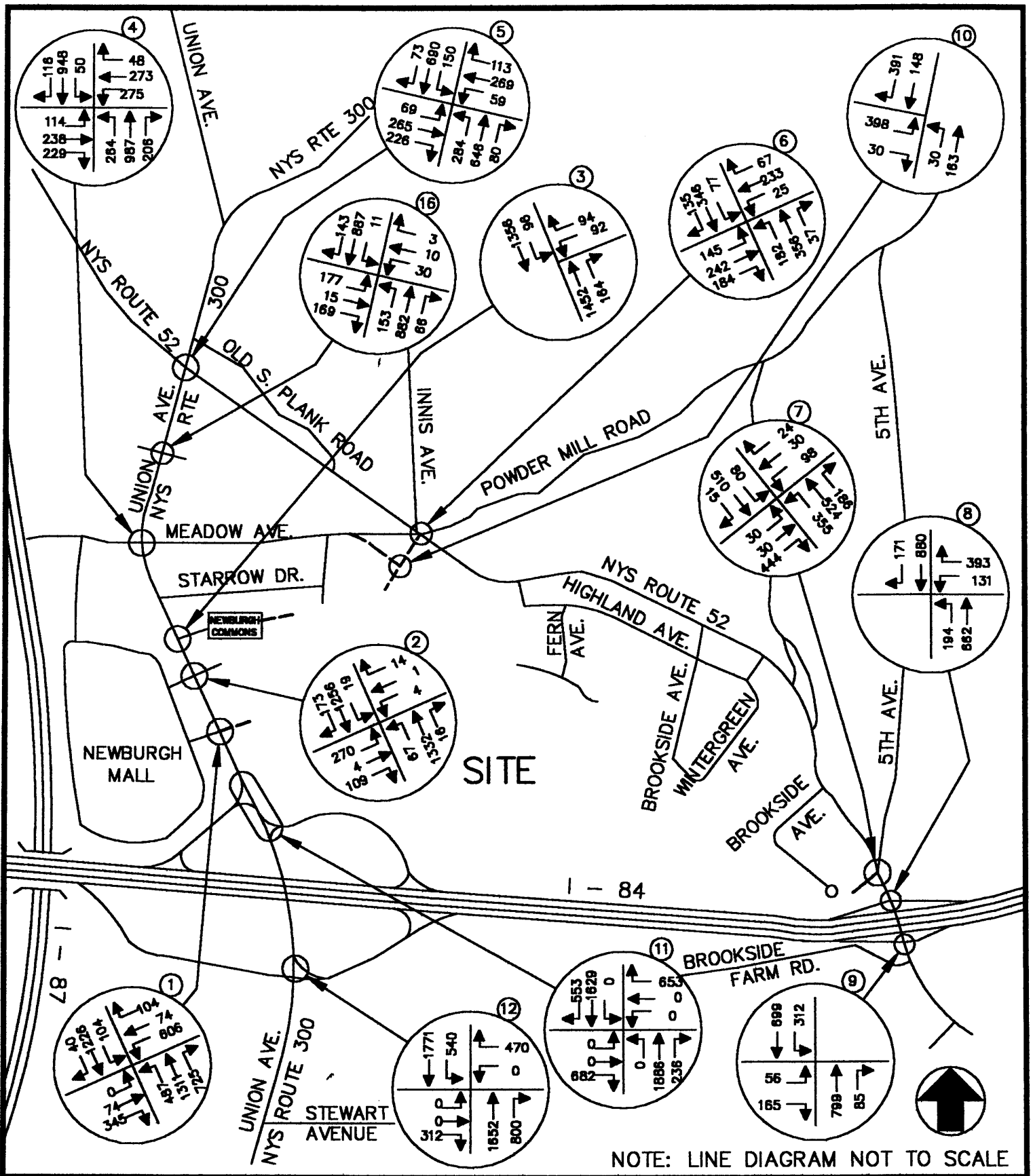
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2008 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(15% PASS-BY) (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO.14A

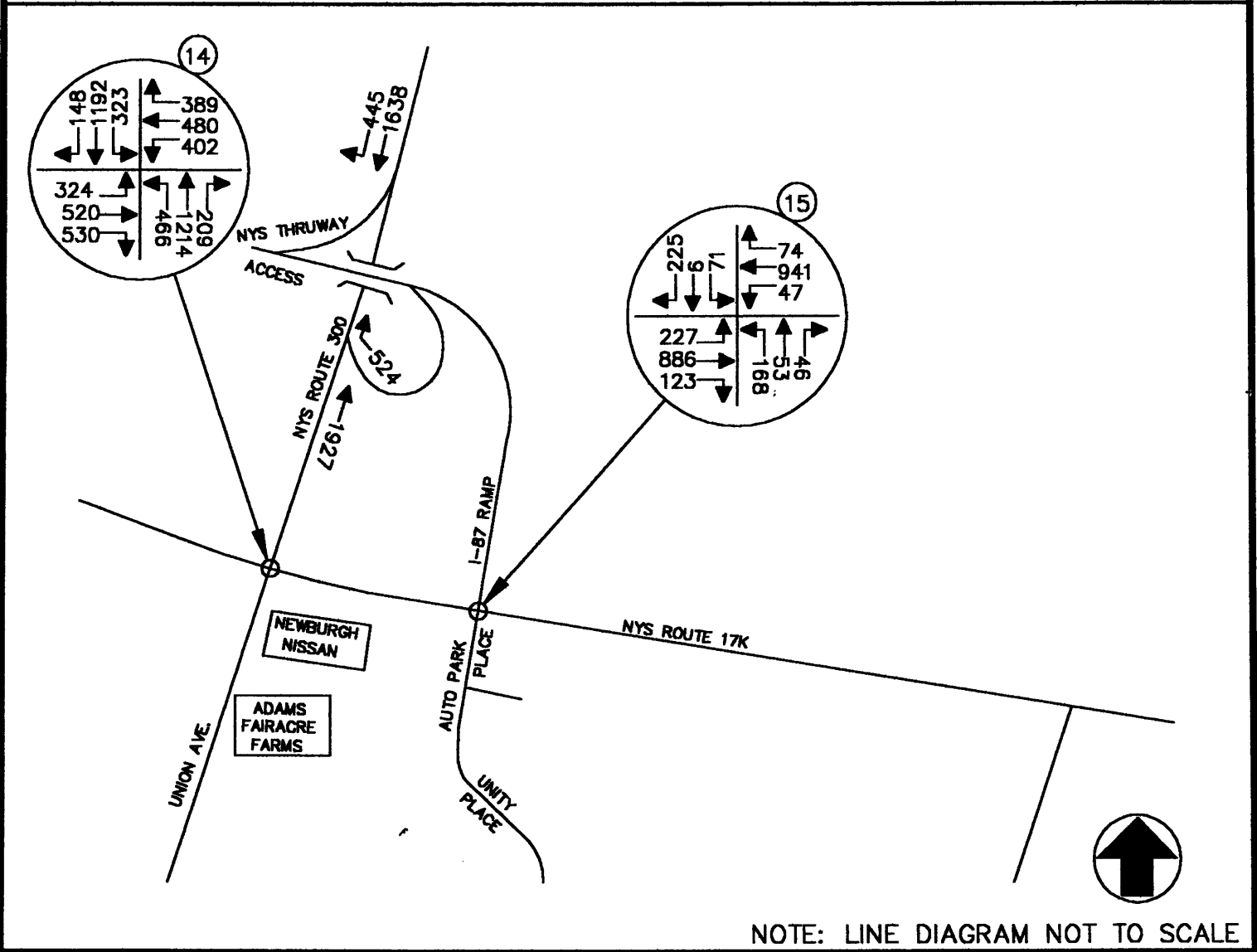
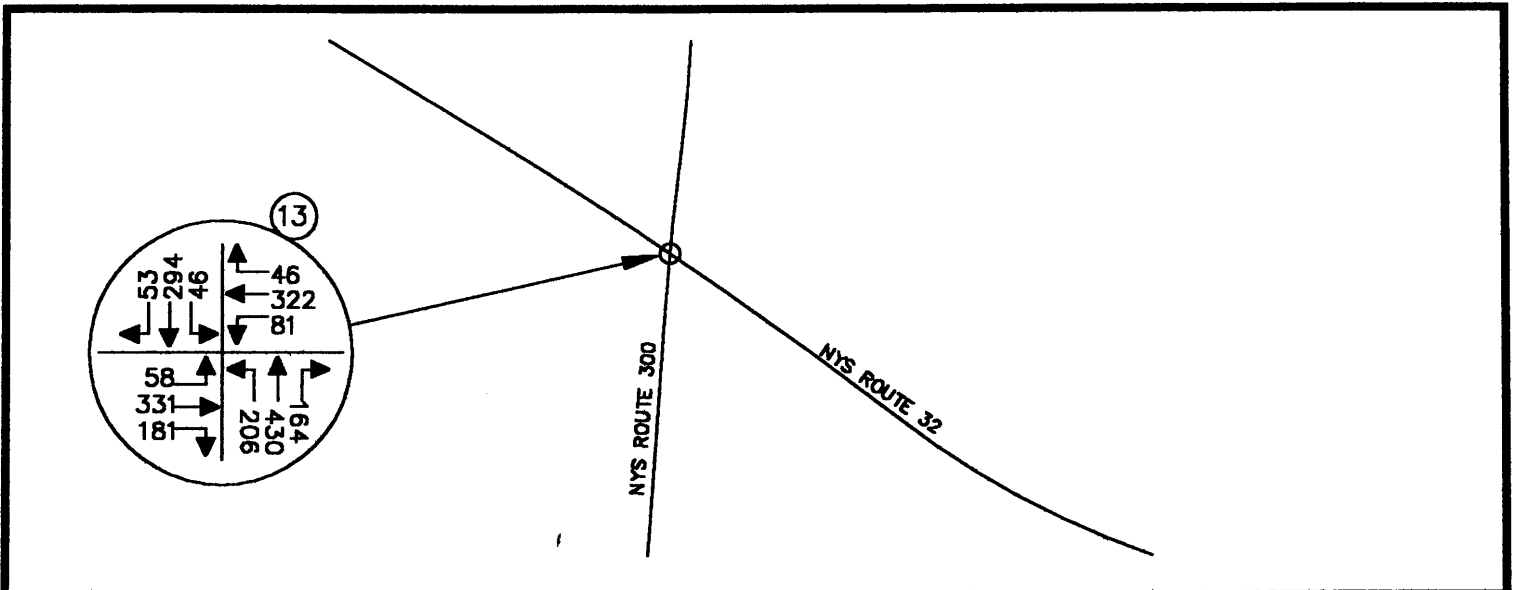


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 15



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (850,000 S.F.)

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

PROJECT NO. 837 DATE: NOV 2006 FIG. NO.15A

APPENDIX "B"

TABLES

TABLE NO. 1-SEN

**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
WITH 15% PASS-BY CREDIT**

THE MARKET PLACE AT NEWBURGH	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SHOPPING CENTER 500,000 S.F.						
PEAK PM HOUR	1.81	906	770	1.81	906	770
PEAK SAT HOUR	2.47	1232	1047	2.47	1232	1047
SHOPPING CENTER 850,000 S.F.						
PEAK PM HOUR	1.51	1286	1093	1.51	1286	1093
PEAK SAT HOUR	2.04	1740	1479	2.04	1740	1479

NOTES:

- 1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 820 - SHOPPING CENTER.
- 2) THE NEW TRIPS REPRESENT A 15% CREDIT FOR PASS-BY TRIPS DUE TO THE ATTRACTION OF A PORTION OF TRIPS FROM THE EXISTING TRAFFIC STREAM.

TABLE 2S
LEVEL OF SERVICE SUMMARY TABLE

		SENSITIVITY ANALYSIS											
		2004 EXISTING				2008 NO-BUILD				850,000 RETAIL		850,000 RETAIL	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT		
1	NYS ROUTE 300 & NEWBURGH MALL (SOUTH) DRIVEWAY/ SITE ACCESS DRIVEWAY	UN SIGNALIZED											
		EB	C[20.2]	E[44.4]	C[21.8]	F[77.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	C[18.9]	F[58.2]	C[21.0]	F[122.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	W/ SIGNAL & IMPROVEMENTS	EB	-	-	-	-	D[35.3]	D[33.6]	D[35.7]	D[35.0]			
		WB	-	-	-	-	D[39.4]	E[55.3]	D[45.3]	E[66.7]			
		NB	-	-	-	-	B[10.8]	B[16.5]	B[10.6]	B[16.1]			
SB		-	-	-	-	B[18.7]	D[49.5]	B[19.9]	E[68.6]				
OVERALL	-	-	-	-	B[18.0]	C[32.5]	B[19.2]	D[39.6]					
2	NYS ROUTE 300 & NEWBURGH MALL (NORTH) DRIVEWAY/ RESTAURANT DRIVEWAY	SIGNALIZED											
		EB	B[16.8]	B[19.6]	C[22.3]	C[33.2]	C[22.3]	C[32.3]	C[22.3]	C[32.3]			
	WB	B[14.7]	B[14.7]	B[19.6]	C[23.8]	B[19.6]	C[23.8]	B[19.6]	C[23.8]				
	NB	C[20.4]	B[15.8]	C[27.9]	B[15.1]	C[32.5]	B[16.4]	C[33.4]	B[16.6]				
	SB	B[13.6]	B[16.9]	B[18.6]	B[16.0]	B[19.5]	B[16.6]	B[19.7]	B[16.7]				
	OVERALL	B[17.5]	B[16.7]	C[23.8]	B[17.8]	C[26.5]	B[18.4]	C[27.1]	B[18.6]				
3	NYS ROUTE 300 & AUTO ZONE DRIVEWAY	UN SIGNALIZED											
		WB	F[421.7]	F[762.9]	F[634.6]	F[1055]	F[817.9]	F	F[818.0]	F			
	SB	C[15.4]	C[16.1]	C[16.7]	C[17.5]	C[17.5]	C[18.4]	C[17.6]	C[18.6]				
	WITH SIGNALIZATION	WB	-	-	C[30.9]	C[30.2]	C[30.9]	C[30.2]	C[30.9]	C[30.2]			
		NB	-	-	C[32.3]	C[27.1]	D[40.2]	C[32.6]	D[41.6]	C[33.7]			
		SB	-	-	A[8.4]	B[10.8]	A[8.7]	B[11.5]	A[8.8]	B[11.6]			
OVERALL		-	-	C[23.3]	C[20.1]	C[28.0]	C[23.0]	C[28.8]	C[23.6]				
4	NYS ROUTE 300 & MEADOW AVENUE/MEADOW HILL ROAD	SIGNALIZED											
		EB	D[40.6]	D[47.3]	D[41.4]	E[64.3]	D[42.5]	E[65.6]	D[43.3]	E[67.6]			
	WB	C[22.8]	D[37.0]	C[28.0]	D[50.4]	C[28.6]	D[47.1]	C[28.9]	D[47.0]				
	NB	C[22.4]	D[35.8]	C[26.2]	C[34.6]	B[16.0]	C[24.1]	B[15.1]	B[19.0]				
	SB	D[45.7]	D[54.0]	D[41.3]	E[62.2]	D[39.2]	E[64.8]	D[39.6]	D[49.9]				
	OVERALL	C[30.9]	D[43.2]	C[32.4]	D[49.9]	C[27.3]	D[46.3]	C[24.5]	D[40.1]				
5	NYS ROUTE 300 & NYS ROUTE 52	SIGNALIZED											
		EB	F[198.9]	C[31.0]	F[224.5]	D[33.4]	F[324.4]	E[61.2]	F[341.9]	E[67.1]			
	WB	F[176.4]	C[34.8]	F[200.4]	D[36.6]	F[264.2]	D[54.6]	F[275.4]	E[59.9]				
	NB	F[112.0]	C[24.7]	F[143.3]	D[38.5]	F[172.1]	F[172.1]	F[175.4]	E[56.9]				
	SB	D[39.9]	D[40.9]	D[44.9]	D[47.4]	E[58.7]	E[65.3]	E[61.1]	E[68.4]				
	OVERALL	F[125.8]	C[32.2]	F[148.1]	D[40.0]	F[194.0]	E[58.0]	F[201.5]	E[62.9]				
	WITH IMPROVEMENTS	EB	-	-	D[38.8]	C[26.2]	D[41.0]	C[27.5]	D[42.5]	C[28.3]			
		WB	-	-	D[52.2]	C[30.5]	C[30.5]	E[58.7]	E[64.3]	C[30.3]			
		NB	-	-	C[26.3]	C[25.4]	C[34.7]	D[35.1]	D[43.0]	D[39.7]			
		SB	-	-	D[53.8]	D[35.1]	E[67.2]	D[48.4]	E[77.7]	D[48.1]			
		OVERALL	-	-	D[40.5]	C[29.1]	D[48.8]	D[36.4]	E[55.8]	D[38.7]			
		6	NYS ROUTE 52 & MEADOW AVENUE/POWDER MILL ROAD	SIGNALIZED									
EB	E[78.7]			C[33.1]	F[109.6]	D[38.1]	F[124.0]	D[41.7]	F[496.3]	F[430.1]			
WB	D[35.1]		C[25.5]	D[39.0]	C[26.9]	F[119.6]	D[43.7]	D[42.0]	C[30.2]				
NB	B[17.6]		C[22.1]	C[23.6]	C[29.1]	E[68.5]	F[120.1]	D[43.0]	F[89.2]				
SB	A[8.5]		B[13.5]	A[8.9]	B[14.5]	B[10.1]	B[18.6]	B[10.3]	C[20.3]				
OVERALL	C[31.0]		C[23.1]	D[41.1]	C[27.1]	E[71.7]	E[63.7]	F[150.3]	F[162.0]				
WITH IMPROVEMENTS	EB		-	-	-	-	C[30.6]	C[28.7]	C[31.0]	C[29.3]			
	WB		-	-	-	-	C[27.2]	C[26.4]	C[27.4]	C[26.7]			
	NB		-	-	-	-	C[25.5]	C[23.6]	C[25.7]	C[24.2]			
	SB		-	-	-	-	C[22.6]	C[28.7]	C[23.2]	C[30.3]			
	OVERALL		-	-	-	-	C[26.3]	C[26.9]	C[26.6]	C[27.7]			
	7		NYS ROUTE 52 & 5TH AVENUE	UN SIGNALIZED									
EB		-		-	-	-	F[94.3]	F[320.5]	F[156.5]	F			
WB		E[44.5]	F[60.9]	F[62.3]	F[92.9]	F	F	F	F				
NB		-	-	-	-	B[10.1]	B[10.5]	B[10.3]	B[11.0]				
SB		A[9.9]	A[9.7]	B[10.2]	A[9.9]	B[10.1]	A[9.8]	B[10.1]	A[9.8]				
W/ SIGNAL & LANE IMPROVEMENTS		EB	-	-	-	-	C[32.0]	C[34.9]	D[49.5]	D[39.8]			
	WB	-	-	-	-	D[48.7]	D[49.6]	D[50.0]	D[50.7]				
	NB	-	-	-	-	C[24.5]	C[27.1]	C[26.3]	C[29.7]				
	SB	-	-	-	-	B[11.7]	C[30.0]	B[11.8]	C[30.5]				
	OVERALL	-	-	-	-	C[22.9]	C[30.9]	C[27.5]	C[33.3]				

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2] FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

**TABLE 2S(CONTD.)
LEVEL OF SERVICE SUMMARY TABLE**

		SENSITIVITY ANALYSIS											
		2004 EXISTING				2008 NO-BUILD				850,000 RETAIL		850,000 RETAIL	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT		
8	NYS ROUTE 52 & I-84 ON/OFF RAMP WEST BOUND	SIGNALIZED											
		WB	C[21.0]	C[20.5]	C[21.6]	C[20.8]	D[43.7]	C[35.0]	D[44.2]	D[39.2]			
		NB	C[25.7]	A[9.6]	D[40.6]	B[10.3]	A[8.8]	B[14.0]	B[18.6]	B[14.4]			
		SB	B[10.8]	B[10.5]	B[11.5]	B[11.3]	B[18.4]	C[31.8]	D[45.6]	D[41.7]			
	OVERALL	C[20.2]	B[12.0]	C[28.0]	B[12.8]	B[18.6]	C[25.8]	C[33.5]	C[31.3]				
9	NYS ROUTE 52 & I-84 ON/OFF RAMP EAST BOUND	SIGNALIZED											
		EB	C[28.3]	B[19.9]	D[36.0]	C[20.3]	C[34.2]	C[23.5]	C[34.2]	C[23.5]			
		NB	B[19.8]	B[10.7]	C[26.7]	B[11.5]	D[43.5]	B[13.2]	D[49.2]	B[15.3]			
		SB	C[30.0]	A[9.4]	D[47.0]	B[10.5]	B[14.4]	B[13.5]	B[16.5]	C[22.6]			
	OVERALL	C[24.8]	B[11.4]	D[35.2]	B[12.3]	C[30.6]	B[14.2]	C[33.9]	B[19.7]				
10	RELOCATED MEADOW AVENUE & SITE ACCESS DRIVEWAY	SIGNALIZED											
		EB	-	-	-	-	B[18.9]	B[19.5]	B[18.9]	B[19.4]			
		NB	-	-	-	-	B[14.8]	B[15.2]	B[15.0]	B[15.4]			
		SB	-	-	-	-	B[18.6]	B[19.8]	B[18.5]	B[19.7]			
	OVERALL	-	-	-	-	B[18.2]	B[18.9]	B[18.1]	B[18.9]				
11	NYS ROUTE 300 & INTERSTATE 84 (WEST BOUND RAMP)	UNSIGNALIZED											
		EB	F[244.0]	F[247.2]	-	-	-	-	-	-			
		WB	F[225.2]	F[136.4]	-	-	-	-	-	-			
		WITH SIGNALIZATION											
	WB	-	-	C[25.4]	C[22.2]	C[23.1]	B[19.0]	C[22.8]	B[18.6]				
	NB	-	-	B[17.5]	B[12.9]	D[35.4]	C[26.6]	D[41.2]	C[32.9]				
	SB	-	-	B[13.3]	B[11.0]	B[16.0]	B[15.7]	B[16.4]	B[16.9]				
	OVERALL	-	-	B[18.8]	B[14.6]	C[25.4]	C[20.6]	C[27.6]	C[23.3]				
12	NYS ROUTE 300 & INTERSTATE 84 (EAST BOUND RAMP)	SIGNALIZED											
		EB	A[7.7]	A[7.7]	B[13.5]	B[11.7]	B[13.5]	B[10.6]	B[13.5]	B[10.6]			
		WB	A[0.2]	A[0.2]	A[0.2]	A[0.2]	A[0.3]	A[0.3]	A[0.3]	A[0.4]			
		NB	B[11.0]	B[11.0]	C[28.8]	C[34.5]	C[31.6]	B[16.3]	C[32.3]	B[17.2]			
	SB	A[3.0]	A[3.0]	A[3.4]	A[3.6]	A[6.0]	A[6.1]	A[6.6]	A[7.7]				
	OVERALL	A[7.6]	A[7.6]	B[17.7]	B[18.8]	B[19.1]	B[10.4]	B[19.6]	B[11.4]				
13	NYS ROUTE 300 & NYS ROUTE 32	SIGNALIZED											
		EB	C[34.1]	C[29.4]	D[43.7]	D[37.1]	D[42.4]	D[35.8]	D[42.2]	D[35.6]			
		WB	C[21.6]	C[23.4]	C[22.4]	C[24.2]	C[22.4]	C[24.2]	C[22.4]	C[24.2]			
		NB	C[27.5]	C[24.5]	C[30.7]	C[26.8]	D[40.2]	D[35.6]	D[42.3]	D[37.2]			
	SB	B[19.7]	B[18.9]	C[20.0]	B[19.4]	C[21.2]	C[21.1]	C[21.5]	C[21.4]				
	OVERALL	C[27.4]	C[24.7]	C[31.9]	C[27.7]	D[35.0]	C[30.7]	D[35.8]	C[31.3]				
14	NYS ROUTE 300 & NYS ROUTE 17K	SIGNALIZED											
		EB	D[44.5]	D[40.1]	D[49.5]	D[43.5]	D[51.2]	D[44.0]	D[51.2]	D[44.1]			
		WB	D[41.8]	D[40.4]	D[43.1]	D[43.5]	D[45.0]	D[43.7]	D[45.0]	D[43.6]			
		NB	C[27.2]	C[26.4]	C[35.1]	C[28.1]	D[39.7]	C[32.7]	D[40.9]	C[33.5]			
	SB	C[31.4]	C[33.1]	D[41.5]	D[37.9]	D[49.3]	D[50.1]	D[51.2]	D[52.6]				
	OVERALL	D[35.8]	C[34.4]	D[41.8]	D[37.4]	D[45.9]	D[42.1]	D[46.7]	D[43.0]				
15	NYS ROUTE 17K I-87 RAMP/UNITY PLACE	SIGNALIZED											
		EB	C[21.6]	C[25.4]	C[26.2]	C[28.8]	C[26.4]	C[30.7]	C[26.5]	C[31.1]			
		WB	C[28.1]	C[26.3]	C[30.3]	C[28.3]	C[31.9]	C[29.8]	C[32.1]	C[30.0]			
		NB	C[21.5]	C[22.9]	C[21.7]	C[23.3]	C[22.1]	C[24.2]	C[22.1]	C[24.2]			
	SB	B[15.8]	B[15.3]	B[16.0]	B[15.2]	B[16.0]	B[15.2]	B[16.0]	B[15.2]				
	OVERALL	C[23.4]	C[24.7]	C[26.0]	C[26.8]	C[26.8]	C[28.3]	C[26.9]	C[28.6]				
16	NYS ROUTE 300 & STOP N SHOP/NEWBURGH CINEMA DRIVE	SIGNALIZED											
		EB	C[29.2]	C[28.6]	C[30.0]	C[29.4]	C[30.0]	C[29.4]	C[30.0]	C[29.4]			
		WB	C[24.9]	C[24.3]	C[25.1]	C[24.5]	C[25.1]	C[24.5]	C[25.1]	C[24.5]			
		NB	B[18.2]	B[17.9]	B[19.4]	B[19.1]	C[20.4]	C[20.6]	C[20.6]	C[20.8]			
	SB	B[17.7]	C[20.2]	B[18.4]	C[21.5]	B[19.0]	C[23.0]	B[19.1]	C[23.3]				
	OVERALL	B[19.6]	C[20.6]	C[20.5]	C[21.7]	C[21.2]	C[22.9]	C[21.3]	C[23.1]				

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C[16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

APPENDIX "C"
CAPACITY ANALYSIS

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB1 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	48	250	396	48	68	366	1522	473	68	1043	21
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A			SB Left		A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		18.0	8.5			21.5	42.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	140	1810	0.37	0.08	49.9	D	35.3	D
R	489	1538	0.56	0.32	32.5	C		

Westbound

L	565	3450	0.76	0.16	41.4	D		
T	296	1810	0.18	0.16	32.1	C	39.4	D
R	252	1538	0.29	0.16	33.2	C		

Northbound

L	425	1719	0.94	0.62	54.0	D		
T	2145	3445	0.77	0.62	3.8	A	10.8	B
R	1538	1538	0.33	1.00	0.1	A		

Southbound

L	103	269	0.72	0.38	32.5	C		
T	1315	3445	0.86	0.38	18.1	B	18.7	B
R	706	1538	0.03	0.46	2.5	A		

Intersection Delay = 18.0 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB1 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	65	345	535	65	91	487	1311	639	91	1226	40
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			60			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		18.0	7.5			26.5	38.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS

Eastbound

LT	128	1881	0.53	0.07	53.8	D	33.6	C
R	567	1599	0.52	0.35	29.0	C		

Westbound

L	587	3586	0.95	0.16	61.7	E		
T	308	1881	0.22	0.16	32.5	C	55.3	E
R	262	1599	0.36	0.16	33.8	C		

Northbound

L	494	1770	1.03	0.63	76.4	E		
T	2241	3547	0.61	0.63	2.1	A	16.5	B
R	1583	1583	0.42	1.00	0.2	A		

Southbound

L	234	371	0.41	0.63	2.5	A		
T	1225	3547	1.04	0.35	54.5	D	49.5	D
R	655	1583	0.06	0.41	5.8	A		

Intersection Delay = 32.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB1 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	55	250	448	55	77	366	1522	536	77	1043	21
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left			A		NB Left	A	A	
Thru			A		Thru	A	A	
Right			A		Right	A	A	
Peds					Peds			
WB Left		A			SB Left		A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		18.0	8.5			21.5	42.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	140	1810	0.43	0.08	50.5	D	35.7	D
R	489	1538	0.56	0.32	32.5	C		

Westbound

L	565	3450	0.86	0.16	48.9	D		
T	296	1810	0.20	0.16	32.3	C	45.3	D
R	252	1538	0.33	0.16	33.5	C		

Northbound

L	425	1719	0.94	0.62	54.0	D		
T	2145	3445	0.77	0.62	3.8	A	10.6	B
R	1538	1538	0.38	1.00	0.2	A		

Southbound

L	103	269	0.82	0.38	49.5	D		
T	1315	3445	0.86	0.38	18.1	B	19.9	B
R	706	1538	0.03	0.46	2.5	A		

Intersection Delay = 19.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB1 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	74	345	606	74	104	487	1311	725	104	1226	40
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			60			0			0			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right	A	A			EB Right	A		
SB Right		A			WB Right			
Green		21.0	10.0			29.5	39.5	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	157	1881	0.49	0.08	55.0-	D	35.0+	D
R	593	1599	0.50	0.37	29.8	C		

Westbound

L	628	3586	1.00	0.17	76.1	E		
T	329	1881	0.23	0.17	33.9	C	66.7	E
R	280	1599	0.39	0.17	35.4	D		

Northbound

L	497	1770	1.02	0.62	76.8	E		
T	2187	3547	0.62	0.62	2.4	A	16.1	B
R	1583	1583	0.48	1.00	0.2	A		

Southbound

L	229	371	0.47	0.62	3.2	A		
T	1168	3547	1.09	0.33	76.1	E	68.6	E
R	653	1583	0.06	0.41	6.4	A		

Intersection Delay = 39.6 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMNB2

E/W St: NEWBURGH MALL NORTH DRIVEWAY

Inter.: NYS RTE 300 & NEWBURGH MALL NO

Area Type: All other areas

Jurisd:

Year : 2008 NO-BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	170	6	78	5	0	18	40	1480	2	16	981	104
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				52.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	492	1295	0.39	0.38	23.1	C	22.3	C
R	584	1538	0.15	0.38	20.5	C		
Westbound								
LTR	595	1566	0.04	0.38	19.6	B	19.6	B
Northbound								
L	138	266	0.31	0.52	15.0	B		
TR	1791	3445	0.90	0.52	28.3	C	27.9	C
Southbound								
L	72	139	0.24	0.52	14.8	B		
TR	1766	3396	0.67	0.52	18.6	B	18.6	B

Intersection Delay = 23.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS RTE 300 & NEWBURGH MALL NO

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK SAT HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837SATNB2

E/W St: NEWBURGH MALL NORTH DRIVEWAY

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	270	4	109	4	1	14	67	1228	16	19	1153	173
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.5				58.5			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	407	1293	0.71	0.31	36.2	D	33.2	C
R	484	1538	0.24	0.31	25.6	C		
Westbound								
LTR	494	1567	0.04	0.31	23.8	C	23.8	C
Northbound								
L	119	203	0.60	0.58	21.2	C		
TR	2012	3439	0.66	0.58	14.8	B	15.1	B
Southbound								
L	141	241	0.14	0.58	9.9	A		
TR	1976	3378	0.71	0.58	16.0	B	16.0	B

Intersection Delay = 17.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB2 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	170	6	78	5	0	18	40	1547	2	16	1048	104
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				52.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	492	1295	0.39	0.38	23.1	C	22.3	C
R	584	1538	0.15	0.38	20.5	C		
Westbound								
LTR	589	1551	0.04	0.38	19.6	B	19.6	B
Northbound								
L	119	228	0.36	0.52	16.1	B		
TR	1791	3445	0.94	0.52	32.9	C	32.5	C
Southbound								
L	72	139	0.24	0.52	14.8	B		
TR	1767	3399	0.71	0.52	19.6	B	19.5	B

Intersection Delay = 26.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB2 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L	TR		L	TR	
Volume	270	4	109	4	1	14	67	1320	16	19	1244	173
Lane Width	12.0 12.0			12.0			12.0	12.0		12.0	12.0	
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.5				58.5			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
LT	419	1331	0.69	0.31	35.0-	C	32.3	C
R	499	1583	0.23	0.31	25.6	C		
Westbound								
LTR	502	1594	0.04	0.31	23.8	C	23.8	C
Northbound								
L	99	170	0.72	0.58	36.8	D		
TR	2071	3540	0.69	0.58	15.3	B	16.4	B
Southbound								
L	120	205	0.17	0.58	10.2	B		
TR	2037	3482	0.74	0.58	16.7	B	16.6	B

Intersection Delay = 18.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS RTE 300 & NEWBURGH MALL NO

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB2 (850K W/3 ACCESS DRIVES)

E/W St: NEWBURGH MALL NORTH DRIVEWAY

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L	TR		L	TR	
Volume	170	6	78	5	0	18	40	1558	2	16	1057	104
Lane Width	12.0		12.0	12.0			12.0	12.0		12.0	12.0	
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				52.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	492	1295	0.39	0.38	23.1	C	22.3	C
R	584	1538	0.15	0.38	20.5	C		
Westbound								
LTR	589	1551	0.04	0.38	19.6	B	19.6	B
Northbound								
L	116	223	0.37	0.52	16.3	B		
TR	1791	3445	0.95	0.52	33.8	C	33.4	C
Southbound								
L	72	139	0.24	0.52	14.8	B		
TR	1767	3399	0.71	0.52	19.7	B	19.7	B

Intersection Delay = 27.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB2 (850K W/3 ACCESS DRIVES)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L	TR		L	TR	
Volume	270	4	109	4	1	14	67	1332	16	19	1256	173
Lane Width	12.0 12.0			12.0			12.0	12.0		12.0 12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.5				58.5			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	419	1331	0.69	0.31	35.0-	C	32.3	C
R	499	1583	0.23	0.31	25.6	C		
Westbound								
LTR	502	1594	0.04	0.31	23.8	C	23.8	C
Northbound								
L	97	165	0.73	0.58	39.6	D		
TR	2071	3540	0.69	0.58	15.5	B	16.6	B
Southbound								
L	116	199	0.17	0.58	10.3	B		
TR	2037	3482	0.75	0.58	16.8	B	16.7	B

Intersection Delay = 18.6 (sec/veh) Intersection LOS = B

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837PMNB3
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound				Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1508	160	14	1036		
Peak-Hour Factor, PHF		0.92	0.92	0.92	0.92		
Hourly Flow Rate, HFR		1639	173	15	1126		
Percent Heavy Vehicles		--	--	5	--	--	
Median Type/Storage	Undivided			/			
RT Channelized?							
Lanes		2	0		1	2	
Configuration		T	TR		L	T	
Upstream Signal?		No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	65		32			
Peak Hour Factor, PHF	0.92		0.92			
Hourly Flow Rate, HFR	70		34			
Percent Heavy Vehicles	5		5			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
v (vph)		15	70		34			
C(m) (vph)		323	29		273			
v/c		0.05	2.41		0.12			
95% queue length		0.15	8.29		0.42			
Control Delay		16.7	933.1		20.1			
LOS		C	F		C			
Approach Delay				634.6				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB3
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound				Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1348	164	96	1253		
Peak-Hour Factor, PHF		0.94	0.94	0.94	0.94		
Hourly Flow Rate, HFR		1434	174	102	1332		
Percent Heavy Vehicles		--	--	5	--	--	
Median Type/Storage	Undivided			/			
RT Channelized?							
Lanes		2	0		1	2	
Configuration		T	TR		L	T	
Upstream Signal?		No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	92		94			
Peak Hour Factor, PHF	0.94		0.94			
Hourly Flow Rate, HFR	97		100			
Percent Heavy Vehicles	5		5			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound		
	1	4 L	7 L	8	9 R	10	11	12
v (vph)		102	97		100			
C(m) (vph)		389	20		320			
v/c		0.26	4.85		0.31			
95% queue length		1.04	12.53		1.30			
Control Delay		17.5	2120		21.3			
LOS		C	F		C			
Approach Delay				1055				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB3 (850K W/3 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1575	160	14	1103			
Peak-Hour Factor, PHF		0.92	0.92	0.92	0.92			
Hourly Flow Rate, HFR		1711	173	15	1198			
Percent Heavy Vehicles		--	--	5	--	--		
Median Type/Storage		Undivided		/				
RT Channelized?								
Lanes		2	0		1	2		
Configuration		T	TR		L	T		
Upstream Signal?		No			No			

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		65		32			
Peak Hour Factor, PHF		0.92		0.92			
Hourly Flow Rate, HFR		70		34			
Percent Heavy Vehicles		5		5			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage				/		/	
Lanes		1		1			
Configuration		L		R			

Delay, Queue Length, and Level of Service

Approach Movement	NB 1	SB 4	Westbound		Eastbound		
			7 L	8 L	9 R	10 L	11 T
Lane Config		L	L		R		
v (vph)		15	70		34		
C(m) (vph)		302	24		258		
v/c		0.05	2.92		0.13		
95% queue length		0.16	8.75		0.45		
Control Delay		17.5	1205		21.1		
LOS		C	F		C		
Approach Delay				817.9			
Approach LOS				F			

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB3 (850K W/3 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1439	164	96	1344			
Peak-Hour Factor, PHF		0.94	0.94	0.94	0.94			
Hourly Flow Rate, HFR		1530	174	102	1429			
Percent Heavy Vehicles		--	--	2	--	--		
Median Type/Storage		Undivided		/				
RT Channelized?								
Lanes		2	0		1	2		
Configuration		T	TR		L	T		
Upstream Signal?		No				No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		92	94				
Peak Hour Factor, PHF		0.94	0.94				
Hourly Flow Rate, HFR		97	100				
Percent Heavy Vehicles		2	2				
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage				/		/	
Lanes		1	1				
Configuration		L	R				

Delay, Queue Length, and Level of Service

Approach Movement	NB	SB	Westbound			Eastbound		
			4	7	8	9	10	11
Lane Config	1	L		L	R			
v (vph)		102		97		100		
C(m) (vph)		369		16		303		
v/c		0.28		6.06		0.33		
95% queue length		1.11		12.94		1.40		
Control Delay		18.4		2752		22.6		
LOS		C		F		C		
Approach Delay					1366			
Approach LOS					F			

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB3 (850K W/3 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1584	160	14	1112			
Peak-Hour Factor, PHF		0.92	0.92	0.92	0.92			
Hourly Flow Rate, HFR		1721	173	15	1208			
Percent Heavy Vehicles		--	--	5	--	--	--	
Median Type/Storage RT Channelized?		Undivided		/				
Lanes		2	0		1	2		
Configuration		T	TR		L	T		
Upstream Signal?		No			No			

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		65	32				
Peak Hour Factor, PHF		0.92	0.92				
Hourly Flow Rate, HFR		70	34				
Percent Heavy Vehicles		5	5				
Percent Grade (%)		0			0		
Flared Approach: Exists?/Storage				/		/	
Lanes		1	1				
Configuration		L	R				

Delay, Queue Length, and Level of Service

Approach Movement	NB 1	SB 4	Westbound			Eastbound		
			7 L	8 R	9 L	10 R	11 L	12 R
v (vph)		15	70		34			
C(m) (vph)		300	24		256			
v/c		0.05	2.92		0.13			
95% queue length		0.16	8.75		0.45			
Control Delay		17.6	1205		21.2			
LOS		C	F		C			
Approach Delay				818.0				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB3 (850K W/3 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Major Street:	Approach Movement	Vehicle Volumes and Adjustments					
		Northbound			Southbound		
		1	2	3	4	5	6
		L	T	R	L	T	R
Volume			1452	164	96	1356	
Peak-Hour Factor, PHF			0.94	0.94	0.94	0.94	
Hourly Flow Rate, HFR			1544	174	102	1442	
Percent Heavy Vehicles			--	--	2	--	--
Median Type/Storage RT Channelized?		Undivided			/		
Lanes Configuration			2	0		1	2
Upstream Signal?			T	TR		L	T
			No			No	

Minor Street:	Approach Movement	Vehicle Volumes and Adjustments					
		Westbound			Eastbound		
		7	8	9	10	11	12
		L	T	R	L	T	R
Volume		92		94			
Peak Hour Factor, PHF		0.94		0.94			
Hourly Flow Rate, HFR		97		100			
Percent Heavy Vehicles		2		2			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage					/		/
Lanes Configuration		1		1			
		L		R			

Approach Movement Lane Config	Delay, Queue Length, and Level of Service							
	NB	SB	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
		L	L		R			
v (vph)		102	97		100			
C(m) (vph)		365	16		300			
v/c		0.28	6.06		0.33			
95% queue length		1.13	12.94		1.42			
Control Delay		18.6	2752		22.9			
LOS		C	F		C			
Approach Delay				1366				
Approach LOS				F				

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMNB3 (850K W/3 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Area Type: All other areas

Jurisd:

Year : 2008 NO-BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				65		32	1508	160		14	1036	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0				6.0	56.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	395	1719	0.18	0.23	31.1	C	30.9	C
R	354	1538	0.10	0.23	30.5	C		

Northbound

TR	1902	3396	0.95	0.56	32.3	C	32.3	C
----	------	------	------	------	------	---	------	---

Southbound

L	176	1719	0.09	0.67	18.2	B		
T	2308	3445	0.49	0.67	8.3	A	8.4	A

Intersection Delay = 23.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & AUTO DRIVEWAY
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB3 (850K W/3 ACCESS DRIVES)
 E/W St: AUTO ZONE DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				92		94		1348	164	96	1253	
Lane Width				12.0		12.0		12.0		12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				8.0	52.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	443	1770	0.22	0.25	30.0	C	30.2	C
R	396	1583	0.25	0.25	30.4	C		

Northbound

TR	1814	3489	0.89	0.52	27.1	C	27.1	C
----	------	------	------	------	------	---	------	---

Southbound

L	217	1770	0.47	0.65	19.3	B		
T	2306	3547	0.58	0.65	10.2	B	10.8	B

Intersection Delay = 20.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB3 (850K W/3 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				65		32	1575	160		14	1103	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0				6.0	56.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	395	1719	0.18	0.23	31.1	C	30.9	C
R	354	1538	0.10	0.23	30.5	C		

Northbound

TR	1903	3398	0.99	0.56	40.2	D	40.2	D
----	------	------	------	------	------	---	------	---

Southbound

L	176	1719	0.09	0.67	20.4	C		
T	2308	3445	0.52	0.67	8.6	A	8.7	A

Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & AUTO DRIVEWAY
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB3 (850K W/3 ACCESS DRIVES)
 E/W St: AUTO ZONE DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				92		94	1439	164		96	1344	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				8.0	52.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	443	1770	0.22	0.25	30.0	C	30.2	C
R	396	1583	0.25	0.25	30.4	C		

Northbound

TR	1816	3492	0.94	0.52	32.6	C	32.6	C
----	------	------	------	------	------	---	------	---

Southbound

L	217	1770	0.47	0.65	21.1	C		
T	2306	3547	0.62	0.65	10.8	B	11.5	B

Intersection Delay = 23.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMB3 (850K W/3 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				65		32	1584	160		14	1112	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0				6.0	56.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	395	1719	0.18	0.23	31.1	C	30.9	C
R	354	1538	0.10	0.23	30.5	C		

Northbound

TR	1903	3398	1.00	0.56	41.6	D	41.6	D
----	------	------	------	------	------	---	------	---

Southbound

L	176	1719	0.09	0.67	20.7	C		
T	2308	3445	0.52	0.67	8.6	A	8.8	A

Intersection Delay = 28.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB3 (850K W/3 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L		T
Volume				92		94		1452	164	96		1356
Lane Width				12.0		12.0		12.0		12.0		12.0
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				8.0	52.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	443	1770	0.22	0.25	30.0	C	30.2	C
R	396	1583	0.25	0.25	30.4	C		

Northbound

TR	1816	3493	0.95	0.52	33.7	C	33.7	C
----	------	------	------	------	------	---	------	---

Southbound

L	217	1770	0.47	0.65	21.3	C		
T	2306	3547	0.63	0.65	10.9	B	11.6	B

Intersection Delay = 23.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB4
 E/W St: MEADOW AVENUE

Inter.: MEADOW AVE. & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	0
LGConfig	L	TR		L	TR		L	TR		L	TR	
Volume	104	146	187	148	209	24	310	1037	167	32	698	84
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	27.0			18.0	29.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	294	1090	0.38	0.27	30.6	C		
TR	447	1657	0.81	0.27	44.8	D	41.4	D
Westbound								
L	237	1719	0.68	0.38	36.2	D		
TR	677	1782	0.37	0.38	22.7	C	28.0	C
Northbound								
L	381	1719	0.88	0.52	47.7	D		
TR	1754	3373	0.75	0.52	20.6	C	26.2	C
Southbound								
L	104	360	0.34	0.29	29.9	C		
TR	983	3390	0.86	0.29	41.8	D	41.3	D

Intersection Delay = 32.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB4
 E/W St: MEADOW AVENUE

Inter.: MEADOW AVE. & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	0
LGConfig	L	TR		L	TR		L	TR		L	TR	
Volume	114	209	215	275	244	48	249	898	206	50	860	116
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A	A		SB Left		A	
Thru		A	A		Thru		A	
Right		A	A		Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		12.0	27.0			11.0	30.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	281	1040	0.42	0.27	31.1	C		
TR	451	1672	0.98	0.27	73.3	E	64.3	E
Westbound								
L	282	1719	1.01	0.44	83.6	F		
TR	777	1765	0.39	0.44	19.3	B	50.4	D
Northbound								
L	261	1719	0.99	0.46	80.5	F		
TR	1541	3349	0.75	0.46	24.2	C	34.6	C
Southbound								
L	106	354	0.49	0.30	32.3	C		
TR	1015	3384	1.00	0.30	63.7	E	62.2	E

Intersection Delay = 49.9 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: MEADOW AVE. & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB4 (850K W/3 ACCESS DRIVES)

E/W St: MEADOW AVENUE

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	0
LGConfig	L	TR		L	TR		L	TR		L	TR	
Volume	104	166	197	148	228	24	320	1095	167	32	758	84
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	27.0			18.0	29.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	289	1069	0.39	0.27	30.7	C		
TR	451	1669	0.82	0.27	46.1	D	42.5	D
Westbound								
L	230	1719	0.70	0.38	38.0	D		
TR	678	1784	0.40	0.38	23.1	C	28.6	C
Northbound								
L	381	1719	0.91	0.52	49.3	D		
TR	1760	3384	0.77	0.52	7.4	A	16.0	B
Southbound								
L	106	366	0.33	0.29	22.1	C		
TR	984	3394	0.93	0.29	39.8	D	39.2	D

Intersection Delay = 27.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: MEADOW AVE. & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB4 (850K W/3 ACCESS DRIVES)
 E/W St: MEADOW AVENUE N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	0
LGConfig	L	TR		L	TR		L	TR		L	TR	
Volume	114	235	228	275	270	48	262	976	206	50	938	116
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A	A		SB Left		A	
Thru		A	A		Thru		A	
Right		A	A		Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		12.0	27.0			11.0	30.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	282	1045	0.42	0.27	31.1	C		
TR	468	1732	0.99	0.27	74.5	E	65.6	E
Westbound								
L	287	1770	1.00	0.44	79.0	E		
TR	801	1821	0.41	0.44	19.5	B	47.1	D
Northbound								
L	270	1770	1.01	0.46	78.1	E		
TR	1592	3461	0.76	0.46	11.9	B	24.1	C
Southbound								
L	130	434	0.40	0.30	21.9	C		
TR	1046	3488	1.05	0.30	66.8	E	64.8	E

Intersection Delay = 46.3 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: MEADOW AVE. & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB4 (850K W/3 ACCESS DRIVES)
 E/W St: MEADOW AVENUE N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	104	168	198	148	231	24	321	1103	167	32	764	84
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	27.0			18.0	29.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	288	1066	0.39	0.27	30.7	C		
TR	451	1670	0.83	0.27	47.1	D	43.3	D
Westbound								
L	227	1719	0.71	0.38	38.9	D		
TR	678	1784	0.41	0.38	23.2	C	28.9	C
Northbound								
L	389	1719	0.90	0.52	44.6	D		
TR	1760	3384	0.77	0.52	7.5	A	15.1	B
Southbound								
L	105	363	0.33	0.29	22.2	C		
T	999	3445	0.83	0.29	30.2	C	29.6	C
R	446	1538	0.20	0.29	27.0	C		
Intersection Delay = 24.5 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: MEADOW AVE. & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB4 (850K W/3 ACCESS DRIVES)
 E/W St: MEADOW AVENUE N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	114	238	229	275	273	48	264	987	206	50	948	116
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		12.0	27.0			13.0	28.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	281	1042	0.42	0.27	31.1	C		
TR	468	1732	1.00	0.27	76.9	E	67.6	E
Westbound								
L	287	1770	1.00	0.44	79.1	E		
TR	801	1821	0.42	0.44	19.6	B	47.0	D
Northbound								
L	305	1770	0.90	0.46	50.0	D		
TR	1593	3462	0.77	0.46	12.1	B	19.0	B
Southbound								
L	120	429	0.43	0.28	24.4	C		
T	993	3547	0.99	0.28	53.9	D	49.9	D
R	443	1583	0.27	0.28	28.4	C		

Intersection Delay = 40.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB5
 E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig	LT R			LT R			L	TR		L	TR	
Volume	93	307	259	83	379	72	290	650	120	80	489	142
Lane Width	12.0 10.0			12.0 10.0			10.0	12.0		10.0	12.0	
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	36.0				8.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	252	700	1.69	0.36	359.3	F	224.5	F
R	704	1436	0.39	0.49	16.5	B		
Westbound								
LT	350	971	1.40	0.36	229.7	F	200.4	F
R	704	1436	0.11	0.49	13.8	B		
Northbound								
L	204	1604	1.51	0.54	280.2	F		
TR	724	1767	1.13	0.41	91.6	F	143.3	F
Southbound								
L	200	1604	0.43	0.54	21.9	C		
TR	717	1748	0.94	0.41	47.9	D	44.9	D

Intersection Delay = 148.1 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB5
 E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	69	220	212	59	225	39	270	572	80	76	616	73
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		30.0				14.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	366	1220	0.82	0.30	46.5	D	33.4	C
R	724	1478	0.31	0.49	15.5	B		

Westbound

LT	391	1303	0.75	0.30	39.8	D	36.6	D
R	724	1478	0.06	0.49	13.4	B		

Northbound

L	303	1652	0.93	0.60	60.6	E		
TR	750	1829	0.91	0.41	29.4	C	38.5	D

Southbound

L	329	1652	0.24	0.60	14.6	B		
TR	752	1833	0.95	0.41	51.0	D	47.4	D

Intersection Delay = 40.0 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (850K W/3 ACCESS DRIVES)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	93	336	269	83	408	120	300	698	120	129	537	142
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		36.0				8.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	223	619	2.04	0.36	517.5	F	324.4	F
R	704	1436	0.41	0.49	16.6	B		
Westbound								
LT	322	894	1.62	0.36	325.4	F	264.2	F
R	704	1436	0.18	0.49	14.4	B		
Northbound								
L	200	1604	1.60	0.54	317.9	F		
TR	726	1770	1.20	0.41	118.7	F	172.1	F
Southbound								
L	200	1604	0.69	0.54	30.5	C		
TR	719	1753	1.00	0.41	64.1	E	58.7	E

Intersection Delay = 194.0 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB5 (850K W/3 ACCESS DRIVES)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	69	259	225	59	264	104	283	637	80	141	681	73
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration	0.25	Area Type:	All other areas					
Signal Operations								
Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		30.0				14.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	332	1106	1.03	0.30	92.4	F	61.2	E
R	724	1478	0.32	0.49	15.7	B		
Westbound								
LT	356	1186	0.94	0.30	67.6	E	54.6	D
R	724	1478	0.15	0.49	14.1	B		
Northbound								
L	303	1652	0.97	0.60	61.3	E		
TR	751	1832	0.99	0.41	47.2	D	51.2	D
Southbound								
L	303	1652	0.49	0.60	19.6	B		
TR	753	1836	1.04	0.41	73.9	E	65.3	E

Intersection Delay = 58.0 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (850K W/3 ACCESS DRIVES)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L		TR	L		TR
Volume	93	340	270	83	412	127	301	705	120	135	543	142
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		36.0				8.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	219	609	2.11	0.36	544.5	F	341.9	F
R	704	1436	0.41	0.49	16.6	B		
Westbound								
LT	317	880	1.66	0.36	342.3	F	275.4	F
R	704	1436	0.19	0.49	14.5	B		
Northbound								
L	200	1604	1.60	0.54	320.2	F		
TR	726	1770	1.21	0.41	122.7	F	175.4	F
Southbound								
L	200	1604	0.72	0.54	33.2	C		
TR	719	1753	1.01	0.41	66.6	E	61.1	E

Intersection Delay = 201.5 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK SAT HOUR

Project ID: 837SATB5 (850K W/3 ACCESS DRIVES)

E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	69	265	226	59	269	113	284	646	80	150	690	73
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	30.0					14.0	41.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	318	1059	1.12	0.30	120.6	F	78.3	E
R	724	1478	0.33	0.49	15.8	B		

Westbound

LT	338	1126	1.03	0.30	92.6	F	72.6	E
R	724	1478	0.17	0.49	14.3	B		

Northbound

L	303	1652	1.00	0.60	79.5	E		
TR	751	1832	1.03	0.41	56.0	E	62.6	E

Southbound

L	303	1652	0.53	0.60	21.5	C		
TR	753	1836	1.08	0.41	85.5	F	74.9	E

Intersection Delay = 71.0 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837PMNB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)

E/W St: NYS ROUTE 52

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	93	307	259	83	379	72	290	650	120	80	489	142
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			30			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A	A		NB Left	A	A	A
Thru		A			Thru		A	A
Right		A			Right		A	A
Peds					Peds			
WB Left		A	A		SB Left	A		A
Thru		A			Thru			A
Right		A			Right			A
Peds					Peds			
NB Right					EB Right	A	A	
SB Right					WB Right	A		
Green		30.0	5.0			7.0	6.0	47.0
Yellow		3.0	3.0			3.0	3.0	3.0
All Red		2.0	2.0			2.0	2.0	2.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	214	1711	0.46	0.33	48.9	D		
T	466	1863	0.70	0.25	45.6	D	38.8	D
R	591	1478	0.47	0.40	27.1	C		
Westbound								
L	270	1711	0.33	0.33	41.9	D		
T	466	1863	0.86	0.25	58.6	E	52.2	D
R	456	1478	0.17	0.31	30.5	C		
Northbound								
L	308	1652	1.00	0.58	57.8	E		
TR	884	1829	0.89	0.48	13.9	B	26.3	C
Southbound								
L	347	1652	0.24	0.45	19.5	B		
TR	705	1800	0.95	0.39	58.2	E	53.8	D

Intersection Delay = 40.5 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK SAT HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837SATNB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)

E/W St: NYS ROUTE 52

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	69	220	212	59	225	39	270	572	80	76	616	73
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	25.0				16.0	44.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	208	830	0.35	0.25	31.8	C		
T	466	1863	0.49	0.25	32.9	C	26.2	C
R	680	1478	0.32	0.46	17.4	B		
Westbound								
L	212	846	0.29	0.25	31.1	C		
T	466	1863	0.50	0.25	33.0	C	30.5	C
R	680	1478	0.06	0.46	15.0	B		
Northbound								
L	345	1652	0.81	0.65	38.2	D		
TR	805	1829	0.84	0.44	20.0+	C	25.4	C
Southbound								
L	419	1652	0.19	0.65	10.8	B		
TR	807	1833	0.89	0.44	37.8	D	35.1	D

Intersection Delay = 29.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	93	336	269	83	408	120	300	698	120	129	537	142
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			30			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A	A		NB Left	A	A	A
Thru		A			Thru		A	A
Right		A			Right		A	A
Peds					Peds			
WB Left		A	A		SB Left	A		A
Thru		A			Thru			A
Right		A			Right			A
Peds					Peds			
NB Right					EB Right	A	A	
SB Right					WB Right	A		
Green		30.0	5.0			7.0	6.0	47.0
Yellow		3.0	3.0			3.0	3.0	3.0
All Red		2.0	2.0			2.0	2.0	2.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	203	1711	0.49	0.33	50.7	D		
T	466	1863	0.77	0.25	49.2	D	41.0	D
R	591	1478	0.48	0.40	27.4	C		
Westbound								
L	248	1711	0.35	0.33	44.2	D		
T	466	1863	0.93	0.25	69.6	E	58.7	E
R	456	1478	0.28	0.31	31.8	C		
Northbound								
L	308	1652	1.04	0.58	68.7	E		
TR	885	1831	0.95	0.48	21.7	C	34.7	C
Southbound								
L	276	1652	0.50	0.45	21.9	C		
TR	707	1804	1.02	0.39	75.8	E	67.2	E

Intersection Delay = 48.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	69	259	225	59	264	104	283	637	80	141	681	73
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	25.0				16.0	44.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	175	701	0.41	0.25	32.9	C		
T	466	1863	0.58	0.25	34.7	C	27.5	C
R	680	1478	0.34	0.46	17.6	B		
Westbound								
L	179	716	0.34	0.25	31.9	C		
T	466	1863	0.59	0.25	35.0-	C	29.9	C
R	680	1478	0.16	0.46	15.8	B		
Northbound								
L	336	1652	0.88	0.65	49.9	D		
TR	806	1832	0.93	0.44	29.2	C	35.1	D
Southbound								
L	351	1652	0.42	0.65	15.8	B		
TR	808	1836	0.97	0.44	52.2	D	46.4	D

Intersection Delay = 36.4 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	93	340	270	83	412	127	301	705	120	135	543	142
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			30			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A	A		NB Left	A	A	A
Thru		A			Thru		A	A
Right		A			Right		A	A
Peds					Peds			
WB Left		A	A		SB Left	A		A
Thru		A			Thru			A
Right		A			Right			A
Peds					Peds			
NB Right					EB Right	A	A	
SB Right					WB Right	A		
Green		30.0	5.0			7.0	6.0	47.0
Yellow		3.0	3.0			3.0	3.0	3.0
All Red		2.0	2.0			2.0	2.0	2.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	199	1662	0.50	0.33	51.0	D		
T	453	1810	0.80	0.25	52.0	D	42.5	D
R	574	1436	0.50	0.40	27.7	C		
Westbound								
L	237	1662	0.37	0.33	44.8	D		
T	453	1810	0.97	0.25	78.2	E	64.3	E
R	443	1436	0.30	0.31	32.1	C		
Northbound								
L	301	1604	1.06	0.58	78.5	E		
TR	860	1779	0.98	0.48	29.6	C	43.0	D
Southbound								
L	249	1604	0.58	0.45	24.6	C		
TR	687	1753	1.06	0.39	88.2	F	77.7	E

Intersection Delay = 55.8 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB5 (850K W/3 ACCESS DRIVES) (WITH IMPROVEMENTS)

E/W St: NYS ROUTE 52

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	69	265	226	59	269	113	284	646	80	150	690	73
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	25.0				15.0	45.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	167	666	0.44	0.25	33.4	C		
T	466	1863	0.61	0.25	35.4	D	28.3	C
R	665	1478	0.36	0.45	18.4	B		
Westbound								
L	170	679	0.37	0.25	32.4	C		
T	466	1863	0.61	0.25	35.6	D	30.3	C
R	665	1478	0.18	0.45	16.6	B		
Northbound								
L	320	1652	0.94	0.65	64.9	E		
TR	824	1832	0.94	0.45	29.8	C	39.7	D
Southbound								
L	329	1652	0.49	0.65	17.3	B		
TR	826	1836	0.98	0.45	54.2	D	48.1	D

Intersection Delay = 38.7 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB6
 E/W St: MEADOW AVENUE/POWDER MILL ROAD

Inter.: NYS RTE 52 & MEADOW AVE/POWDER
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig	LTR			LTR			LTR			LTR		
Volume	33	184	167	24	150	64	180	482	35	67	336	22
Lane Width	12.0			12.0			12.0			12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0				58.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LTR	388	1589	1.10	0.24	109.6	F	109.6	F
Westbound								
LTR	360	1472	0.74	0.24	39.0	D	39.0	D
Northbound								
LTR	879	1364	0.88	0.64	23.6	C	23.6	C
Southbound								
LTR	934	1450	0.50	0.64	8.9	A	8.9	A

Intersection Delay = 41.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & MEADOW AVE/POWDER
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB6
 E/W St: MEADOW AVENUE/POWDER MILL ROAD N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig	LTR			LTR			LTR			LTR		
Volume	27	212	170	25	204	67	167	341	37	77	331	32
Lane Width	12.0			12.0			12.0			12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0				50.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LTR 548 1645 0.83 0.33 38.1 D 38.1 D

Westbound

LTR 546 1639 0.60 0.33 26.9 C 26.9 C

Northbound

LTR 694 1249 0.87 0.56 29.1 C 29.1 C

Southbound

LTR 822 1480 0.60 0.56 14.5 B 14.5 B

Intersection Delay = 27.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & SITE/POWDER MILL
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB6 (850K W/3 ACCESS DRIVES)
 E/W St: POWDER MILL ROAD/SITE ACCESS N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	110	203	177	24	170	64	190	492	35	67	345	90
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0				8.0	37.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	289	868	0.42	0.33	24.3	C		
TR	561	1683	0.75	0.33	32.5	C	30.6	C
Westbound								
LTR	477	1430	0.60	0.33	27.2	C	27.2	C
Northbound								
L	374	1719	0.56	0.56	14.9	B		
TR	736	1791	0.80	0.41	29.3	C	25.5	C
Southbound								
L	300	1719	0.25	0.56	13.7	B		
TR	721	1753	0.67	0.41	24.0	C	22.6	C

Intersection Delay = 26.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & SITE/POWDER MILL
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB6 (850K W/3 ACCESS DRIVES)
 E/W St: POWDER MILL ROAD/SITE ACCESS N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	131	239	183	25	230	67	181	354	37	77	344	123
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				8.0	34.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	288	786	0.51	0.37	23.6	C		
TR	620	1692	0.76	0.37	30.3	C	28.7	C
Westbound								
LTR	551	1504	0.65	0.37	26.4	C	26.4	C
Northbound								
L	308	1719	0.65	0.52	20.2	C		
TR	674	1784	0.64	0.38	25.1	C	23.6	C
Southbound								
L	371	1719	0.23	0.52	13.1	B		
TR	657	1738	0.79	0.38	31.3	C	28.7	C

Intersection Delay = 26.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & SITE/POWDER MILL
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB6 (850K W/3 ACCESS DRIVES)
 E/W St: POWDER MILL ROAD/SITE ACCESS N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	120	206	178	24	172	64	191	493	35	67	347	99
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0				8.0	37.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	288	864	0.46	0.33	24.8	C		
TR	561	1684	0.76	0.33	32.9	C	31.0	C
Westbound								
LTR	474	1423	0.61	0.33	27.4	C	27.4	C
Northbound								
L	364	1719	0.58	0.56	15.5	B		
TR	736	1791	0.80	0.41	29.4	C	25.7	C
Southbound								
L	299	1719	0.25	0.56	13.8	B		
TR	719	1749	0.69	0.41	24.6	C	23.2	C

Intersection Delay = 26.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & SITE/POWDER MILL
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB6 (850K W/3 ACCESS DRIVES)
 E/W St: POWDER MILL ROAD/SITE ACCESS N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	145	242	184	25	233	67	182	356	37	77	346	135
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				8.0	34.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	286	781	0.56	0.37	25.3	C		
TR	620	1692	0.76	0.37	30.7	C	29.3	C
Westbound								
LTR	549	1498	0.66	0.37	26.7	C	26.7	C
Northbound								
L	297	1719	0.68	0.52	21.9	C		
TR	674	1784	0.65	0.38	25.3	C	24.2	C
Southbound								
L	368	1719	0.23	0.52	13.1	B		
TR	655	1733	0.82	0.38	33.1	C	30.3	C

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

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2005
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 52 & 5TH AVENUE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837PMNB7
 East/West Street: 5TH AVENUE
 North/South Street: NYS ROUTE 52
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		668	175	27	523			
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR		742	194	30	581			
Percent Heavy Vehicles		--	--	5	--	--		
Median Type/Storage		Undivided		/				
RT Channelized?								
Lanes		1	0		0	1		
Configuration			TR		LT			
Upstream Signal?		No			No			

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		67		12			
Peak Hour Factor, PHF		0.90		0.90			
Hourly Flow Rate, HFR		74		13			
Percent Heavy Vehicles		5		5			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage				No	/		/
Lanes		0		0			
Configuration			LR				

Delay, Queue Length, and Level of Service

Approach Movement	NB 1	SB 4	Westbound			Eastbound		
			7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		30		87				
C(m) (vph)		720		144				
v/c		0.04		0.60				
95% queue length		0.13		3.17				
Control Delay		10.2		62.3				
LOS		B		F				
Approach Delay				62.3				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 52 & 5TH AVENUE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB7
 East/West Street: 5TH AVENUE
 North/South Street: NYS ROUTE 52
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume			524	186	80	481		
Peak-Hour Factor, PHF			0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR			582	206	88	534		
Percent Heavy Vehicles			--	--	5	--	--	
Median Type/Storage		Undivided			/			
RT Channelized?								
Lanes			1	0		0	1	
Configuration				TR		LT		
Upstream Signal?			No			No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		98		24			
Peak Hour Factor, PHF		0.90		0.90			
Hourly Flow Rate, HFR		108		26			
Percent Heavy Vehicles		5		5			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage				No	/		/
Lanes		0		0			
Configuration			LR				

Delay, Queue Length, and Level of Service

Approach Movement	NB 1	SB 4	Westbound			Eastbound		
			7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		88		134				
C(m) (vph)		818		158				
v/c		0.11		0.85				
95% queue length		0.36		5.75				
Control Delay		9.9		92.9				
LOS		A		F				
Approach Delay				92.9				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 52 & 5TH AVENUE
 Jurisdiction:
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB7
 East/West Street: 5TH AVENUE
 North/South Street: NYS ROUTE 52
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound			Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume	232	668	175	27	543	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	257	742	194	30	603	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?	No					
Lanes	1	1	1	1	1	0
Configuration	L	T	R	L		TR
Upstream Signal?	No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	67	19	12	19	19	290
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	74	21	13	21	21	322
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)	0			0		
Flared Approach: Exists?/Storage	No			/		
Lanes	0	1	0	0	1	1
Configuration	LTR			LT R		

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound			
	1 L	4 L	7 L	8 LTR	9 L	10 LT	11 L	12 R	
v (vph)	257	30	108			42			
C(m) (vph)	965	732	8			26			
v/c	0.27	0.04	13.50			1.62			
95% queue length	1.08	0.13	15.17			5.09			
Control Delay	10.1	10.1	6530			628.1			
LOS	B	B	F			F			
Approach Delay				6530			94.3		
Approach LOS				F			F		

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: JULY 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 52 & 5TH AVENUE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB7
 East/West Street: 5TH AVENUE
 North/South Street: NYS ROUTE 52
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments							
Major Street:	Approach Movement	Northbound			Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R
Volume		262	668	175	27	545	11
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR		291	742	194	30	605	12
Percent Heavy Vehicles		2	--	--	2	--	--
Median Type/Storage		Undivided			/		
RT Channelized?		No					
Lanes		1	1	1	1	1	0
Configuration		L	T	R	L		TR
Upstream Signal?		No			No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		67	22	12	22	22	328
Peak Hour Factor, PHF		0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR		74	24	13	24	24	364
Percent Heavy Vehicles		2	2	2	2	2	2
Percent Grade (%)		0			0		
Flared Approach: Exists?/Storage		No			/		
Lanes		0	1	0	0	1	1
Configuration		LTR			LT	R	

Delay, Queue Length, and Level of Service								
Approach Movement	NB	SB	Westbound			Eastbound		
			4	7	8	9	10	11
Lane Config	L	L		LTR		LT		R
v (vph)	291	30		111		48		364
C(m) (vph)	963	732		3		19		494
v/c	0.30	0.04		37.00		2.53		0.74
95% queue length	1.28	0.13		16.09		6.43		6.11
Control Delay	10.3	10.1		18556		1115		30.0
LOS	B	B		F		F		D
Approach Delay				18556				156.5
Approach LOS				F				F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & 5TH AVENUE
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB7 (850K W/3 ACCESS DRIVES)
 E/W St: 5TH AVENUE N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig	LT R			LTR			L	T	R	L	TR	
Volume	19	19	220	67	19	12	232	668	175	27	543	10
Lane Width	12.0		12.0	14.0			12.0	12.0	12.0	10.0	12.0	
RTOR Vol	0			0			40			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	8.0	13.0			5.0	44.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	268	1854	0.16	0.14	34.0	C	32.0	C
R	413	1615	0.59	0.26	31.6	C		

Westbound

LTR	165	1853	0.65	0.09	48.7	D	48.7	D
-----	-----	------	------	------	------	---	------	---

Northbound

L	368	753	0.70	0.49	23.8	C		
T	885	1810	0.84	0.49	27.1	C	24.5	C
R	752	1538	0.20	0.49	13.2	B		

Southbound

L	209	1604	0.14	0.60	13.7	B		
TR	1084	1806	0.57	0.60	11.6	B	11.7	B

Intersection Delay = 22.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & 5TH AVENUE
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB7 (850K W/3 ACCESS DRIVES)
 E/W St: 5TH AVENUE N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig	LT R			LTR			L	T	R	L	TR	
Volume	26	26	392	98	26	24	313	524	186	80	507	13
Lane Width	12.0 12.0			14.0			12.0	12.0	12.0	10.0	12.0	
RTOR Vol	80			0			40			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	13.0	7.0			20.0	40.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	130	1854	0.45	0.07	47.1	D	34.9	C
R	517	1615	0.67	0.32	32.8	C		
Westbound								
LTR	240	1843	0.69	0.13	49.6	D	49.6	D
Northbound								
L	503	1805	0.69	0.65	20.2	C		
T	724	1810	0.80	0.40	33.1	C	27.1	C
R	615	1538	0.26	0.40	20.4	C		
Southbound								
L	444	1604	0.20	0.65	11.4	B		
TR	722	1805	0.80	0.40	32.8	C	30.0	C

Intersection Delay = 30.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & 5TH AVENUE
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB7 (850K W/3 ACCESS DRIVES)
 E/W St: 5TH AVENUE N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig	LT R			LTR			L	T	R	L	TR	
Volume	22	22	328	67	22	12	262	668	175	27	545	11
Lane Width	12.0		12.0	14.0			12.0	12.0	12.0	10.0	12.0	
RTOR Vol	0			0			40			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	8.0	13.0			5.0	44.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	268	1854	0.18	0.14	34.1	C	49.5	D
R	413	1615	0.88	0.26	51.6	D		
Westbound								
LTR	165	1857	0.67	0.09	50.0	D	50.0	D
Northbound								
L	365	747	0.80	0.49	31.0	C		
T	885	1810	0.84	0.49	27.1	C	26.3	C
R	752	1538	0.20	0.49	13.2	B		
Southbound								
L	209	1604	0.14	0.60	13.7	B		
TR	1084	1806	0.57	0.60	11.7	B	11.8	B

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 52 & 5TH AVENUE

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB7 (850K W/3 ACCESS DRIVES)

E/W St: 5TH AVENUE

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig	LT R			LTR			L	T	R	L	TR	
Volume	30	30	444	98	30	24	355	524	186	80	510	15
Lane Width	12.0		12.0	14.0			12.0	12.0	12.0	10.0	12.0	
RTOR Vol	80			0			40			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	13.0	7.0			20.0	40.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	130	1854	0.51	0.07	48.1	D	39.8	D
R	517	1615	0.78	0.32	38.4	D		
Westbound								
LTR	240	1847	0.70	0.13	50.7	D	50.7	D
Northbound								
L	498	1805	0.79	0.65	28.4	C		
T	724	1810	0.80	0.40	33.1	C	29.7	C
R	615	1538	0.26	0.40	20.4	C		
Southbound								
L	444	1604	0.20	0.65	11.4	B		
TR	722	1804	0.81	0.40	33.5	C	30.5	C

Intersection Delay = 33.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB8
 E/W St: I-84 RAMP WEST BOUND

Inter.: I-84 RAMP (WB) & NYS ROUTE 52
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	0
LGConfig				L		R	L	T			TR	
Volume				163		212	331	630			541	49
Lane Width				12.0		12.0	12.0	12.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	491	1719	0.37	0.29	20.4	C	21.6	C
R	439	1538	0.54	0.29	22.4	C		
Northbound								
L	334	584	1.10	0.57	94.4	F		
T	1034	1810	0.68	0.57	12.3	B	40.6	D

Southbound

TR	1022	1789	0.64	0.57	11.5	B	11.5	B
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Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB8
 E/W St: I-84 RAMP WEST BOUND

Inter.: I-84 RAMP (WB) & NYS ROUTE 52
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	0
LGConfig				L		R	L		T			TR
Volume				131		186	164	514		525	53	
Lane Width				12.0		12.0	12.0	12.0		12.0		
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	491	1719	0.30	0.29	19.9	B	20.8	C
R	439	1538	0.47	0.29	21.4	C		
Northbound								
L	340	595	0.54	0.57	10.9	B		
T	1034	1810	0.55	0.57	10.0+	B	10.3	B

Southbound

TR	1021	1787	0.63	0.57	11.3	B	11.3	B
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Intersection Delay = 12.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: I-84 RAMP (WB) & NYS ROUTE 52
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB8 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 RAMP WEST BOUND N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				163		347	351	727			773	126
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0				44.0	11.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	382	1719	0.46	0.22	31.2	C	43.7	D
R	342	1538	0.85	0.22	51.3	D		
Northbound								
L	552	1719	0.69	0.67	21.5	C		
T	1207	1810	0.65	0.67	2.6	A	8.8	A

Southbound

T	885	1810	0.95	0.49	21.2	C	18.4	B
R	752	1538	0.18	0.49	1.4	A		

Intersection Delay = 18.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK SAT HOUR

Project ID: 837SATB8 (850K W/3 ACCESS DRIVES)

E/W St: I-84 RAMP WEST BOUND

Inter.: I-84 RAMP (WB) & NYS ROUTE 52

Area Type: All other areas

Jurisd:

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				131		368	190	644			838	157
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left	A				SB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0				47.0	4.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L 458 1719 0.31 0.27 26.8 C 35.0- C

R 410 1538 0.76 0.27 38.7 D

Northbound

L 252 1719 0.82 0.62 53.2 D

T 1126 1810 0.62 0.62 2.5 A 14.0 B

Southbound

T 945 1810 0.96 0.52 36.1 D 31.8 C

R 803 1538 0.21 0.52 8.6 A

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: I-84 RAMP (WB) & NYS ROUTE 52
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB8 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 RAMP WEST BOUND N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				163		365	353	740			804	136
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left	A				SB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	21.0				41.0	13.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	401	1719	0.44	0.23	30.3	C	44.2	D
R	359	1538	0.86	0.23	52.2	D		

Northbound

L	425	1719	0.90	0.66	51.5	D		
T	1187	1810	0.68	0.66	3.0	A	18.6	B

Southbound

T	825	1810	1.06	0.46	52.9	D	45.6	D
R	701	1538	0.21	0.46	2.6	A		

Intersection Delay = 33.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: I-84 RAMP (WB) & NYS ROUTE 52

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB8 (850K W/3 ACCESS DRIVES)

E/W St: I-84 RAMP WEST BOUND

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				131		393	194	662		880		171
Lane Width				12.0		12.0	12.0	12.0		12.0		12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left	A				SB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0					47.0	4.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L 458 1719 0.31 0.27 26.8 C 39.2 D

R 410 1538 0.83 0.27 44.4 D

Northbound

L 252 1719 0.84 0.62 54.6 D

T 1126 1810 0.64 0.62 2.6 A 14.4 B

Southbound

T 945 1810 1.01 0.52 48.2 D 41.7 D

R 803 1538 0.23 0.52 8.7 A

Intersection Delay = 31.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: NOVEMBER 2006
 Period: PEAK PM HOUR
 Project ID: 837PMEX9
 E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)
 Area Type: All other areas
 Jurisd:
 Year : 2004 EXISTING TRAFFIC VOLUMES
 N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	80		302					818	123	118	520	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left					SB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0				40.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	491	1719	0.18	0.29	19.0	B	28.3	C
R	439	1538	0.77	0.29	30.7	C		
Westbound								
Northbound								
T	1034	1810	0.88	0.57	21.8	C	19.8	B
R	879	1538	0.16	0.57	7.1	A		
Southbound								
L	122	214	1.07	0.57	117.6	F		
T	1034	1810	0.56	0.57	10.1	B	30.0	C

Intersection Delay = 24.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: NOVEMBER 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATEX9
 E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)
 Area Type: All other areas
 Jurisd:
 Year : 2004 EXISTING TRAFFIC VOLUMES
 N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	53		140					577	66	127	459	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left					SB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	491	1719	0.12	0.29	18.6	B	19.9	B
R	439	1538	0.36	0.29	20.4	C		
Westbound								
Northbound								
T	1034	1810	0.62	0.57	11.1	B	10.7	B
R	879	1538	0.08	0.57	6.8	A		
Southbound								
L	310	542	0.45	0.57	9.7	A		
T	1034	1810	0.49	0.57	9.3	A	9.4	A

Intersection Delay = 11.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMNB9

E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Area Type: All other areas

Jurisd:

Year : 2008 NO-BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	85		342					877	145	123	581	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left					SB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	491	1719	0.19	0.29	19.1	B	36.0	D
R	439	1538	0.87	0.29	40.1	D		
Westbound								
Northbound								
T	1034	1810	0.94	0.57	29.9	C	26.7	C
R	879	1538	0.18	0.57	7.3	A		
Southbound								
L	103	181	1.33	0.57	215.7	F		
T	1034	1810	0.62	0.57	11.2	B	47.0	D

Intersection Delay = 35.2 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK SAT HOUR

Project ID: 837SATNB9

E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Area Type: All other areas

Jurisd:

Year : 2008 NO-BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	56		165				622	85		135	522	
Lane Width	12.0		12.0				12.0	12.0		12.0	12.0	
RTOR Vol			0					0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left					SB Left	A		
Thru					Thru	A		
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0				40.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	491	1719	0.13	0.29	18.6	B	20.3	C
R	439	1538	0.42	0.29	20.9	C		
Westbound								
Northbound								
T	1034	1810	0.67	0.57	12.1	B	11.5	B
R	879	1538	0.11	0.57	6.9	A		
Southbound								
L	274	479	0.55	0.57	11.7	B		
T	1034	1810	0.56	0.57	10.2	B	10.5	B

Intersection Delay = 12.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & I-84 ON/OFF (EB)
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB9 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF RAMP EASTBOUND N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	85		342					993	145	239	697	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			60						60			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left					SB Left	A		
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	7.0					17.0	51.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	134	1719	0.69	0.08	54.1	D	34.2	C
R	496	1538	0.62	0.32	28.2	C		
Westbound								
Northbound								
T	1026	1810	1.05	0.57	47.1	D	43.5	D
R	872	1538	0.11	0.57	1.2	A		
Southbound								
L	325	1719	0.80	0.19	42.7	D		
T	1026	1810	0.74	0.57	4.7	A	14.4	B

Intersection Delay = 30.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 52 & I-84 ON/OFF (EB)
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB9 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF RAMP EASTBOUND N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	56		165					778	85	291	678	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			60						60			

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	19.0				8.0	48.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	363	1719	0.17	0.21	29.3	C	23.5	C
R	547	1538	0.21	0.36	20.4	C		
Westbound								
Northbound								
T	965	1810	0.88	0.53	13.6	B	13.2	B
R	820	1538	0.03	0.53	2.4	A		
Southbound								
L	372	1719	0.85	0.68	27.3	C		
T	965	1810	0.76	0.53	7.6	A	13.5	B

Intersection Delay = 14.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMB9 (850K W/3 ACCESS DRIVES)

E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	85		342				1008	145		254	712	
Lane Width	12.0		12.0				12.0	12.0		12.0	12.0	
RTOR Vol			60					60				

Duration 0.25 Area Type: All other areas
Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A							
Thru						A		
Right	A					A		
Peds								
WB Left					SB Left	A		
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	7.0				17.0	51.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	134	1719	0.69	0.08	54.1	D	34.2	C
R	496	1538	0.62	0.32	28.2	C		
Westbound								
Northbound								
T	1026	1810	1.07	0.57	53.2	D	49.2	D
R	872	1538	0.11	0.57	1.2	A		
Southbound								
L	325	1719	0.85	0.19	48.5	D		
T	1026	1810	0.75	0.57	5.1	A	16.5	B

Intersection Delay = 33.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB9 (850K W/3 ACCESS DRIVES)

E/W St: I-84 ON/OFF RAMP EASTBOUND

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	56		165					799	85	312	699	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			60						60			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A							
Thru						A		
Right	A					A		
Peds								
WB Left					SB Left	A	A	
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green	19.0				8.0	48.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	363	1719	0.17	0.21	29.3	C	23.5	C
R	547	1538	0.21	0.36	20.4	C		
Westbound								
Northbound								
T	965	1810	0.90	0.53	15.8	B	15.3	B
R	820	1538	0.03	0.53	2.4	A		
Southbound								
L	348	1719	0.97	0.68	54.4	D		
T	965	1810	0.79	0.53	8.4	A	22.6	C

Intersection Delay = 19.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: RELOCATED MEADOW AVENUE/SITE

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB10 (850K W/3 ACCESS DRIVES)

E/W St: RELOCATED MEADOW AVENUE

N/S St: SITE ACCESS DRIVEWAY

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
LGConfig	L		R				L	T			T	R
Volume	374		19				19	106			97	347
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A		
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		40.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	764	1719	0.54	0.44	19.1	B	18.9	B
R	684	1538	0.03	0.44	14.1	B		
Westbound								
Northbound								
L	553	1244	0.04	0.44	14.2	B		
T	804	1810	0.15	0.44	14.9	B	14.8	B
Southbound								
T	804	1810	0.13	0.44	14.8	B	18.6	B
R	684	1538	0.56	0.44	19.6	B		
Intersection Delay = 18.2 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: RELOCATED MEADOW AVENUE/SITE

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB10 (850K W/3 ACCESS DRIVES)

E/W St: RELOCATED MEADOW AVENUE

N/S St: SITE ACCESS DRIVEWAY

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
LGConfig	L		R				L	T			T	R
Volume	398		26				26	144			131	391
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A		
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		40.0				40.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	764	1719	0.58	0.44	19.8	B	19.5	B
R	684	1538	0.04	0.44	14.2	B		
Westbound								
Northbound								
L	534	1202	0.05	0.44	14.3	B		
T	804	1810	0.20	0.44	15.4	B	15.2	B
Southbound								
T	804	1810	0.18	0.44	15.2	B	19.8	B
R	684	1538	0.63	0.44	21.3	C		
Intersection Delay = 18.9 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: RELOCATED MEADOW AVENUE/SITE
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB10 (850K W/3 ACCESS DRIVES)
 E/W St: RELOCATED MEADOW AVENUE N/S St: SITE ACCESS DRIVEWAY

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
LGConfig	L		R				L	T			T	R
Volume	374		22				22	120			109	347
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru					Thru	A		
Right	A				Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				40.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	764	1719	0.54	0.44	19.1	B	18.9	B
R	684	1538	0.04	0.44	14.1	B		
Westbound								
Northbound								
L	546	1229	0.04	0.44	14.2	B		
T	804	1810	0.17	0.44	15.1	B	15.0	B
Southbound								
T	804	1810	0.15	0.44	15.0	B	18.5	B
R	684	1538	0.56	0.44	19.6	B		
Intersection Delay = 18.1 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK SAT HOUR

Project ID: 837SATB10 (850K W/3 ACCESS DRIVES)

E/W St: RELOCATED MEADOW AVENUE

Inter.: RELOCATED MEADOW AVENUE/SITE

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: SITE ACCESS DRIVEWAY

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
LGConfig	L		R				L	T			T	R
Volume	398		30				30	163			148	391
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A		
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				40.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	764	1719	0.58	0.44	19.8	B	19.4	B
R	684	1538	0.05	0.44	14.2	B		
Westbound								
Northbound								
L	525	1182	0.06	0.44	14.3	B		
T	804	1810	0.23	0.44	15.6	B	15.4	B
Southbound								
T	804	1810	0.20	0.44	15.4	B	19.7	B
R	684	1538	0.63	0.44	21.3	C		
Intersection Delay = 18.9 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & I-84 WB RAMP

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837PMNB11

E/W St: I-84 ON/OFF WESTBOUND RAMP

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				909		505		1383	248		816	483
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left	A				SB Left			
Thru					Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green	30.0				50.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	1113	3338	0.91	0.33	39.5	D	25.4	C
R	1538	1538	0.36	1.00	0.1	A		
Northbound								
T	1914	3445	0.80	0.56	18.6	B	17.5	B
R	854	1538	0.32	0.56	11.1	B		
Southbound								
T	1914	3445	0.47	0.56	12.3	B	13.3	B
R	854	1538	0.63	0.56	15.2	B		
Intersection Delay = 18.8 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB11
 E/W St: I-84 ON/OFF WESTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				682		431		1383	236		1141	435
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green		25.0				55.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	927	3338	0.82	0.28	36.2	D	22.2	C
R	1538	1538	0.31	1.00	0.1	A		
Northbound								
T	2105	3445	0.73	0.61	13.6	B	12.9	B
R	940	1538	0.28	0.61	8.4	A		
Southbound								
T	2105	3445	0.60	0.61	11.3	B	11.0	B
R	940	1538	0.51	0.61	10.4	B		
Intersection Delay = 14.6 (sec/veh)					Intersection LOS = B			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB11
 E/W St: I-84 ON/OFF WESTBOUND RAMP

Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				909		649		1712	248		1135	561
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green		30.0				50.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	1113	3338	0.91	0.33	39.5	D	23.1	C
R	1538	1538	0.47	1.00	0.2	A		
Northbound								
T	1914	3445	0.99	0.56	38.9	D	35.4	D
R	854	1538	0.32	0.56	11.1	B		
Southbound								
T	1914	3445	0.66	0.56	14.9	B	16.0	B
R	854	1538	0.73	0.56	18.1	B		
Intersection Delay = 25.4 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB11
 E/W St: I-84 ON/OFF WESTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				682		627		1827	236		1572	539
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green		25.0				55.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	927	3338	0.82	0.28	36.2	D	19.0	B
R	1538	1538	0.45	1.00	0.2	A		
Northbound								
T	2105	3445	0.96	0.61	28.9	C	26.6	C
R	940	1538	0.28	0.61	8.4	A		
Southbound								
T	2105	3445	0.83	0.61	16.8	B	15.7	B
R	940	1538	0.64	0.61	12.6	B		
Intersection Delay = 20.6 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & I-84 WB RAMP

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB11

E/W St: I-84 ON/OFF WESTBOUND RAMP

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				909		669		1755	248		1177	571
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green	30.0				50.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	1113	3338	0.91	0.33	39.5	D	22.8	C
R	1538	1538	0.48	1.00	0.2	A		

Northbound

T	1914	3445	1.02	0.56	45.4	D	41.2	D
R	854	1538	0.32	0.56	11.1	B		

Southbound

T	1914	3445	0.68	0.56	15.3	B	16.4	B
R	854	1538	0.74	0.56	18.7	B		

Intersection Delay = 27.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB11
 E/W St: I-84 ON/OFF WESTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				682		653		1886	236		1629	553
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right	A		
Green	25.0					55.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	927	3338	0.82	0.28	36.2	D	18.6	B
R	1538	1538	0.47	1.00	0.2	A		
Northbound								
T	2105	3445	1.00	0.61	36.0	D	32.9	C
R	940	1538	0.28	0.61	8.4	A		
Southbound								
T	2105	3445	0.86	0.61	18.2	B	16.9	B
R	940	1538	0.65	0.61	13.0	B		

Intersection Delay = 23.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837PMNB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			426			232	1399	1367		296	1453	
Lane Width			12.0			12.0	12.0	12.0		12.0	12.0	
RTOR Vol			0			0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	P	A	
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						30.0	50.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	869	1565	0.54	0.56	13.5	B	13.5	B
Westbound								
R	1478	1565	0.17	0.94	0.2	A	0.2	A
Northbound								
T	1914	3445	0.81	0.56	19.0	B	28.8	C
R	1453	1538	1.05	0.94	38.9	D		
Southbound								
L	654	1719	0.50	0.94	18.6	B		
T	4655	4929	0.35	0.94	0.3	A	3.4	A

Intersection Delay = 17.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 NO-BUILD TRAFFIC VOLUMES
 Project ID: 837SATNB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			312			233		1385	800	318	1505	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						30.0	50.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	
								Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	869	1565	0.40	0.56	11.7	B	11.7	B
Westbound								
R	1478	1565	0.18	0.94	0.2	A	0.2	A
Northbound								
T	1914	3445	0.80	0.56	18.7	B	34.5	C
R	854	1538	1.04	0.56	62.0	E		
Southbound								
L	654	1719	0.54	0.94	19.4	B		
T	4655	4929	0.36	0.94	0.3	A	3.6	A

Intersection Delay = 18.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			426			387		1573	1367	440	1627	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A	A	
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						30.0	50.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	869	1565	0.54	0.56	13.5	B	13.5	B
Westbound								
R	1478	1565	0.29	0.94	0.3	A	0.3	A
Northbound								
T	1914	3445	0.91	0.56	25.3	C	31.6	C
R	1453	1538	1.05	0.94	38.9	D		
Southbound								
L	654	1719	0.75	0.94	27.3	C		
T	4655	4929	0.39	0.94	0.3	A	6.0	A

Intersection Delay = 19.1 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			312			442		1620	800	514	1740	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						28.0	52.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	
						Cycle Length: 90.0 secs		

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	904	1565	0.38	0.58	10.6	B	10.6	B
Westbound								
R	1478	1565	0.33	0.94	0.3	A	0.3	A
Northbound								
T	1990	3445	0.90	0.58	8.3	A	16.3	B
R	889	1538	1.00	0.58	32.5	C		
Southbound								
L	682	1719	0.84	0.94	25.9	C		
T	4655	4929	0.42	0.94	0.3	A	6.1	A

Intersection Delay = 10.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			426			407		1596	1367	460	1650	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A	A	
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						30.0	50.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	869	1565	0.54	0.56	13.5	B	13.5	B
Westbound								
R	1478	1565	0.31	0.94	0.3	A	0.3	A
Northbound								
T	1914	3445	0.93	0.56	26.7	C	32.3	C
R	1453	1538	1.05	0.94	38.9	D		
Southbound								
L	654	1719	0.78	0.94	29.3	C		
T	4655	4929	0.39	0.94	0.3	A	6.6	A

Intersection Delay = 19.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB12 (850K W/3 ACCESS DRIVES)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			312			470		1652	800	540	1771	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						28.0	52.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Gp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

R 904 1565 0.38 0.58 10.6 B 10.6 B

Westbound

R 1478 1565 0.35 0.94 0.4 A 0.4 A

Northbound

T 1990 3445 0.92 0.58 9.8 A 17.2 B

R 889 1538 1.00 0.58 32.5 C

Southbound

L 676 1719 0.89 0.94 32.1 C

T 4655 4929 0.42 0.94 0.3 A 7.7 A

Intersection Delay = 11.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB13
 E/W St: NYS ROUTE 32

Inter.: NYS ROUTE 32 & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L		TR	L		TR	L		TR
Volume	101	329	135	83	183	22	122	344	167	20	202	54
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	514	1401	0.93	0.37	51.0	D	43.7	D
R	564	1538	0.27	0.37	20.3	C		
Westbound								
L	171	467	0.54	0.37	25.9	C		
TR	653	1781	0.35	0.37	21.0	C	22.4	C
Northbound								
L	484	1719	0.28	0.52	12.2	B		
TR	669	1721	0.85	0.39	35.2	D	30.7	C
Southbound								
L	267	1719	0.08	0.52	14.2	B		
TR	681	1752	0.42	0.39	20.5	C	20.0+	C

Intersection Delay = 31.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB13
 E/W St: NYS ROUTE 32

Inter.: NYS ROUTE 32 & NYS ROUTE 300
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L	TR		L	TR		L	TR	
Volume	58	331	121	81	322	46	147	342	164	46	205	53
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	485	1323	0.87	0.37	42.4	D	37.1	D
R	580	1583	0.23	0.37	19.9	B		
Westbound								
L	219	596	0.40	0.37	22.4	C		
TR	670	1828	0.60	0.37	24.6	C	24.2	C
Northbound								
L	501	1770	0.32	0.52	12.3	B		
TR	689	1772	0.80	0.39	31.0	C	26.8	C
Southbound								
L	288	1770	0.17	0.52	14.3	B		
TR	702	1805	0.40	0.39	20.3	C	19.4	B

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

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 32 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB13 (850K W/3 ACCESS DRIVES)

E/W St: NYS ROUTE 32

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L	TR		L	TR		L	TR	
Volume	101	329	174	83	183	22	161	402	167	20	260	54
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	514	1401	0.93	0.37	51.0	D	42.4	D
R	564	1538	0.34	0.37	21.0	C		
Westbound								
L	171	467	0.54	0.37	25.9	C		
TR	653	1781	0.35	0.37	21.0	C	22.4	C
Northbound								
L	431	1719	0.42	0.52	13.3	B		
TR	673	1730	0.94	0.39	47.9	D	40.2	D
Southbound								
L	221	1719	0.10	0.52	15.7	B		
TR	686	1763	0.51	0.39	21.6	C	21.2	C

Intersection Delay = 35.0+ (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 32 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: JULY 2006 Jurisd:
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB13 (850K W/3 ACCESS DRIVES)
 E/W St: NYS ROUTE 32 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L		TR	L		TR	L		TR
Volume	58	331	174	81	322	46	199	420	164	46	283	53
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	485	1323	0.87	0.37	42.4	D	35.8	D
R	580	1583	0.33	0.37	20.8	C		
Westbound								
L	219	596	0.40	0.37	22.4	C		
TR	670	1828	0.60	0.37	24.6	C	24.2	C
Northbound								
L	430	1770	0.50	0.52	14.0	B		
TR	694	1784	0.91	0.39	42.9	D	35.6	D
Southbound								
L	226	1770	0.22	0.52	16.4	B		
TR	707	1818	0.52	0.39	21.7	C	21.1	C

Intersection Delay = 30.7 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB13 (850K W/3 ACCESS DRIVES)
 E/W St: NYS ROUTE 32

Inter.: NYS ROUTE 32 & NYS ROUTE 300
 Area Type: All other areas
 Jurisd: SENSITIVITY ANALYSIS
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig	LT R			L TR			L TR			L TR		
Volume	101	329	179	83	183	22	166	410	167	20	268	54
Lane Width	12.0		12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A	A	
Right	A				Right	A	A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	514	1401	0.93	0.37	51.0	D	42.2	D
R	564	1538	0.35	0.37	21.1	C		

Westbound

L	171	467	0.54	0.37	25.9	C		
TR	653	1781	0.35	0.37	21.0	C	22.4	C

Northbound

L	424	1719	0.43	0.52	13.5	B		
TR	673	1731	0.95	0.39	50.6	D	42.3	D

Southbound

L	214	1719	0.10	0.52	15.9	B		
TR	686	1764	0.52	0.39	21.8	C	21.5	C

Intersection Delay = 35.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 32 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB13 (850K W/3 ACCESS DRIVES)

E/W St: NYS ROUTE 32

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig	LT R			L TR			L TR			L TR		
Volume	58	331	181	81	322	46	208	430	164	46	294	53
Lane Width	12.0		12.0	12.0		12.0	12.0		12.0	12.0		12.0
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0		35.0	
Yellow	3.0				3.0		3.0	
All Red	2.0				2.0		2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	485	1323	0.87	0.37	42.4	D	35.6	D
R	580	1583	0.34	0.37	21.0	C		
Westbound								
L	219	596	0.40	0.37	22.4	C		
TR	670	1828	0.60	0.37	24.6	C	24.2	C
Northbound								
L	420	1770	0.54	0.52	14.7	B		
TR	695	1786	0.93	0.39	45.1	D	37.2	D
Southbound								
L	221	1770	0.23	0.52	16.7	B		
TR	708	1820	0.53	0.39	22.0	C	21.4	C

Intersection Delay = 31.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	360	463	557	391	445	345	443	1112	197	263	992	94
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru			
Right					Right			
Peds					Peds			
WB Left		A			SB Left	A		
Thru					Thru			
Right					Right			
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		9.0	23.0			21.0	47.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	535	3338	0.75	0.31	43.4	D		
T	660	3445	0.78	0.19	52.0	D	49.5	D
R	628	1538	0.91	0.41	51.5	D		
Westbound								
L	544	3338	0.80	0.31	46.6	D		
T	660	3445	0.75	0.19	50.5	D	43.1	D
R	628	1538	0.54	0.41	27.9	C		
Northbound								
L	1092	3338	0.45	0.61	17.7	B		
T	1349	3445	0.92	0.39	44.7	D	35.1	D
R	782	1538	0.22	0.51	16.5	B		
Southbound								
L	361	1719	0.81	0.61	47.6	D		
TR	1339	3419	0.87	0.39	40.0	D	41.5	D

Intersection Delay = 41.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	310	520	530	402	480	330	466	1095	209	264	1073	134
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru		A	
Right				A	Right			A
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru		A	
Right				A	Right			A
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		7.0	23.0			21.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 119.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	499	3437	0.65	0.29	40.4	D		
T	686	3547	0.79	0.19	51.9	D	43.5	D
R	652	1583	0.78	0.41	36.5	D		
Westbound								
L	519	3437	0.81	0.29	49.4	D		
T	686	3547	0.73	0.19	49.0	D	43.5	D
R	652	1583	0.46	0.41	26.0	C		
Northbound								
L	1160	3437	0.42	0.62	17.3	B		
T	1431	3547	0.80	0.40	34.5	C	28.1	C
R	798	1583	0.22	0.50	16.6	B		
Southbound								
L	381	1770	0.72	0.62	37.1	D		
TR	1413	3504	0.86	0.40	38.1	D	37.9	D

Intersection Delay = 37.4 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	370	463	557	391	445	383	443	1190	197	301	1069	104
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		8.0	23.0			21.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	508	3338	0.81	0.30	49.7	D		
T	660	3445	0.78	0.19	52.0	D	51.2	D
R	628	1538	0.91	0.41	51.5	D		
Westbound								
L	517	3338	0.84	0.30	52.2	D		
T	660	3445	0.75	0.19	50.5	D	45.0	D
R	628	1538	0.61	0.41	29.6	C		
Northbound								
L	1163	3338	0.42	0.62	18.5	B		
T	1378	3445	0.96	0.40	50.6	D	39.7	D
R	782	1538	0.22	0.51	16.5	B		
Southbound								
L	362	1719	0.92	0.62	66.4	E		
TR	1366	3416	0.92	0.40	44.7	D	49.3	D

Intersection Delay = 45.9 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	323	520	530	402	480	382	466	1200	209	316	1178	147
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		7.0	23.0			22.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	496	3437	0.68	0.29	42.3	D		
T	680	3547	0.80	0.19	52.9	D	44.0	D
R	660	1583	0.77	0.42	35.8	D		
Westbound								
L	516	3437	0.81	0.29	50.3	D		
T	680	3547	0.74	0.19	49.8	D	43.7	D
R	660	1583	0.54	0.42	27.2	C		
Northbound								
L	1316	3437	0.37	0.63	19.2	B		
T	1419	3547	0.88	0.40	40.1	D	32.7	C
R	792	1583	0.22	0.50	17.0	B		
Southbound								
L	387	1770	0.85	0.63	52.1	D		
TR	1401	3503	0.96	0.40	49.6	D	50.1	D

Intersection Delay = 42.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd: SENSITIVITY ANALYSIS
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	371	463	557	391	445	388	443	1200	197	307	1079	105
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru		A	
Right				A	Right			A
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru		A	
Right				A	Right			A
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		8.0	23.0			21.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	508	3338	0.81	0.30	49.9	D		
T	660	3445	0.78	0.19	52.0	D	51.2	D
R	628	1538	0.91	0.41	51.5	D		
Westbound								
L	517	3338	0.84	0.30	52.2	D		
T	660	3445	0.75	0.19	50.5	D	45.0	D
R	628	1538	0.62	0.41	29.9	C		
Northbound								
L	1175	3338	0.42	0.62	18.7	B		
T	1378	3445	0.97	0.40	52.2	D	40.9	D
R	782	1538	0.22	0.51	16.5	B		
Southbound								
L	362	1719	0.94	0.62	70.9	E		
TR	1366	3416	0.93	0.40	45.9	D	51.2	D

Intersection Delay = 46.7 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATB14
 E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K
 Area Type: All other areas
 Jurisd: SENSITIVITY ANALYSIS
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	324	520	530	402	480	389	466	1214	209	323	1192	148
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru					Thru		A	
Right			A		Right		A	
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		7.0	23.0			22.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	496	3437	0.68	0.29	42.5	D		
T	680	3547	0.80	0.19	52.9	D	44.1	D
R	660	1583	0.77	0.42	35.8	D		
Westbound								
L	516	3437	0.81	0.29	50.3	D		
T	680	3547	0.74	0.19	49.8	D	43.6	D
R	660	1583	0.55	0.42	27.5	C		
Northbound								
L	1339	3437	0.36	0.63	19.5	B		
T	1419	3547	0.89	0.40	41.1	D	33.5	C
R	792	1583	0.22	0.50	17.0	B		
Southbound								
L	387	1770	0.87	0.63	54.8	D		
TR	1401	3502	0.97	0.40	52.0	D	52.6	D

Intersection Delay = 43.0 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMNB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	237	562	36	14	823	127	72	42	20	98	10	307
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	328	1719	0.80	0.57	34.8	C		
TR	1255	3422	0.52	0.37	22.7	C	26.2	C
Westbound								
L	448	1719	0.04	0.57	9.6	A		
TR	1242	3388	0.83	0.37	30.7	C	30.3	C
Northbound								
LT	440	1366	0.29	0.32	23.2	C	21.7	C
R	803	1538	0.02	0.52	10.4	B		
Southbound								
LT	383	1189	0.31	0.32	23.5	C	16.0	B
R	803	1538	0.36	0.52	12.9	B		

Intersection Delay = 26.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATNB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 NO-BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	227	841	108	47	897	74	154	53	46	71	6	225
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	339	1770	0.73	0.57	27.3	C		
TR	1280	3491	0.80	0.37	29.2	C	28.8	C
Westbound								
L	339	1770	0.15	0.57	12.5	B		
TR	1290	3519	0.80	0.37	29.1	C	28.3	C
Northbound								
LT	437	1356	0.51	0.32	25.8	C	23.3	C
R	827	1583	0.05	0.52	10.6	B		
Southbound								
LT	354	1100	0.24	0.32	22.7	C	15.2	B
R	827	1583	0.23	0.52	11.8	B		

Intersection Delay = 26.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	237	590	46	14	852	127	82	42	20	98	10	307
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	328	1719	0.80	0.57	34.9	C		
TR	1253	3416	0.56	0.37	23.2	C	26.4	C
Westbound								
L	431	1719	0.04	0.57	9.8	A		
TR	1243	3390	0.85	0.37	32.2	C	31.9	C
Northbound								
LT	430	1335	0.32	0.32	23.5	C	22.1	C
R	803	1538	0.02	0.52	10.4	B		
Southbound								
LT	378	1174	0.32	0.32	23.5	C	16.0	B
R	803	1538	0.36	0.52	12.9	B		
Intersection Delay = 26.8 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	227	880	121	47	936	74	167	53	46	71	6	225
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A	A		SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	339	1770	0.73	0.57	27.5	C		
TR	1279	3487	0.84	0.37	31.4	C	30.7	C
Westbound								
L	339	1770	0.15	0.57	13.0	B		
TR	1291	3520	0.83	0.37	30.6	C	29.8	C
Northbound								
LT	434	1348	0.55	0.32	26.7	C	24.2	C
R	827	1583	0.05	0.52	10.6	B		
Southbound								
LT	342	1060	0.25	0.32	22.8	C	15.2	B
R	827	1583	0.23	0.52	11.8	B		

Intersection Delay = 28.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd: SENSITIVITY ANALYSIS
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	237	594	47	14	856	127	83	42	20	98	10	307
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A	A		NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A	A		SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	328	1719	0.80	0.57	35.0-	C		
TR	1252	3415	0.56	0.37	23.3	C	26.5	C
Westbound								
L	429	1719	0.04	0.57	9.8	A		
TR	1243	3390	0.86	0.37	32.4	C	32.1	C
Northbound								
LT	430	1333	0.32	0.32	23.5	C	22.1	C
R	803	1538	0.02	0.52	10.4	B		
Southbound								
LT	377	1171	0.32	0.32	23.5	C	16.0	B
R	803	1538	0.36	0.52	12.9	B		
Intersection Delay = 26.9			(sec/veh)		Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK SAT HOUR
 Project ID: 837SATB15
 E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K
 Area Type: All other areas
 Jurisd: SENSITIVITY ANALYSIS
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	227	886	123	47	941	74	168	53	46	71	6	225
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	339	1770	0.73	0.57	27.6	C		
TR	1278	3486	0.85	0.37	31.9	C	31.1	C
Westbound								
L	339	1770	0.15	0.57	13.1	B		
TR	1291	3520	0.83	0.37	30.8	C	30.0	C
Northbound								
LT	434	1347	0.56	0.32	26.8	C	24.2	C
R	827	1583	0.05	0.52	10.6	B		
Southbound								
LT	341	1058	0.25	0.32	22.8	C	15.2	B
R	827	1583	0.23	0.52	11.8	B		

Intersection Delay = 28.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & STOP N SHOP

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK PM HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837PMNB16

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	173	14	104	16	5	17	153	963	14	2	683	94
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0				10.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	343	1287	0.61	0.27	31.9	C	30.0	C
R	410	1538	0.28	0.27	26.6	C		

Westbound

LTR	391	1467	0.11	0.27	25.1	C	25.1	C
-----	-----	------	------	------	------	---	------	---

Northbound

L	386	1719	0.44	0.62	10.0+	B		
TR	1566	3438	0.69	0.46	20.8	C	19.4	B

Southbound

L	314	1719	0.01	0.62	9.3	A		
TR	1541	3383	0.56	0.46	18.4	B	18.4	B

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & STOP N SHOP

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK SAT HOUR

Year : 2008 NO-BUILD TRAFFIC VOLUMES

Project ID: 837SATNB16

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	177	15	169	30	10	3	153	794	66	11	799	143
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				10.0	40.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	356	1283	0.60	0.28	31.0	C	29.4	C
R	427	1538	0.44	0.28	27.5	C		
Westbound								
LTR	362	1303	0.13	0.28	24.5	C	24.5	C
Northbound								
L	318	1719	0.53	0.61	13.4	B		
TR	1514	3406	0.63	0.44	20.2	C	19.1	B
Southbound								
L	346	1719	0.03	0.61	9.0	A		
TR	1496	3367	0.70	0.44	21.6	C	21.5	C

Intersection Delay = 21.7 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.
 Agency: JCE
 Date: JULY 2006
 Period: PEAK PM HOUR
 Project ID: 837PMB16
 E/W St: STOP N SHOP/NEWBURGH CINEMA DR

Inter.: NYS ROUTE 300 & STOP N SHOP
 Area Type: All other areas
 Jurisd:
 Year : 2008 BUILD TRAFFIC VOLUMES
 N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	173	14	104	16	5	17	153	1021	14	2	741	94
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0				10.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	343	1287	0.61	0.27	31.9	C	30.0	C
R	410	1538	0.28	0.27	26.6	C		
Westbound								
LTR	391	1467	0.11	0.27	25.1	C	25.1	C
Northbound								
L	364	1719	0.47	0.62	10.7	B		
TR	1566	3438	0.73	0.46	21.9	C	20.4	C
Southbound								
L	297	1719	0.01	0.62	9.9	A		
TR	1543	3387	0.60	0.46	19.0	B	19.0	B

Intersection Delay = 21.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 300 & STOP N SHOP

Agency: JCE

Area Type: All other areas

Date: JULY 2006

Jurisd:

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB16

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	177	15	169	30	10	3	153	872	66	11	877	143
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				10.0	40.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	356	1283	0.60	0.28	31.0	C	29.4	C
R	427	1538	0.44	0.28	27.5	C		
Westbound								
LTR	362	1303	0.13	0.28	24.5	C	24.5	C
Northbound								
L	294	1719	0.58	0.61	15.8	B		
TR	1515	3409	0.69	0.44	21.3	C	20.6	C
Southbound								
L	320	1719	0.04	0.61	9.6	A		
TR	1499	3373	0.76	0.44	23.2	C	23.0	C

Intersection Delay = 22.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK PM HOUR

Project ID: 837PMB16

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

Inter.: NYS ROUTE 300 & STOP N SHOP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	173	14	104	16	5	17	153	1029	14	2	749	94
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0				10.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	343	1287	0.61	0.27	31.9	C	30.0	C
R	410	1538	0.28	0.27	26.6	C		
Westbound								
LTR	391	1467	0.11	0.27	25.1	C	25.1	C
Northbound								
L	361	1719	0.47	0.62	10.8	B		
TR	1566	3438	0.74	0.46	22.0	C	20.6	C
Southbound								
L	294	1719	0.01	0.62	9.9	A		
TR	1543	3388	0.61	0.46	19.1	B	19.1	B

Intersection Delay = 21.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: JULY 2006

Period: PEAK SAT HOUR

Project ID: 837SATB16

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

Inter.: NYS ROUTE 300 & STOP N SHOP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	177	15	169	30	10	3	153	882	66	11	887	143
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0				10.0	40.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	356	1283	0.60	0.28	31.0	C	29.4	C
R	427	1538	0.44	0.28	27.5	C		
Westbound								
LTR	362	1303	0.13	0.28	24.5	C	24.5	C
Northbound								
L	291	1719	0.58	0.61	16.2	B		
TR	1516	3410	0.69	0.44	21.5	C	20.8	C
Southbound								
L	316	1719	0.04	0.61	9.7	A		
TR	1500	3374	0.76	0.44	23.4	C	23.3	C

Intersection Delay = 23.1 (sec/veh) Intersection LOS = C

APPENDIX "D"

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	≤10
B	>10-20
C	>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 last-in-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 2000 Highway Capacity Manual published by 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
C	>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.

SYNCRO FILES




















ROUTE 300 CORRIDOR



Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

4: stop &shop newburgh cinema & Union Ave.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Fit			0.850		0.939			0.998			0.983	
Fit Protected		0.956			0.979		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1712	0	1770	3532	0	1770	1831	0
Fit Permitted		0.713			0.874		0.235			0.235		
Satd. Flow (perm)	0	1328	1583	0	1529	0	438	3532	0	438	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77		18			4			18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		146			188			598			947	
Travel Time (s)		3.3			4.3			13.6			21.5	
Volume (vph)	173	14	104	16	5	17	153	1021	14	2	741	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	188	15	113	17	5	18	166	1110	15	2	805	102
Lane Group Flow (vph)	0	203	113	0	40	0	166	1125	0	2	907	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phases	4	4	4	8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		11.9	11.9		11.9		25.0	25.0		25.0	25.0	
Actuated g/C Ratio		0.28	0.28		0.28		0.60	0.60		0.60	0.60	
v/c Ratio		0.54	0.22		0.09		0.64	0.53		0.01	0.83	
Control Delay		13.8	5.1		6.7		30.5	9.5		7.0	23.1	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		13.8	5.1		6.7		30.5	9.5		7.0	23.1	
LOS		B	A		A		C	A		A	C	

4: stop &shop newburgh cinema & Union Ave.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay	10.7			6.7			12.2			23.1		
Approach LOS	B			A			B			C		
Queue Length 50th (ft)	40	6		4			26	84		0	172	
Queue Length 95th (ft)	70	25		15			#125	#185		3	#461	
Internal Link Dist (ft)	66			108			518			867		
Turn Bay Length (ft)							200			200		
Base Capacity (vph)	538	687		630			261	2104		261	1097	
Starvation Cap Reductn	0	0		0			0	0		0	0	
Spillback Cap Reductn	0	0		0			0	0		0	0	
Storage Cap Reductn	0	0		0			0	0		0	0	
Reduced v/c Ratio	0.38	0.16		0.06			0.64	0.53		0.01	0.83	

4: stop &shop newburgh cinema & Union Ave

Area Type: Other

Cycle Length: 42

Actuated Cycle Length: 42

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.8 Intersection LOS: B

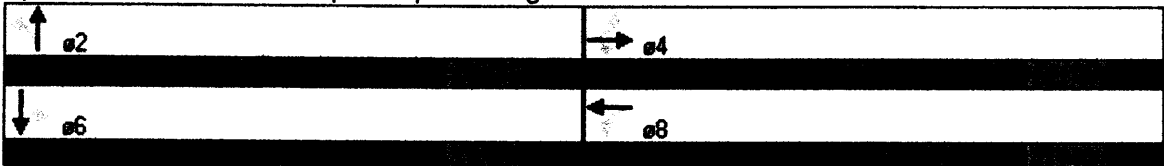
Intersection Capacity Utilization 83.5% ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.













Queue shown is maximum after two cycles.

Splits and Phases: 4: stop &shop newburgh cinema & Union Ave.



Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKDAY PEAK PM HIGHWAY HOUR

						
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.689			
Satd. Flow (perm)	1770	1583	1283	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		21				377
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	537			661	200	
Travel Time (s)	12.2			15.0	4.5	
Volume (vph)	374	19	19	106	97	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	407	21	21	115	105	377
Lane Group Flow (vph)	407	21	21	115	105	377
Turn Type		Free	Perm			Free
Protected Phases	4			2	6	
Permitted Phases		Free	2			Free
Detector Phases	4		2	2	6	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	57.0	0.0	33.0	33.0	33.0	0.0
Total Split (%)	63.3%	0.0%	36.7%	36.7%	36.7%	0.0%
Maximum Green (s)	52.0		28.0	28.0	28.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		Min	Min	Min	
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	70.7	90.0	11.3	11.3	11.3	90.0
Actuated g/C Ratio	0.79	1.00	0.13	0.13	0.13	1.00
v/c Ratio	0.29	0.01	0.13	0.49	0.45	0.24
Control Delay	3.6	0.0	33.8	36.7	38.6	0.3
Queue Delay	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay	3.6	0.0	33.8	36.8	38.7	0.3
LOS	A	A	C	D	D	A
Approach Delay	3.5			36.4	8.7	
Approach LOS	A			D	A	

Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Queue Length 50th (ft)	49	0	11	62	60	0
Queue Length 95th (ft)	97	0	31	109	106	0
Internal Link Dist (ft)	457			581	120	
Turn Bay Length (ft)						
Base Capacity (vph)	1390	1583	413	600	600	1583
Starvation Cap Reductn	0	0	0	0	89	0
Spillback Cap Reductn	50	0	0	104	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.01	0.05	0.23	0.21	0.24

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 59 (66%), Referenced to phase 4:SEL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 10.1
 Intersection LOS: B
 Intersection Capacity Utilization: 37.8%
 ICU Level of Service: A
 Analysis Period (min): 15

Splits and Phases: 7: MEADOW AVENUE & SITE ACCESS

#2	#4
#6	

Lanes, Volumes, Timings
8: MEADOW AVENUE &

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕			↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	837			537	401	
Travel Time (s)	19.0			12.2	9.1	
Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

Area Type: Other

Control Type: Unsignalized






















Intersection Capacity Utilization 0.0%

ICU Level of Service A

Analysis Period (min) 15

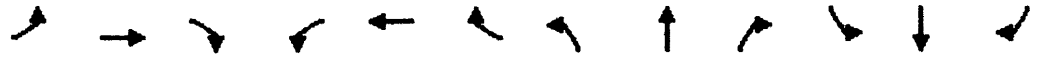
Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	160		0	300		0	160		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.919			0.986			0.980			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1712	0	1770	1837	0	1770	3468	0	1770	3486	0
Flt Permitted	0.458			0.314			0.140			0.108		
Satd. Flow (perm)	853	1712	0	585	1837	0	261	3468	0	201	3486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			5			26			12	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		257			673			436			598	
Travel Time (s)		5.8			15.3			9.9			13.6	
Volume (vph)	104	166	197	148	228	24	320	1095	167	32	756	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	180	214	161	248	26	348	1190	182	35	822	91
Lane Group Flow (vph)	113	394	0	161	274	0	348	1372	0	35	913	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		5	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	26.0	67.0	0.0	41.0	41.0	0.0
Total Split (%)	39.1%	39.1%	0.0%	39.1%	39.1%	0.0%	23.6%	60.9%	0.0%	37.3%	37.3%	0.0%
Maximum Green (s)	38.0	38.0		38.0	38.0		21.0	62.0		36.0	36.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag							Lag			Lead	Lead	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	33.4	33.4		33.4	33.4		68.6	68.6		44.5	44.5	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.62	0.62		0.40	0.40	
v/c Ratio	0.44	0.70		0.90	0.49		0.79	0.63		0.43	0.64	
Control Delay	32.9	31.8		61.2	31.6		31.5	8.6		49.5	30.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.5		0.0	0.0	
Total Delay	32.9	31.8		61.2	31.6		31.5	9.1		49.5	30.8	
LOS	C	C		E	C		C	A		D	C	

Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

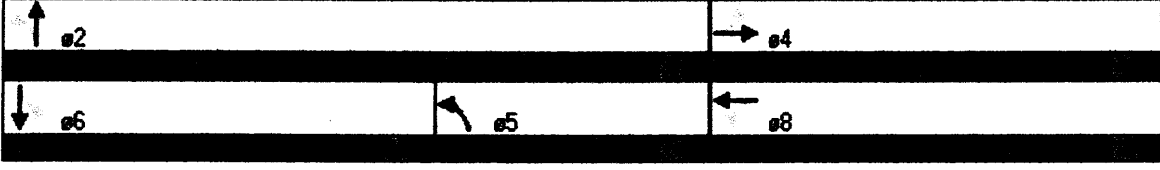
WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		32.1			42.5			13.7			31.4	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	60	195		102	145		172	241		20	297	
Queue Length 95th (ft)	112	297		#218	218		#282	148		#71	377	
Internal Link Dist (ft)		177			593			356			518	
Turn Bay Length (ft)	140			160			300			160		
Base Capacity (vph)	302	646		207	655		471	2172		81	1416	
Starvation Cap Reductn	0	0		0	0		0	380		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.37	0.61		0.78	0.42		0.74	0.77		0.43	0.64	

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 24 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 24.4 Intersection LOS: C
 Intersection Capacity Utilization 86.3% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Meadow Ave. & Union Ave.



11: Newburgh Mall (South) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	350		250	150		0
Storage Lanes	0		1	2		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1863	1583	3433	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted				0.723			0.083			0.148		
Satd. Flow (perm)	0	1863	1583	2613	1863	1583	155	3539	1583	276	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			272			42			514			23
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		261			177			371			430	
Travel Time (s)		5.9			4.0			8.4			9.8	
Volume (vph)	0	48	250	396	48	68	366	1522	473	68	1043	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	272	430	52	74	398	1654	514	74	1134	23
Lane Group Flow (vph)	0	52	272	430	52	74	398	1654	514	74	1134	23
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	4	4	4	8	8	8	5	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	31.0	79.0	79.0	48.0	48.0	48.0
Total Split (%)	28.2%	28.2%	28.2%	28.2%	28.2%	28.2%	28.2%	71.8%	71.8%	43.6%	43.6%	43.6%
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0	26.0	26.0	74.0	74.0	43.0	43.0	43.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		23.2	23.2	23.2	23.2	23.2	78.8	78.8	78.8	51.2	51.2	51.2
Actuated g/C Ratio		0.21	0.21	0.21	0.21	0.21	0.72	0.72	0.72	0.47	0.47	0.47
v/c Ratio		0.13	0.50	0.78	0.13	0.20	0.87	0.65	0.40	0.58	0.69	0.03
Control Delay		34.2	6.8	46.2	34.2	18.2	39.6	10.4	1.5	33.6	15.3	4.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay		34.2	6.8	46.2	34.2	18.2	39.6	10.4	1.5	33.6	15.5	4.1
LOS		C	A	D	C	B	D	B	A	C	B	A

Lanes, Volumes, Timings
 13: Newburgh Mall (North) Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	0		0	200		0	180		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.892						0.986	
Frt Protected		0.954			0.990		0.950			0.950		
Satd. Flow (prot)	0	1777	1583	0	1645	0	1770	3539	0	1770	3490	0
Frt Permitted		0.716			0.955		0.156			0.066		
Satd. Flow (perm)	0	1334	1583	0	1587	0	291	3539	0	123	3490	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		20						18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		173			202			430			724	
Travel Time (s)		3.9			4.6			9.8			16.5	
Volume (vph)	170	6	78	5	0	18	40	1547	2	16	1048	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	7	85	5	0	20	43	1682	2	17	1139	113
Lane Group Flow (vph)	0	192	85	0	25	0	43	1684	0	17	1252	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phases	4	4	4	8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	0.0	72.0	72.0	0.0	72.0	72.0	0.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	33.0	33.0	33.0	33.0	33.0		67.0	67.0		67.0	67.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		21.2	21.2		21.2		80.8	80.8		80.8	80.8	
Actuated g/C Ratio		0.19	0.19		0.19		0.73	0.73		0.73	0.73	
v/c Ratio		0.75	0.23		0.08		0.20	0.65		0.19	0.49	
Control Delay		44.6	7.7		15.7		6.1	5.3		9.9	4.6	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		44.6	7.7		15.7		6.1	5.3		9.9	4.7	
LOS		D	A		B		A	A		A	A	

Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

13: Newburgh Mall (North) Driveway & Union Ave.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.3			15.7			5.3			4.7	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		129	0		3		6	120		2	56	
Queue Length 95th (ft)		191	38		24		m10	141		m8	138	
Internal Link Dist (ft)		93			122			350			644	
Turn Bay Length (ft)			100				200			180		
Base Capacity (vph)		412	548		504		214	2601		91	2570	
Starvation Cap Reductn		0	0		0		0	34		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	28	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.47	0.16		0.05		0.20	0.66		0.19	0.49	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

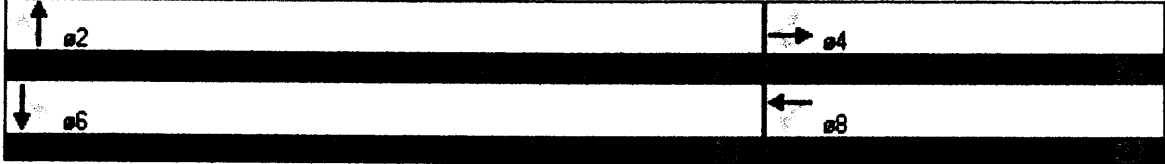
Intersection Signal Delay: 7.5 Intersection LOS: A

Intersection Capacity Utilization 68.6% ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Newburgh Mall (North) Driveway & Union Ave.



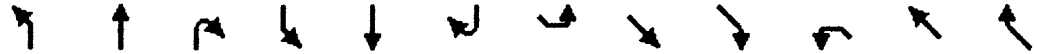
Lanes, Volumes, Timings
18: Union Ave. & NYS ROUTE 52

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.969				0.850			0.850
Flt Protected	0.950			0.950				0.989			0.992	
Satd. Flow (prot)	1770	1822	0	1770	1805	0	0	1842	1583	0	1848	1583
Flt Permitted	0.103			0.114				0.575			0.698	
Satd. Flow (perm)	192	1822	0	212	1805	0	0	1071	1583	0	1300	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			13				292			77
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		947			567			646			681	
Travel Time (s)		21.5			12.9			14.7			15.5	
Volume (vph)	300	698	120	129	537	142	93	336	269	83	408	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	759	130	140	584	154	101	365	292	90	443	130
Lane Group Flow (vph)	326	889	0	140	738	0	0	466	292	0	533	130
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4		4	8		8
Detector Phases	5	2		6	6		4	4	4	8	8	8
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0		21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	14.0	53.0	0.0	39.0	39.0	0.0	57.0	57.0	57.0	57.0	57.0	57.0
Total Split (%)	12.7%	48.2%	0.0%	35.5%	35.5%	0.0%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%
Maximum Green (s)	9.0	48.0		34.0	34.0		52.0	52.0	52.0	52.0	52.0	52.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		C-Min	C-Min		None	None	None	None	None	None
Walk Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0		0	0	0	0	0	0
Act Effct Green (s)	52.1	52.1		35.0	35.0			49.9	49.9		49.9	49.9
Actuated g/C Ratio	0.47	0.47		0.32	0.32			0.45	0.45		0.45	0.45
v/c Ratio	1.17	1.02		2.09	1.27			0.96	0.33		0.90	0.17
Control Delay	136.5	67.0		560.9	165.8			51.3	2.9		41.9	7.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	136.5	67.0		560.9	165.8			51.3	2.9		41.9	7.7
LOS	F	E		F	F			D	A		D	A

Lanes, Volumes, Timings
 18: Union Ave. & NYS ROUTE 52

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay		85.7			228.8			32.6			35.2	
Approach LOS		F			F			C			D	
Queue Length 50th (ft)	~262	~705		~157	~655			292	0		320	19
Queue Length 95th (ft)	#442	#951		#242	#891			#507	44		#533	53
Internal Link Dist (ft)		867			487			566			601	
Turn Bay Length (ft)				250								100
Base Capacity (vph)	279	868		67	583			516	914		626	803
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	1.17	1.02		2.09	1.27			0.90	0.32		0.85	0.16

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 86 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.09

Intersection Signal Delay: 100.5

Intersection LOS: F

Intersection Capacity Utilization: 118.4%

ICU Level of Service: H

Analysis Period (min): 15

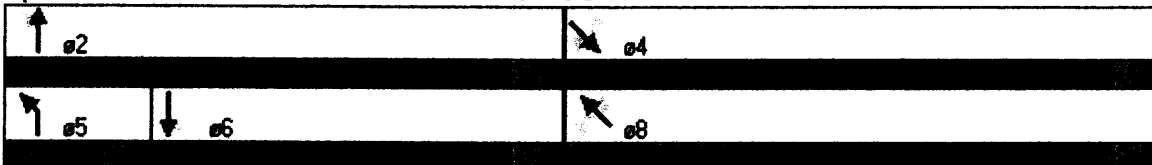
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave. & NYS ROUTE 52



Lanes, Volumes, Timings
19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↙	↕	↖	↗	↘	↙	↕	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.969			0.990			0.930			0.966	
Flt Protected	0.950			0.950			0.950				0.995	
Satd. Flow (prot)	1770	1805	0	1770	1844	0	1770	1732	0	0	1790	0
Flt Permitted	0.209			0.304			0.476				0.883	
Satd. Flow (perm)	389	1805	0	566	1844	0	887	1732	0	0	1589	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5			53			20	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1573			642			200			1333	
Travel Time (s)		35.8			14.6			4.5			30.3	
Volume (vph)	67	345	90	190	492	35	110	203	177	24	170	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	375	98	207	535	38	120	221	192	26	185	70
Lane Group Flow (vph)	73	473	0	207	573	0	120	413	0	0	281	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	2		1	2			3			3	
Permitted Phases	2			2			3			3		
Detector Phases	1	2		1	2		3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	13.0	42.0	0.0	13.0	42.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	14.4%	46.7%	0.0%	14.4%	46.7%	0.0%	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%
Maximum Green (s)	8.0	37.0		8.0	37.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		Min	Min		Min	Min	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	53.6	44.3		53.6	44.3		24.4	24.4			24.4	
Actuated g/C Ratio	0.60	0.49		0.60	0.49		0.27	0.27			0.27	
v/c Ratio	0.20	0.53		0.45	0.63		0.50	0.81			0.63	
Control Delay	9.1	19.4		11.2	22.4		25.1	26.2			28.8	
Queue Delay	0.0	0.1		0.1	0.0		1.4	10.9			0.0	
Total Delay	9.1	19.5		11.2	22.4		26.4	37.1			28.8	
LOS	A	B		B	C		C	D			C	

Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay		18.1			19.4			34.7			28.8	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	14	179		44	240		49	202			129	
Queue Length 95th (ft)	37	299		90	392		79	118			192	
Internal Link Dist (ft)		1493			562			120			1253	
Turn Bay Length (ft)	250			250								
Base Capacity (vph)	379	897		467	909		306	631			560	
Starvation Cap Reductn	0	0		0	0		75	190			0	
Spillback Cap Reductn	0	29		9	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.19	0.54		0.45	0.63		0.52	0.84			0.50	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2: NWSE, Start of Green, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 24.1
 Intersection LOS: C
 Intersection Capacity Utilization: 81.4%
 ICU Level of Service: D
 Analysis Period (min): 15

Splits and Phases: 19: NYS ROUTE 52 & POWDER MILL ROAD



Lanes, Volumes, Timings
22: Auto Zone Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↕		↗	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.986			
FIt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3490	0	1770	3539
FIt Permitted	0.950				0.071	
Satd. Flow (perm)	1770	1583	3490	0	132	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		35	26			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	304		724			436
Travel Time (s)	6.9		16.5			9.9
Volume (vph)	65	32	1575	160	14	1103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	35	1712	174	15	1199
Lane Group Flow (vph)	71	35	1886	0	15	1199
Turn Type		Perm			Perm	
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phases	8	8	2		6	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	21.0	21.0		21.0	21.0
Total Split (s)	25.0	25.0	85.0	0.0	85.0	85.0
Total Split (%)	22.7%	22.7%	77.3%	0.0%	77.3%	77.3%
Maximum Green (s)	20.0	20.0	80.0		80.0	80.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	5.0	5.0	5.0		5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.5	10.5	94.4		94.4	94.4
Actuated g/C Ratio	0.10	0.10	0.86		0.86	0.86
v/c Ratio	0.42	0.19	0.63		0.13	0.39
Control Delay	47.5	15.1	2.8		1.9	0.4
Queue Delay	0.0	0.0	0.0		0.0	0.1
Total Delay	47.5	15.1	2.8		1.9	0.5
LOS	D	B	A		A	A

Lanes, Volumes, Timings
 22: Auto Zone Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	WBT	WBR	NBT	NBR	SBL	SBT
Approach Delay	36.8		2.8			0.5
Approach LOS	D		A			A
Queue Length 50th (ft)	48	0	134		0	2
Queue Length 95th (ft)	91	30	100		m0	3
Internal Link Dist (ft)	224		644			356
Turn Bay Length (ft)					100	
Base Capacity (vph)	338	331	3000		113	3039
Starvation Cap Reductn	0	0	0		0	692
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.21	0.11	0.63		0.13	0.51

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 3.1

Intersection LOS: A

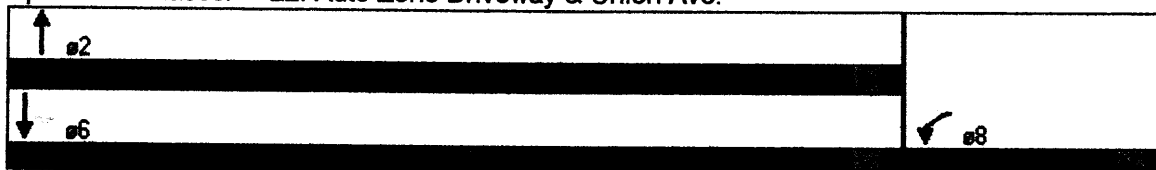
Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Auto Zone Driveway & Union Ave.



Lanes, Volumes, Timings
4: stop&shop newburgh cinema & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.991			0.989			0.979	
Flt Protected		0.956			0.966		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1783	0	1770	3500	0	1770	3465	0
Flt Permitted		0.708			0.784		0.235			0.235		
Satd. Flow (perm)	0	1319	1583	0	1447	0	438	3500	0	438	3465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46		3			22			52	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		178			319			567			979	
Travel Time (s)		4.0			7.3			12.9			22.3	
Volume (vph)	177	15	169	30	10	3	153	872	66	11	877	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	16	184	33	11	3	166	948	72	12	953	155
Lane Group Flow (vph)	0	208	184	0	47	0	166	1020	0	12	1108	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phases	4	4	4	8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		12.0	12.0		12.0		24.9	24.9		24.9	24.9	
Actuated g/C Ratio		0.29	0.29		0.29		0.59	0.59		0.59	0.59	
v/c Ratio		0.55	0.38		0.11		0.64	0.49		0.05	0.53	
Control Delay		13.9	9.1		9.1		30.9	8.3		7.6	9.1	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		13.9	9.1		9.1		30.9	8.3		7.6	9.1	
LOS		B	A		A		C	A		A	A	

Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

4: stop&shop newburgh cinema & Union Ave.

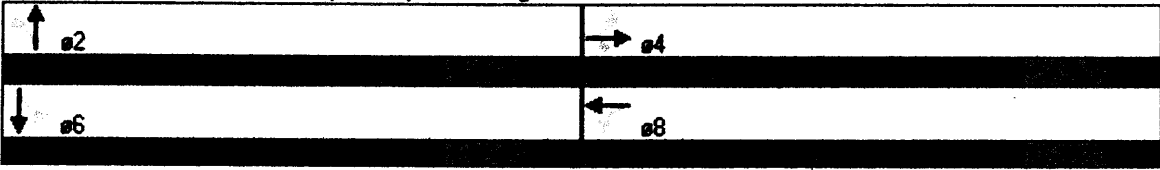


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		11.6			9.1			11.5			9.0	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		41	25		7		27	73		1	79	
Queue Length 95th (ft)		72	50		19		#125	150		9	#172	
Internal Link Dist (ft)		98			239			487			899	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		534	668		587		259	2082		259	2074	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.39	0.28		0.08		0.64	0.49		0.05	0.53	

Intersection Summary

Area Type: Other
 Cycle Length: 42
 Actuated Cycle Length: 42
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 10.5
 Intersection LOS: B
 Intersection Capacity Utilization: 62.5%
 ICU Level of Service: B
 Analysis Period (min): 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: stop&shop newburgh cinema & Union Ave.



Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.666			
Satd. Flow (perm)	1770	1583	1241	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		28				425
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	537			661	200	
Travel Time (s)	12.2			15.0	4.5	
Volume (vph)	398	26	26	144	131	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	433	28	28	157	142	425
Lane Group Flow (vph)	433	28	28	157	142	425
Turn Type		Free	Perm			Free
Protected Phases	4			2	6	
Permitted Phases		Free	2			Free
Detector Phases	4		2	2	6	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	35.0	0.0	55.0	55.0	55.0	0.0
Total Split (%)	38.9%	0.0%	61.1%	61.1%	61.1%	0.0%
Maximum Green (s)	30.0		50.0	50.0	50.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		Min	Min	Min	
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	68.9	90.0	13.1	13.1	13.1	90.0
Actuated g/C Ratio	0.77	1.00	0.15	0.15	0.15	1.00
v/c Ratio	0.32	0.02	0.15	0.58	0.52	0.27
Control Delay	4.5	0.0	31.9	35.4	35.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	0.0	31.9	35.4	35.0	0.4
LOS	A	A	C	D	D	A
Approach Delay	4.3			34.9	9.1	
Approach LOS	A			C	A	

Lanes, Volumes, Timings
 7: MEADOW AVENUE & SITE ACCESS

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Queue Length 50th (ft)	61	0	14	84	80	0
Queue Length 95th (ft)	122	0	37	137	135	0
Internal Link Dist (ft)	457			581	120	
Turn Bay Length (ft)						
Base Capacity (vph)	1354	1583	703	1056	1056	1583
Starvation Cap Reductn	0	0	0	0	127	0
Spillback Cap Reductn	118	0	0	149	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.02	0.04	0.17	0.15	0.27

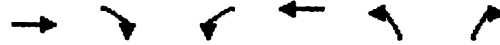
Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 59 (66%), Referenced to phase 4:SEL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 11.2
 Intersection LOS: B
 Intersection Capacity Utilization 44.9%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 7: MEADOW AVENUE & SITE ACCESS

e2	e4
e6	

Lanes, Volumes, Timings
8: MEADOW AVENUE &

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	837			537	401	
Travel Time (s)	19.0			12.2	9.1	
Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type	Other
Control Type	Unsignalized
Intersection Capacity Utilization	0.0%
ICU Level of Service	A
Analysis Period (min)	15

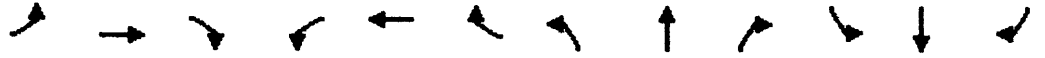
Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	160		0	300		0	160		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frnt		0.926			0.977			0.974			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1725	0	1770	1820	0	1770	3447	0	1770	3483	0
Flt Permitted	0.445			0.295			0.167			0.167		
Satd. Flow (perm)	829	1725	0	550	1820	0	311	3447	0	311	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			13			31			16	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		257			673			436			567	
Travel Time (s)		5.8			15.3			9.9			12.9	
Volume (vph)	114	235	228	275	270	48	262	976	206	50	938	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	255	248	299	293	52	285	1061	224	54	1020	126
Lane Group Flow (vph)	124	503	0	299	345	0	285	1285	0	54	1146	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		5	2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	13.0	37.0	0.0	9.0	33.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	14.4%	41.1%	0.0%	10.0%	36.7%	0.0%
Maximum Green (s)	39.0	39.0		39.0	39.0		8.0	32.0		4.0	28.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	40.0	40.0		40.0	40.0		34.8	34.8		29.0	29.0	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.39	0.39		0.32	0.32	
v/c Ratio	0.34	0.62		1.23	0.42		1.07	0.95		0.30	1.01	
Control Delay	19.6	20.5		159.0	18.4		92.7	29.4		25.8	60.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	3.6		0.0	0.0	
Total Delay	19.6	20.5		159.0	18.4		92.7	32.9		25.8	60.8	
LOS	B	C		F	B		F	C		C	E	

Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

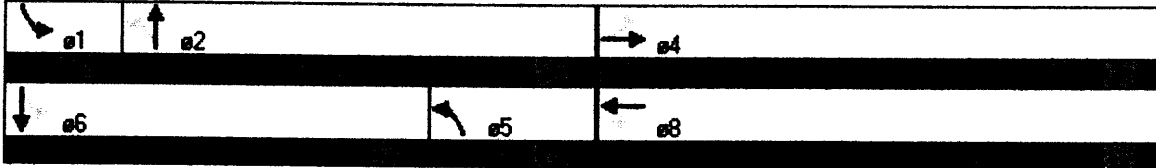


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		20.3			83.7			43.8			59.2	
Approach LOS		C			F			D			E	
Queue Length 50th (ft)	45	183		~211	125		~118	~251		21	~344	
Queue Length 95th (ft)	89	289		#369	196		m#245	#517		48	#491	
Internal Link Dist (ft)		177			593			356			487	
Turn Bay Length (ft)	140			160			300			160		
Base Capacity (vph)	368	806		244	816		266	1352		181	1133	
Starvation Cap Reductn	0	0		0	0		0	40		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.34	0.62		1.23	0.42		1.07	0.98		0.30	1.01	

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 20 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 51.1
 Intersection LOS: D
 Intersection Capacity Utilization: 101.7%
 ICU Level of Service: G
 Analysis Period (min): 15

- Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Meadow Ave. & Union Ave.



Lanes, Volumes, Timings

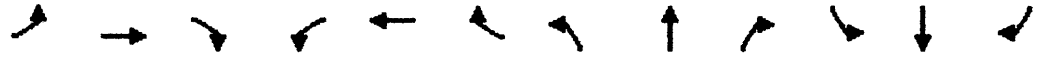
WEEKEND PEAK SAT HIGHWAY HOUR

11: Newburgh Mall (South) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖↗	↑	↖	↖	↖↗	↖	↖	↖↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	350		250	150		0
Storage Lanes	0		1	2		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1863	1583	3433	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted				0.711			0.100			0.187		
Satd. Flow (perm)	0	1863	1583	2569	1863	1583	186	3539	1583	348	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			375			69			695			43
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		261			177			371			430	
Travel Time (s)		5.9			4.0			8.4			9.8	
Volume (vph)	0	65	345	535	65	91	487	1311	639	91	1226	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	375	582	71	99	529	1425	695	99	1333	43
Lane Group Flow (vph)	0	71	375	582	71	99	529	1425	695	99	1333	43
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	26.0	66.0	66.0	40.0	40.0	40.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	28.9%	73.3%	73.3%	44.4%	44.4%	44.4%
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	21.0	61.0	61.0	35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		20.0	20.0	20.0	20.0	20.0	62.0	62.0	62.0	36.0	36.0	36.0
Actuated g/C Ratio		0.22	0.22	0.22	0.22	0.22	0.69	0.69	0.69	0.40	0.40	0.40
v/c Ratio		0.17	0.58	1.02	0.17	0.24	1.03	0.58	0.53	0.71	0.94	0.07
Control Delay		29.7	7.4	79.0	29.7	13.3	73.2	8.5	2.0	41.8	30.0	3.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0
Total Delay		29.7	7.4	79.0	29.7	13.3	73.2	8.5	2.0	41.8	35.1	3.6
LOS		C	A	E	C	B	E	A	A	D	D	A
Approach Delay		11.0			65.7			19.7			34.7	
Approach LOS		B			E			B			C	
Queue Length 50th (ft)		33	0	~176	33	14	~273	192	0	37	273	2
Queue Length 95th (ft)		69	71	#286	69	55	#471	244	31	m#88	#509	m3
Internal Link Dist (ft)		181			97			291			350	
Turn Bay Length (ft)							350		250	150		

Lanes, Volumes, Timings
 11: Newburgh Mall (South) Driveway & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR



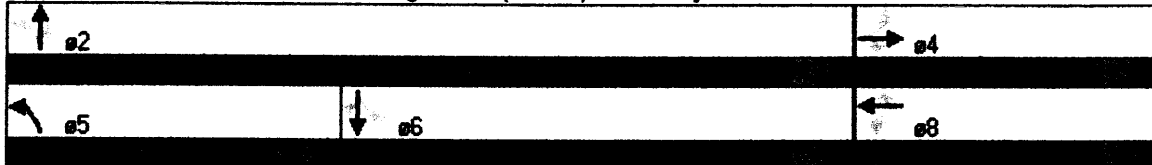
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		414	643	571	414	405	515	2438	1307	139	1416	659
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	62	0
Spillback Cap Reductn		0	0	0	0	0	0	9	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.17	0.58	1.02	0.17	0.24	1.03	0.59	0.63	0.71	0.98	0.07

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 30 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Pretimed
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 29.6 Intersection LOS: C
 Intersection Capacity Utilization: 96.1% ICU Level of Service: F
 Analysis Period (min): 15

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Newburgh Mall (South) Driveway & Union Ave.



Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

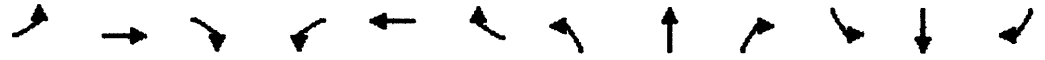
13: Newburgh Mall (North) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		100	200		0	180		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Fit			0.850		0.899			0.998			0.982	
Flt Protected		0.953			0.990		0.950			0.950		
Satd. Flow (prot)	0	1775	1583	0	1658	0	1770	3532	0	1770	3476	0
Flt Permitted		0.715			0.944		0.099			0.117		
Satd. Flow (perm)	0	1332	1583	0	1581	0	184	3532	0	218	3476	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			63		15			2			33	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		173			202			430			724	
Travel Time (s)		3.9			4.6			9.8			16.5	
Volume (vph)	270	4	109	4	1	14	67	1320	16	19	1244	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	4	118	4	1	15	73	1435	17	21	1352	188
Lane Group Flow (vph)	0	297	118	0	20	0	73	1452	0	21	1540	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	0.0	61.0	61.0	0.0	61.0	61.0	0.0
Total Split (%)	32.2%	32.2%	32.2%	32.2%	32.2%	0.0%	67.8%	67.8%	0.0%	67.8%	67.8%	0.0%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0		56.0	56.0		56.0	56.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		25.0	25.0		25.0		57.0	57.0		57.0	57.0	
Actuated g/C Ratio		0.28	0.28		0.28		0.63	0.63		0.63	0.63	
v/c Ratio		0.80	0.24		0.04		0.62	0.65		0.15	0.70	
Control Delay		48.6	14.3		13.8		29.6	5.5		3.9	4.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.1	
Total Delay		48.6	14.3		13.8		29.6	5.5		3.9	4.5	
LOS		D	B		B		C	A		A	A	
Approach Delay		38.8			13.8			6.7			4.5	
Approach LOS		D			B			A			A	
Queue Length 50th (ft)		157	23		2		7	70		1	44	
Queue Length 95th (ft)		#290	65		19		m#81	87		m3	53	
Internal Link Dist (ft)		93			122			350			644	
Turn Bay Length (ft)							200			180		

Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

13: Newburgh Mall (North) Driveway & Union Ave.

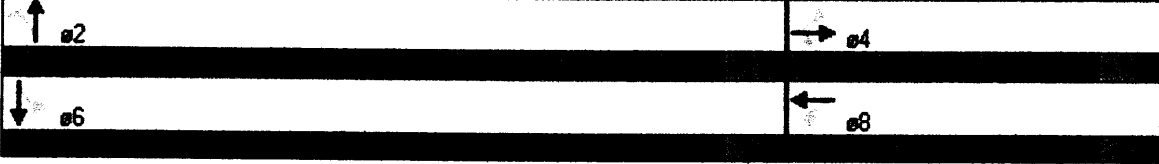


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		370	485		450		117	2238		138	2214	
Starvation Cap Reductn		0	0		0		0	42		0	0	
Spillback Cap Reductn		0	1		0		0	0		0	84	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.80	0.24		0.04		0.62	0.66		0.15	0.72	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Pretimed
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 9.5
 Intersection LOS: A
 Intersection Capacity Utilization: 77.6%
 ICU Level of Service: D
 Analysis Period (min): 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m. Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Newburgh Mall (North) Driveway & Union Ave.



Lanes, Volumes, Timings
18: Union Ave. & ROUTE 52

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.986				0.850			0.850
Flt Protected	0.950			0.950				0.990			0.991	
Satd. Flow (prot)	1770	1831	0	1770	1837	0	0	1844	1583	0	1846	1583
Flt Permitted	0.093			0.148				0.629			0.664	
Satd. Flow (perm)	173	1831	0	276	1837	0	0	1172	1583	0	1237	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			8				245			93
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		979			567			646			681	
Travel Time (s)		22.3			12.9			14.7			15.5	
Volume (vph)	283	637	80	141	681	73	69	259	225	59	264	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	692	87	153	740	79	75	282	245	64	287	113
Lane Group Flow (vph)	308	779	0	153	819	0	0	357	245	0	351	113
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4		4	8		8
Detector Phases	5	2		6	6		4	4	4	8	8	8
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0		21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	15.0	58.0	0.0	43.0	43.0	0.0	32.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	16.7%	64.4%	0.0%	47.8%	47.8%	0.0%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%
Maximum Green (s)	10.0	53.0		38.0	38.0		27.0	27.0	27.0	27.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		C-Min	C-Min		None	None	None	None	None	None
Walk Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0		0	0	0	0	0	0
Act Effct Green (s)	54.0	54.0		39.0	39.0			28.0	28.0		28.0	28.0
Actuated g/C Ratio	0.60	0.60		0.43	0.43			0.31	0.31		0.31	0.31
v/c Ratio	1.03	0.71		1.27	1.02			0.98	0.37		0.91	0.20
Control Delay	94.0	16.7		201.3	64.5			75.1	5.0		61.3	15.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	94.0	16.7		201.3	64.5			75.1	5.0		61.3	15.2
LOS	F	B		F	E			E	A		E	B

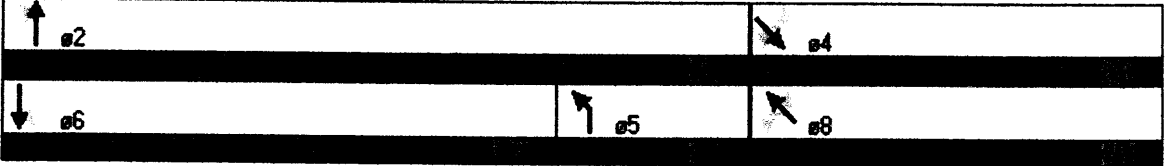
Lanes, Volumes, Timings
18: Union Ave. & ROUTE 52

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SEB	NWL	NWT	NWR
Approach Delay		38.6			86.1			46.6			50.1	
Approach LOS		D			F			D			D	
Queue Length 50th (ft)	~138	277		~111	~478			200	0		146	9
Queue Length 95th (ft)	#302	416		#232	#726			#378	52		#374	83
Internal Link Dist (ft)		899			487			566			601	
Turn Bay Length (ft)				250								100
Base Capacity (vph)	299	1104		120	801			365	661		385	657
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/o Ratio	1.03	0.71		1.27	1.02			0.98	0.37		0.91	0.20

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 54 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum V/O Ratio: 1.27
 Intersection Signal Delay: 56.6 Intersection LOS: E
 Intersection Capacity Utilization 106.6% ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave. & ROUTE 52



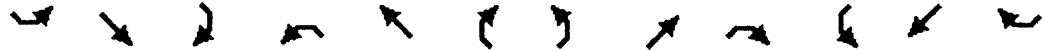
Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↙	↕	↖	↗	↘	↙	↕	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		250	250		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.986				0.850		0.972	
Flt Protected	0.950			0.950			0.950				0.996	
Satd. Flow (prot)	1770	1863	1583	1770	1837	0	1770	1863	1583	0	1803	0
Flt Permitted	0.323			0.379			0.455				0.964	
Satd. Flow (perm)	602	1863	1583	706	1837	0	848	1863	1583	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134		7				199		18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1573			642			200			1333	
Travel Time (s)		35.8			14.6			4.5			30.3	
Volume (vph)	77	344	123	181	354	37	131	239	183	25	230	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	374	134	197	385	40	142	260	199	27	250	73
Lane Group Flow (vph)	84	374	134	197	425	0	142	260	199	0	350	0
Turn Type	pm+pt		Perm	pm+pt			Perm		Perm	Perm		
Protected Phases	1	2		1	2			3				3
Permitted Phases	2		2	2			3		3	3		
Detector Phases	1	2	2	1	2		3	3	3	3	3	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0	21.0	9.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	10.0	39.0	39.0	10.0	39.0	0.0	41.0	41.0	41.0	41.0	41.0	0.0
Total Split (%)	11.1%	43.3%	43.3%	11.1%	43.3%	0.0%	45.6%	45.6%	45.6%	45.6%	45.6%	0.0%
Maximum Green (s)	5.0	34.0	34.0	5.0	34.0		36.0	36.0	36.0	36.0	36.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		Min	Min	Min	Min	Min	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	
Act Effct Green (s)	55.9	46.4	46.4	55.9	46.4		22.1	22.1	22.1		22.1	
Actuated g/C Ratio	0.62	0.52	0.52	0.62	0.52		0.25	0.25	0.25		0.25	
v/c Ratio	0.17	0.39	0.15	0.36	0.45		0.68	0.57	0.37		0.79	
Control Delay	6.3	12.8	1.9	9.2	17.5		31.1	27.8	5.2		31.2	
Queue Delay	0.0	0.0	0.0	0.1	0.0		0.5	0.7	0.3		0.0	
Total Delay	6.3	12.8	1.9	9.3	17.5		31.6	28.6	5.5		31.2	
LOS	A	B	A	A	B		C	C	A		C	

Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay		9.4			14.9			21.6			31.2	
Approach LOS		A			B			C			C	
Queue Length 50th (ft)	11	79	0	35	139		79	141	6		181	
Queue Length 95th (ft)	m15	m176	m9	93	281		126	192	30		229	
Internal Link Dist (ft)		1493			562			120			1253	
Turn Bay Length (ft)	250		250	250								
Base Capacity (vph)	497	961	881	551	951		349	766	768		728	
Starvation Cap Reductn	0	0	0	0	0		47	256	224		0	
Spillback Cap Reductn	0	0	23	29	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.17	0.39	0.16	0.38	0.45		0.47	0.51	0.37		0.48	

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2: NWSE, Start of Green, Master Intersection
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 17.9
 Intersection LOS: B
 Intersection Capacity Utilization: 74.3%
 ICU Level of Service: D
 Analysis Period (min): 15
 m: Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: NYS ROUTE 52 & POWDER MILL ROAD



Lanes, Volumes, Timings
22: Auto Zone Driveway & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↓		↗	↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.985			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3486	0	1770	3539
Flt Permitted	0.950				0.074	
Satd. Flow (perm)	1770	1583	3486	0	138	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		102	22			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	304		724			436
Travel Time (s)	6.9		16.5			9.9
Volume (vph)	92	94	1439	164	96	1344
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	102	1564	178	104	1461
Lane Group Flow (vph)	100	102	1742	0	104	1461
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phases	8	8	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	21.0	21.0		9.0	21.0
Total Split (s)	22.0	22.0	54.0	0.0	14.0	68.0
Total Split (%)	24.4%	24.4%	60.0%	0.0%	15.6%	75.6%
Maximum Green (s)	17.0	17.0	49.0		9.0	63.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)	5.0	5.0	5.0			5.0
Flash Dont Walk (s)	11.0	11.0	11.0			11.0
Pedestrian Calls (#/hr)	0	0	0			0
Act Effct Green (s)	11.2	11.2	59.6		71.7	70.8
Actuated g/C Ratio	0.12	0.12	0.66		0.80	0.79
v/c Ratio	0.45	0.36	0.75		0.37	0.52
Control Delay	37.8	9.1	11.0		12.2	2.0
Queue Delay	0.0	0.0	0.4		0.0	0.4
Total Delay	37.8	9.1	11.4		12.2	2.4
LOS	D	A	B		B	A

Lanes, Volumes, Timings
 22: Auto Zone Driveway & Union Ave.

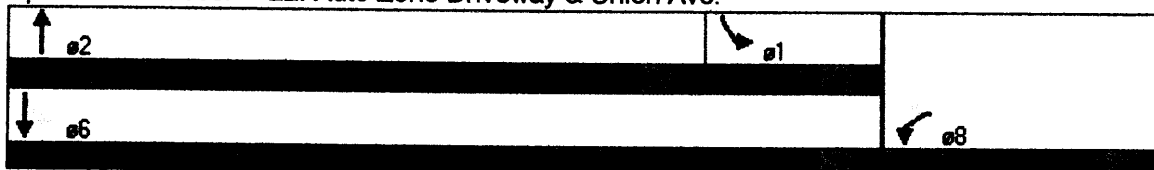
WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	23.3		11.4			3.0
Approach LOS	C		B			A
Queue Length 50th (ft)	54	0	211		12	74
Queue Length 95th (ft)	98	43	318		m14	m82
Internal Link Dist (ft)	224		644			356
Turn Bay Length (ft)					100	
Base Capacity (vph)	354	398	2317		292	2784
Starvation Cap Reductn	0	0	0		0	700
Spillback Cap Reductn	0	5	187		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.28	0.26	0.82		0.36	0.70

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 8.3
 Intersection LOS: A
 Intersection Capacity Utilization: 67.4%
 ICU Level of Service: C
 Analysis Period (min): 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Auto Zone Driveway & Union Ave.



SYNCRO FILES

**ROUTE 300 CORRIDOR
SENSITIVITY ANALYSIS**

Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

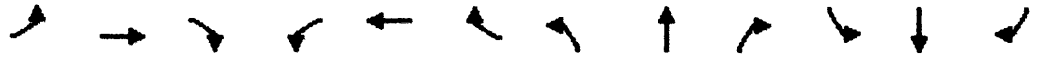
1: stop & shop/newburgh cinema & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.939			0.998			0.983	
Flt Protected		0.956			0.979		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1712	0	1770	3532	0	1770	3479	0
Flt Permitted		0.713			0.874		0.235			0.235		
Satd. Flow (perm)	0	1328	1583	0	1529	0	438	3532	0	438	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75		18			4			39	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		209			346			586			959	
Travel Time (s)		4.8			7.9			13.3			21.8	
Volume (vph)	173	14	104	16	5	17	153	1029	14	2	749	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	188	15	113	17	5	18	166	1118	15	2	814	102
Lane Group Flow (vph)	0	203	113	0	40	0	166	1133	0	2	916	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phases	4	4	4	8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		11.9	11.9		11.9		25.0	25.0		25.0	25.0	
Actuated g/C Ratio		0.28	0.28		0.28		0.60	0.60		0.60	0.60	
v/c Ratio		0.54	0.22		0.09		0.64	0.54		0.01	0.44	
Control Delay		13.8	5.2		6.7		30.5	9.6		7.0	7.6	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		13.8	5.2		6.7		30.5	9.6		7.0	7.6	
LOS		B	A		A		C	A		A	A	

Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

1: stop & shop/newburgh cinema & Union Ave.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		10.7			6.7			12.2			7.6	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		40	6		4		26	85		0	60	
Queue Length 95th (ft)		70	26		15		#125	#190		3	127	
Internal Link Dist (ft)		129			266			506			879	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		538	685		630		261	2104		261	2087	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.38	0.16		0.06		0.64	0.54		0.01	0.44	

Timing Diagram

Area Type: Other

Cycle Length: 42

Actuated Cycle Length: 42

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 10.3

Intersection LOS: B

Intersection Capacity Utilization 63.2%

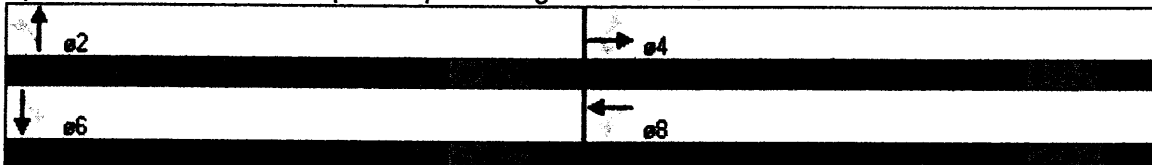
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.













Queue shown is maximum after two cycles.

Splits and Phases: 1: stop & shop/newburgh cinema & Union Ave.



Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKDAY PEAK PM HIGHWAY HOUR

						
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.675			
Satd. Flow (perm)	1770	1583	1257	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		24				377
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	537			661	200	
Travel Time (s)	12.2			15.0	4.5	
Volume (vph)	374	22	22	120	109	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	407	24	24	130	118	377
Lane Group Flow (vph)	407	24	24	130	118	377
Turn Type		Free	Perm			Free
Protected Phases	4			2	6	
Permitted Phases		Free	2			Free
Detector Phases	4		2	2	6	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	57.0	0.0	33.0	33.0	33.0	0.0
Total Split (%)	63.3%	0.0%	36.7%	36.7%	36.7%	0.0%
Maximum Green (s)	52.0		28.0	28.0	28.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		Min	Min	Min	
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	70.0	90.0	12.0	12.0	12.0	90.0
Actuated g/C Ratio	0.78	1.00	0.13	0.13	0.13	1.00
v/c Ratio	0.30	0.02	0.14	0.52	0.48	0.24
Control Delay	3.9	0.0	33.3	36.5	38.2	0.3
Queue Delay	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay	3.9	0.0	33.3	36.7	38.3	0.3
LOS	A	A	C	D	D	A
Approach Delay	3.7			36.1	9.4	
Approach LOS	A			D	A	

Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Queue Length 50th (ft)	51	0	12	70	67	0
Queue Length 95th (ft)	102	0	34	120	115	0
Internal Link Dist (ft)	457			581	120	
Turn Bay Length (ft)						
Base Capacity (vph)	1377	1583	405	600	600	1583
Starvation Cap Reductn	0	0	0	0	102	0
Spillback Cap Reductn	44	0	0	102	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.02	0.06	0.26	0.24	0.24

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 59 (66%), Referenced to phase 4:SEL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization: 37.9%
 Analysis Period (min): 15
 Intersection LOS: B
 ICU Level of Service: A

Splits and Phases: 7: MEADOW AVENUE & SITE ACCESS

e2	e4
e6	

Lanes, Volumes, Timings
8: MEADOW AVENUE &

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	T		T		T	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30		30	
Link Distance (ft)	1256		537		401	
Travel Time (s)	28.5		12.2		9.1	
Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free		Free		Stop	

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 0.0% ICU Level of Service A
 Analysis Period (min) 15

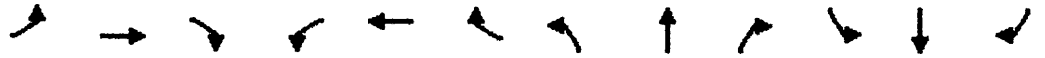
Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	160		0	300		0	160		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.919			0.986			0.980			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1712	0	1770	1837	0	1770	3468	0	1770	3486	0
Flt Permitted	0.455			0.309			0.137			0.108		
Satd. Flow (perm)	848	1712	0	576	1837	0	255	3468	0	201	3486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			5			26			11	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		257			254			436			586	
Travel Time (s)		5.8			5.8			9.9			13.3	
Volume (vph)	104	168	198	148	231	24	321	1103	167	32	764	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	183	215	161	251	26	349	1199	182	35	830	91
Lane Group Flow (vph)	113	398	0	161	277	0	349	1381	0	35	921	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		5	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	26.0	67.0	0.0	41.0	41.0	0.0
Total Split (%)	39.1%	39.1%	0.0%	39.1%	39.1%	0.0%	23.6%	60.9%	0.0%	37.3%	37.3%	0.0%
Maximum Green (s)	38.0	38.0		38.0	38.0		21.0	62.0		36.0	36.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag							Lag			Lead	Lead	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	34.0	34.0		34.0	34.0		68.0	68.0		40.4	40.4	
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.62	0.62		0.37	0.37	
v/c Ratio	0.43	0.70		0.90	0.49		0.72	0.64		0.47	0.72	
Control Delay	32.6	31.7		62.3	31.3		28.0	7.8		53.9	34.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.6		0.0	0.0	
Total Delay	32.6	31.7		62.3	31.3		28.0	8.3		53.9	34.0	
LOS	C	C		E	C		C	A		D	C	

Lanes, Volumes, Timings
 10: Meadow Ave. & Union Ave.

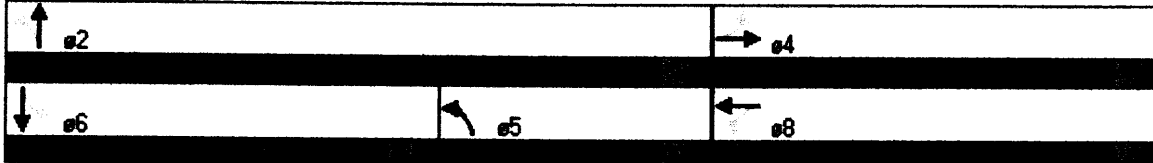
WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		31.9			42.7			12.3			34.7	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	59	195		101	144		164	151		20	308	
Queue Length 95th (ft)	112	301		#221	221		#286	156		#71	382	
Internal Link Dist (ft)		177			174			356			506	
Turn Bay Length (ft)	140			160			300			160		
Base Capacity (vph)	301	647		204	656		490	2167		74	1295	
Starvation Cap Reductn	0	0		0	0		0	375		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.38	0.62		0.79	0.42		0.71	0.77		0.47	0.71	

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 24 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 24.6
 Intersection LOS: C
 Intersection Capacity Utilization 86.7%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Meadow Ave. & Union Ave.



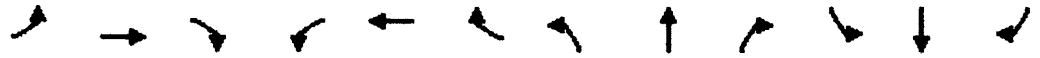
Lanes, Volumes, Timings
11: Newburgh Mall (South) Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	350		250	150		0
Storage Lanes	0		1	2		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1863	1583	3433	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted				0.718			0.083			0.148		
Satd. Flow (perm)	0	1863	1583	2595	1863	1583	155	3539	1583	276	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			272			42			585			23
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		261			177			371			430	
Travel Time (s)		5.9			4.0			8.4			9.8	
Volume (vph)	0	55	250	448	55	77	366	1522	538	77	1043	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	60	272	487	60	84	398	1654	585	84	1134	23
Lane Group Flow (vph)	0	60	272	487	60	84	398	1654	585	84	1134	23
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	31.0	79.0	79.0	48.0	48.0	48.0
Total Split (%)	28.2%	28.2%	28.2%	28.2%	28.2%	28.2%	28.2%	71.8%	71.8%	43.6%	43.6%	43.6%
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0	26.0	26.0	74.0	74.0	43.0	43.0	43.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		27.0	27.0	27.0	27.0	27.0	75.0	75.0	75.0	44.0	44.0	44.0
Actuated g/C Ratio		0.25	0.25	0.25	0.25	0.25	0.68	0.68	0.68	0.40	0.40	0.40
v/c Ratio		0.13	0.46	0.76	0.13	0.20	0.79	0.69	0.46	0.76	0.80	0.04
Control Delay		33.4	6.8	47.6	33.4	19.5	39.8	12.3	1.8	52.8	19.1	3.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Total Delay		33.4	6.8	47.6	33.4	19.5	39.8	12.3	1.8	52.8	19.8	3.7
LOS		C	A	D	C	B	D	B	A	D	B	A
Approach Delay		11.6			42.5			14.1			21.8	
Approach LOS		B			D			B			C	
Queue Length 50th (ft)		33	0	164	33	23	208	328	0	29	206	3
Queue Length 95th (ft)		69	64	227	69	64	#355	403	33 m#128	310	m8	
Internal Link Dist (ft)		181			97			291			350	
Turn Bay Length (ft)							350		250	150		

Lanes, Volumes, Timings
 11: Newburgh Mall (South) Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		457	594	637	457	420	502	2413	1265	110	1416	647
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	85	0
Spillback Cap Reductn		0	0	0	0	0	0	10	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.13	0.46	0.76	0.13	0.20	0.79	0.69	0.46	0.76	0.85	0.04

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 40 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Pretimed
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 19.6 Intersection LOS: B
 Intersection Capacity Utilization 81.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Newburgh Mall (South) Driveway & Union Ave.



Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

13: Newburgh Mall (North) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	0		0	200		0	180		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.892						0.987	
Flt Protected		0.954			0.990		0.950			0.950		
Satd. Flow (prot)	0	1777	1583	0	1645	0	1770	3539	0	1770	3493	0
Flt Permitted		0.716			0.955		0.154			0.065		
Satd. Flow (perm)	0	1334	1583	0	1587	0	287	3539	0	121	3493	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		20						18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		173			202			430			724	
Travel Time (s)		3.9			4.6			9.8			16.5	
Volume (vph)	170	6	78	5	0	18	40	1556	2	16	1057	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	7	85	5	0	20	43	1691	2	17	1149	113
Lane Group Flow (vph)	0	192	85	0	25	0	43	1693	0	17	1262	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	0.0	72.0	72.0	0.0	72.0	72.0	0.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	33.0	33.0	33.0	33.0	33.0		67.0	67.0		67.0	67.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		34.0	34.0		34.0		68.0	68.0		68.0	68.0	
Actuated g/C Ratio		0.31	0.31		0.31		0.62	0.62		0.62	0.62	
v/c Ratio		0.47	0.16		0.05		0.24	0.77		0.23	0.58	
Control Delay		35.2	6.8		13.3		8.6	8.8		14.1	7.5	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay		35.2	6.8		13.3		8.6	8.8		14.1	7.5	
LOS		D	A		B		A	A		B	A	
Approach Delay		26.5			13.3			8.8			7.6	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		109	0		2		6	127		2	71	
Queue Length 95th (ft)		180	36		23		m10	146		m10	146	
Internal Link Dist (ft)		93			122			350			644	
Turn Bay Length (ft)			100				200			180		

Lanes, Volumes, Timings

WEEKDAY PEAK PM HIGHWAY HOUR

13: Newburgh Mall (North) Driveway & Union Ave.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		412	548		504		177	2188		75	2166	
Starvation Cap Reductn		0	0		0		0	28		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	29	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.47	0.16		0.05		0.24	0.78		0.23	0.59	

Area Type: Other

Cycle Length: 110

Adjusted Cycle Length: 110

Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 9.8

Intersection LOS: A

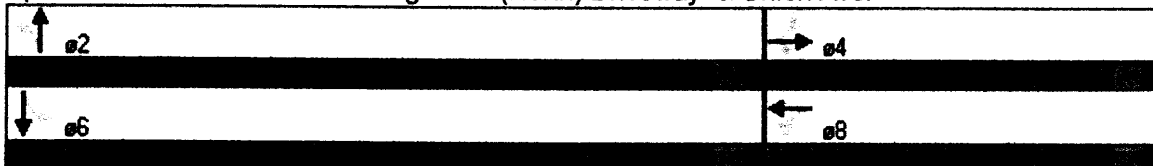
Intersection Capacity Utilization: 68.8%

ICU Level of Service: C

Analysis Period (min): 15




















m: Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Newburgh Mall (North) Driveway & Union Ave.



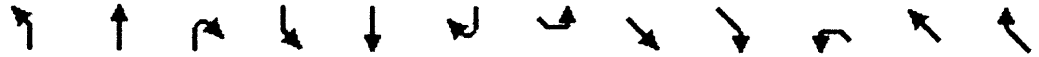
Lanes, Volumes, Timings
18: Union Ave. & NYS ROUTE 52

WEEKDAY PEAK PM HIGHWAY HOUR

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.969				0.850			0.850
Flt Protected	0.950			0.950				0.989			0.992	
Satd. Flow (prot)	1770	1822	0	1770	1805	0	0	1842	1583	0	1848	1583
Flt Permitted	0.103			0.114				0.571			0.693	
Satd. Flow (perm)	192	1822	0	212	1805	0	0	1064	1583	0	1291	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			13				293			81
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30				30			30
Link Distance (ft)		959			567				646			681
Travel Time (s)		21.8			12.9				14.7			15.5
Volume (vph)	301	705	120	135	543	142	93	340	270	83	412	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	327	766	130	147	590	154	101	370	293	90	448	138
Lane Group Flow (vph)	327	896	0	147	744	0	0	471	293	0	538	138
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4		4	8		8
Detector Phases	5	2		6	6		4	4	4	8	8	8
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0		21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	14.0	53.0	0.0	39.0	39.0	0.0	57.0	57.0	57.0	57.0	57.0	57.0
Total Split (%)	12.7%	48.2%	0.0%	35.5%	35.5%	0.0%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%
Maximum Green (s)	9.0	48.0		34.0	34.0		52.0	52.0	52.0	52.0	52.0	52.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		C-Min	C-Min		None	None	None	None	None	None
Walk Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0		0	0	0	0	0	0
Act Effct Green (s)	51.3	51.3		35.0	35.0			50.7	50.7		50.7	50.7
Actuated g/C Ratio	0.47	0.47		0.32	0.32			0.46	0.46		0.46	0.46
v/c Ratio	1.23	1.05		2.19	1.28			0.96	0.33		0.90	0.18
Control Delay	160.8	74.7		605.5	169.9			53.2	2.9		42.8	7.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	160.8	74.7		605.5	169.9			53.2	2.9		42.8	7.7
LOS	F	E		F	F			D	A		D	A

Lanes, Volumes, Timings
 18: Union Ave. & NYS ROUTE 52

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SFT	SFR	NWL	NWT	NWR
Approach Delay		97.7			241.8			33.9			35.7	
Approach LOS		F			F			C			D	
Queue Length 50th (ft)	~264	~716		~167	~664			299	0		327	21
Queue Length 95th (ft)	#444	#962		#255	#900			#518	44		#544	56
Internal Link Dist (ft)		879			487			566			601	
Turn Bay Length (ft)				250								100
Base Capacity (vph)	265	854		67	583			513	915		622	805
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	1.23	1.05		2.19	1.28			0.92	0.32		0.86	0.17

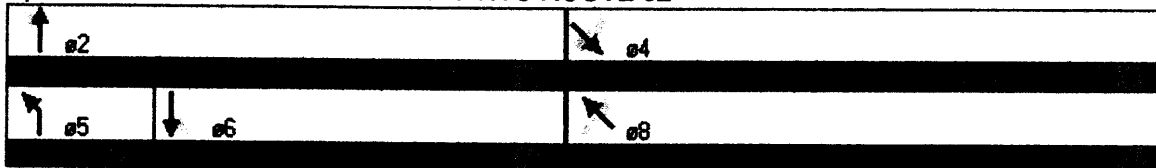
Signal

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 86 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.19
 Intersection Signal Delay: 108.3
 Intersection LOS: F
 Intersection Capacity Utilization: 119.2%
 ICU Level of Service: H
 Analysis Period (min): 15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave. & NYS ROUTE 52



Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKDAY PEAK PM HIGHWAY HOUR

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.990			0.931			0.967	
Flt Protected	0.950			0.950			0.950				0.995	
Satd. Flow (prot)	1770	1801	0	1770	1844	0	1770	1734	0	0	1792	0
Flt Permitted	0.208			0.292			0.474				0.877	
Satd. Flow (perm)	387	1801	0	544	1844	0	883	1734	0	0	1580	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			53			20	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1573			642			200			1333	
Travel Time (s)		35.8			14.6			4.5			30.3	
Volume (vph)	67	347	99	191	493	35	120	206	178	24	172	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	377	108	208	536	38	130	224	193	26	187	70
Lane Group Flow (vph)	73	485	0	208	574	0	130	417	0	0	283	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	2		1	2			3			3	
Permitted Phases	2			2			3			3		
Detector Phases	1	2		1	2		3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	13.0	42.0	0.0	13.0	42.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	14.4%	46.7%	0.0%	14.4%	46.7%	0.0%	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%
Maximum Green (s)	8.0	37.0		8.0	37.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		Min	Min		Min	Min	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	53.3	44.1		53.3	44.1		24.7	24.7			24.7	
Actuated g/C Ratio	0.59	0.49		0.59	0.49		0.27	0.27			0.27	
v/c Ratio	0.20	0.54		0.46	0.63		0.54	0.81			0.63	
Control Delay	9.2	19.8		11.5	22.6		25.6	25.8			28.8	
Queue Delay	0.0	0.1		0.1	0.0		1.6	13.0			0.0	
Total Delay	9.2	19.9		11.6	22.6		27.2	38.8			28.8	
LOS	A	B		B	C		C	D			C	

Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	SEI	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay		18.5			19.7			36.0			28.8	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	15	186		45	243		53	205			129	
Queue Length 95th (ft)	37	308		90	393		86	115			194	
Internal Link Dist (ft)		1493			562			120			1253	
Turn Bay Length (ft)	250			250								
Base Capacity (vph)	377	892		454	906		304	632			557	
Starvation Cap Reductn	0	0		0	0		73	194			0	
Spillback Cap Reductn	0	47		14	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.19	0.57		0.47	0.63		0.56	0.95			0.51	

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2: NWSE, Start of Green, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 24.7
 Intersection LOS: C
 Intersection Capacity Utilization: 85.4%
 ICU Level of Service: E
 Analysis Period (min): 15

Splits and Phases: 19: NYS ROUTE 52 & POWDER MILL ROAD



Lanes, Volumes, Timings
 22: Auto Zone Driveway & Union Ave.

WEEKDAY PEAK PM HIGHWAY HOUR

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↗		↘	↓↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frnt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3490	0	1770	3539
Flt Permitted	0.950				0.070	
Satd. Flow (perm)	1770	1583	3490	0	130	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		35	26			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30		30	
Link Distance (ft)	304		724		436	
Travel Time (s)	6.9		16.5		9.9	
Volume (vph)	65	32	1584	160	14	1112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	35	1722	174	15	1209
Lane Group Flow (vph)	71	35	1896	0	15	1209
Turn Type		Perm			Perm	
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phases	8	8	2		6	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	21.0	21.0		21.0	21.0
Total Split (s)	25.0	25.0	85.0	0.0	85.0	85.0
Total Split (%)	22.7%	22.7%	77.3%	0.0%	77.3%	77.3%
Maximum Green (s)	20.0	20.0	80.0		80.0	80.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	5.0	5.0	5.0		5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.5	10.5	94.4		94.4	94.4
Actuated g/C Ratio	0.10	0.10	0.86		0.86	0.86
v/c Ratio	0.42	0.19	0.63		0.13	0.40
Control Delay	47.5	15.1	2.8		1.9	0.4
Queue Delay	0.0	0.0	0.0		0.0	0.1
Total Delay	47.5	15.1	2.8		1.9	0.5
LOS	D	B	A		A	A

Lanes, Volumes, Timings
 22: Auto Zone Driveway & Union Ave.

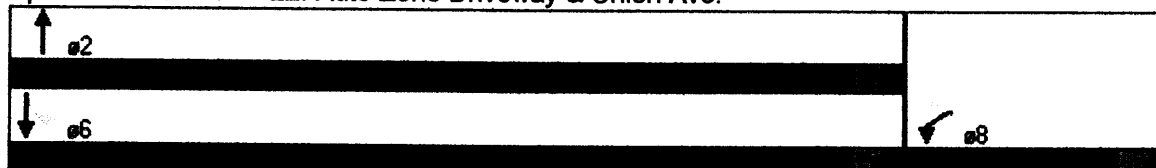
WEEKDAY PEAK PM HIGHWAY HOUR



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	36.8		2.8			0.5
Approach LOS	D		A			A
Queue Length 50th (ft)	48	0	132		0	2
Queue Length 95th (ft)	91	30	98		m0	3
Internal Link Dist (ft)	224		644			356
Turn Bay Length (ft)					100	
Base Capacity (vph)	338	331	3000		112	3039
Starvation Cap Reductn	0	0	0		0	708
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.21	0.11	0.63		0.13	0.52

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 3.1
 Intersection LOS: A
 Intersection Capacity Utilization 60.9%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Auto Zone Driveway & Union Ave.



Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

1: stop & shop/newburgh cinema & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.991			0.990			0.979	
Flt Protected		0.956			0.966		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1783	0	1770	3504	0	1770	3465	0
Flt Permitted		0.708			0.784		0.235			0.235		
Satd. Flow (perm)	0	1319	1583	0	1447	0	438	3504	0	438	3465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			44		3			22			51	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		140			335			576			969	
Travel Time (s)		3.2			7.6			13.1			22.0	
Volume (vph)	177	15	169	30	10	3	153	882	66	11	887	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	16	184	33	11	3	166	959	72	12	964	155
Lane Group Flow (vph)	0	208	184	0	47	0	166	1031	0	12	1119	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phases	4	4	4	8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		12.0	12.0		12.0		24.9	24.9		24.9	24.9	
Actuated g/C Ratio		0.29	0.29		0.29		0.59	0.59		0.59	0.59	
v/c Ratio		0.55	0.38		0.11		0.64	0.49		0.05	0.54	
Control Delay		13.9	9.2		9.1		30.9	8.4		7.6	9.2	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		13.9	9.2		9.1		30.9	8.4		7.6	9.2	
LOS		B	A		A		C	A		A	A	

Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

1: stop & shop/newburgh cinema & Union Ave.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		11.7			9.1			11.5			9.2	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		41	25		7		27	74		1	81	
Queue Length 95th (ft)		72	51		19		#125	152		9	#177	
Internal Link Dist (ft)		60			255			496			889	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		534	667		587		259	2085		259	2074	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.39	0.28		0.08		0.64	0.49		0.05	0.54	

Area Type: Other

Cycle Length: 42

Actuated Cycle Length: 42

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 62.8%

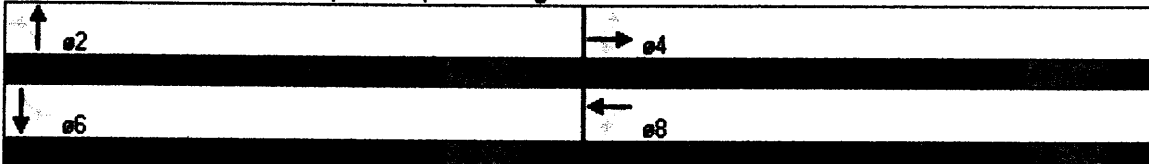
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.













Queue shown is maximum after two cycles.

Splits and Phases: 1: stop & shop/newburgh cinema & Union Ave.



Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKEND PEAK SAT HIGHWAY HOUR

						
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.655			
Satd. Flow (perm)	1770	1583	1220	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		33				425
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	537			661	200	
Travel Time (s)	12.2			15.0	4.5	
Volume (vph)	398	30	30	163	148	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	433	33	33	177	161	425
Lane Group Flow (vph)	433	33	33	177	161	425
Turn Type		Free	Perm			Free
Protected Phases	4			2	6	
Permitted Phases		Free	2			Free
Detector Phases	4		2	2	6	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	35.0	0.0	55.0	55.0	55.0	0.0
Total Split (%)	38.9%	0.0%	61.1%	61.1%	61.1%	0.0%
Maximum Green (s)	30.0		50.0	50.0	50.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		Min	Min	Min	
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	67.9	90.0	14.1	14.1	14.1	90.0
Actuated g/C Ratio	0.75	1.00	0.16	0.16	0.16	1.00
v/c Ratio	0.32	0.02	0.17	0.61	0.55	0.27
Control Delay	4.9	0.0	31.2	34.9	34.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	0.0	31.2	35.0	34.5	0.4
LOS	A	A	C	C	C	A
Approach Delay	4.6			34.4	9.8	
Approach LOS	A			C	A	

Lanes, Volumes, Timings
7: MEADOW AVENUE & SITE ACCESS

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Queue Length 50th (ft)	65	0	16	95	90	0
Queue Length 95th (ft)	130	0	40	150	140	0
Internal Link Dist (ft)	457			581	120	
Turn Bay Length (ft)						
Base Capacity (vph)	1336	1583	691	1056	1056	1583
Starvation Cap Reductn	0	0	0	0	143	0
Spillback Cap Reductn	112	0	0	143	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.02	0.05	0.19	0.18	0.27

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 59 (66%), Referenced to phase 4:SEL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 11.9
 Intersection Capacity Utilization: 45.8%
 Analysis Period (min): 15
 Intersection LOS: B
 ICU Level of Service: A

Splits and Phases: 7: MEADOW AVENUE & SITE ACCESS

#2	#4
#6	

Lanes, Volumes, Timings
8: MEADOW AVENUE &

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↗	↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1256			537	401	
Travel Time (s)	28.5			12.2	9.1	
Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 0.0% IGU Level of Service A
 Analysis Period (min) 15

Lanes, Volumes, Timings
10: Meadow Ave. & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	160		0	300		0	160		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.926			0.978			0.974			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1725	0	1770	1822	0	1770	3447	0	1770	3483	0
Flt Permitted	0.441			0.290			0.167			0.167		
Satd. Flow (perm)	821	1725	0	540	1822	0	311	3447	0	311	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		69			13			31			15	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		257			254			436			576	
Travel Time (s)		5.8			5.8			9.9			13.1	
Volume (vph)	114	238	229	275	273	48	264	987	206	50	948	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	259	249	299	297	52	287	1073	224	54	1030	126
Lane Group Flow (vph)	124	508	0	299	349	0	287	1297	0	54	1156	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		5	2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	13.0	37.0	0.0	9.0	33.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	14.4%	41.1%	0.0%	10.0%	36.7%	0.0%
Maximum Green (s)	39.0	39.0		39.0	39.0		8.0	32.0		4.0	28.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	40.0	40.0		40.0	40.0		34.8	34.8		29.0	29.0	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.39	0.39		0.32	0.32	
v/c Ratio	0.34	0.63		1.25	0.43		1.08	0.96		0.30	1.02	
Control Delay	19.7	20.7		167.2	18.5		95.3	30.8		25.8	63.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	4.1		0.0	0.0	
Total Delay	19.7	20.7		167.2	18.5		95.3	34.9		25.8	63.4	
LOS	B	C		F	B		F	C		C	E	

Lanes, Volumes, Timings

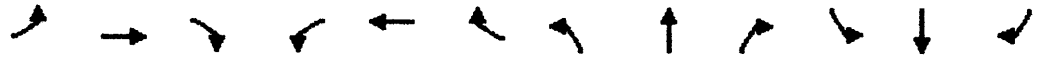
WEEKEND PEAK SAT HIGHWAY HOUR

11: Newburgh Mall (South) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	350		250	150		0
Storage Lanes	0		1	2		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1863	1583	3433	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted				0.705			0.100			0.187		
Satd. Flow (perm)	0	1863	1583	2548	1863	1583	186	3539	1583	348	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			375			69			689			43
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		261			177			371			430	
Travel Time (s)		5.9			4.0			8.4			9.8	
Volume (vph)	0	74	345	606	74	104	487	1311	725	104	1226	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	80	375	659	80	113	529	1425	788	113	1333	43
Lane Group Flow (vph)	0	80	375	659	80	113	529	1425	788	113	1333	43
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	26.0	66.0	66.0	40.0	40.0	40.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	28.9%	73.3%	73.3%	44.4%	44.4%	44.4%
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	21.0	61.0	61.0	35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		20.0	20.0	20.0	20.0	20.0	62.0	62.0	62.0	36.0	36.0	36.0
Actuated g/C Ratio		0.22	0.22	0.22	0.22	0.22	0.69	0.69	0.69	0.40	0.40	0.40
v/c Ratio		0.19	0.58	1.16	0.19	0.28	1.03	0.58	0.60	0.81	0.94	0.07
Control Delay		30.0	7.4	125.6	30.0	15.2	73.2	8.5	3.0	53.7	30.0	3.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Total Delay		30.0	7.4	125.6	30.0	15.2	73.2	8.5	3.0	53.7	35.4	3.5
LOS		C	A	F	C	B	E	A	A	D	D	A
Approach Delay		11.4			102.0			19.4			35.9	
Approach LOS		B			F			B			D	
Queue Length 50th (ft)		37	0	~231	37	20	~273	192	16	43	273	2
Queue Length 95th (ft)		76	71	#338	76	65	#471	244	53 m#111	#510	m3	
Internal Link Dist (ft)		181			97			291			350	
Turn Bay Length (ft)							350		250	150		

Lanes, Volumes, Timings
 11: Newburgh Mall (South) Driveway & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

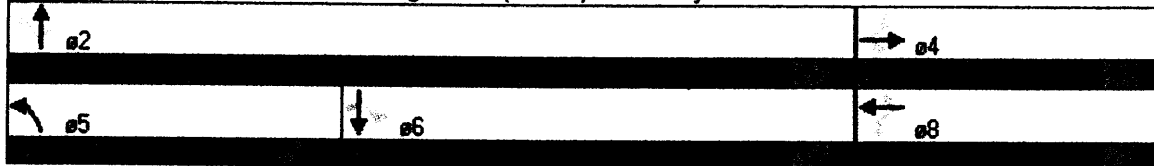


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		414	643	566	414	405	515	2438	1305	139	1416	659
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	64	0
Spillback Cap Reductn		0	0	0	0	0	0	14	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.19	0.58	1.16	0.19	0.28	1.03	0.59	0.60	0.81	0.99	0.07

Site Section Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 30 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Pretimed
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization: 98.2%
 ICU Level of Service: F
 Analysis Period (min): 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Newburgh Mall (South) Driveway & Union Ave.



Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

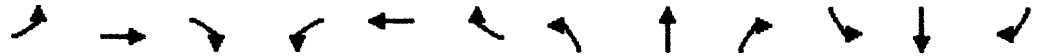
13: Newburgh Mall (North) Driveway & Union Ave.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		100	200		0	180		0
Storage Lanes	0		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.899			0.998			0.982	
Flt Protected		0.953			0.990		0.950			0.950		
Satd. Flow (prot)	0	1775	1583	0	1658	0	1770	3532	0	1770	3476	0
Flt Permitted		0.715			0.944		0.097			0.114		
Satd. Flow (perm)	0	1332	1583	0	1581	0	181	3532	0	212	3476	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61		15			2			33	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		173			202			430			724	
Travel Time (s)		3.9			4.6			9.8			16.5	
Volume (vph)	270	4	109	4	1	14	67	1332	16	19	1256	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	4	118	4	1	15	73	1448	17	21	1365	188
Lane Group Flow (vph)	0	297	118	0	20	0	73	1465	0	21	1553	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	0.0	61.0	61.0	0.0	61.0	61.0	0.0
Total Split (%)	32.2%	32.2%	32.2%	32.2%	32.2%	0.0%	67.8%	67.8%	0.0%	67.8%	67.8%	0.0%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0		56.0	56.0		56.0	56.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		25.0	25.0		25.0		57.0	57.0		57.0	57.0	
Actuated g/C Ratio		0.28	0.28		0.28		0.63	0.63		0.63	0.63	
v/c Ratio		0.80	0.24		0.04		0.63	0.65		0.16	0.70	
Control Delay		48.6	14.7		13.8		31.2	5.7		4.1	4.5	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.1	
Total Delay		48.6	14.7		13.8		31.2	5.8		4.1	4.6	
LOS		D	B		B		C	A		A	A	
Approach Delay		38.9			13.8			7.0			4.6	
Approach LOS		D			B			A			A	
Queue Length 50th (ft)		157	24		2		7	74		1	44	
Queue Length 95th (ft)		#290	66		19		m#84	92		m3	57	
Internal Link Dist (ft)		93			122			350			644	
Turn Bay Length (ft)							200			180		

Lanes, Volumes, Timings

WEEKEND PEAK SAT HIGHWAY HOUR

13: Newburgh Mall (North) Driveway & Union Ave.

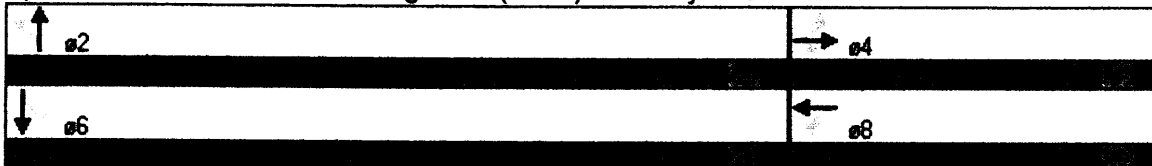


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		370	484		450		115	2238		134	2214	
Starvation Cap Reductn		0	0		0		0	41		0	0	
Spillback Cap Reductn		0	1		0		0	0		0	84	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.80	0.24		0.04		0.63	0.67		0.16	0.73	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Pretimed
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization: 77.6%
 Analysis Period (min): 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Newburgh Mall (North) Driveway & Union Ave.



Lanes, Volumes, Timings
18: Union Ave. & ROUTE 52

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.986				0.850			0.850
Flt Protected	0.950			0.950				0.990			0.991	
Satd. Flow (prot)	1770	1831	0	1770	1837	0	0	1844	1583	0	1846	1583
Flt Permitted	0.093			0.140				0.622			0.655	
Satd. Flow (perm)	173	1831	0	261	1837	0	0	1159	1583	0	1220	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			7				246			100
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		969			567			646			681	
Travel Time (s)		22.0			12.9			14.7			15.5	
Volume (vph)	284	646	80	150	690	73	69	265	226	59	269	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	309	702	87	163	750	79	75	288	246	64	292	123
Lane Group Flow (vph)	309	789	0	163	829	0	0	363	246	0	356	123
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4		4	8		8
Detector Phases	5	2		6	6		4	4	4	8	8	8
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0		21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	15.0	58.0	0.0	43.0	43.0	0.0	32.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	16.7%	64.4%	0.0%	47.8%	47.8%	0.0%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%
Maximum Green (s)	10.0	53.0		38.0	38.0		27.0	27.0	27.0	27.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		C-Min	C-Min		None	None	None	None	None	None
Walk Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0		0	0	0	0	0	0
Act Effct Green (s)	54.0	54.0		39.0	39.0			28.0	28.0		28.0	28.0
Actuated g/C Ratio	0.60	0.60		0.43	0.43			0.31	0.31		0.31	0.31
v/c Ratio	1.03	0.72		1.44	1.04			1.01	0.37		0.94	0.22
Control Delay	94.9	17.0		268.1	68.5			82.2	5.0		66.7	15.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	94.9	17.0		268.1	68.5			82.2	5.0		66.7	15.7
LOS	F	B		F	E			F	A		E	B

Lanes, Volumes, Timings
18: Union Ave. & ROUTE 52

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay		38.9			101.3			51.0			53.6	
Approach LOS		D			F			D			D	
Queue Length 50th (ft)	~139	284		~127	~511			~208	0		157	11
Queue Length 95th (ft)	#303	426		#191	#740			#388	51		#385	84
Internal Link Dist (ft)		889			487			566			601	
Turn Bay Length (ft)				250								100
Base Capacity (vph)	299	1103		113	800			361	662		380	561
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	1.03	0.72		1.44	1.04			1.01	0.37		0.94	0.22

Timing Diagram Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 54 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.44

Intersection Signal Delay: 62.9

Intersection LOS: E

Intersection Capacity Utilization 107.7%

ICU Level of Service G

Analysis Period (min) 15

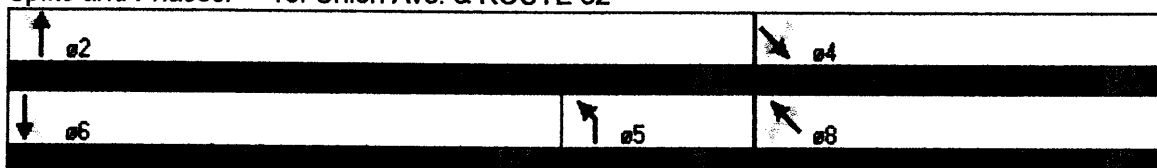
- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave. & ROUTE 52



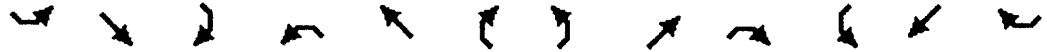
Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKEND PEAK SAT HIGHWAY HOUR

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↙	↕	↖	↗	↘	↙	↕	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		250	250		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr			0.850		0.986				0.850		0.972	
Flt Protected	0.950			0.950			0.950				0.996	
Satd. Flow (prot)	1770	1863	1583	1770	1837	0	1770	1863	1583	0	1803	0
Flt Permitted	0.321			0.376			0.453				0.964	
Satd. Flow (perm)	598	1863	1583	700	1837	0	844	1863	1583	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147		7				200		18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1573			642			200			1333	
Travel Time (s)		35.8			14.6			4.5			30.3	
Volume (vph)	77	346	135	182	356	37	145	242	184	25	233	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	376	147	198	387	40	158	263	200	27	253	73
Lane Group Flow (vph)	84	376	147	198	427	0	158	263	200	0	353	0
Turn Type	pm+pt		Perm	pm+pt			Perm		Perm	Perm		
Protected Phases	1	2		1	2			3				3
Permitted Phases	2		2	2			3		3	3		
Detector Phases	1	2	2	1	2		3	3	3	3	3	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0	21.0	9.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	10.0	39.0	39.0	10.0	39.0	0.0	41.0	41.0	41.0	41.0	41.0	0.0
Total Split (%)	11.1%	43.3%	43.3%	11.1%	43.3%	0.0%	45.6%	45.6%	45.6%	45.6%	45.6%	0.0%
Maximum Green (s)	5.0	34.0	34.0	5.0	34.0		36.0	36.0	36.0	36.0	36.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		Min	Min	Min	Min	Min	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	
Act Effct Green (s)	54.6	45.6	45.6	54.6	45.6		23.4	23.4	23.4		23.4	
Actuated g/C Ratio	0.61	0.51	0.51	0.61	0.51		0.26	0.26	0.26		0.26	
v/c Ratio	0.18	0.40	0.17	0.37	0.46		0.72	0.54	0.36		0.76	
Control Delay	7.0	13.3	1.9	10.9	18.3		31.4	26.7	5.3		29.9	
Queue Delay	0.0	0.0	0.0	0.1	0.0		0.8	0.9	0.4		0.0	
Total Delay	7.0	13.3	1.9	11.0	18.3		32.2	27.7	5.7		29.9	
LOS	A	B	A	B	B		C	C	A		C	

Lanes, Volumes, Timings
 19: NYS ROUTE 52 & POWDER MILL ROAD

WEEKEND PEAK SAT HIGHWAY HOUR



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay		9.7			16.0			21.8			29.9	
Approach LOS		A			B			C			C	
Queue Length 50th (ft)	12	86	0	37	144		89	143	8		181	
Queue Length 95th (ft)	m17	m165	m8	101	283		138	189	24		217	
Internal Link Dist (ft)		1493			562			120			1253	
Turn Bay Length (ft)	250		250	250								
Base Capacity (vph)	480	944	875	532	935		347	766	769		728	
Starvation Cap Reductn	0	0	0	0	0		52	280	244		0	
Spillback Cap Reductn	0	0	23	28	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.18	0.40	0.17	0.39	0.46		0.54	0.54	0.38		0.48	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2: NWSE, Start of Green, Master Intersection

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 18.1 Intersection LOS: B

Intersection Capacity Utilization: 74.7% ICU Level of Service: D

Analysis Period (min): 15












m: Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: NYS ROUTE 52 & POWDER MILL ROAD



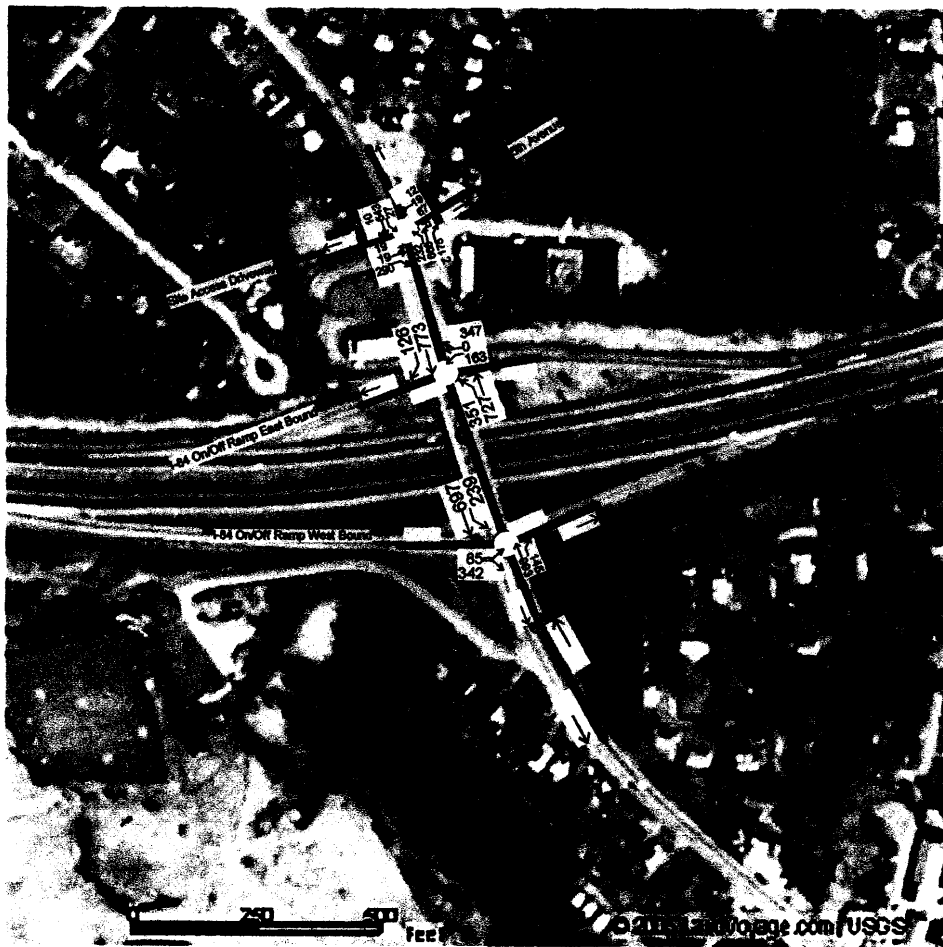
Lanes, Volumes, Timings
22: Auto Zone Driveway & Union Ave.

WEEKEND PEAK SAT HIGHWAY HOUR

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.985			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3486	0	1770	3539
Flt Permitted	0.950				0.074	
Satd. Flow (perm)	1770	1583	3486	0	138	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		102	22			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	304		724			436
Travel Time (s)	6.9		16.5			9.9
Volume (vph)	92	94	1425	164	96	1356
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	102	1549	178	104	1474
Lane Group Flow (vph)	100	102	1727	0	104	1474
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phases	8	8	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	21.0	21.0		9.0	21.0
Total Split (s)	22.0	22.0	54.0	0.0	14.0	68.0
Total Split (%)	24.4%	24.4%	60.0%	0.0%	15.6%	75.6%
Maximum Green (s)	17.0	17.0	49.0		9.0	63.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)	5.0	5.0	5.0			5.0
Flash Dont Walk (s)	11.0	11.0	11.0			11.0
Pedestrian Calls (#/hr)	0	0	0			0
Act Effct Green (s)	11.2	11.2	59.6		71.6	70.8
Actuated g/C Ratio	0.12	0.12	0.66		0.80	0.79
v/c Ratio	0.45	0.36	0.75		0.37	0.53
Control Delay	37.8	9.1	10.9		11.7	1.9
Queue Delay	0.0	0.0	0.5		0.0	0.4
Total Delay	37.8	9.1	11.3		11.7	2.3
LOS	D	A	B		B	A

SYNCRO FILES

ROUTE 52 CORRIDOR



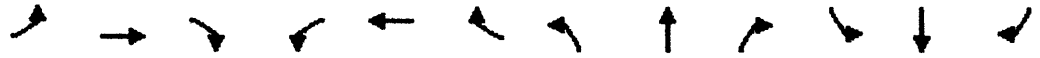
Lanes, Volumes, Timings
1: Site Access Driveway & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	10	12	12
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.984				0.850		0.997	
Flt Protected		0.976			0.967		0.950			0.950		
Satd. Flow (prot)	0	1818	1583	0	1891	0	1770	1863	1583	1652	1857	0
Flt Permitted		0.858			0.784		0.242			0.257		
Satd. Flow (perm)	0	1598	1583	0	1533	0	451	1863	1583	447	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315		6				190		1	
Headway Factor	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.09	1.00	1.00
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		213			176			367		226		
Travel Time (s)		4.8			4.0			8.3		5.1		
Volume (vph)	19	19	290	67	19	12	232	668	175	27	543	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	21	315	73	21	13	252	726	190	29	590	11
Lane Group Flow (vph)	0	42	315	0	107	0	252	726	190	29	601	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2		2	6		
Detector Phases	4	4	4	8	8		5	2	2	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		9.0	21.0	21.0	21.0	21.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	26.0	82.0	82.0	56.0	56.0	0.0
Total Split (%)	25.5%	25.5%	25.5%	25.5%	25.5%	0.0%	23.6%	74.5%	74.5%	50.9%	50.9%	0.0%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0		21.0	77.0	77.0	51.0	51.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag							Lag			Lead	Lead	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0	0	0	
Act Effct Green (s)		13.3	13.3		13.3		88.7	88.7	88.7	62.7	62.7	
Actuated g/C Ratio		0.12	0.12		0.12		0.81	0.81	0.81	0.57	0.57	
v/c Ratio		0.22	0.67		0.56		0.40	0.48	0.14	0.11	0.57	
Control Delay		42.7	8.3		44.6		5.7	3.3	0.4	13.8	18.4	
Queue Delay		0.0	0.1		0.0		0.0	0.4	0.0	0.0	0.2	
Total Delay		42.7	8.4		44.6		5.7	3.7	0.4	13.8	18.6	
LOS		D	A		D		A	A	A	B	B	
Approach Delay		12.4			44.6			3.6			18.4	

Lanes, Volumes, Timings
 1: Site Access Driveway & Route 52

Baseline

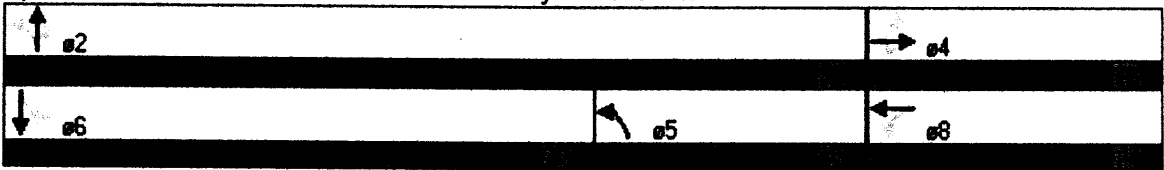


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			D			A			B	
Queue Length 50th (ft)		27	0		68		24	91	0	9	254	
Queue Length 95th (ft)		59	79		120		m43	151	m5	28	406	
Internal Link Dist (ft)		133			96			287			146	
Turn Bay Length (ft)												
Base Capacity (vph)		349	592		339		628	1503	1314	255	1059	
Starvation Cap Reductn		0	0		0		8	313	0	0	0	
Spillback Cap Reductn		0	14		0		0	0	0	0	81	
Storage Cap Reductn		0	0		0		0	0	0	0	0	
Reduced v/c Ratio		0.12	0.54		0.32		0.41	0.61	0.14	0.11	0.61	

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%) Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 11.1
 Intersection LOS: B
 Intersection Capacity Utilization: 67.5%
 ICU Level of Service: C
 Analysis Period (min): 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Site Access Driveway & Route 52



Lanes, Volumes, Timings
2: I-84 On/Off Ramp East Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	80		0	0		0
Storage Lanes	0		0	1		0	1		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.850							0.850
Fl _t Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	1583	0	1770	1863	0	0	1863	1583
Fl _t Permitted				0.950			0.141					
Satd. Flow (perm)	0	0	0	1770	1583	0	263	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					289							132
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		223			234			452			367	
Travel Time (s)		5.1			5.3			10.3			8.3	
Volume (vph)	0	0	0	163	0	347	351	727	0	0	773	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	177	0	377	382	790	0	0	840	137
Lane Group Flow (vph)	0	0	0	177	377	0	382	790	0	0	840	137
Turn Type				Perm			pm+pt					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8			2					6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0		9.0	21.0			21.0	21.0
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	24.0	89.0	0.0	0.0	65.0	65.0
Total Split (%)	0.0%	0.0%	0.0%	19.1%	19.1%	0.0%	21.8%	80.9%	0.0%	0.0%	59.1%	59.1%
Maximum Green (s)				16.0	16.0		19.0	84.0			60.0	60.0
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	2.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode				None	None		None	C-Max			C-Max	C-Max
Walk Time (s)				5.0	5.0			5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0			0			0	0
Act Effct Green (s)				15.3	15.3		86.7	86.7			62.7	62.7
Actuated g/C Ratio				0.14	0.14		0.79	0.79			0.57	0.57
v/c Ratio				0.72	0.80		0.79	0.54			0.79	0.14
Control Delay				56.5	23.1		25.2	1.5			16.9	0.9
Queue Delay				0.0	0.0		2.8	0.8			0.2	0.0
Total Delay				56.5	23.1		28.1	2.3			17.1	0.9
LOS				E	C		C	A			B	A

Lanes, Volumes, Timings
 2: I-84 On/Off Ramp East Bound & Route 52

Baseline

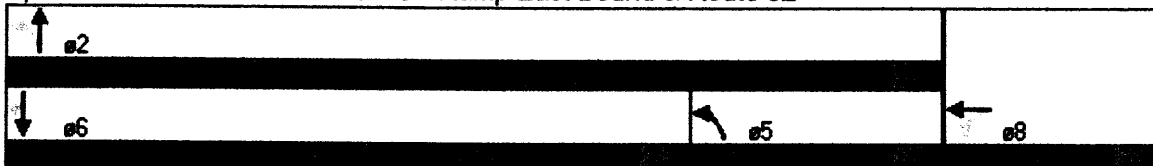


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					33.8			10.7			14.8	
Approach LOS					C			B			B	
Queue Length 50th (ft)				119	56		150	20			480	0
Queue Length 95th (ft)				194	#196		m197	m38			683	13
Internal Link Dist (ft)		143			154			372			287	
Turn Bay Length (ft)				100			80					
Base Capacity (vph)				274	489		481	1468			1061	959
Starvation Cap Reductn				0	0		39	357			18	0
Spillback Cap Reductn				0	0		0	0			0	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.65	0.77		0.86	0.71			0.81	0.14

Signal Timing Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 104 (95%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 16.9
 Intersection LOS: B
 Intersection Capacity Utilization 93.6%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: I-84 On/Off Ramp East Bound & Route 52



Lanes, Volumes, Timings
4: I-84 On/Off Ramp West Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		170	70		0
Storage Lanes	1		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted	0.950									0.056		
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1863	1583	104	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			318						99			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		264			244			170			452	
Travel Time (s)		6.0			5.5			3.9			10.3	
Volume (vph)	85	0	342	0	0	0	0	993	145	239	697	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92	0.95	0.92
Adj. Flow (vph)	92	0	372	0	0	0	0	1045	158	260	734	0
Lane Group Flow (vph)	92	0	372	0	0	0	0	1045	158	260	734	0
Turn Type	custom		custom						Perm	pm+pt		
Protected Phases								2		1	6	
Permitted Phases	4		4						2	6		
Detector Phases	4		4					2	2	1	6	
Minimum Initial (s)	4.0		4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0					21.0	21.0	9.0	21.0	
Total Split (s)	21.0	0.0	21.0	0.0	0.0	0.0	0.0	71.0	71.0	18.0	89.0	0.0
Total Split (%)	19.1%	0.0%	19.1%	0.0%	0.0%	0.0%	0.0%	64.5%	64.5%	16.4%	80.9%	0.0%
Maximum Green (s)	16.0		16.0					66.0	66.0	13.0	84.0	
Yellow Time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0					2.0	2.0	2.0	2.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Walk Time (s)	5.0		5.0					5.0	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0					11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0		0					0	0		0	
Act Effct Green (s)	12.5		12.5					69.8	69.8	89.5	89.5	
Actuated g/C Ratio	0.11		0.11					0.63	0.63	0.81	0.81	
v/c Ratio	0.46		0.81					0.88	0.15	0.81	0.48	
Control Delay	47.9		17.4					28.6	4.0	53.0	1.5	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.4	
Total Delay	47.9		17.4					28.6	4.0	53.0	1.8	
LOS	D		B					C	A	D	A	

Lanes, Volumes, Timings
4: I-84 On/Off Ramp West Bound & Route 52

Baseline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay								25.4				15.2
Approach LOS								C				B
Queue Length 50th (ft)	62		36					612	16	126		17
Queue Length 95th (ft)	109		141					#952	42 m#228			39
Internal Link Dist (ft)		184				164		90				372
Turn Bay Length (ft)			100						170	70		
Base Capacity (vph)	274		514					1183	1041	325		1516
Starvation Cap Reductn	0		0					0	0	0		324
Spillback Cap Reductn	0		0					0	0	0		0
Storage Cap Reductn	0		0					0	0	0		0
Reduced v/c Ratio	0.34		0.72					0.88	0.15	0.80		0.62

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 104 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 21.3
 Intersection Capacity Utilization: 93.6%
 Analysis Period (min): 15
 Intersection LOS: C
 ICU Level of Service: F






















95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: I-84 On/Off Ramp West Bound & Route 52

e1	e2	e4
e6		

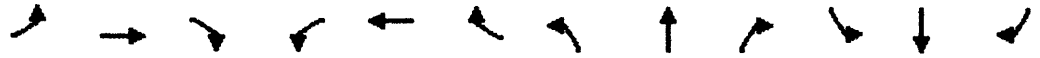
Lanes, Volumes, Timings
1: Site Access Driveway & Route 52

Baseline

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	10	12	12
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.978					0.850		0.996
Flt Protected		0.976			0.968		0.950			0.950		
Satd. Flow (prot)	0	1818	1583	0	1881	0	1770	1863	1583	1652	1855	0
Flt Permitted		0.847			0.766		0.387			0.384		
Satd. Flow (perm)	0	1578	1583	0	1489	0	721	1863	1583	668	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			395		8				202		3	
Headway Factor	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.09	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		213			176			367			226	
Travel Time (s)		4.8			4.0			8.3			5.1	
Volume (vph)	26	26	392	98	26	24	313	524	186	80	507	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	426	107	28	26	340	570	202	87	551	14
Lane Group Flow (vph)	0	56	426	0	161	0	340	570	202	87	565	0
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	0.0	81.0	81.0	81.0	81.0	81.0	0.0
Total Split (%)	26.4%	26.4%	26.4%	26.4%	26.4%	0.0%	73.6%	73.6%	73.6%	73.6%	73.6%	0.0%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0		76.0	76.0	76.0	76.0	76.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0	0	0	
Act Effct Green (s)		25.0	25.0		25.0		77.0	77.0	77.0	77.0	77.0	
Actuated g/C Ratio		0.23	0.23		0.23		0.70	0.70	0.70	0.70	0.70	
v/c Ratio		0.16	0.64		0.47		0.67	0.44	0.17	0.19	0.43	
Control Delay		35.5	10.0		40.0		14.8	6.3	0.6	6.8	8.3	
Queue Delay		0.0	0.9		0.6		0.1	0.6	0.0	0.0	0.1	
Total Delay		35.5	10.9		40.7		15.0	6.9	0.6	6.8	8.4	
LOS		D	B		D		B	A	A	A	A	
Approach Delay		13.8			40.7			8.2			8.2	
Approach LOS		B			D			A			A	
Queue Length 50th (ft)		32	17		94		86	96	0	19	151	
Queue Length 95th (ft)		67	113		161		m277	181	m9	39	215	
Internal Link Dist (ft)		133			96			287			146	
Turn Bay Length (ft)												
Base Capacity (vph)		359	665		345		505	1304	1169	468	1299	

Lanes, Volumes, Timings
 1: Site Access Driveway & Route 52

Baseline



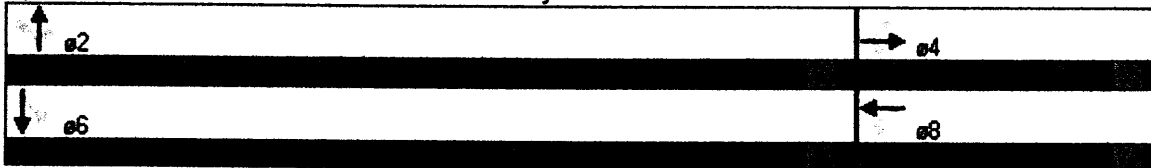
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0		8	379	0	0	0	
Spillback Cap Reductn		0	73		41		0	0	0	0	115	
Storage Cap Reductn		0	0		0		0	0	0	0	0	
Reduced v/c Ratio		0.16	0.72		0.53		0.68	0.62	0.17	0.19	0.48	

Timing Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 2 (2%), Referenced to phase 2/NBTL and 6/SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Pretimed
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 11.5
 Intersection LOS: B
 Intersection Capacity Utilization 73.1%
 ICU Level of Service D
 Analysis Period (min) 15


















m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Site Access Driveway & Route 52



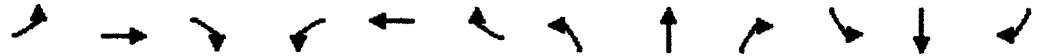
Lanes, Volumes, Timings
2: I-84 On/Off Ramp East Bound & Route 52

Baseline

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	80		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.979	
Frt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	1770	1863	0	0	1824	0
Frt Permitted				0.950			0.168					
Satd. Flow (perm)	0	0	0	1770	0	1583	313	1863	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						337					27	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		223			234			452			367	
Travel Time (s)		5.1			5.3			10.3			8.3	
Volume (vph)	0	0	0	131	0	368	190	644	0	0	838	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	142	0	400	207	700	0	0	911	171
Lane Group Flow (vph)	0	0	0	142	0	400	207	700	0	0	1082	0
Turn Type				custom		custom	Perm					
Protected Phases								2			6	
Permitted Phases				8		8	2					
Minimum Split (s)				21.0		21.0	21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	21.0	0.0	21.0	89.0	89.0	0.0	0.0	89.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	19.1%	0.0%	19.1%	80.9%	80.9%	0.0%	0.0%	80.9%	0.0%
Maximum Green (s)				16.0		16.0	84.0	84.0			84.0	
Yellow Time (s)				3.0		3.0	3.0	3.0			3.0	
All-Red Time (s)				2.0		2.0	2.0	2.0			2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				5.0		5.0	5.0	5.0			5.0	
Flash Dont Walk (s)				11.0		11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0		0	0	0			0	
Act Effct Green (s)				17.0		17.0	85.0	85.0			85.0	
Actuated g/C Ratio				0.15		0.15	0.77	0.77			0.77	
v/c Ratio				0.52		0.75	0.86	0.49			0.76	
Control Delay				50.3		18.7	37.2	3.2			11.9	
Queue Delay				0.0		0.1	0.0	0.2			0.0	
Total Delay				50.3		18.7	37.2	3.5			11.9	
LOS				D		B	D	A			B	
Approach Delay								11.2			11.9	
Approach LOS								B			B	
Queue Length 50th (ft)				93		40	94	63			461	
Queue Length 95th (ft)				159		153	#278	78			722	
Internal Link Dist (ft)		143			154			372			287	
Turn Bay Length (ft)				100			80					

Lanes, Volumes, Timings
 2: I-84 On/Off Ramp East Bound & Route 52

Baseline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)				274		530	242	1440			1416	
Starvation Cap Reductn				0		0	0	219			0	
Spillback Cap Reductn				0		3	0	19			0	
Storage Cap Reductn				0		0	0	0			0	
Reduced v/c Ratio				0.52		0.76	0.86	0.57			0.76	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 108 (98%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 14.9

Intersection LOS: B

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: I-84 On/Off Ramp East Bound & Route 52

↑ e2	
↓ e6	e8

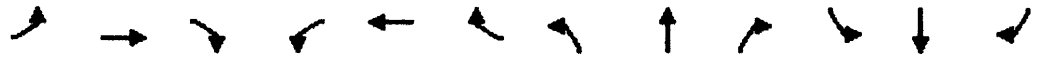
Lanes, Volumes, Timings
4: I-84 On/Off Ramp West Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		170	70		0
Storage Lanes	1		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted	0.950									0.274		
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1863	1583	510	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179						92			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		264			244			117			452	
Travel Time (s)		6.0			5.5			2.7			10.3	
Volume (vph)	56	0	165	0	0	0	0	778	85	291	678	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	0	179	0	0	0	0	846	92	316	737	0
Lane Group Flow (vph)	61	0	179	0	0	0	0	846	92	316	737	0
Turn Type	custom		custom						Perm	Perm		
Protected Phases								2				6
Permitted Phases	4		4						2	6		
Minimum Split (s)	21.0		21.0					21.0	21.0	21.0	21.0	
Total Split (s)	21.0	0.0	21.0	0.0	0.0	0.0	0.0	89.0	89.0	89.0	89.0	0.0
Total Split (%)	19.1%	0.0%	19.1%	0.0%	0.0%	0.0%	0.0%	80.9%	80.9%	80.9%	80.9%	0.0%
Maximum Green (s)	16.0		16.0					84.0	84.0	84.0	84.0	
Yellow Time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0					2.0	2.0	2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0					11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0					0	0	0	0	
Act Effct Green (s)	17.0		17.0					85.0	85.0	85.0	85.0	
Actuated g/C Ratio	0.15		0.15					0.77	0.77	0.77	0.77	
v/c Ratio	0.22		0.45					0.59	0.07	0.80	0.51	
Control Delay	43.2		10.1					7.2	0.8	17.8	4.1	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.9	
Total Delay	43.2		10.1					7.2	0.8	17.8	5.0	
LOS	D		B					A	A	B	A	
Approach Delay								6.6			8.8	
Approach LOS								A			A	
Queue Length 50th (ft)	38		0					205	0	52	129	
Queue Length 95th (ft)	79		62					290	10	m#322	141	
Internal Link Dist (ft)		184			164			37			372	
Turn Bay Length (ft)			100						170	70		

Lanes, Volumes, Timings
 4: I-84 On/Off Ramp West Bound & Route 52

Baseline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	274		396					1440	1244	394	1440	
Starvation Cap Reductn	0		0					0	0	0	408	
Spillback Cap Reductn	0		0					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.22		0.45					0.59	0.07	0.80	0.71	

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 104 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Pretimed
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 83.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service E
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: I-84 On/Off Ramp West Bound & Route 52

↑ e2	e4
↓ e6	

SYNCRO FILES

**ROUTE 52 CORRIDOR
SENSITIVITY ANALYSIS**

Lanes, Volumes, Timings

Baseline

1: Site Access Driveway & Route 52

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	10	12	12
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.984					0.850		0.997
Flt Protected		0.976			0.967		0.950			0.950		
Satd. Flow (prot)	0	1818	1583	0	1891	0	1770	1863	1583	1652	1857	0
Flt Permitted		0.852			0.781		0.239			0.257		
Satd. Flow (perm)	0	1587	1583	0	1527	0	445	1863	1583	447	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			357		6				190		1	
Headway Factor	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.09	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		213			176			367			226	
Travel Time (s)		4.8			4.0			8.3			5.1	
Volume (vph)	22	22	328	67	19	12	262	668	175	27	545	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	24	357	73	21	13	285	726	190	29	592	12
Lane Group Flow (vph)	0	48	357	0	107	0	285	726	190	29	604	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2		2	6		
Detector Phases	4	4	4	8	8		5	2	2	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		9.0	21.0	21.0	21.0	21.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	26.0	82.0	82.0	56.0	56.0	0.0
Total Split (%)	25.5%	25.5%	25.5%	25.5%	25.5%	0.0%	23.6%	74.5%	74.5%	50.9%	50.9%	0.0%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0		21.0	77.0	77.0	51.0	51.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag							Lag			Lead	Lead	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0	0	0	
Act Effct Green (s)		13.3	13.3		13.3		88.7	88.7	88.7	62.7	62.7	
Actuated g/C Ratio		0.12	0.12		0.12		0.81	0.81	0.81	0.57	0.57	
v/c Ratio		0.25	0.71		0.56		0.46	0.48	0.14	0.11	0.57	
Control Delay		43.1	8.5		44.6		7.0	3.3	0.4	13.8	18.5	
Queue Delay		0.0	0.1		0.0		0.0	0.4	0.0	0.0	0.2	
Total Delay		43.1	8.6		44.6		7.0	3.8	0.4	13.8	18.7	
LOS		D	A		D		A	A	A	B	B	
Approach Delay		12.7			44.6			4.0			18.5	

Lanes, Volumes, Timings
 1: Site Access Driveway & Route 52

Baseline

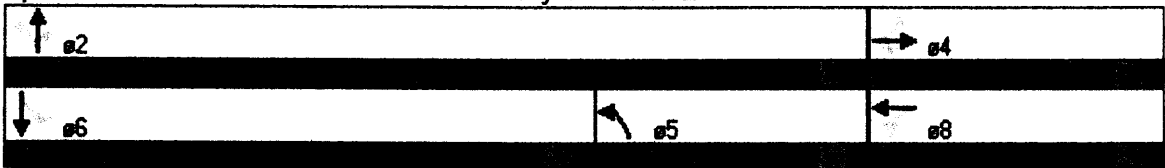


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			D			A			B		
Queue Length 50th (ft)	31	0	0	68	0	0	26	100	1	9	256	0
Queue Length 95th (ft)	65	0	85	120	0	0	m50	154	m6	28	409	0
Internal Link Dist (ft)	133	0	0	96	0	0	287	0	0	0	146	0
Turn Bay Length (ft)												
Base Capacity (vph)	346	624	0	338	624	1503	1314	255	1059			
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0			
Spillback Cap Reductn	0	19	0	3	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0	0	0	0			
Reduced v/c Ratio	0.14	0.59	0	0.32	0.46	0.62	0.14	0.11	0.62			

Phase Sequence Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 11.3
 Intersection LOS: B
 Intersection Capacity Utilization 69.3%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Site Access Driveway & Route 52



Lanes, Volumes, Timings
2: I-84 On/Off Ramp East Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	80		0	0		0
Storage Lanes	0		0	1		0	1		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850							0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	1583	0	1770	1863	0	0	1863	1583
Flt Permitted				0.950			0.119					
Satd. Flow (perm)	0	0	0	1770	1583	0	222	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					282							137
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		223			234			452			367	
Travel Time (s)		5.1			5.3			10.3			8.3	
Volume (vph)	0	0	0	163	0	365	353	740	0	0	804	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	177	0	397	384	804	0	0	874	148
Lane Group Flow (vph)	0	0	0	177	397	0	384	804	0	0	874	148
Turn Type				Perm			pm+pt					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8			2					6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0		9.0	21.0			21.0	21.0
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	24.0	89.0	0.0	0.0	65.0	65.0
Total Split (%)	0.0%	0.0%	0.0%	19.1%	19.1%	0.0%	21.8%	80.9%	0.0%	0.0%	59.1%	59.1%
Maximum Green (s)				16.0	16.0		19.0	84.0			60.0	60.0
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	2.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode				None	None		None	C-Max			C-Max	C-Max
Walk Time (s)				5.0	5.0			5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0			0			0	0
Act Effct Green (s)				15.3	15.3		86.7	86.7			62.7	62.7
Actuated g/C Ratio				0.14	0.14		0.79	0.79			0.57	0.57
v/c Ratio				0.72	0.86		0.84	0.55			0.82	0.15
Control Delay				56.5	28.8		28.3	1.3			19.1	0.9
Queue Delay				0.0	0.0		361.0	0.9			0.1	0.0
Total Delay				56.5	28.8		389.4	2.2			19.2	0.9
LOS				E	C		F	A			B	A

Lanes, Volumes, Timings
 2: I-84 On/Off Ramp East Bound & Route 52

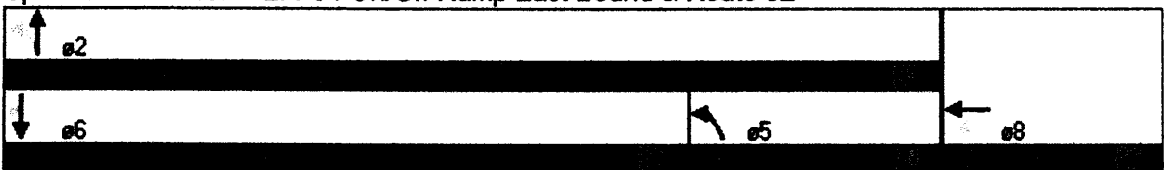
Baseline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					37.3			127.3			16.6	
Approach LOS					D			F			B	
Queue Length 50th (ft)				119	77		176	17			513	0
Queue Length 95th (ft)				194	#240		m201	m32			#733	14
Internal Link Dist (ft)		143			154			372			287	
Turn Bay Length (ft)				100			80					
Base Capacity (vph)				274	483		456	1468			1061	961
Starvation Cap Reductn				0	0		243	369			10	0
Spillback Cap Reductn				0	0		0	0			0	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.65	0.82		1.80	0.73			0.83	0.15

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 104 (95%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 68.1 Intersection LOS: E
 Intersection Capacity Utilization 96.5% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: I-84 On/Off Ramp East Bound & Route 52



Lanes, Volumes, Timings

Baseline

4: I-84 On/Off Ramp West Bound & Route 52

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		170	70		0
Storage Lanes	1		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted	0.950									0.056		
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1863	1583	104	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			297						94			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		264			244			170			452	
Travel Time (s)		6.0			5.5			3.9			10.3	
Volume (vph)	85	0	342	0	0	0	0	1008	145	254	712	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	0	372	0	0	0	0	1096	158	276	774	0
Lane Group Flow (vph)	92	0	372	0	0	0	0	1096	158	276	774	0
Turn Type	custom		custom						Perm	pm+pt		
Protected Phases								2		1	6	
Permitted Phases	4		4						2	6		
Detector Phases	4		4					2	2	1	6	
Minimum Initial (s)	4.0		4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0					21.0	21.0	9.0	21.0	
Total Split (s)	21.0	0.0	21.0	0.0	0.0	0.0	0.0	71.0	71.0	18.0	89.0	0.0
Total Split (%)	19.1%	0.0%	19.1%	0.0%	0.0%	0.0%	0.0%	64.5%	64.5%	16.4%	80.9%	0.0%
Maximum Green (s)	16.0		16.0					66.0	66.0	13.0	84.0	
Yellow Time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0					2.0	2.0	2.0	2.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Walk Time (s)	5.0		5.0					5.0	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0					11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0		0					0	0		0	
Act Effct Green (s)	12.9		12.9					68.8	68.8	89.1	89.1	
Actuated g/C Ratio	0.12		0.12					0.63	0.63	0.81	0.81	
v/c Ratio	0.44		0.83					0.94	0.15	0.84	0.51	
Control Delay	47.4		20.9					36.0	4.3	55.0	1.5	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.4	
Total Delay	47.4		20.9					36.0	4.3	55.0	2.0	
LOS	D		C					D	A	E	A	

Lanes, Volumes, Timings
 4: I-84 On/Off Ramp West Bound & Route 52

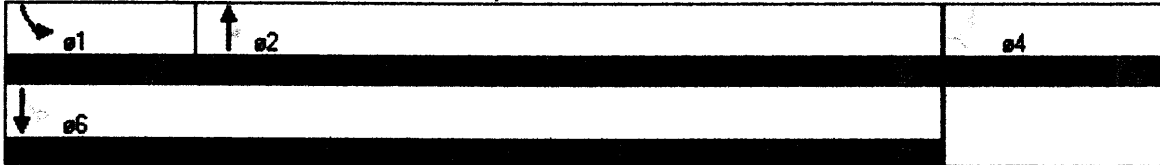
Baseline
























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay								32.0			15.9	
Approach LOS								C			B	
Queue Length 50th (ft)	61		50					685	17	188	18	
Queue Length 95th (ft)	109		#164					#1031	44	m#242	42	
Internal Link Dist (ft)		184			164			90			372	
Turn Bay Length (ft)			100						170	70		
Base Capacity (vph)	274		496					1166	1026	330	1508	
Starvation Cap Reductn	0		0					0	0	0	306	
Spillback Cap Reductn	0		0					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.34		0.75					0.94	0.15	0.84	0.64	

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 104 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 24.9 Intersection LOS: C
 Intersection Capacity Utilization 96.5% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: I-84 On/Off Ramp West Bound & Route 52

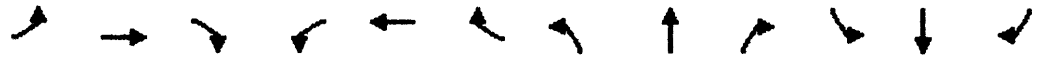


1: Site Access Driveway & Route 52

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	10	12	12
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.979					0.850	0.996	
Flt Protected		0.976			0.969		0.950			0.950		
Satd. Flow (prot)	0	1818	1583	0	1885	0	1770	1863	1583	1652	1855	0
Flt Permitted		0.834			0.765		0.384			0.384		
Satd. Flow (perm)	0	1554	1583	0	1488	0	715	1863	1583	668	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			393		8				202		3	
Headway Factor	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.09	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		213			176			367			226	
Travel Time (s)		4.8			4.0			8.3			5.1	
Volume (vph)	30	30	444	98	30	24	355	524	186	80	510	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	483	107	33	26	386	570	202	87	554	16
Lane Group Flow (vph)	0	66	483	0	166	0	386	570	202	87	570	0
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		
Detector Phases	4	4	4	8	8		2	2	2	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	0.0	81.0	81.0	81.0	81.0	81.0	0.0
Total Split (%)	26.4%	26.4%	26.4%	26.4%	26.4%	0.0%	73.6%	73.6%	73.6%	73.6%	73.6%	0.0%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0		76.0	76.0	76.0	76.0	76.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0	0	0	
Act Effct Green (s)		17.8	17.8		17.8		84.2	84.2	84.2	84.2	84.2	
Actuated g/C Ratio		0.16	0.16		0.16		0.77	0.77	0.77	0.77	0.77	
v/c Ratio		0.26	0.82		0.67		0.71	0.40	0.16	0.17	0.40	
Control Delay		39.5	15.9		44.9		15.7	4.9	0.6	5.3	6.0	
Queue Delay		0.0	0.6		0.2		0.0	0.5	0.0	0.0	0.0	
Total Delay		39.5	16.5		45.1		15.7	5.3	0.6	5.3	6.0	
LOS		D	B		D		B	A	A	A	A	
Approach Delay		19.3			45.1			8.0			5.9	

Lanes, Volumes, Timings
 1: Site Access Driveway & Route 52

Baseline



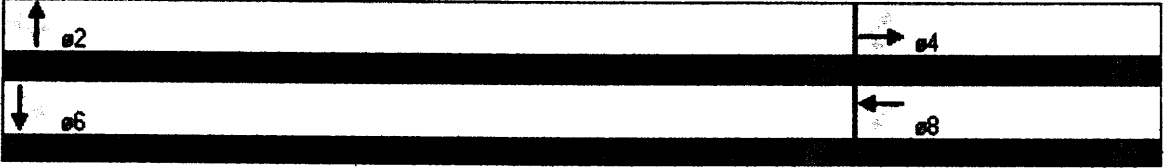
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			D			A			A		
Queue Length 50th (ft)	41	57		107			71	95	1	14	111	
Queue Length 95th (ft)	77	179		166			m338	m182	m10	39	218	
Internal Link Dist (ft)	133			96				287			146	
Turn Bay Length (ft)												
Base Capacity (vph)	353	663		344			547	1426	1259	511	1420	
Starvation Cap Reductn	0	0		0			0	429	0	0	0	
Spillback Cap Reductn	0	34		13			0	0	0	0	83	
Storage Cap Reductn	0	0		0			0	0	0	0	0	
Reduced v/c Ratio	0.19	0.77		0.50			0.71	0.57	0.16	0.17	0.43	

Phase Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 12.3
 Intersection LOS: B
 Intersection Capacity Utilization: 75.9%
 ICU Level of Service: D
 Analysis Period (min): 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Site Access Driveway & Route 52



Lanes, Volumes, Timings
2: I-84 On/Off Ramp East Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	80		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50		50	50	50			50	50
Trailing Detector (ft)				0		0	0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850						0.850
Fl _t Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	1770	1863	0	0	1863	1583
Fl _t Permitted				0.950			0.224					
Satd. Flow (perm)	0	0	0	1770	0	1583	417	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						326						186
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		223			234			452			367	
Travel Time (s)		5.1			5.3			10.3			8.3	
Volume (vph)	0	0	0	131	0	393	194	662	0	0	880	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	142	0	427	211	720	0	0	957	186
Lane Group Flow (vph)	0	0	0	142	0	427	211	720	0	0	957	186
Turn Type				custom		custom	Perm					Perm
Protected Phases								2			6	
Permitted Phases				8		8	2					6
Detector Phases				8		8	2	2			6	6
Minimum Initial (s)				4.0		4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0		21.0	21.0	21.0			21.0	21.0
Total Split (s)	0.0	0.0	0.0	21.0	0.0	21.0	89.0	89.0	0.0	0.0	89.0	89.0
Total Split (%)	0.0%	0.0%	0.0%	19.1%	0.0%	19.1%	80.9%	80.9%	0.0%	0.0%	80.9%	80.9%
Maximum Green (s)				16.0		16.0	84.0	84.0			84.0	84.0
Yellow Time (s)				3.0		3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0		2.0	2.0	2.0			2.0	2.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Recall Mode				None		None	C-Max	C-Max			C-Max	C-Max
Walk Time (s)				5.0		5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0		11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0		0	0	0			0	0
Act Effct Green (s)				14.5		14.5	87.5	87.5			87.5	87.5
Actuated g/C Ratio				0.13		0.13	0.80	0.80			0.80	0.80
v/c Ratio				0.61		0.87	0.64	0.49			0.65	0.14
Control Delay				51.5		25.8	13.7	3.6			9.7	1.3
Queue Delay				0.0		0.0	0.0	0.2			0.5	0.0
Total Delay				51.5		25.8	13.7	3.8			10.2	1.3
LOS				D		C	B	A			B	A

Lanes, Volumes, Timings
 2: I-84 On/Off Ramp East Bound & Route 52

Baseline

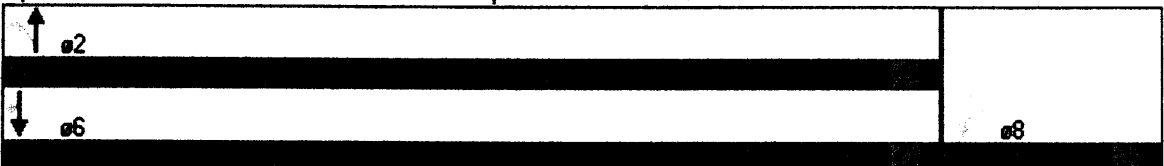


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay								6.1			8.7	
Approach LOS								A			A	
Queue Length 50th (ft)				94		66	22	66			391	9
Queue Length 95th (ft)				159		#231	185	80			597	m21
Internal Link Dist (ft)		143			154			372			287	
Turn Bay Length (ft)				100			80					
Base Capacity (vph)				274		520	332	1481			1481	1297
Starvation Cap Reductn				0		0	0	217			185	0
Spillback Cap Reductn				0		0	0	4			0	0
Storage Cap Reductn				0		0	0	0			0	0
Reduced v/c Ratio				0.52		0.62	0.64	0.57			0.74	0.14

Signal Timing

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 108 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 12.8 Intersection LOS: B
 Intersection Capacity Utilization 76.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: I-84 On/Off Ramp East Bound & Route 52



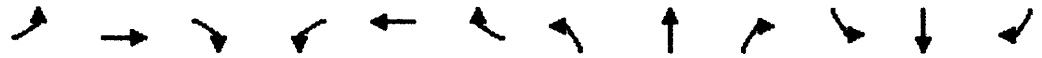
Lanes, Volumes, Timings
4: I-84 On/Off Ramp West Bound & Route 52

Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		170	70		0
Storage Lanes	1		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted	0.950									0.264		
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1863	1583	492	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179						92			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		264			244			117			452	
Travel Time (s)		6.0			5.5			2.7			10.3	
Volume (vph)	56	0	165	0	0	0	0	799	85	312	699	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	0	179	0	0	0	0	868	92	339	760	0
Lane Group Flow (vph)	61	0	179	0	0	0	0	868	92	339	760	0
Turn Type	custom		custom						Perm	Perm		
Protected Phases								2			6	
Permitted Phases	4		4						2	6		
Detector Phases	4		4					2	2	6	6	
Minimum Initial (s)	4.0		4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0					21.0	21.0	21.0	21.0	
Total Split (s)	21.0	0.0	21.0	0.0	0.0	0.0	0.0	89.0	89.0	89.0	89.0	0.0
Total Split (%)	19.1%	0.0%	19.1%	0.0%	0.0%	0.0%	0.0%	80.9%	80.9%	80.9%	80.9%	0.0%
Maximum Green (s)	16.0		16.0					84.0	84.0	84.0	84.0	
Yellow Time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0					2.0	2.0	2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	C-Max	C-Max	
Walk Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0					11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0					0	0	0	0	
Act Effct Green (s)	10.1		10.1					91.9	91.9	91.9	91.9	
Actuated g/C Ratio	0.09		0.09					0.84	0.84	0.84	0.84	
v/c Ratio	0.38		0.58					0.56	0.07	0.82	0.49	
Control Delay	48.1		10.7					4.7	0.6	20.7	2.5	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.4	
Total Delay	48.1		10.7					4.7	0.6	20.7	2.8	
LOS	D		B					A	A	C	A	

Lanes, Volumes, Timings
4: I-84 On/Off Ramp West Bound & Route 52

Baseline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay								4.3			8.3	
Approach LOS								A			A	
Queue Length 50th (ft)	41		0					136	0	56	55	
Queue Length 95th (ft)	82		64					252	8	#394	84	
Internal Link Dist (ft)		184			164			37			372	
Turn Bay Length (ft)			100						170	70		
Base Capacity (vph)	274		396					1556	1338	411	1556	
Starvation Cap Reductn	0		0					0	0	0	327	
Spillback Cap Reductn	0		0					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.22		0.45					0.56	0.07	0.82	0.62	

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 104 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 76.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: I-84 On/Off Ramp West Bound & Route 52

↑ e2	e4
↓ e6	

JOHN COLLINS

ENGINEERS, P.C. TRAFFIC & TRANSPORTATION ENGINEERS

-----11 BRADHURST AVENUE, HAWTHORNE, N.Y., 10532 (914) 347-7500 FAX (914) 347-7266-----

MEMORANDUM

TO: Ken Wersted, P.E. (Creighton Manning Engineering, LLP)
FROM: Philip J. Grealy, Ph.D., P.E. *af*
DATE: February 1, 2007
SUBJECT: Marketplace at Newburgh
PROJECT: No. 837
COPY TO: Bill Balter and Tim Miller

The following items are attached in response to your letter of January 31, 2007.

1. Figures 12P and 13P are attached, which show the pass-by credits with the total volumes at the driveways equaling the total traffic generation shown in Table No. 1-SEN (i.e., 1,286 entering and exiting vehicles for the PM Peak Hour and 1,740 entering and exiting vehicles for the Saturday Peak Hour).
2. The signal phasing for Route 300 and the South Mall Driveway can include an overlap as part of the final design and this would probably improve overall operations.
3. Attached is a copy of the SYNCHRO analysis for the roundabout concept at the Route 52 and Meadow Avenue/Powder Mill access intersection. A copy of the roundabout concept is also attached.
4. The queuing at the Route 52/I-84 interchange and Route 52 access intersection was updated to show the signal timings previously specified. The amount of green time on the exiting traffic from the Marketplace would be controlled to benefit the through traffic along Route 52

during peak time periods. Since the through left volume exiting the driveway is relatively light, this does not create any extensive queue lengths.

5. Comment Noted. No response necessary.

6. The reference in this response will be revised as per the attached to indicate that the northbound right turn lane is existing and that the proposed improvement by Marketplace is a southbound right turn lane at the westbound on/off ramp.

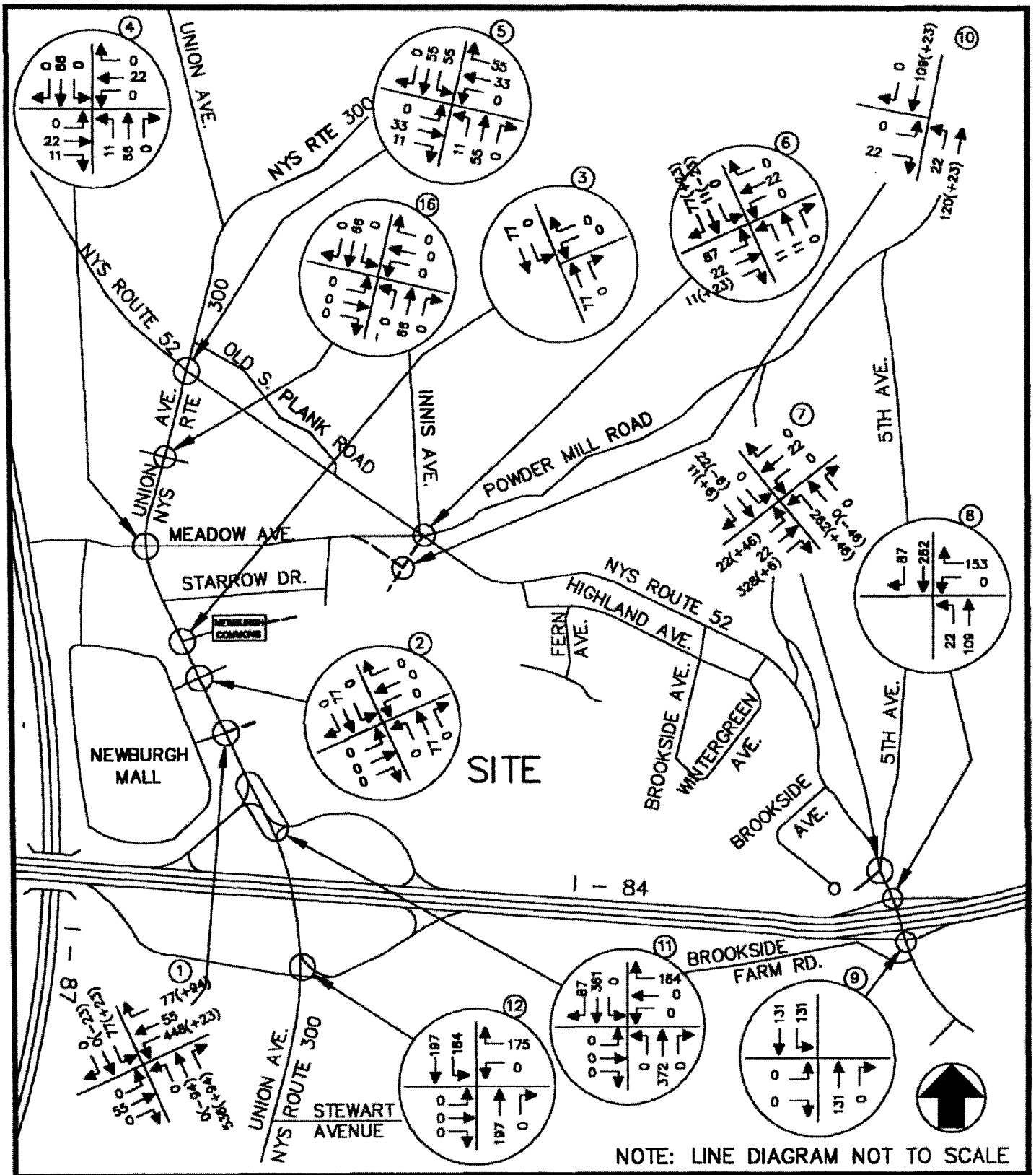
If these materials are acceptable we will incorporate them into the revised FEIS.

TABLE NO. 1-SEN
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
WITH 15% PASS-BY CREDIT

THE MARKET PLACE AT NEWBURGH	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SHOPPING CENTER 500,000 S.F.						
PEAK PM HOUR	1.81	906	770	1.81	906	770
PEAK SAT HOUR	2.47	1232	1047	2.47	1232	1047
SHOPPING CENTER 850,000 S.F.						
PEAK PM HOUR	1.51	1286	1093	1.51	1286	1093
PEAK SAT HOUR	2.04	1740	1479	2.04	1740	1479

NOTES:

- 1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 820 - SHOPPING CENTER.
- 2) THE NEW TRIPS REPRESENT A 15% CREDIT FOR PASS-BY TRIPS DUE TO THE ATTRACTION OF A PORTION OF TRIPS FROM THE EXISTING TRAFFIC STREAM.

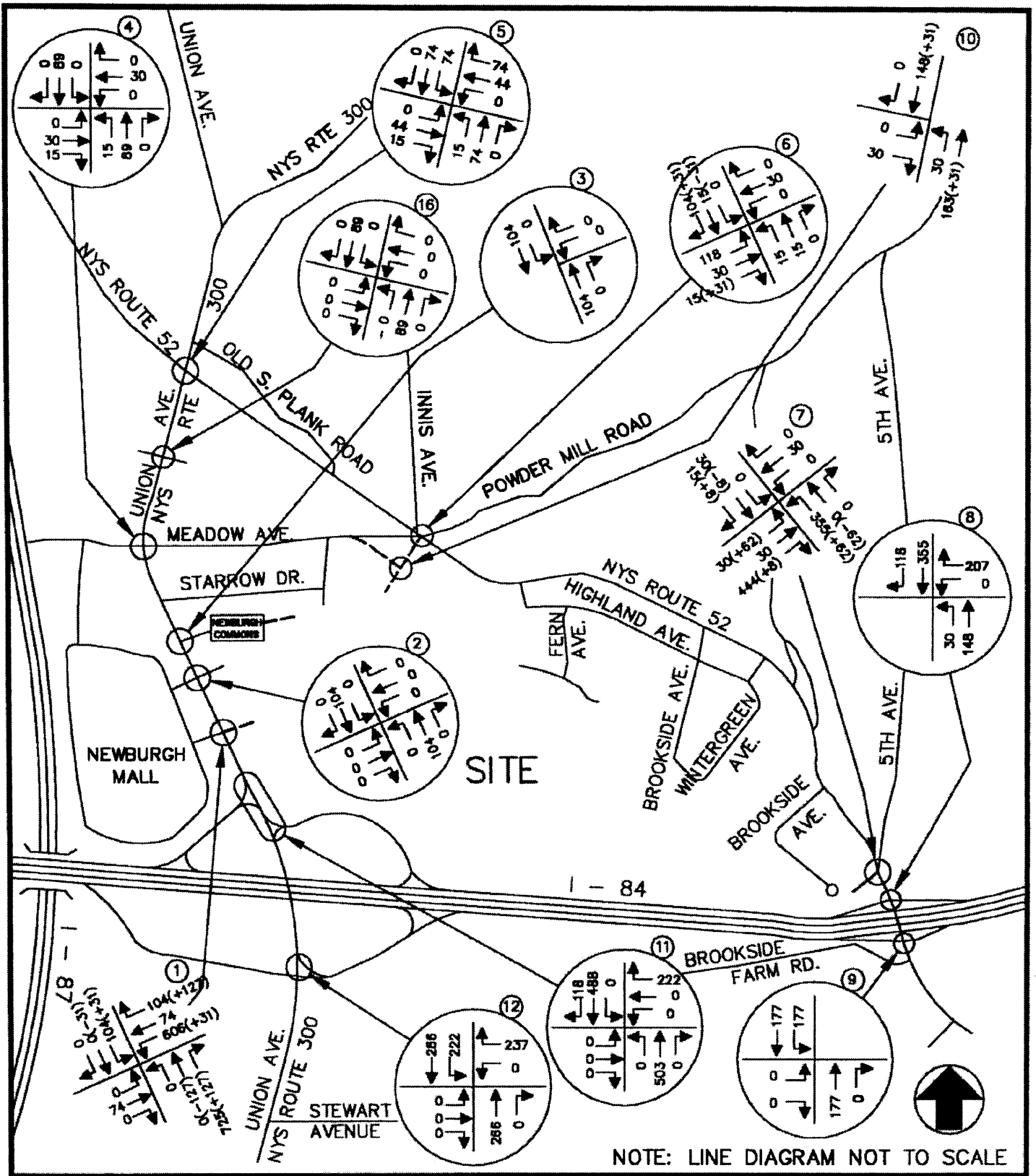


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 12P

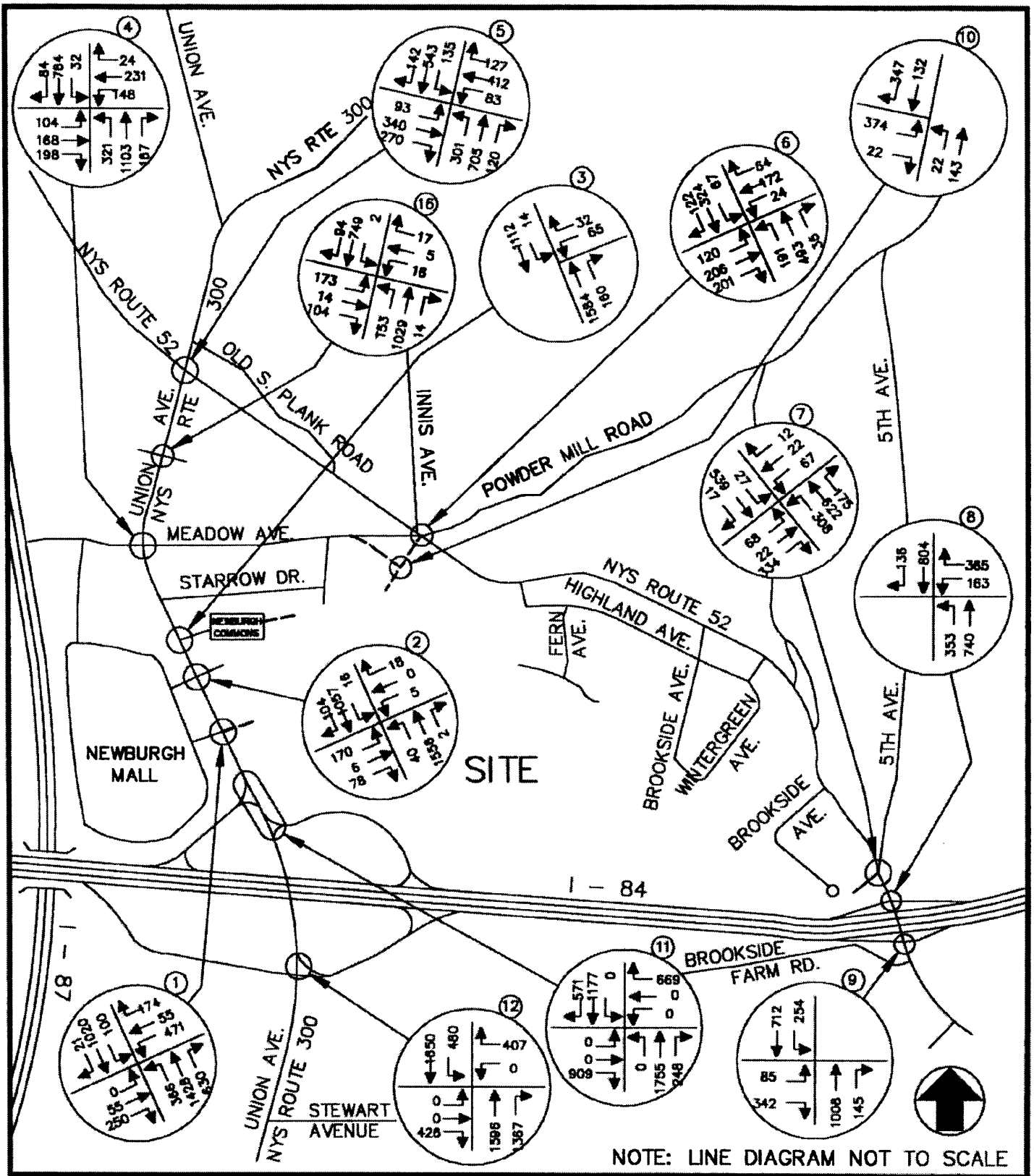


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 13P

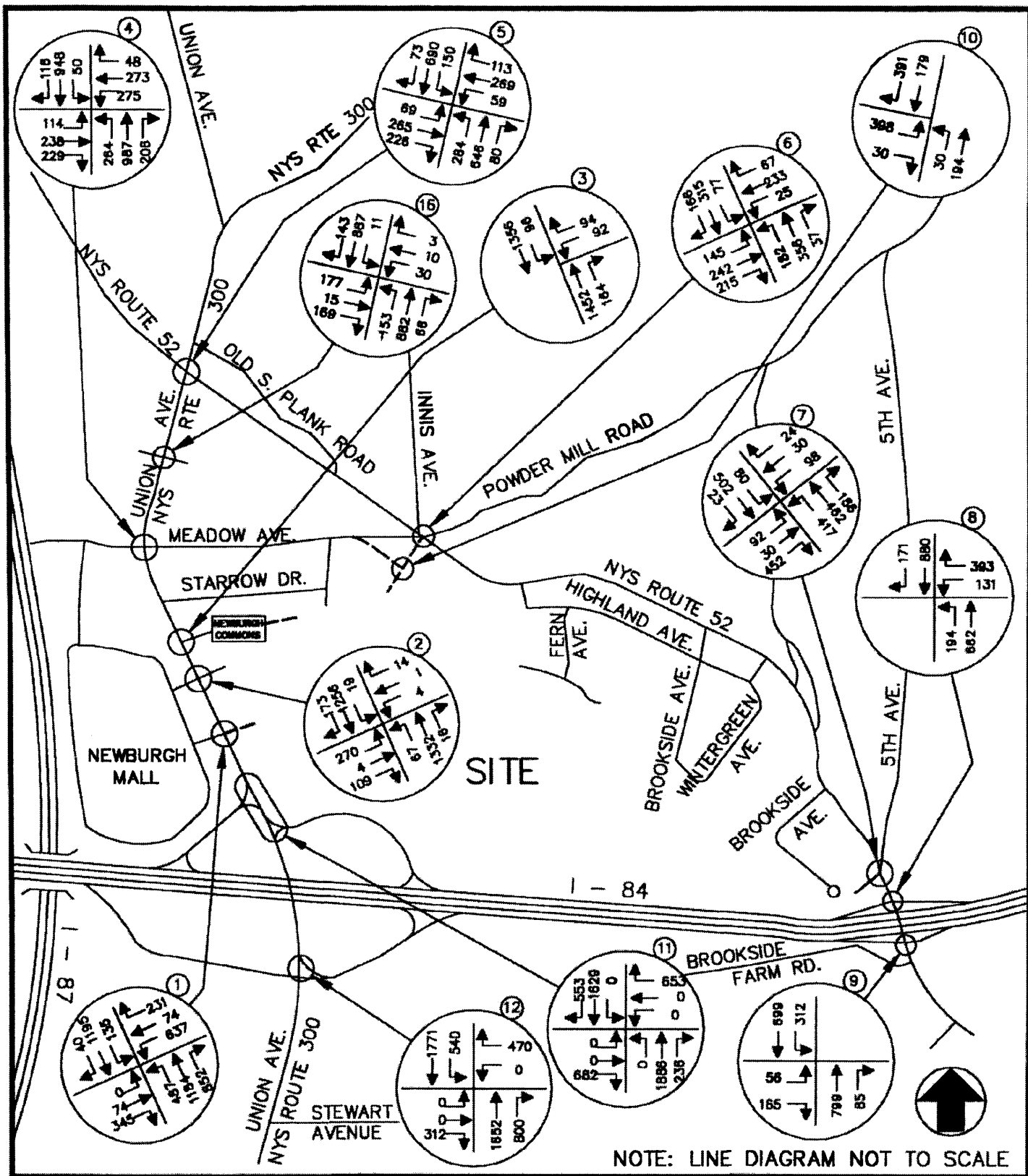


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 14P



THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (850,000 S.F.)

PROJECT NO. 837 DATE: NOV 2006 FIG. NO. 15P

Queues

Baseline

1: Site Access Driveway & Route 52

	→	↘	←	↙	↑	↗	↘	↓
Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	56	426	161	340	570	202	87	565
v/c Ratio	0.24	0.63	0.70	0.64	0.39	0.16	0.18	0.51
Control Delay	41.5	14.3	50.3	7.6	4.4	0.7	13.6	16.3
Queue Delay	0.0	1.2	1.2	0.0	0.5	0.0	0.0	0.0
Total Delay	41.5	15.5	51.5	7.6	4.8	0.7	13.6	16.3
Queue Length 50th (ft)	35	107	103	29	64	0	26	215
Queue Length 95th (ft)	71	180	171	m122	218	m8	67	390
Internal Link Dist (ft)	451		448		287			453
Turn Bay Length (ft)				250		250	100	
Base Capacity (vph)	283	807	277	658	1448	1275	471	1118
Starvation Cap Reductn	0	0	0	4	441	0	0	0
Spillback Cap Reductn	0	191	28	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.69	0.65	0.52	0.57	0.16	0.18	0.51

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX "B"

TABLES

TABLE 2

**LEVEL OF SERVICE SUMMARY TABLE
WITH 500,000 RETAIL**

				500,000 RETAIL					
				2004 EXISTING		2007 NO-BUILD		2007 BUILD	
				PM	SAT	PM	SAT	PM	SAT
1	NYS ROUTE 300 & NEWBURGH MALL (SOUTH) DRIVEWAY/ SITE ACCESS DRIVEWAY	UNSIGNALIZED						N/A	N/A
		EB		C[18.9]	E[44.4]			N/A	N/A
		NB		C[20.2]	F[58.2]				
		WITH SIGNALIZATION						B[15.8]	B[17.4]
		EB		-	-	-	-	C[31.7]	D[54.9]
		WB		-	-	-	-	B[11.8]	C[29.4]
		NB		-	-	-	-	C[26.9]	E[72.5]
	SB		-	-	-	-	B[18.1]	D[44.1]	
	OVERALL								
2	NYS ROUTE 300 & NEWBURGH MALL (NORTH) DRIVEWAY/ RESTAURANT DRIVEWAY	SIGNALIZED						C[22.4]	C[34.6]
		EB		B[16.1]	B[19.6]			B[19.6]	C[23.8]
		WB		B[14.7]	B[14.7]			C[29.3]	B[18.3]
		NB		C[20.4]	B[15.8]			B[19.6]	B[18.1]
		SB		B[13.8]	B[16.9]			C[24.8]	C[20.2]
	OVERALL								
3	NYS ROUTE 300 & AUTO ZONE DRIVEWAY	UNSIGNALIZED							
		WB		F[458.9]	F[762.9]				
		SB		C[16.0]	C[16.1]				
		WITH SIGNALIZATION						C[32.1]	C[31.7]
		WB		-	-	-	-	C[33.9]	C[32.9]
	NB		-	-	-	-	A[8.8]	B[12.5]	
	SB		-	-	-	-	C[24.4]	C[23.8]	
	OVERALL								
4	NYS ROUTE 300 & MEADOW AVENUE/MEADOW HILL ROAD	SIGNALIZED						D[38.2]	E[58.2]
		EB		D[40.6]	D[47.3]			C[26.0]	E[57.7]
		WB		C[22.8]	D[37.0]			B[17.2]	D[36.2]
		NB		C[21.2]	D[35.8]			C[32.9]	E[77.3]
		SB		D[45.7]	D[54.0]			C[25.3]	E[55.7]
	OVERALL								
5	NYS ROUTE 300 & NYS ROUTE 52	SIGNALIZED						-	-
		EB		F[652.1]	F[336.1]			-	-
		WB		F[99.7]	D[40.9]			-	-
		NB		F[124.1]	D[46.9]			-	-
		SB		D[39.9]	D[49.9]			-	-
		OVERALL						-	-
		WITH IMPROVEMENTS						F[374.4]	E[76.2]
		EB		-	-	-	-	F[301.1]	E[74.2]
		WB		-	-	-	-	F[180.5]	E[57.9]
	NB		-	-	-	-	E[66.8]	F[96.3]	
	SB		-	-	-	-	F[217.1]	E[75.7]	
	OVERALL								

NOTES:

1)THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

TABLE 2A

**LEVEL OF SERVICE SUMMARY TABLE
WITH 500,000 RETAIL**

			500,000 RETAIL					
			2004 EXISTING		2007 NO-BUILD		2007 BUILD	
			PM	SAT	PM	SAT	PM	SAT
6	NYS ROUTE 52 & MEADOW AVENUE/POWDER MILL ROAD	SIGNALIZED						
		EB	C[31.3]	C[33.1]			F[110.2]	D[38.0]
		WB	D[49.3]	C[25.5]			F[132.4]	D[49.6]
		NB	A[8.6]	C[22.1]			D[48.8]	E[76.7]
		SB	D[46.6]	B[13.5]			A[9.3]	B[15.8]
		OVERALL	D[36.3]	C[23.1]			E[63.7]	D[48.4]
	WITH IMPROVEMENTS	EB	-	-	-	-	C[23.5]	C[23.8]
		WB	-	-	-	-	C[28.9]	D[52.2]
		NB	-	-	-	-	B[15.2]	B[13.3]
		SB	-	-	-	-	B[11.8]	B[11.8]
		OVERALL	-	-	-	-	B[18.0]	C[22.1]
	7	NYS ROUTE 52 & 5TH AVENUE	UNSIGNALIZED					
			WB	E[46.6]	F[60.9]			
SB			A[9.9]	A[9.7]				
WITH SIGNALIZATION		WB	-	-	-	-	C[34.3]	D[39.7]
		NB	-	-	-	-	D[50.4]	E[67.3]
		SB	-	-	-	-	B[12.5]	E[71.9]
		OVERALL	-	-	-	-	C[34.0]	E[67.3]
8	NYS ROUTE 52 & I-84 ON/OFF RAMP WEST BOUND	SIGNALIZED						
		WB	C[21.0]	C[20.5]			C[32.8]	C[31.8]
		NB	C[25.7]	A[9.6]			C[25.3]	B[13.2]
		SB	B[10.8]	B[10.5]			C[31.6]	C[30.3]
		OVERALL	C[20.2]	B[12.0]			C[28.8]	C[23.5]
9	NYS ROUTE 52 & I-84 ON/OFF RAMP EAST BOUND	UNSIGNALIZED						
		EB	C[28.3]	B[19.9]			C[31.1]	B[19.8]
		NB	D[51.1]	B[12.9]			C[28.3]	B[17.2]
		SB	B[12.5]	A[9.4]			B[16.7]	B[11.7]
		OVERALL	C[33.7]	B[12.4]			C[24.7]	B[15.0]
10	NYS ROUTE 52 & SITE ACCESS DRIVEWAY	UNSIGNALIZED						
		EB	-	-	-	-		
		SB	-	-	-	-		

NOTES:

1)THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

TABLE NO. 1-SEN

**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
WITH 15% PASS-BY CREDIT**

THE MARKET PLACE AT NEWBURGH	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SHOPPING CENTER 700,000 S.F.						
PEAK PM HOUR	1.62	1131	961	1.62	1131	961
PEAK SAT HOUR	2.19	1533	1303	2.19	1533	1303

NOTES:

- 1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 820 - SHOPPING CENTER.
- 2) THE NEW TRIPS REPRESENT A 15% CREDIT FOR PASS-BY TRIPS DUE TO THE ATTRACTION OF A PORTION OF TRIPS FROM THE EXISTING TRAFFIC STREAM.

TABLE 2S

LEVEL OF SERVICE SUMMARY TABLE
W/O MEADOW AVENUE ACCESS

		2004 EXISTING		2008 NO-BUILD		700,000 RETAIL 2008 BUILD		
		PM	SAT	PM	SAT	PM	SAT	
1	NYS ROUTE 300 & NEWBURGH MALL (SOUTH) DRIVEWAY/ SITE ACCESS DRIVEWAY	UN SIGNALIZED						
		EB	C[20.2]	E[44.4]	C[21.8]	F[77.1]	N/A	N/A
	NB	C[18.9]	F[58.2]	C[21.0]	F[122.1]	N/A	N/A	
	W/ SIGNAL & IMPROVEMENTS	EB	-	-	-	-	D[35.3]	C[34.4]
		WB	-	-	-	-	D[39.2]	D[47.9]
		NB	-	-	-	-	B[10.8]	B[16.7]
SB		-	-	-	-	B[16.9]	E[68.0]	
OVERALL	-	-	-	-	B[17.6]	D[37.1]		
2	NYS ROUTE 300 & NEWBURGH MALL (NORTH) DRIVEWAY/ RESTAURANT DRIVEWAY	SIGNALIZED						
		EB	B[16.8]	B[19.6]	C[22.3]	C[33.2]	C[22.3]	C[32.3]
	WB	B[14.7]	B[14.7]	B[19.6]	C[23.8]	B[19.6]	C[23.8]	
	NB	C[20.4]	B[15.8]	C[27.9]	B[15.1]	C[34.2]	B[17.1]	
	SB	B[13.6]	B[16.9]	B[18.6]	B[16.0]	B[19.8]	B[16.9]	
	OVERALL	B[17.5]	B[16.7]	C[23.8]	B[17.8]	C[27.5]	B[18.8]	
3	NYS ROUTE 300 & AUTO ZONE DRIVEWAY	UN SIGNALIZED						
		WB	F[421.7]	F[762.9]	F[634.6]	F[1055]	F[864.4]	F
	SB	C[15.4]	C[16.1]	C[16.7]	C[17.5]	C[17.8]	C[18.9]	
	WITH SIGNALIZATION	WB	-	-	C[30.9]	C[30.2]	C[30.9]	C[30.2]
		NB	-	-	C[32.3]	C[27.1]	D[43.1]	C[35.0]
		SB	-	-	A[8.4]	B[10.8]	B[11.7]	B[11.7]
OVERALL		-	-	C[23.3]	C[20.1]	C[29.7]	C[24.3]	
4	NYS ROUTE 300 & MEADOW AVENUE/MEADOW HILL ROAC	SIGNALIZED						
		EB	D[40.6]	D[47.3]	D[41.4]	E[64.3]	D[43.2]	E[68.1]
	WB	C[22.8]	D[37.0]	C[28.0]	D[50.4]	C[28.7]	D[48.2]	
	NB	C[22.4]	D[35.8]	C[26.2]	C[34.6]	B[17.3]	C[23.8]	
	SB	D[45.7]	D[54.0]	D[41.3]	E[62.2]	C[29.3]	D[47.5]	
	OVERALL	C[30.9]	D[43.2]	C[32.4]	D[49.9]	C[25.3]	D[41.4]	
5	NYS ROUTE 300 & NYS ROUTE 52	SIGNALIZED						
		EB	F[198.9]	C[31.0]	F[224.5]	D[33.4]	F[324.4]	E[61.2]
	WB	F[176.4]	C[34.8]	F[200.4]	D[36.6]	F[264.2]	E[54.6]	
	NB	F[112.0]	C[24.7]	F[143.3]	D[38.5]	F[172.1]	E[51.2]	
	SB	D[39.9]	D[40.9]	D[44.9]	D[47.4]	E[58.7]	E[65.3]	
	OVERALL	F[125.8]	C[32.2]	F[148.1]	D[40.0]	F[194.1]	E[58.0]	
	WITH IMPROVEMENTS	EB	-	-	D[38.8]	C[26.2]	D[42.0]	C[28.0]
		WB	-	-	D[52.2]	C[30.5]	E[63.1]	C[30.3]
		NB	-	-	C[26.3]	C[25.4]	D[41.9]	D[38.2]
		SB	-	-	D[53.8]	D[35.1]	E[75.0]	D[45.6]
OVERALL		-	-	D[40.5]	C[29.1]	E[54.3]	D[37.4]	
6		NYS ROUTE 52 & MEADOW AVENUE/POWDER MILL ROAC	SIGNALIZED					
	EB		E[78.7]	C[33.1]	F[109.6]	D[38.1]	F[496.3]	F[430.1]
	WB	D[35.1]	C[25.5]	D[39.0]	C[26.9]	D[42.0]	C[30.2]	
	NB	B[17.6]	C[22.1]	C[23.6]	C[29.1]	D[43.0]	F[89.2]	
	SB	A[8.5]	B[13.5]	A[8.9]	B[14.5]	B[10.3]	C[20.3]	
	OVERALL	C[31.0]	C[23.1]	D[41.1]	C[27.1]	F[150.3]	F[162.0]	
	WITH IMPROVEMENTS	EB	-	-	-	-	C[29.1]	C[26.8]
		WB	-	-	-	-	C[28.3]	C[28.3]
		NB	-	-	-	-	C[34.7]	C[29.3]
		SB	-	-	-	-	C[22.5]	C[27.7]
OVERALL		-	-	-	-	C[29.6]	C[28.2]	
7		NYS ROUTE 52 & 5TH AVENUE	UN SIGNALIZED					
	EB		-	-	-	-	F	F
	WB	E[44.5]	F[60.9]	F[62.3]	F[92.9]	F	F	
	NB	-	-	-	-	B[10.5]	B[11.3]	
	SB	A[9.9]	A[9.7]	B[10.2]	A[9.9]	B[10.1]	A[9.8]	
	W/ SIGNAL & LANE IMPROVEMENTS	EB	-	-	-	-	D[42.7]	D[45.2]
		WB	-	-	-	-	D[53.7]	D[53.6]
		NB	-	-	-	-	C[27.2]	D[42.8]
SB		-	-	-	-	B[13.1]	D[54.6]	
OVERALL		-	-	-	-	C[27.4]	D[47.5]	

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

TABLE 2S(CONTD.)

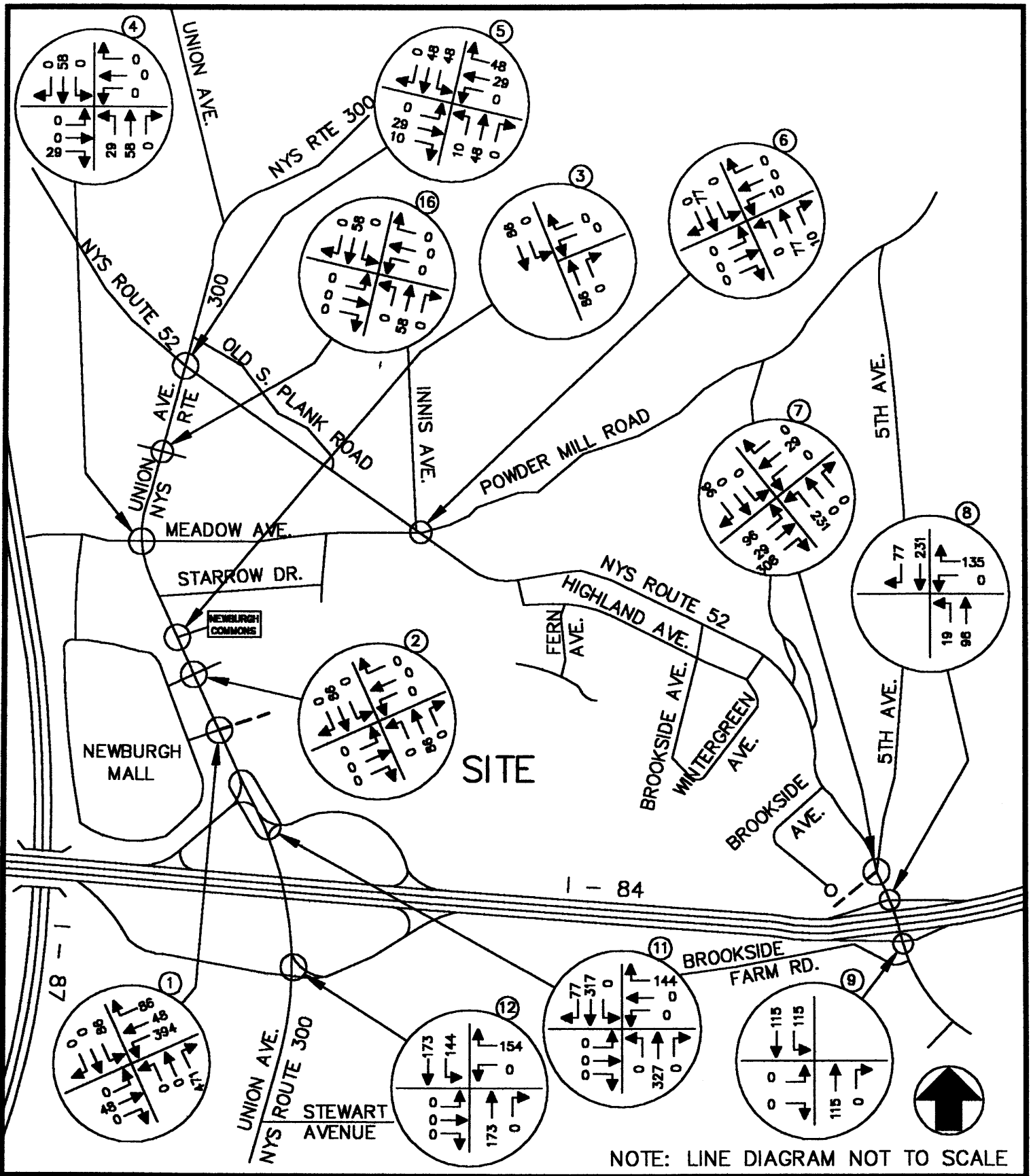
LEVEL OF SERVICE SUMMARY TABLE
W/O MEADOW AVENUE ACCESS

			2004 EXISTING		2008 NO-BUILD		700,000 RETAIL	
							2008 BUILD	
			PM	SAT	PM	SAT	PM	SAT
8	NYS ROUTE 52 & I-84 ON/OFF RAMP WEST BOUND	SIGNALIZED WB NB SB OVERALL	C[21.0] C[25.7] B[10.8] C[20.2]	C[20.5] A[9.6] B[10.5] B[12.0]	C[21.6] D[40.6] B[11.5] C[28.0]	C[20.8] B[10.3] B[11.3] B[12.8]	D[39.7] B[18.4] C[34.4] C[28.2]	C[35.0] B[14.0] C[31.8] C[25.8]
9	NYS ROUTE 52 & I-84 ON/OFF RAMP EAST BOUND	SIGNALIZED EB NB SB OVERALL	C[28.3] B[19.8] C[30.0] C[24.8]	B[19.9] B[10.7] A[9.4] B[11.4]	D[36.0] C[26.7] D[47.0] D[35.2]	C[20.3] B[11.5] B[10.5] B[12.3]	C[34.2] D[43.1] B[14.3] C[30.4]	C[23.5] B[13.2] B[13.5] B[14.2]
10	RELOCATED MEADOW AVENUE & SITE ACCESS DRIVEWAY	SIGNALIZED EB NB SB OVERALL	- - - -	- NOT - -	- APPLICABLE - -	- - - -	- - - -	- - - -
11	NYS ROUTE 300 & INTERSTATE 84 (WEST BOUND RAMP)	UNSIGNALIZED EB WB	F[244.0] F[225.2]	F[247.2] F[136.4]	- -	- -	- -	- -
	WITH SIGNALIZATION	WB NB SB OVERALL	- - - -	- - - -	C[25.4] B[17.5] B[13.3] B[18.8]	C[22.2] B[12.9] B[11.0] B[14.6]	C[23.1] D[35.1] B[15.9] C[25.3]	B[19.0] C[26.5] B[15.7] C[20.5]
12	NYS ROUTE 300 & INTERSTATE 84 (EAST BOUND RAMP)	SIGNALIZED EB WB NB SB OVERALL	A[7.7] A[0.2] B[11.0] A[3.0] A[7.6]	A[7.7] A[0.2] B[11.0] A[3.0] A[7.6]	B[13.5] A[0.2] C[28.8] A[3.4] B[17.7]	B[11.7] A[0.2] C[34.5] A[3.6] B[18.8]	B[13.5] A[0.3] C[31.6] A[6.0] B[19.1]	B[10.6] A[0.3] B[16.3] A[6.1] B[10.4]
13	NYS ROUTE 300 & NYS ROUTE 32	SIGNALIZED EB WB NB SB OVERALL	C[34.1] C[21.6] C[27.5] B[19.7] C[27.4]	C[29.4] C[23.4] C[24.5] B[18.9] C[24.7]	D[43.7] C[24.2] C[30.7] C[20.0] C[31.9]	D[37.1] C[22.4] C[26.8] B[19.4] C[27.7]	D[42.4] C[22.4] D[40.2] C[21.2] D[35.0]	D[35.8] C[24.2] D[35.6] C[21.1] C[30.7]
14	NYS ROUTE 300 & NYS ROUTE 17K	SIGNALIZED EB WB NB SB OVERALL	D[44.5] D[41.8] C[27.2] C[31.4] D[35.8]	D[40.1] D[40.4] C[26.4] C[33.1] C[34.4]	D[49.5] D[43.1] D[35.1] D[41.5] D[41.8]	D[43.5] D[43.5] C[28.1] D[37.9] D[37.4]	D[51.2] D[45.0] D[39.6] D[49.3] D[45.8]	D[44.0] D[43.7] C[32.7] D[50.0] D[42.1]
15	NYS ROUTE 17K I-87 RAMP/UNITY PLACE	SIGNALIZED EB WB NB SB OVERALL	C[21.6] C[28.1] C[21.5] B[15.8] C[23.4]	C[25.4] C[26.3] C[22.9] B[15.3] C[24.7]	C[26.2] C[30.3] C[21.7] B[16.0] C[26.0]	C[28.8] C[28.3] C[23.3] B[15.2] C[26.8]	C[26.4] C[31.9] C[22.1] B[16.0] C[26.8]	C[30.7] C[29.8] C[24.2] B[15.2] C[28.3]
16	NYS ROUTE 300 & STOP N SHOP/NEWBURGH CINEMA DRIV	SIGNALIZED EB WB NB SB OVERALL	C[29.2] C[24.9] B[18.2] B[17.7] B[19.6]	C[28.6] C[24.3] B[17.9] C[20.2] C[20.6]	C[30.0] C[25.1] B[19.4] B[18.4] C[20.5]	C[29.4] C[24.5] B[19.1] C[21.5] C[21.7]	C[30.0] C[25.1] C[20.4] B[19.0] C[21.2]	C[29.4] C[24.5] C[20.6] C[23.0] C[22.9]

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

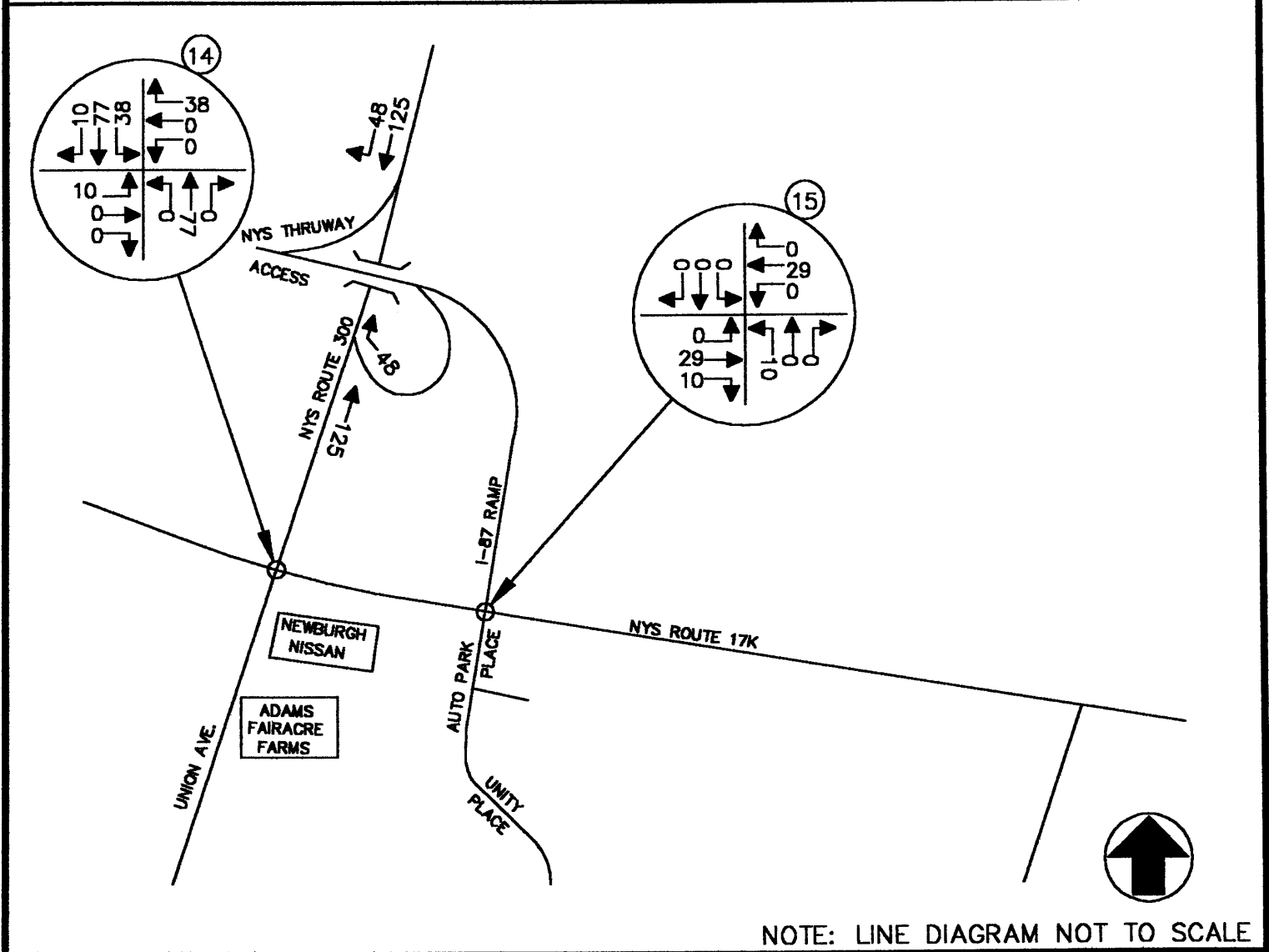
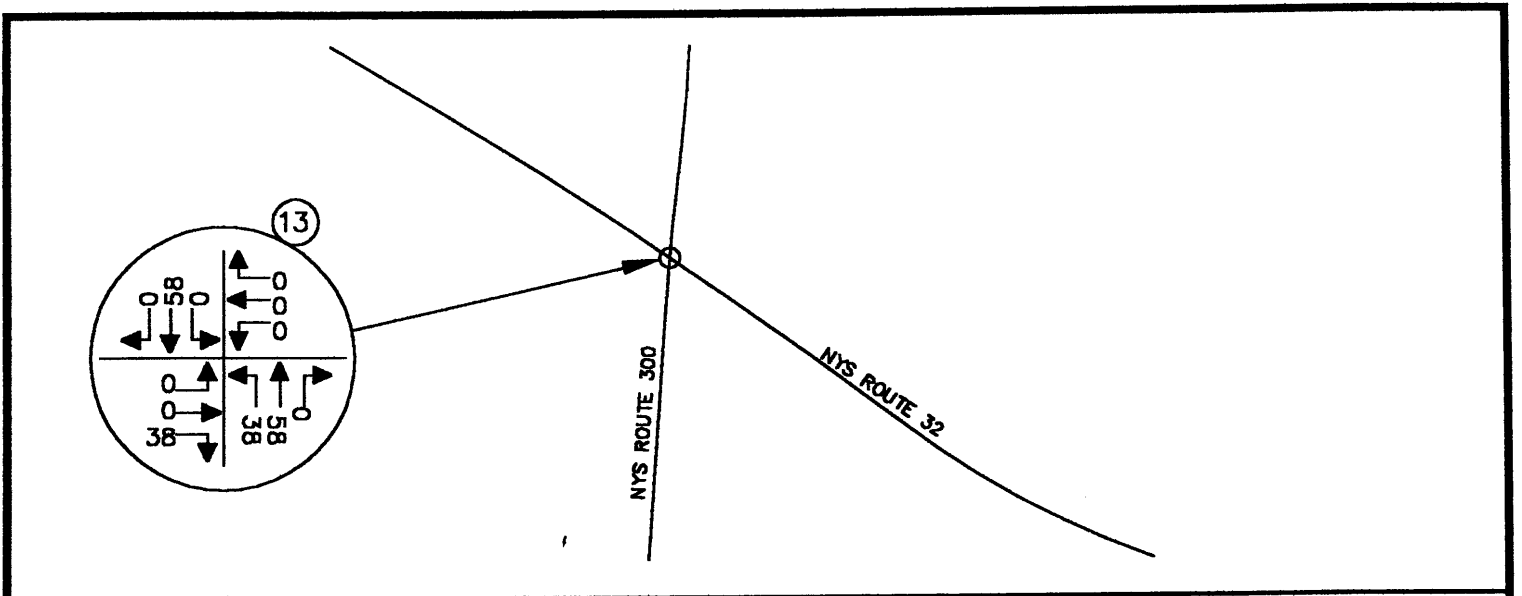


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 12



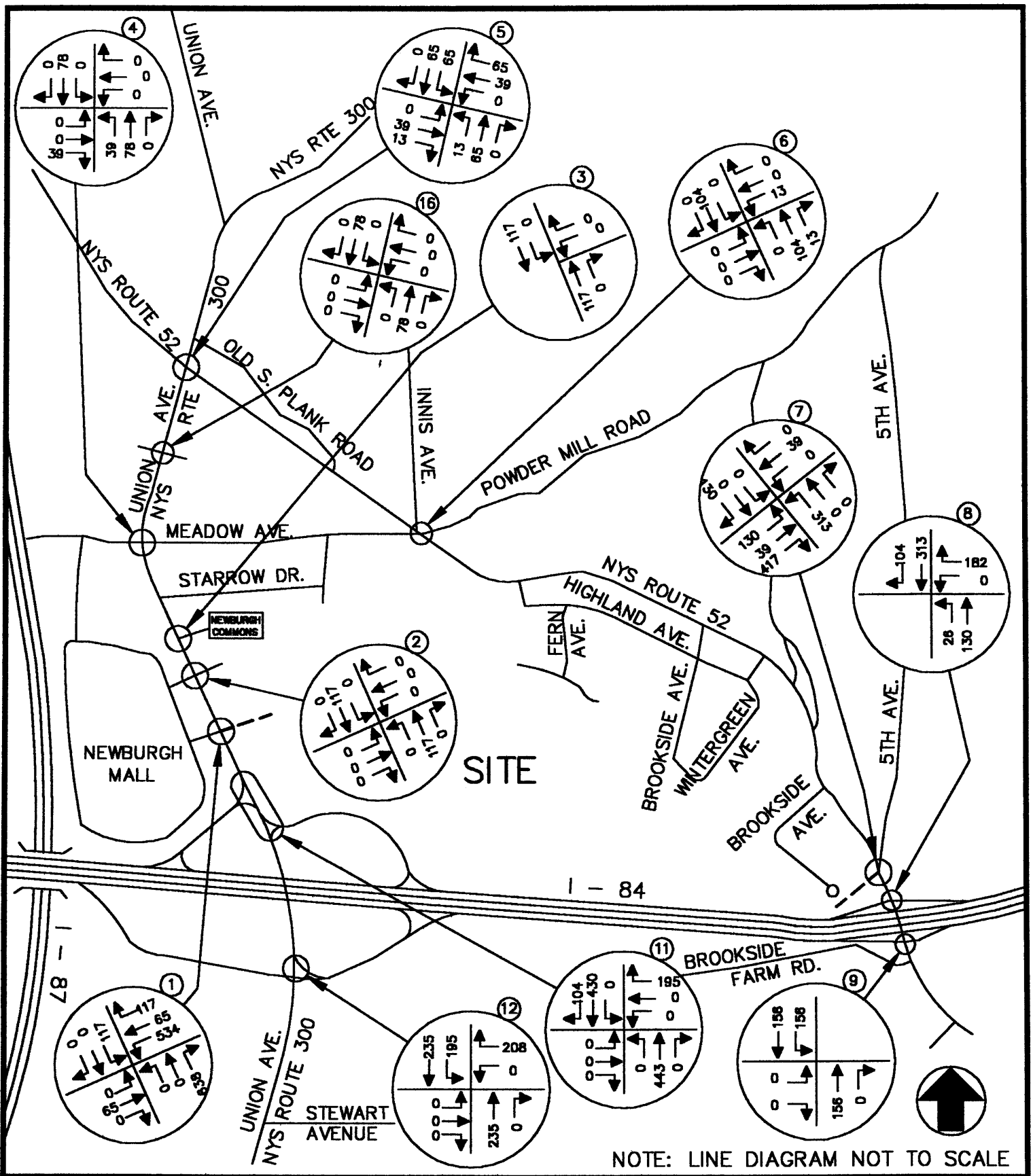
NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY**

**SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)**

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PROJECT NO. 837 DATE: DEC 2006 FIG. NO.12A

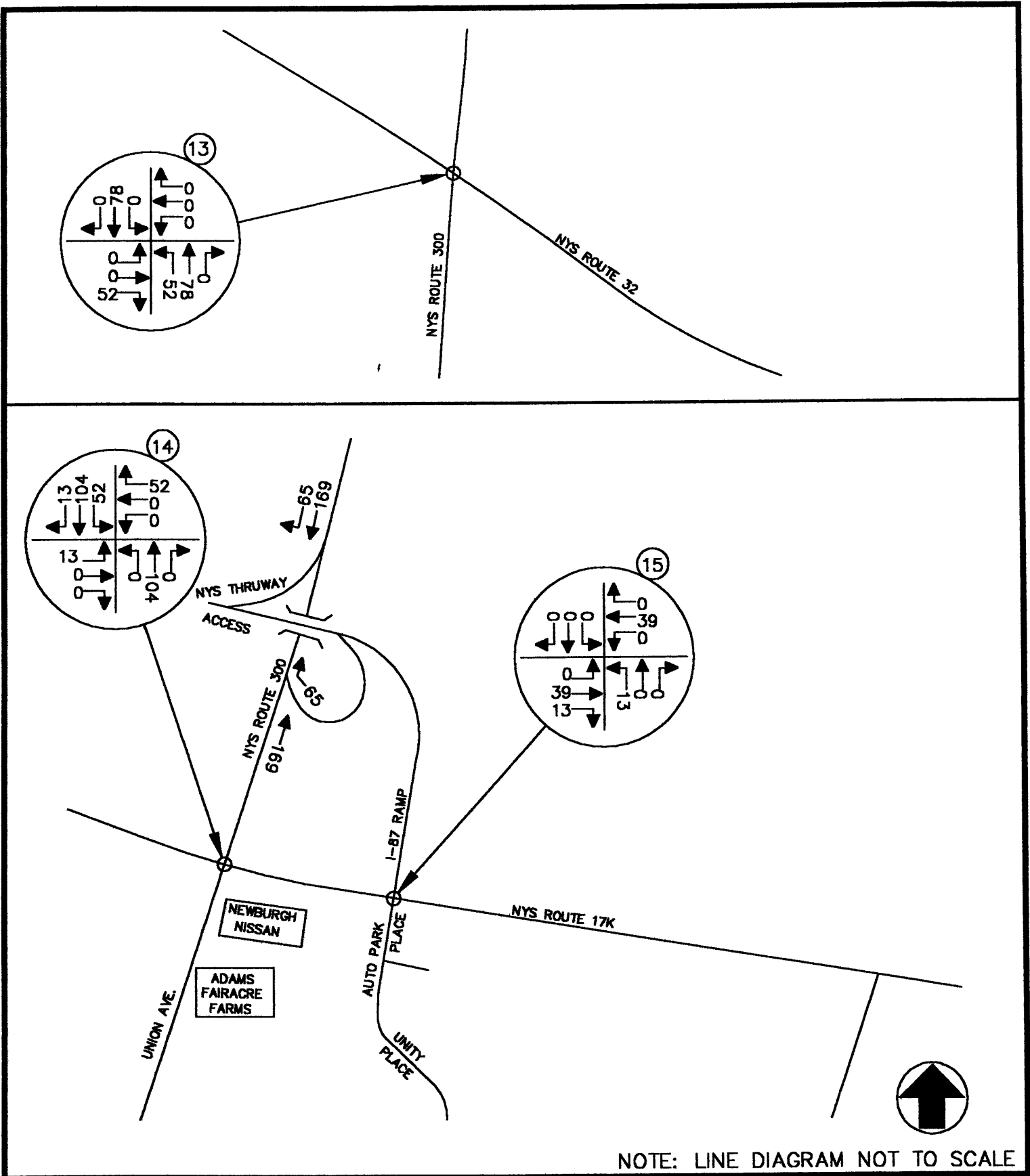


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SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 13



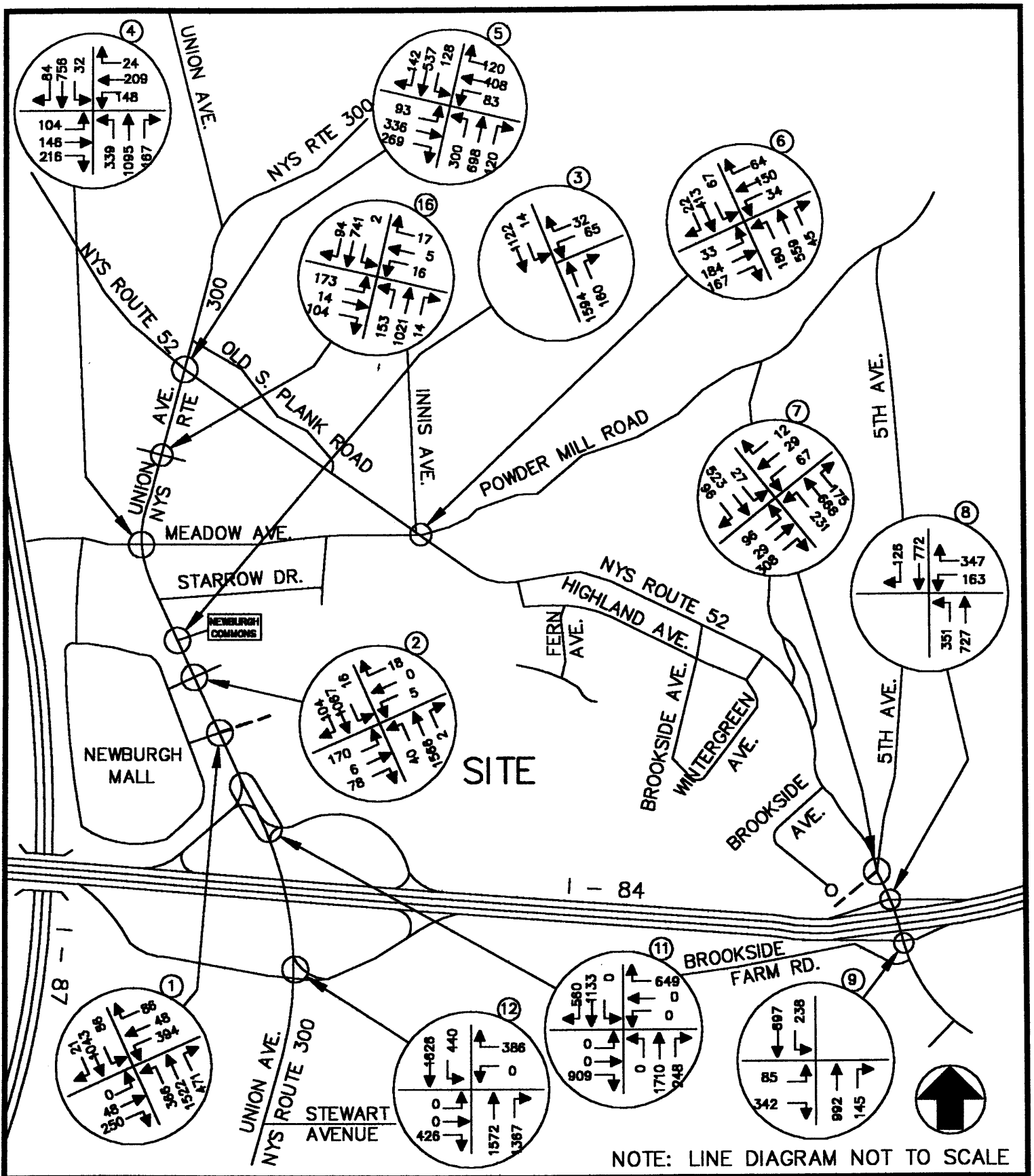
NOTE: LINE DIAGRAM NOT TO SCALE

**THE MARKET PLACE AT NEWBURGH
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SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

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PROJECT NO. 837 DATE: DEC 2006 FIG. NO.13A

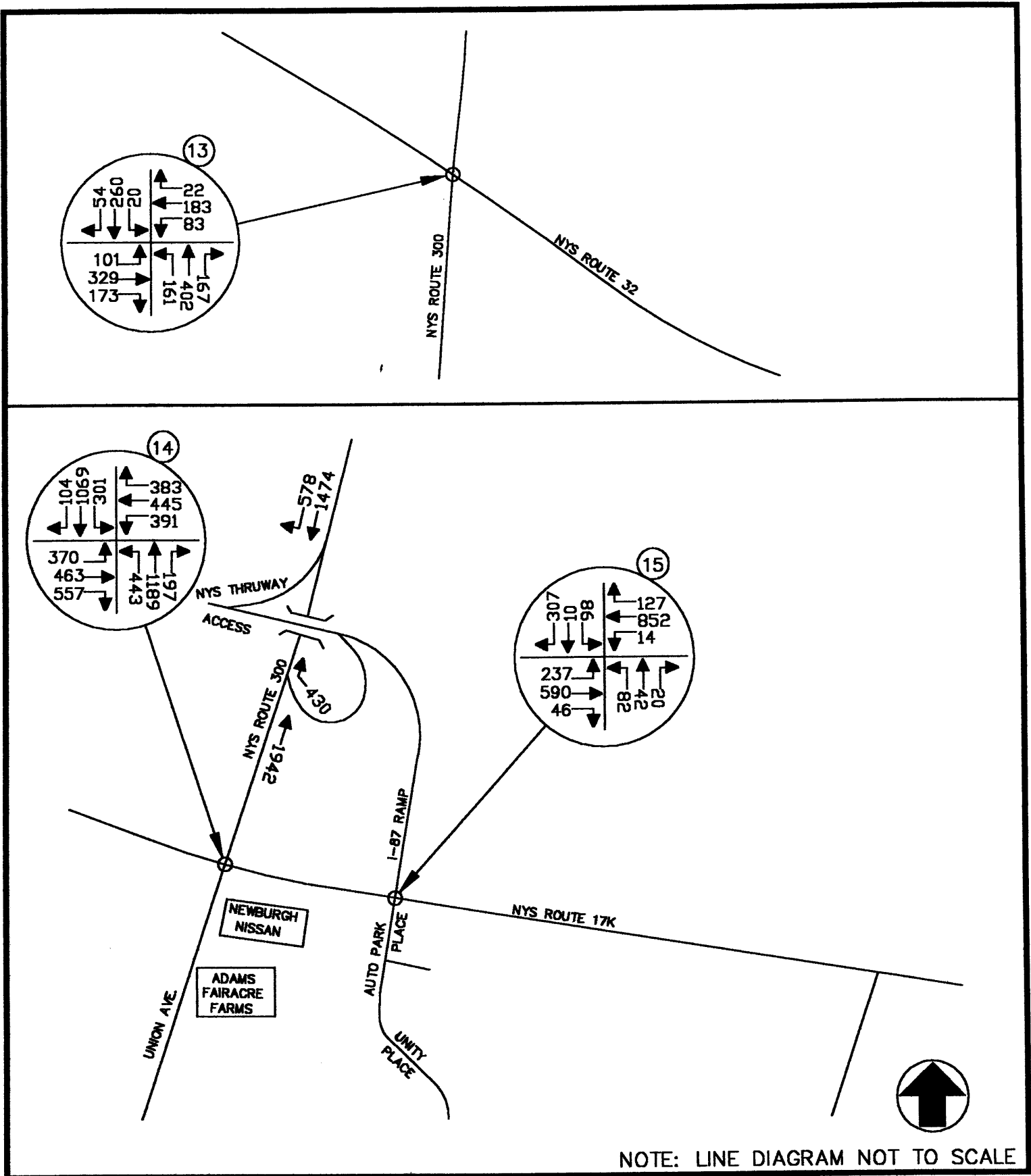


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2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 14

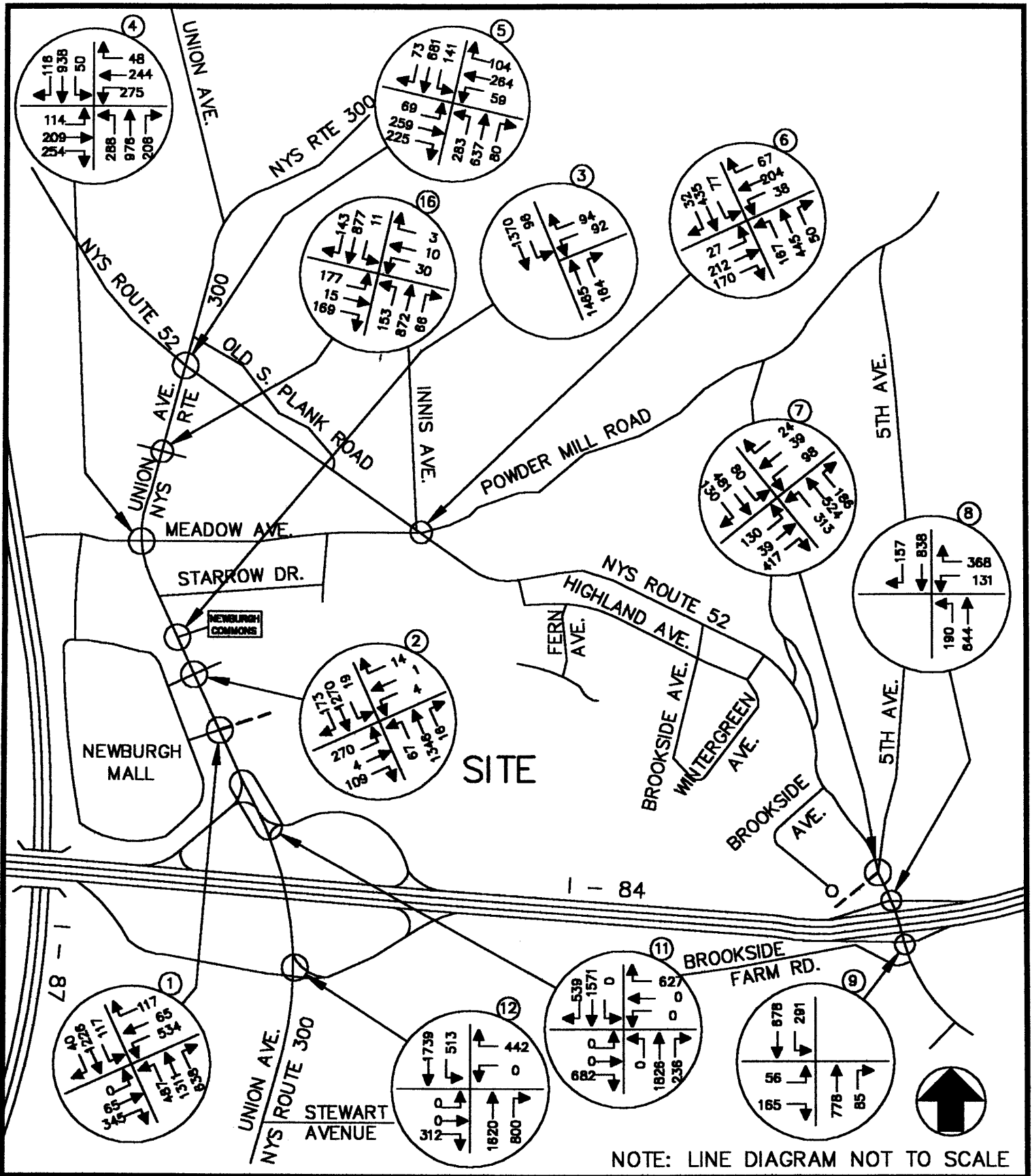


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WEEKDAY PEAK PM HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO.14A

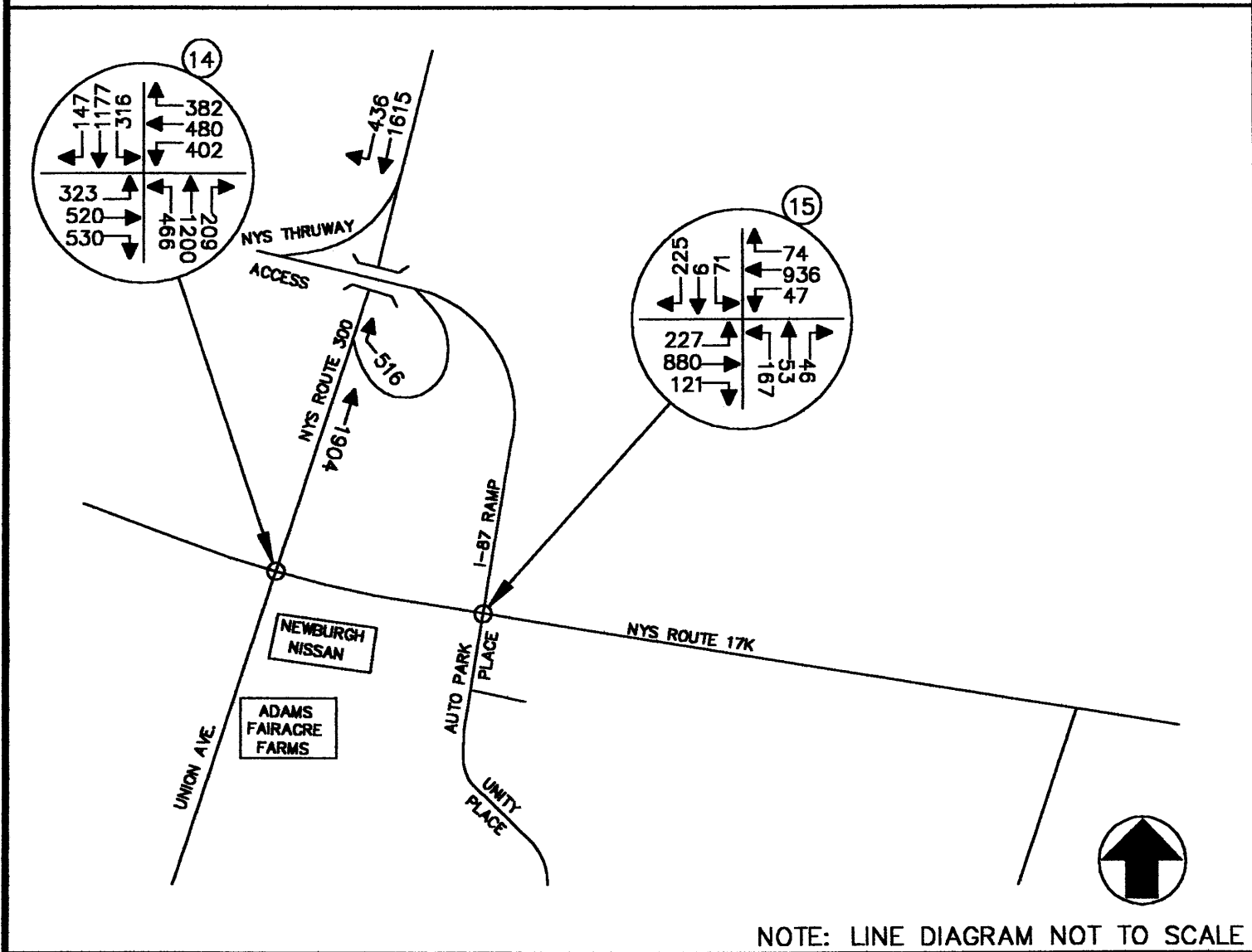
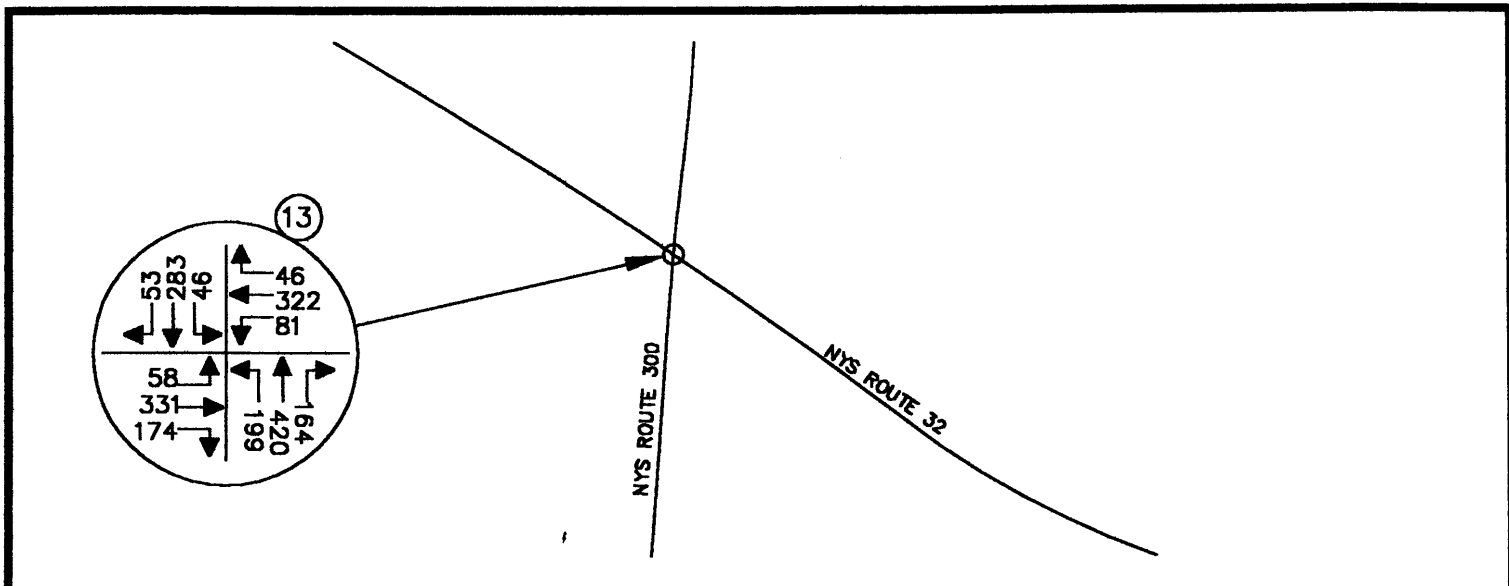


THE MARKET PLACE AT NEWBURGH
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 HAWTHORNE, NEW YORK

2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 15



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

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PROJECT NO. 837 DATE: DEC 2006 FIG. NO.15A

TABLE NO. 1

**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
WITH ROUTE 300 ACCESS ONLY**

THE MARKET PLACE AT NEWBURGH	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SHOPPING CENTER 450,000 S.F.						
PEAK PM HOUR	1.88	845	634	1.88	845	634
PEAK SAT HOUR	2.56	1150	863	2.56	1150	863

NOTES:

- 1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 820 - SHOPPING CENTER.
- 2) THE NEW TRIPS REPRESENT A 25% CREDIT FOR PASS-BY TRIPS DUE TO THE ATTRACTION OF A PORTION OF TRIPS FROM THE EXISTING TRAFFIC STREAM.

TABLE 2S

LEVEL OF SERVICE SUMMARY TABLE
W/ROUTE 300 ACCESS ONLY

		450,000 RETAIL						
		2004 EXISTING		2008 NO-BUILD		2008 BUILD		
		PM	SAT	PM	SAT	PM	SAT	
1	NYS ROUTE 300 & NEWBURGH MALL (SOUTH) DRIVEWAY/ SITE ACCESS DRIVEWAY	UN SIGNALIZED						
		EB	C[20.2]	E[44.4]	C[21.8]	F[77.1]	N/A	N/A
	NB	C[18.9]	F[58.2]	C[21.0]	F[122.1]	N/A	N/A	
	W/ SIGNAL & IMPROVEMENTS	EB	-	-	-	-	D[37.0]	C[34.4]
		WB	-	-	-	-	D[41.2]	E[59.9]
		NB	-	-	-	-	A[9.6]	B[16.1]
		SB	-	-	-	-	C[24.2]	D[53.8]
OVERALL	-	-	-	-	C[20.8]	D[36.8]		
2	NYS ROUTE 300 & NEWBURGH MALL (NORTH) DRIVEWAY/ RESTAURANT DRIVEWAY	SIGNALIZED						
		EB	B[16.8]	B[19.6]	C[22.3]	C[33.2]	C[22.3]	C[34.8]
	WB	B[14.7]	B[14.7]	B[19.6]	C[23.8]	B[19.6]	C[24.8]	
	NB	C[20.4]	B[15.8]	C[27.9]	B[15.1]	D[40.5]	B[17.4]	
	SB	B[13.6]	B[16.9]	B[18.6]	B[16.0]	C[20.7]	B[16.6]	
	OVERALL	B[17.5]	B[16.7]	C[23.8]	B[17.8]	C[31.2]	B[19.1]	
	3	NYS ROUTE 300 & AUTO ZONE DRIVEWAY	UN SIGNALIZED					
WB			F[421.7]	F[762.9]	F[634.6]	F[1055]	F	F
SB		C[15.4]	C[16.1]	C[16.7]	C[17.5]	C[18.5]	C[20.3]	
WITH SIGNALIZATION		WB	-	-	C[30.9]	C[30.2]	C[30.9]	C[30.2]
		NB	-	-	C[32.3]	C[27.1]	D[51.2]	D[43.9]
		SB	-	-	A[8.4]	B[10.8]	A[9.1]	B[12.2]
		OVERALL	-	-	C[23.3]	C[20.1]	C[34.4]	C[28.9]
4	NYS ROUTE 300 & MEADOW AVENUE/MEADOW HILL ROAC	SIGNALIZED						
		EB	D[40.6]	D[47.3]	D[41.4]	E[64.3]	D[41.1]	E[60.5]
	WB	C[22.8]	D[37.0]	C[28.0]	D[50.4]	D[35.7]	E[75.9]	
	NB	C[22.4]	D[35.8]	C[26.2]	C[34.6]	B[17.8]	C[21.2]	
	SB	D[45.7]	D[54.0]	D[41.3]	E[62.2]	C[31.1]	E[57.6]	
	OVERALL	C[30.9]	D[43.2]	C[32.4]	D[49.9]	C[26.5]	D[46.4]	
	5	NYS ROUTE 300 & NYS ROUTE 52	SIGNALIZED					
EB			F[198.9]	C[31.0]	F[224.5]	C[33.4]	F[217.3]	C[32.5]
WB		F[176.4]	C[34.8]	F[200.4]	F[36.6]	F[200.4]	D[36.6]	
NB		F[112.0]	C[24.7]	F[143.3]	D[38.5]	F[190.2]	E[65.6]	
SB		D[39.9]	D[40.9]	D[44.9]	D[47.4]	E[65.0]	E[77.4]	
OVERALL		F[125.8]	C[32.2]	F[148.1]	D[40.0]	F[167.0]	E[59.4]	
WITH IMPROVEMENTS		EB	-	-	D[38.8]	C[26.2]	D[41.9]	C[28.5]
	WB	-	-	D[52.2]	C[30.5]	E[66.3]	C[34.0]	
	NB	-	-	C[26.3]	C[25.4]	D[37.4]	D[36.6]	
	SB	-	-	D[53.8]	D[35.1]	F[84.9]	D[50.8]	
	OVERALL	-	-	D[40.5]	C[29.1]	E[55.2]	D[39.1]	
	6	NYS ROUTE 52 & MEADOW AVENUE/POWDER MILL ROAC	SIGNALIZED					
EB			E[78.7]	C[33.1]	F[109.6]	D[38.1]	F[496.3]	F[430.1]
WB		D[35.1]	C[25.5]	D[39.0]	C[26.9]	D[42.0]	C[30.2]	
NB		B[17.6]	C[22.1]	C[23.6]	C[29.1]	D[43.0]	F[89.2]	
SB		A[8.5]	B[13.5]	A[8.9]	B[14.5]	B[10.3]	C[20.3]	
OVERALL		C[31.0]	C[23.1]	D[41.1]	C[27.1]	F[150.3]	F[162.0]	
WITH IMPROVEMENTS		EB	-	-	-	-	C[29.1]	C[26.8]
	WB	-	-	-	-	C[28.3]	C[28.3]	
	NB	-	-	-	-	C[34.7]	C[29.3]	
	SB	-	-	-	-	C[22.5]	C[27.7]	
	OVERALL	-	-	-	-	C[29.6]	C[28.2]	
	7	NYS ROUTE 52 & 5TH AVENUE	UN SIGNALIZED					
EB			-	-	-	-	F	F
WB		E[44.5]	F[60.9]	F[62.3]	F[92.9]	F	F	
NB		-	-	-	-	B[10.5]	B[11.3]	
SB		A[9.9]	A[9.7]	B[10.2]	A[9.9]	B[10.1]	A[9.8]	
W/ SIGNAL & LANE IMPROVEMENTS		EB	-	-	-	-	D[42.7]	D[45.2]
		WB	-	-	-	-	D[53.7]	D[53.6]
	NB	-	-	-	-	C[27.2]	D[42.8]	
	SB	-	-	-	-	B[13.1]	D[54.6]	
OVERALL	-	-	-	-	C[27.4]	D[47.5]		

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

TABLE 2S(CONTD.)

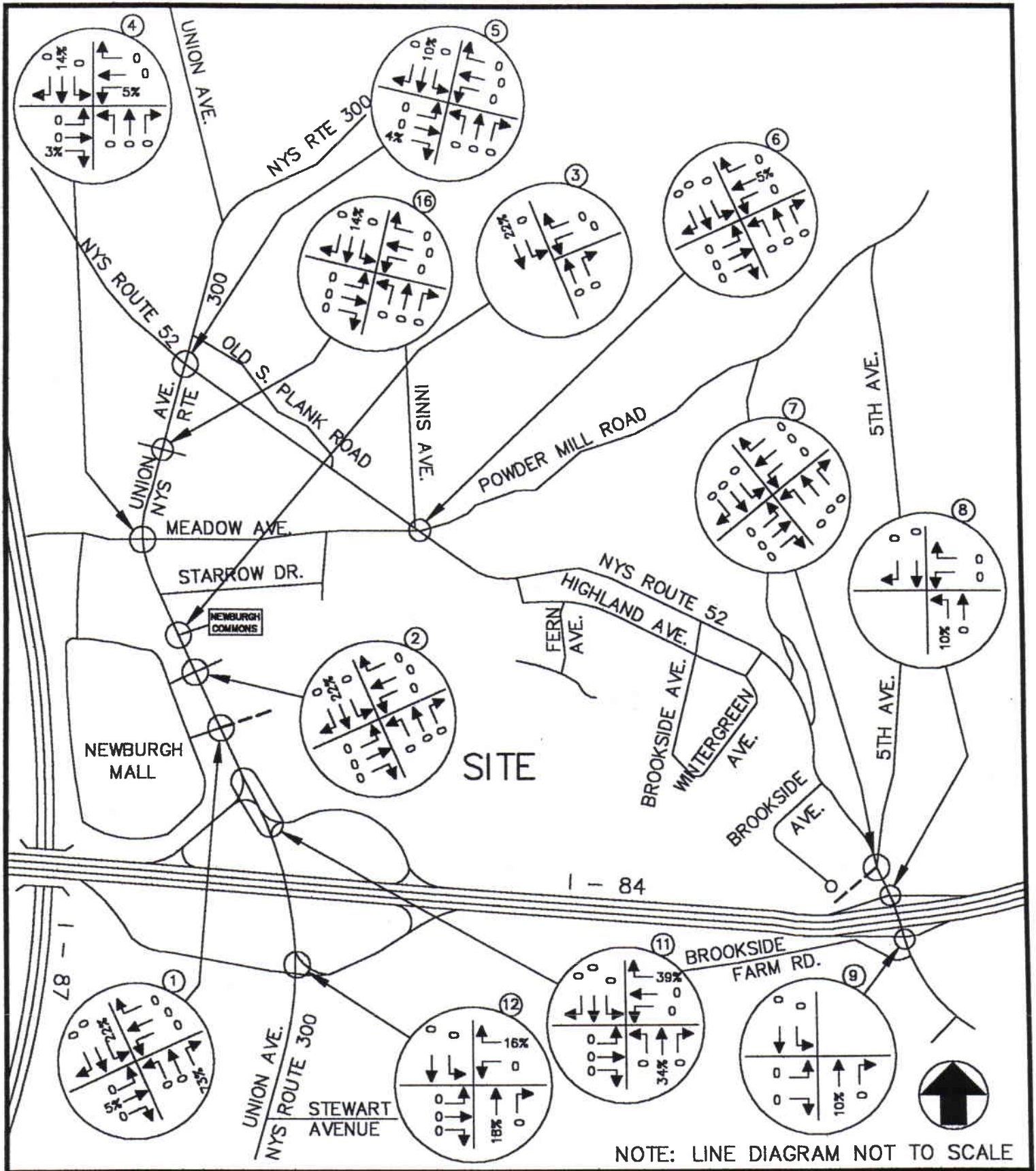
LEVEL OF SERVICE SUMMARY TABLE
W/ROUTE 300 ACCESS ONLY

			450,000 RETAIL					
			2004 EXISTING		2008 NO-BUILD		2008 BUILD	
			PM	SAT	PM	SAT	PM	SAT
8	NYS ROUTE 52 & I-84 ON/OFF RAMP WEST BOUND	SIGNALIZED						
		WB	C[21.0]	C[20.5]	C[21.6]	C[20.8]	D[39.7]	C[35.0]
		NB	C[25.7]	A[9.6]	D[40.6]	B[10.3]	B[18.4]	B[14.0]
		SB	B[10.8]	B[10.5]	B[11.5]	B[11.3]	C[34.4]	C[31.8]
	OVERALL	C[20.2]	B[12.0]	C[28.0]	B[12.8]	C[28.2]	C[25.8]	
9	NYS ROUTE 52 & I-84 ON/OFF RAMP EAST BOUND	SIGNALIZED						
		EB	C[28.3]	B[19.9]	D[36.0]	C[20.3]	C[34.2]	C[23.5]
		NB	B[19.8]	B[10.7]	C[26.7]	B[11.5]	D[43.1]	B[13.2]
		SB	C[30.0]	A[9.4]	D[47.0]	B[10.5]	B[14.3]	B[13.5]
	OVERALL	C[24.8]	B[11.4]	D[35.2]	B[12.3]	C[30.4]	B[14.2]	
10	RELOCATED MEADOW AVENUE & SITE ACCESS DRIVEWAY	SIGNALIZED						
		EB	-	-	-	-	-	-
		NB	-	NOT	APPLICABLE	-	-	-
		SB	-	-	-	-	-	-
	OVERALL	-	-	-	-	-	-	
11	NYS ROUTE 300 & INTERSTATE 84 (WEST BOUND RAMP)	UNSIGNALIZED						
		EB	F[244.0]	F[247.2]	-	-	-	-
		WB	F[225.2]	F[136.4]	-	-	-	-
		WITH SIGNALIZATION						
	WB	-	-	C[25.4]	C[22.2]	C[21.8]	B[17.3]	
	NB	-	-	B[17.5]	B[12.9]	C[24.8]	B[18.3]	
	SB	-	-	B[13.3]	B[11.0]	B[16.7]	B[17.1]	
	OVERALL	-	-	B[18.8]	B[14.6]	C[21.1]	B[17.6]	
12	NYS ROUTE 300 & INTERSTATE 84 (EAST BOUND RAMP)	SIGNALIZED						
		EB	A[7.7]	A[7.7]	B[13.5]	B[11.7]	B[13.5]	B[10.6]
		WB	A[0.2]	A[0.2]	A[0.2]	A[0.2]	A[0.3]	A[0.3]
		NB	B[11.0]	B[11.0]	C[28.8]	C[34.5]	C[30.2]	B[15.0]
	SB	A[3.0]	A[3.0]	A[3.4]	A[3.6]	B[11.4]	B[19.1]	
	OVERALL	A[7.6]	A[7.6]	B[17.7]	B[18.8]	C[20.3]	B[15.5]	
13	NYS ROUTE 300 & NYS ROUTE 32	SIGNALIZED						
		EB	C[34.1]	C[29.4]	D[43.7]	D[37.1]	D[42.4]	D[35.8]
		WB	C[21.6]	C[23.4]	C[22.4]	C[24.2]	C[22.4]	C[24.2]
		NB	C[27.5]	C[24.5]	C[30.7]	C[26.8]	D[40.2]	D[35.6]
	SB	B[19.7]	B[18.9]	C[20.0]	B[19.4]	C[21.2]	C[21.1]	
	OVERALL	C[27.4]	C[24.7]	C[31.9]	C[27.7]	D[35.0]	C[30.7]	
14	NYS ROUTE 300 & NYS ROUTE 17K	SIGNALIZED						
		EB	D[44.5]	D[40.1]	D[49.5]	D[43.5]	D[51.2]	D[44.0]
		WB	D[41.8]	D[40.4]	D[43.1]	D[43.5]	D[45.0]	D[43.7]
		NB	C[27.2]	C[26.4]	D[35.1]	C[28.1]	D[39.6]	C[32.7]
	SB	C[31.4]	C[33.1]	D[41.5]	D[37.9]	D[49.3]	D[50.0]	
	OVERALL	D[35.8]	C[34.4]	D[41.8]	D[37.4]	D[45.8]	D[42.1]	
15	NYS ROUTE 17K I-87 RAMP/UNITY PLACE	SIGNALIZED						
		EB	C[21.6]	C[25.4]	C[26.2]	C[28.8]	C[26.4]	C[30.7]
		WB	C[28.1]	C[26.3]	C[30.3]	C[28.3]	C[31.9]	C[29.8]
		NB	C[21.5]	C[22.9]	C[21.7]	C[23.3]	C[22.1]	C[24.2]
	SB	B[15.8]	B[15.3]	B[16.0]	B[15.2]	B[16.0]	B[15.2]	
	OVERALL	C[23.4]	C[24.7]	C[26.0]	C[26.8]	C[26.8]	C[28.3]	
16	NYS ROUTE 300 & STOP N SHOP/NEWBURGH CINEMA DRIV/	SIGNALIZED						
		EB	C[29.2]	C[28.6]	C[30.0]	C[29.4]	C[30.0]	C[29.4]
		WB	C[24.9]	C[24.3]	C[25.1]	C[24.5]	C[25.1]	C[24.5]
		NB	B[18.2]	B[17.9]	B[19.4]	B[19.1]	C[21.1]	C[21.5]
	SB	B[17.7]	C[20.2]	B[18.4]	C[21.5]	B[19.4]	C[24.1]	
	OVERALL	B[19.6]	C[20.6]	C[20.5]	C[21.7]	C[21.6]	C[23.7]	

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

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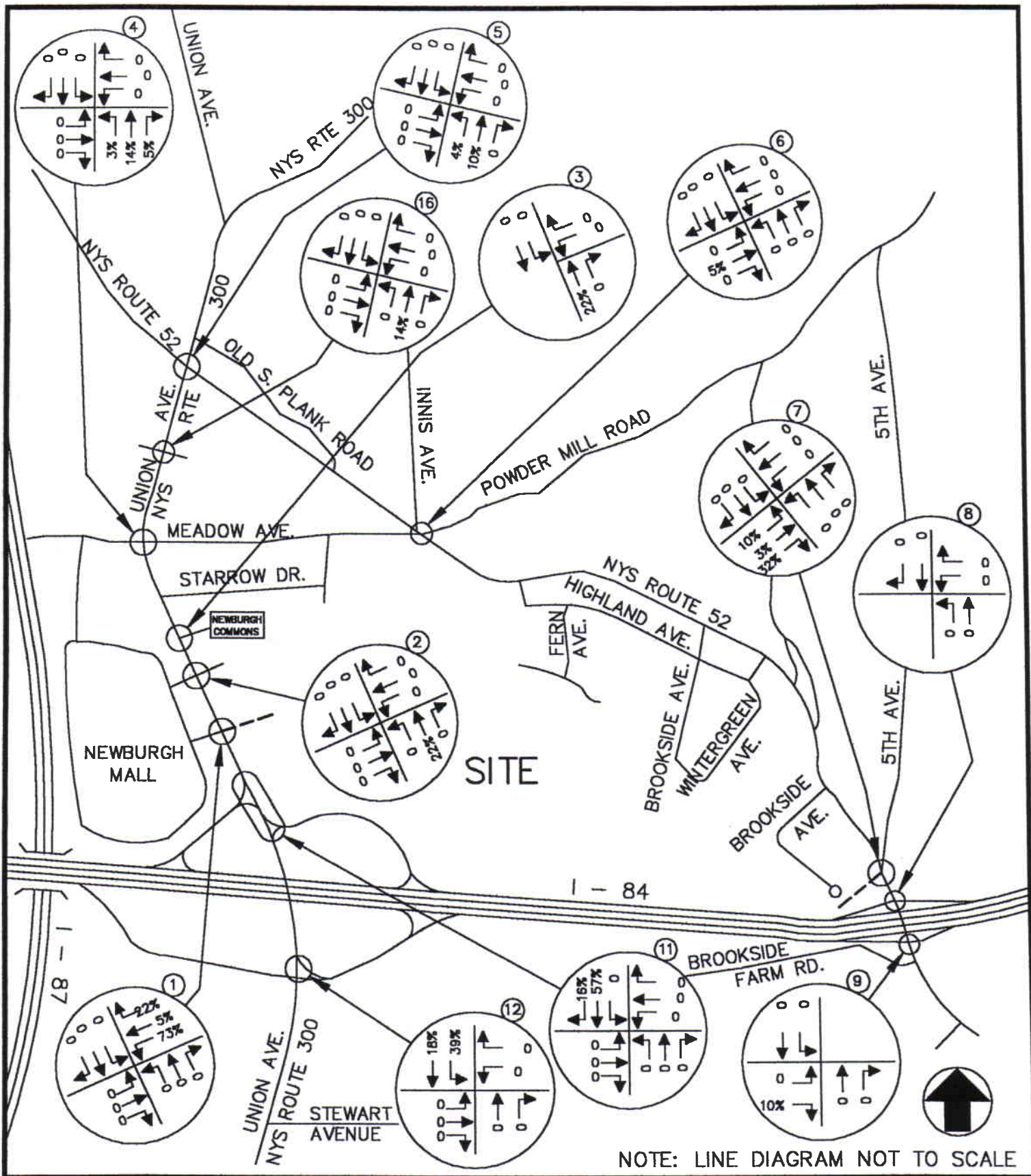
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(W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

FIG. NO. 10



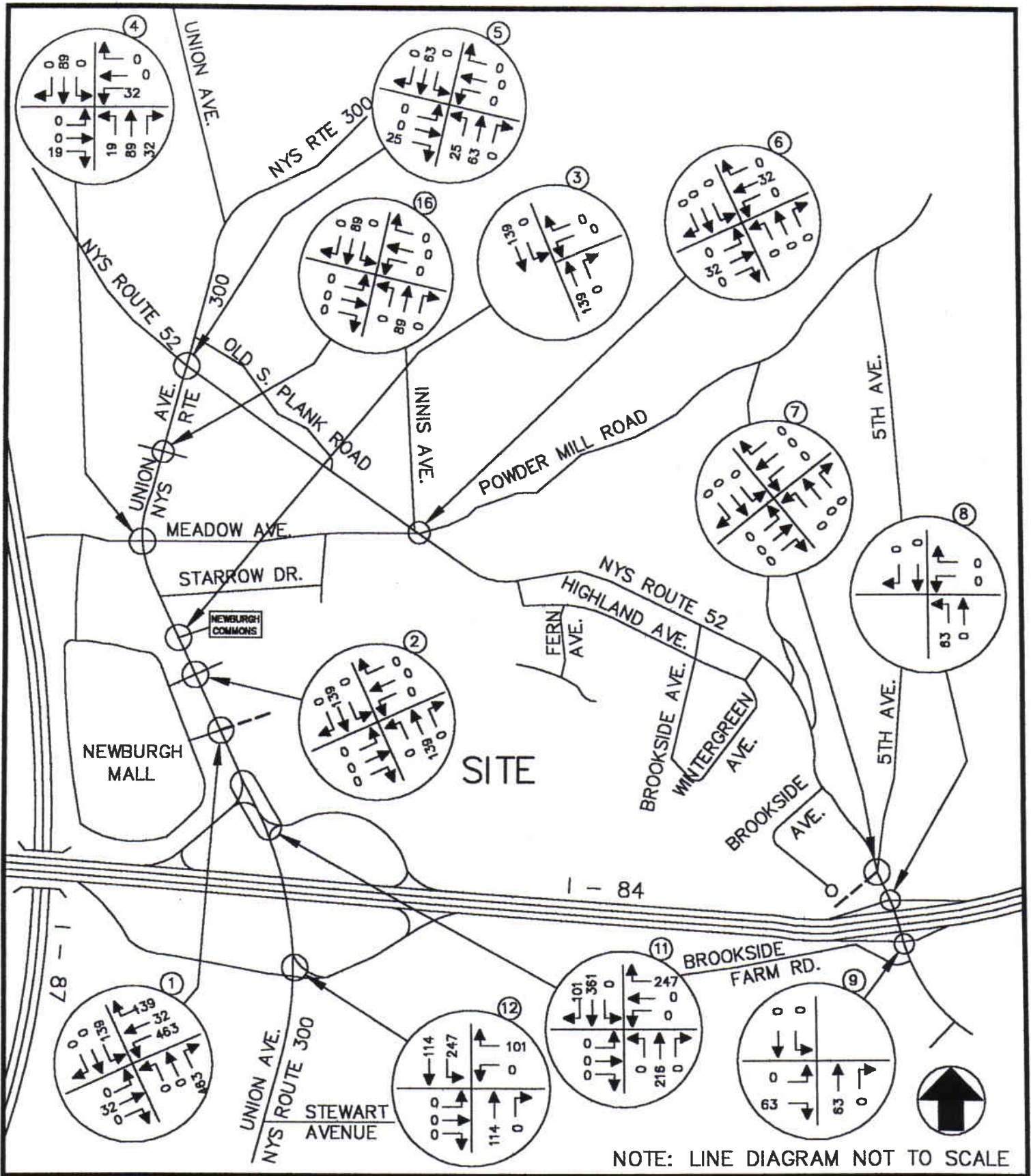
THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

(W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

FIG. NO. 11



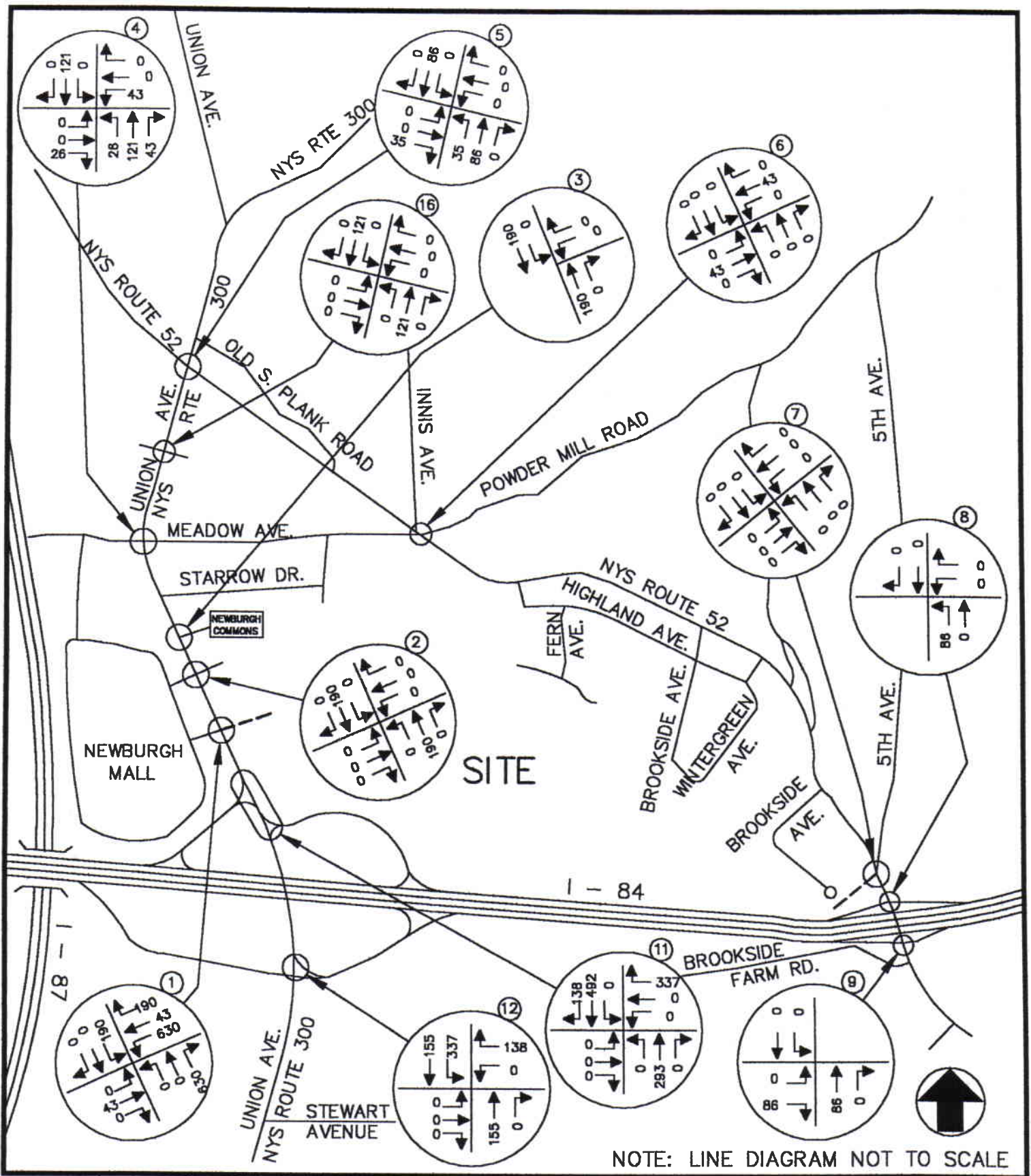
NOTE: LINE DIAGRAM NOT TO SCALE

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SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

FIG. NO. 12



NOTE: LINE DIAGRAM NOT TO SCALE

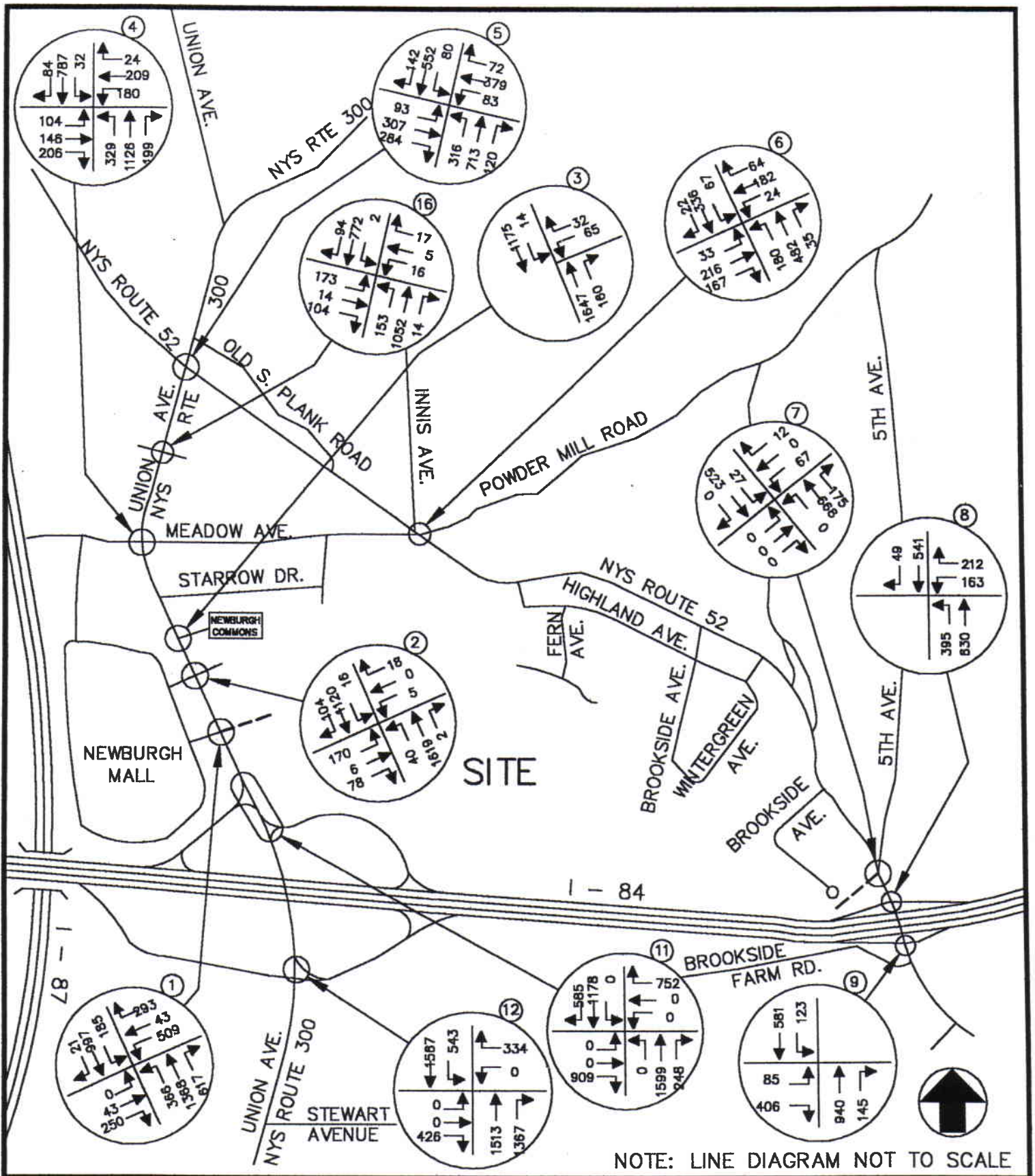
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SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR

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(W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

FIG. NO. 13

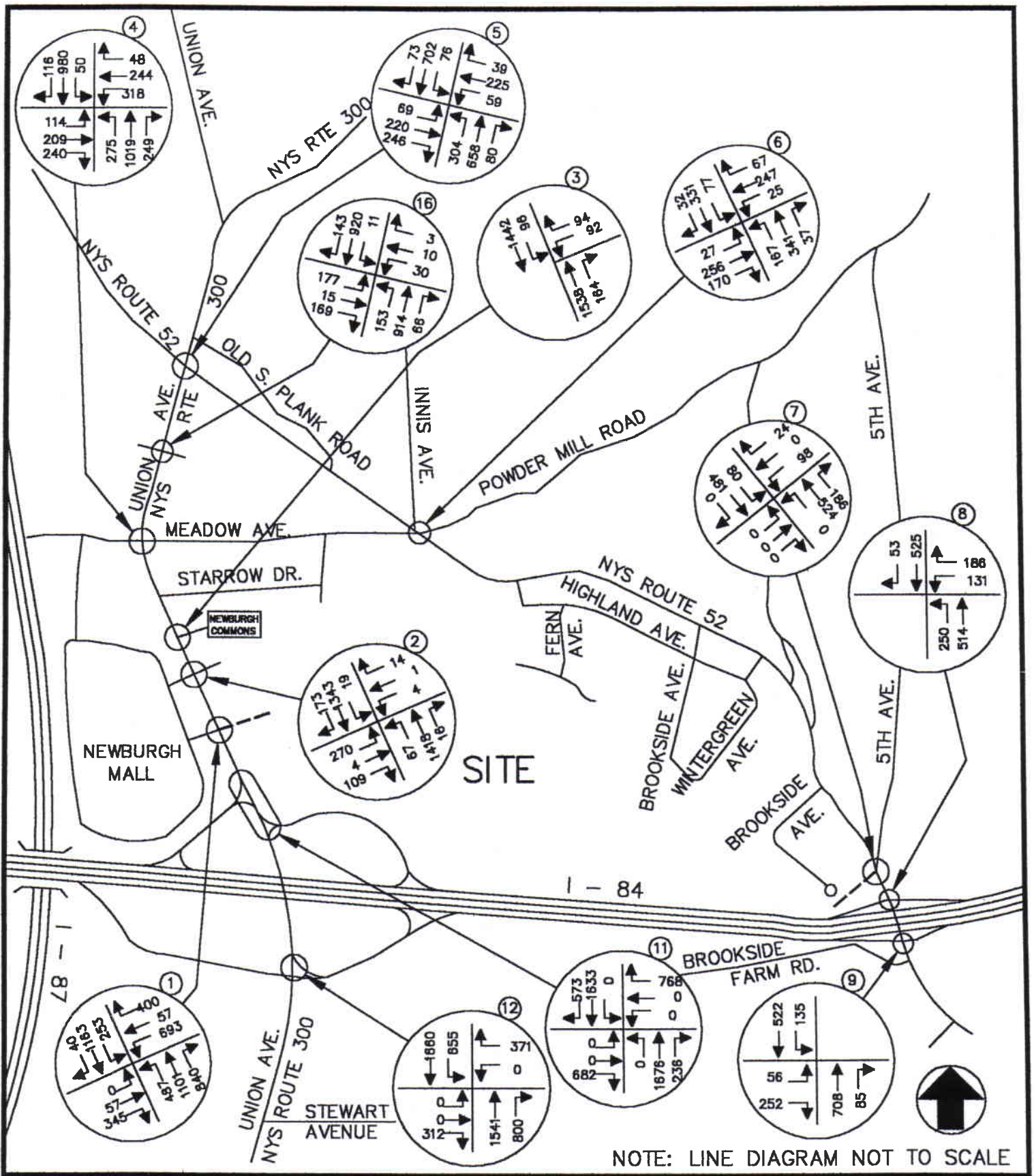


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

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FIG. NO. 14



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2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (W/ROUTE 300 ACCESS ONLY) (450,000 S.F.)

FIG. NO. 15

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB1 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	43	250	509	43	293	366	1368	617	185	997	21
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right	A	A			EB Right	A		
SB Right		A			WB Right			
Green	19.5	8.0			20.0	42.5		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	132	1810	0.36	0.07	50.2	D	37.0	D
R	461	1538	0.59	0.30	34.7	C		

Westbound

L	612	3450	0.90	0.18	51.6	D		
T	321	1810	0.15	0.18	30.2	C	41.2	D
R	454	1538	0.70	0.30	24.8	C		

Northbound

L	426	1719	0.93	0.61	50.5	D		
T	2114	3445	0.70	0.61	2.9	A	9.6	A
R	1538	1538	0.44	1.00	0.2	A		

Southbound

L	196	319	1.03	0.61	75.2	E		
T	1331	3445	0.81	0.39	15.2	B	24.2	C
R	706	1538	0.03	0.46	2.5	A		

Intersection Delay = 20.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB1 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	57	345	693	57	400	487	1101	840	253	1163	40
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			60			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A	A		Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		23.0	9.5			29.0	38.5	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT 149 1881 0.39 0.08 54.2 D 34.4 C
 R 580 1599 0.50 0.36 30.5 C

Westbound

L 687 3586 1.03 0.19 79.0 E
 T 361 1881 0.16 0.19 31.1 C 59.9 E
 R 500 1599 0.82 0.31 30.9 C

Northbound

L 490 1770 1.01 0.60 75.1 E
 T 2143 3547 0.52 0.60 2.0 A 16.1 B
 R 1583 1583 0.54 1.00 0.4 A

Southbound

L 286 473 0.90 0.60 32.1 C
 T 1138 3547 1.04 0.32 60.1 E 53.8 D
 R 633 1583 0.06 0.40 7.4 A

Intersection Delay = 36.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB2 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	170	6	78	5	0	18	40	1619	2	16	1120	104
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		38.0				52.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	492	1295	0.39	0.38	23.1	C	22.3	C
R	584	1538	0.15	0.38	20.5	C		
Westbound								
LTR	589	1551	0.04	0.38	19.6	B	19.6	B
Northbound								
L	99	191	0.43	0.52	17.9	B		
TR	1791	3445	0.98	0.52	41.1	D	40.5	D
Southbound								
L	72	139	0.24	0.52	14.8	B		
TR	1769	3401	0.75	0.52	20.8	C	20.7	C

Intersection Delay = 31.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB2 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	270	4	109	4	1	14	67	1418	16	19	1343	173
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		30.0				60.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	399	1331	0.73	0.30	38.0	D	34.8	C
R	475	1583	0.24	0.30	26.7	C		
Westbound								
LTR	478	1592	0.04	0.30	24.8	C	24.8	C
Northbound								
L	85	142	0.84	0.60	64.3	E		
TR	2125	3541	0.72	0.60	15.3	B	17.4	B
Southbound								
L	104	173	0.19	0.60	9.9	A		
TR	2092	3486	0.77	0.60	16.7	B	16.6	B

Intersection Delay = 19.1 (sec/veh) Intersection LOS = B

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: DECEMBER 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB3 (450K W/ROUTE 300 ACCESS ONLY)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound				Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1647	160	14	1175		
Peak-Hour Factor, PHF		0.92	0.92	0.92	0.92		
Hourly Flow Rate, HFR		1790	173	15	1277		
Percent Heavy Vehicles		--	--	5	--	--	
Median Type/Storage RT Channelized?	Undivided			/			
Lanes		2	0		1	2	
Configuration		T	TR		L	T	
Upstream Signal?		No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	65		32			
Peak Hour Factor, PHF	0.92		0.92			
Hourly Flow Rate, HFR	70		34			
Percent Heavy Vehicles	5		5			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound		
	1	4 L	7 L	8	9 R	10 L	11	12
v (vph)		15	70		34			
C(m) (vph)		281	20		243			
v/c		0.05	3.50		0.14			
95% queue length		0.17	9.13		0.48			
Control Delay		18.5	1522		22.2			
LOS		C	F		C			
Approach Delay				1032				
Approach LOS				F				

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: DECEMEBR 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB3 (450K W/ROUTE 300 ACCESS ONLY)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound			Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R
Volume		1538	164	96	1442		
Peak-Hour Factor, PHF		0.94	0.94	0.94	0.94		
Hourly Flow Rate, HFR		1636	174	102	1534		
Percent Heavy Vehicles		--	--	2	--	--	
Median Type/Storage		Undivided			/		
RT Channelized?							
Lanes		2	0		1	2	
Configuration		T	TR		L	T	
Upstream Signal?		No			No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		92		94			
Peak Hour Factor, PHF		0.94		0.94			
Hourly Flow Rate, HFR		97		100			
Percent Heavy Vehicles		2		2			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage					/		/
Lanes		1		1			
Configuration		L		R			

Delay, Queue Length, and Level of Service

Approach Movement	NB	SB	Westbound			Eastbound		
			7	8	9	10	11	12
Lane Config	1	4	L	L	R			
v (vph)		102	97		100			
C(m) (vph)		336	12		279			
v/c		0.30	8.08		0.36			
95% queue length		1.25	13.35		1.57			
Control Delay		20.3	3804		24.9			
LOS		C	F		C			
Approach Delay				1886				
Approach LOS				F				

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & AUTO DRIVEWAY
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB3 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: AUTO ZONE DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				65		32		1647	160	14	1175	
Lane Width				12.0		12.0		12.0		12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		23.0				6.0	56.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	395	1719	0.18	0.23	31.1	C	30.9	C
R	354	1538	0.10	0.23	30.5	C		

Northbound

TR	1904	3400	1.03	0.56	51.2	D	51.2	D
----	------	------	------	------	------	---	------	---

Southbound

L	176	1719	0.09	0.67	21.6	C		
T	2308	3445	0.55	0.67	8.9	A	9.1	A

Intersection Delay = 34.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB3 (450K W/ROUTE 300 ACCESS ONLY)

E/W St: AUTO ZONE DRIVEWAY

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				92		94	1538	164		96	1442	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0					8.0	52.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	443	1770	0.22	0.25	30.0	C	30.2	C
R	396	1583	0.25	0.25	30.4	C		

Northbound

TR	1818	3496	1.00	0.52	43.9	D	43.9	D
----	------	------	------	------	------	---	------	---

Southbound

L	217	1770	0.47	0.65	22.4	C		
T	2306	3547	0.67	0.65	11.5	B	12.2	B

Intersection Delay = 28.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: MEADOW AVE. & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB4 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: MEADOW AVENUE N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	104	146	206	180	209	24	329	1126	199	32	787	84
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration	0.25	Area Type:	All other areas									
Signal Operations												
Phase Combination	1	2	3	4	5	6	7	8				
EB Left		A			NB Left	A	A					
Thru		A			Thru	A	A					
Right		A			Right	A	A					
Peds					Peds							
WB Left	A	A			SB Left		A					
Thru	A	A			Thru		A					
Right	A	A			Right		A					
Peds					Peds							
NB Right					EB Right							
SB Right					WB Right							
Green	6.0	27.0			18.0	29.0						
Yellow	3.0	3.0			3.0	3.0						
All Red	2.0	2.0			2.0	2.0						

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	294	1090	0.38	0.27	30.6	C		
TR	448	1658	0.81	0.27	44.4	D	41.1	D
Westbound								
L	238	1719	0.82	0.38	52.3	D		
TR	677	1782	0.37	0.38	22.7	C	35.7	D
Northbound								
L	381	1719	0.94	0.52	54.7	D		
TR	1754	3374	0.81	0.52	8.5	A	17.8	B
Southbound								
L	99	342	0.35	0.29	22.6	C		
T	999	3445	0.86	0.29	31.8	C	31.1	C
R	446	1538	0.20	0.29	27.0	C		
Intersection Delay = 26.5 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: MEADOW AVE. & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB4 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: MEADOW AVENUE N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	114	209	240	318	244	48	275	1019	249	50	980	116
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	12.0	27.0			13.0	28.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	289	1071	0.41	0.27	30.9	C		
TR	464	1720	0.96	0.27	68.4	E	60.5	E
Westbound								
L	287	1770	1.15	0.44	128.0	F		
TR	799	1817	0.38	0.44	19.1	B	75.9	E
Northbound								
L	305	1770	0.94	0.46	55.6	E		
TR	1587	3449	0.82	0.46	13.6	B	21.2	C
Southbound								
L	107	381	0.49	0.28	25.7	C		
T	993	3547	1.03	0.28	62.7	E	57.6	E
R	443	1583	0.27	0.28	28.4	C		
Intersection Delay = 46.4 (sec/veh)					Intersection LOS = D			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	93	307	284	83	379	72	316	713	120	80	552	142
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		36.0				8.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	252	700	1.69	0.36	359.3	F	217.3	F
R	704	1436	0.43	0.49	16.9	B		
Westbound								
LT	350	971	1.40	0.36	229.7	F	200.4	F
R	704	1436	0.11	0.49	13.8	B		
Northbound								
L	200	1604	1.68	0.54	355.1	F		
TR	726	1770	1.22	0.41	127.8	F	190.2	F
Southbound								
L	200	1604	0.43	0.54	21.9	C		
TR	719	1754	1.03	0.41	70.0	E	65.0	E

Intersection Delay = 167.0 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB5 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	69	220	246	59	225	39	304	658	80	76	702	73
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		30.0				14.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	366	1220	0.82	0.30	46.5	D	32.5	C
R	724	1478	0.35	0.49	16.0	B		
Westbound								
LT	391	1303	0.75	0.30	39.8	D	36.6	D
R	724	1478	0.06	0.49	13.4	B		
Northbound								
L	303	1652	1.05	0.60	93.5	F		
TR	752	1833	1.02	0.41	54.1	D	65.6	E
Southbound								
L	303	1652	0.26	0.60	18.1	B		
TR	753	1836	1.07	0.41	83.2	F	77.4	E

Intersection Delay = 59.4 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB5 (450K W/ROUTE 300 ACCESS ONLY) (WITH IMPROVEMENTS)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	93	307	284	83	379	72	316	713	120	80	552	142
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			30			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A	A		NB Left	A	A	A
Thru		A			Thru		A	A
Right		A			Right		A	A
Peds					Peds			
WB Left		A	A		SB Left	A		A
Thru		A			Thru			A
Right		A			Right			A
Peds					Peds			
NB Right					EB Right	A	A	
SB Right					WB Right	A		
Green		28.0	5.0			8.0	7.0	47.0
Yellow		3.0	3.0			3.0	3.0	3.0
All Red		2.0	2.0			2.0	2.0	2.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	199	1662	0.50	0.32	50.9	D		
T	422	1810	0.77	0.23	51.8	D	41.9	D
R	574	1436	0.53	0.40	28.3	C		
Westbound								
L	242	1662	0.36	0.32	44.4	D		
T	422	1810	0.95	0.23	77.8	E	66.3	E
R	431	1436	0.18	0.30	31.3	C		
Northbound								
L	327	1604	1.03	0.60	61.8	E		
TR	875	1779	0.98	0.49	27.8	C	37.4	D
Southbound								
L	326	1604	0.26	0.46	19.0	B		
TR	687	1754	1.07	0.39	92.5	F	84.9	F

Intersection Delay = 55.2 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 52 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB5 (450K W/ROUTE 300 ACCESS ONLY) (WITH IMPROVEMENTS)
 E/W St: NYS ROUTE 52 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	69	220	246	59	225	39	304	658	80	76	702	73
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	22.0				17.4	45.6		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	165	752	0.44	0.22	35.6	D		
T	410	1863	0.57	0.22	36.7	D	28.5	C
R	656	1478	0.40	0.44	19.2	B		
Westbound								
L	169	770	0.37	0.22	34.5	C		
T	410	1863	0.58	0.22	37.0	D	34.0	C
R	656	1478	0.06	0.44	15.9	B		
Northbound								
L	359	1652	0.90	0.68	53.3	D		
TR	835	1832	0.94	0.46	29.7	C	36.6	D
Southbound								
L	366	1652	0.22	0.68	14.1	B		
TR	837	1836	0.99	0.46	54.4	D	50.8	D

Intersection Delay = 39.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB11 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: I-84 ON/OFF WESTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				909		752		1599	248		1178	585
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green		30.0				50.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	1113	3338	0.91	0.33	39.5	D	21.8	C
R	1538	1538	0.54	1.00	0.4	A		

Northbound

T	1914	3445	0.93	0.56	26.9	C	24.8	C
R	854	1538	0.32	0.56	11.1	B		

Southbound

T	1914	3445	0.68	0.56	15.4	B	16.7	B
R	854	1538	0.76	0.56	19.5	B		

Intersection Delay = 21.1 (sec/veh) Intersection LOS = C

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 WB RAMP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB11 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: I-84 ON/OFF WESTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				682		768		1676	236		1633	573
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru A			
Right					Right A			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru A			
Right		A			Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right A			
Green		25.0				55.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	927	3338	0.82	0.28	36.2	D	17.3	B
R	1538	1538	0.55	1.00	0.4	A		

Northbound

T	2105	3445	0.88	0.61	19.7	B	18.3	B
R	940	1538	0.28	0.61	8.4	A		

Southbound

T	2105	3445	0.86	0.61	18.3	B	17.1	B
R	940	1538	0.68	0.61	13.6	B		

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB12 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			426			334	1513	1367		543	1587	
Lane Width			12.0			12.0	12.0	12.0		12.0	12.0	
RTOR Vol			0			0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A	A	
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						30.0	50.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	869	1565	0.54	0.56	13.5	B	13.5	B
Westbound								
R	1478	1565	0.25	0.94	0.3	A	0.3	A
Northbound								
T	1914	3445	0.88	0.56	22.4	C	30.2	C
R	1453	1538	1.05	0.94	38.9	D		
Southbound								
L	654	1719	0.92	0.94	43.8	D		
T	4655	4929	0.38	0.94	0.3	A	11.4	B

Intersection Delay = 20.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & I-84 EB RAMP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB12 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: I-84 ON/OFF EASTBOUND RAMP N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			312			371		1541	800	655	1660	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						28.0	52.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	904	1565	0.38	0.58	10.6	B	10.6	B
Westbound								
R	1478	1565	0.28	0.94	0.3	A	0.3	A
Northbound								
T	1990	3445	0.86	0.58	6.0	A	15.0	B
R	889	1538	1.00	0.58	32.5	C		
Southbound								
L	696	1719	1.05	0.94	66.8	E		
T	4655	4929	0.40	0.94	0.3	A	19.1	B

Intersection Delay = 15.5 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & STOP N SHOP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB16 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	173	14	104	16	5	17	153	1052	14	2	772	94
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		24.0				10.0	41.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	343	1287	0.61	0.27	31.9	C	30.0	C
R	410	1538	0.28	0.27	26.6	C		
Westbound								
LTR	391	1467	0.11	0.27	25.1	C	25.1	C
Northbound								
L	352	1719	0.48	0.62	11.1	B		
TR	1566	3438	0.76	0.46	22.5	C	21.1	C
Southbound								
L	288	1719	0.01	0.62	10.2	B		
TR	1544	3389	0.62	0.46	19.4	B	19.4	B

Intersection Delay = 21.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 300 & STOP N SHOP
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB16 (450K W/ROUTE 300 ACCESS ONLY)
 E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L TR			L TR		
Volume	177	15	169	30	10	3	153	914	66	11	920	143
Lane Width	12.0 12.0			12.0			12.0 12.0			12.0 12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8	
EB Left	A				NB Left	A	A		
Thru	A				Thru	A	A		
Right	A				Right	A	A		
Peds					Peds				
WB Left	A				SB Left	A	A		
Thru	A				Thru	A	A		
Right	A				Right	A	A		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	25.0				10.0		40.0		
Yellow	3.0				3.0		3.0		
All Red	2.0				2.0		2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	356	1283	0.60	0.28	31.0	C	29.4	C
R	427	1538	0.44	0.28	27.5	C		
Westbound								
LTR	362	1303	0.13	0.28	24.5	C	24.5	C
Northbound								
L	281	1719	0.60	0.61	17.6	B		
TR	1516	3411	0.72	0.44	22.1	C	21.5	C
Southbound								
L	306	1719	0.04	0.61	10.0-	A		
TR	1500	3376	0.79	0.44	24.2	C	24.1	C

Intersection Delay = 23.7 (sec/veh) Intersection LOS = C

TABLE NO. 1-SEN
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
WITH 15% PASS-BY CREDIT

THE MARKET PLACE AT NEWBURGH	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SHOPPING CENTER 700,000 S.F.						
PEAK PM HOUR	1.62	1131	961	1.62	1131	961
PEAK SAT HOUR	2.19	1533	1303	2.19	1533	1303

NOTES:

- 1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 820 - SHOPPING CENTER.
- 2) THE NEW TRIPS REPRESENT A 15% CREDIT FOR PASS-BY TRIPS DUE TO THE ATTRACTION OF A PORTION OF TRIPS FROM THE EXISTING TRAFFIC STREAM.

TABLE 2S

LEVEL OF SERVICE SUMMARY TABLE
W/O MEADOW AVENUE ACCESS

		2004 EXISTING		2008 NO-BUILD		700,000 RETAIL 2008 BUILD		
		PM	SAT	PM	SAT	PM	SAT	
		1	NYS ROUTE 300 & NEWBURGH MALL (SOUTH) DRIVEWAY/ SITE ACCESS DRIVEWAY	UN SIGNALIZED	EB C[20.2] NB C[18.9]	E[44.4] F[58.2]	C[21.8] C[21.0]	F[77.1] F[122.1]
	W/ SIGNAL & IMPROVEMENTS	EB WB NB SB OVERALL	- - - - -	- - - - -	- - - - -	- - - - -	D[35.3] D[39.2] B[10.8] B[16.9] B[17.6]	C[34.4] D[47.9] B[16.7] E[68.0] D[37.1]
2	NYS ROUTE 300 & NEWBURGH MALL (NORTH) DRIVEWAY/ RESTAURANT DRIVEWAY	SIGNALIZED	EB B[16.8] WB B[14.7] NB C[20.4] SB B[13.6] OVERALL B[17.5]	B[19.6] B[14.7] B[15.8] B[16.9] B[16.7]	C[22.3] B[19.6] C[27.9] B[18.6] C[23.8]	C[33.2] C[23.8] B[15.1] B[16.0] B[17.8]	C[22.3] B[19.6] C[34.2] B[19.8] C[27.5]	C[32.3] C[23.8] B[17.1] B[16.9] B[18.8]
3	NYS ROUTE 300 & AUTO ZONE DRIVEWAY	UN SIGNALIZED	WB F[421.7] SB C[15.4]	F[762.9] C[16.1]	F[634.6] C[16.7]	F[1055] C[17.5]	F[864.4] C[17.8]	F C[18.9]
	WITH SIGNALIZATION	WB NB SB OVERALL	- - - -	- - - -	C[30.9] C[32.3] A[8.4] C[23.3]	C[30.2] C[27.1] B[10.8] C[20.1]	C[30.9] D[43.1] A[8.8] C[29.7]	C[30.2] C[35.0] B[11.7] C[24.3]
4	NYS ROUTE 300 & MEADOW AVENUE/MEADOW HILL ROAD	SIGNALIZED	EB D[40.6] WB C[22.8] NB C[22.4] SB D[45.7] OVERALL C[30.9]	D[47.3] D[37.0] D[35.8] D[54.0] D[43.2]	D[41.4] C[28.0] C[26.2] D[41.3] C[32.4]	E[64.3] D[50.4] C[34.6] E[62.2] D[49.9]	D[43.2] C[28.7] B[17.3] C[29.3] C[25.3]	E[68.1] D[48.2] C[23.8] D[47.5] D[41.4]
5	NYS ROUTE 300 & NYS ROUTE 52	SIGNALIZED	EB F[198.9] WB F[176.4] NB F[112.0] SB D[39.9] OVERALL F[125.8]	C[31.0] C[34.8] C[24.7] D[40.9] C[32.2]	F[224.5] F[200.4] F[143.3] D[44.9] F[148.1]	D[33.4] D[36.6] D[38.5] D[47.4] D[40.0]	F[324.4] F[264.2] F[172.1] E[58.7] F[194.1]	E[61.2] E[54.6] E[51.2] E[65.3] E[58.0]
	WITH IMPROVEMENTS	EB WB NB SB OVERALL	- - - - -	- - - - -	D[38.8] D[52.2] C[26.3] D[53.8] D[40.5]	C[26.2] C[30.5] C[25.4] D[35.1] C[29.1]	D[42.0] E[63.1] D[41.9] E[75.0] E[54.3]	C[28.0] C[30.3] D[38.2] D[45.6] D[37.4]
6	NYS ROUTE 52 & MEADOW AVENUE/POWDER MILL ROAD	SIGNALIZED	EB E[78.7] WB D[35.1] NB B[17.6] SB A[8.5] OVERALL C[31.0]	C[33.1] C[25.5] C[22.1] B[13.5] C[23.1]	F[109.6] D[39.0] C[23.6] B[13.5] D[41.1]	D[38.1] C[26.9] C[29.1] B[14.5] C[27.1]	F[496.3] D[42.0] D[43.0] B[10.3] F[150.3]	F[430.1] C[30.2] F[89.2] C[20.3] F[162.0]
	WITH IMPROVEMENTS	EB WB NB SB OVERALL	- - - - -	- - - - -	- - - - -	- - - - -	C[29.1] C[28.3] C[34.7] C[22.5] C[29.6]	C[26.8] C[28.3] C[29.3] C[27.7] C[28.2]
7	NYS ROUTE 52 & 5TH AVENUE	UN SIGNALIZED	EB - WB E[44.5] NB - SB A[9.9]	- F[60.9] - A[9.7]	- F[62.3] - B[10.2]	- F[92.9] - A[9.9]	F F B[10.5] B[10.1]	F F B[11.3] A[9.8]
	W/ SIGNAL & LANE IMPROVEMENTS	EB WB NB SB OVERALL	- - - - -	- - - - -	- - - - -	- - - - -	D[42.7] D[53.7] C[27.2] B[13.1] C[27.4]	D[45.2] D[53.6] D[42.8] D[54.6] D[47.5]

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C[16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

TABLE 2S(CONTD.)

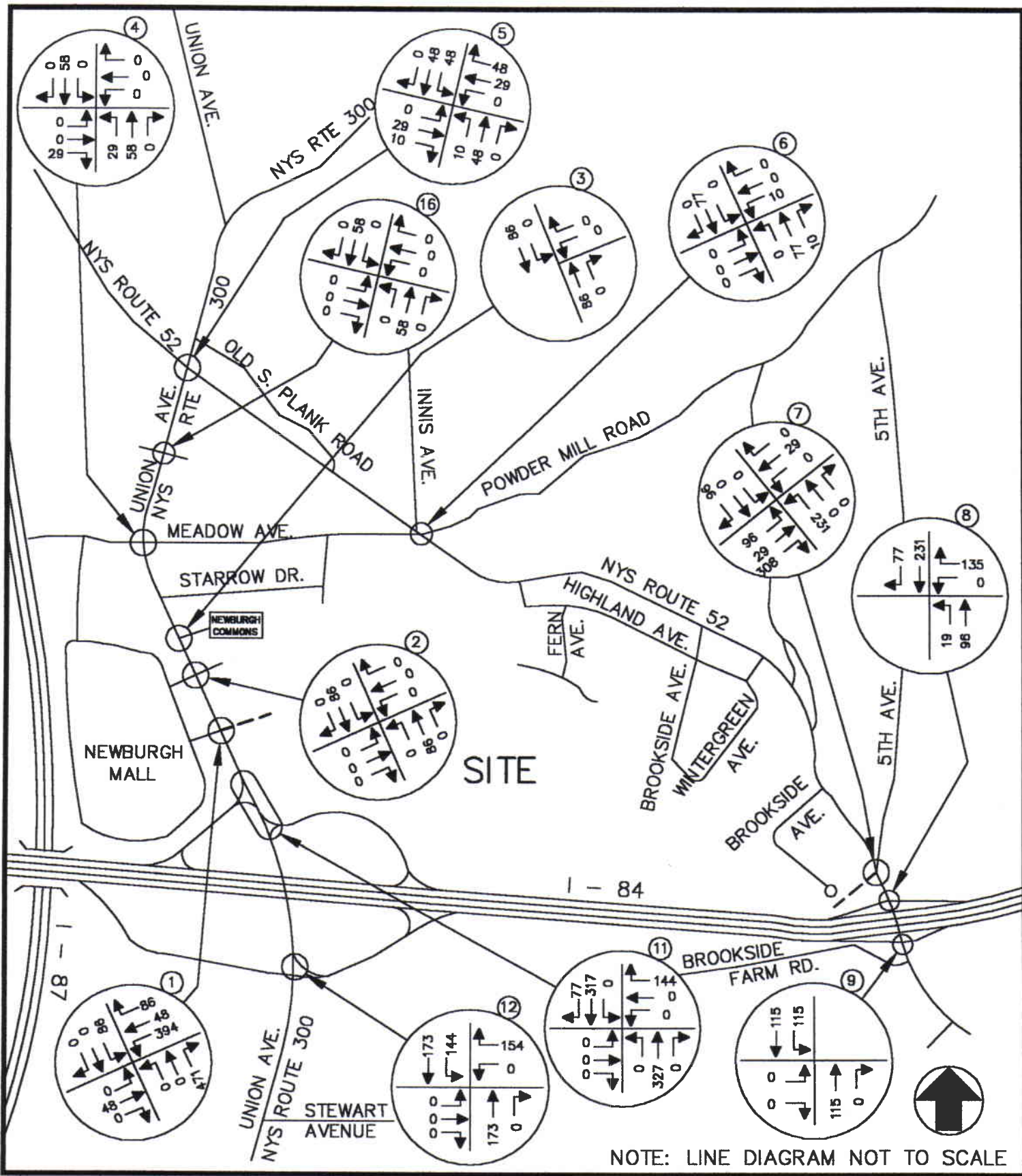
LEVEL OF SERVICE SUMMARY TABLE
W/O MEADOW AVENUE ACCESS

			2004 EXISTING		2008 NO-BUILD		700,000 RETAIL 2008 BUILD	
			PM	SAT	PM	SAT	PM	SAT
			8	NYS ROUTE 52 & I-84 ON/OFF RAMP WEST BOUND	SIGNALIZED			
	WB	C[21.0]	C[20.5]	C[21.6]	C[20.8]	D[39.7]	C[35.0]	
	NB	C[25.7]	A[9.6]	D[40.6]	B[10.3]	B[18.4]	B[14.0]	
	SB	B[10.8]	B[10.5]	B[11.5]	B[11.3]	C[34.4]	C[31.8]	
	OVERALL	C[20.2]	B[12.0]	C[28.0]	B[12.8]	C[28.2]	C[25.8]	
9	NYS ROUTE 52 & I-84 ON/OFF RAMP EAST BOUND	SIGNALIZED						
	EB	C[28.3]	B[19.9]	D[36.0]	C[20.3]	C[34.2]	C[23.5]	
	NB	B[19.8]	B[10.7]	C[26.7]	B[11.5]	D[43.1]	B[13.2]	
	SB	C[30.0]	A[9.4]	D[47.0]	B[10.5]	B[14.3]	B[13.5]	
	OVERALL	C[24.8]	B[11.4]	D[35.2]	B[12.3]	C[30.4]	B[14.2]	
10	RELOCATED MEADOW AVENUE & SITE ACCESS DRIVEWAY	SIGNALIZED						
	EB	-	-	-	-	-	-	
	NB	-	NOT	APPLICABLE	-	-	-	
	SB	-	-	-	-	-	-	
	OVERALL	-	-	-	-	-	-	
11	NYS ROUTE 300 & INTERSTATE 84 (WEST BOUND RAMP)	UNSIGNALIZED						
	EB	F[244.0]	F[247.2]	-	-	-	-	
	WB	F[225.2]	F[136.4]	-	-	-	-	
	WITH SIGNALIZATION							
	WB	-	-	C[25.4]	C[22.2]	C[23.1]	B[19.0]	
	NB	-	-	B[17.5]	B[12.9]	D[35.1]	C[26.5]	
	SB	-	-	B[13.3]	B[11.0]	B[15.9]	B[15.7]	
	OVERALL	-	-	B[18.8]	B[14.6]	C[25.3]	C[20.5]	
12	NYS ROUTE 300 & INTERSTATE 84 (EAST BOUND RAMP)	SIGNALIZED						
	EB	A[7.7]	A[7.7]	B[13.5]	B[11.7]	B[13.5]	B[10.6]	
	WB	A[0.2]	A[0.2]	A[0.2]	A[0.2]	A[0.3]	A[0.3]	
	NB	B[11.0]	B[11.0]	C[28.8]	C[34.5]	C[31.6]	B[16.3]	
	SB	A[3.0]	A[3.0]	A[3.4]	A[3.6]	A[6.0]	A[6.1]	
	OVERALL	A[7.6]	A[7.6]	B[17.7]	B[18.8]	B[19.1]	B[10.4]	
13	NYS ROUTE 300 & NYS ROUTE 32	SIGNALIZED						
	EB	C[34.1]	C[29.4]	D[43.7]	D[37.1]	D[42.4]	D[35.8]	
	WB	C[21.6]	C[23.4]	C[22.4]	C[24.2]	C[22.4]	C[24.2]	
	NB	C[27.5]	C[24.5]	C[30.7]	C[26.8]	D[40.2]	D[35.6]	
	SB	B[19.7]	B[18.9]	C[20.0]	B[19.4]	C[21.2]	C[21.1]	
	OVERALL	C[27.4]	C[24.7]	C[31.9]	C[27.7]	D[35.0]	C[30.7]	
14	NYS ROUTE 300 & NYS ROUTE 17K	SIGNALIZED						
	EB	D[44.5]	D[40.1]	D[49.5]	D[43.5]	D[51.2]	D[44.0]	
	WB	D[41.8]	D[40.4]	D[43.1]	D[43.5]	D[45.0]	D[43.7]	
	NB	C[27.2]	C[26.4]	D[35.1]	C[28.1]	D[39.6]	C[32.7]	
	SB	C[31.4]	C[33.1]	D[41.5]	D[37.9]	D[49.3]	D[50.0]	
	OVERALL	D[35.8]	C[34.4]	D[41.8]	D[37.4]	D[45.8]	D[42.1]	
15	NYS ROUTE 17K I-87 RAMP/UNITY PLACE	SIGNALIZED						
	EB	C[21.6]	C[25.4]	C[26.2]	C[28.8]	C[26.4]	C[30.7]	
	WB	C[28.1]	C[26.3]	C[30.3]	C[28.3]	C[31.9]	C[29.8]	
	NB	C[21.5]	C[22.9]	C[21.7]	C[23.3]	C[22.1]	C[24.2]	
	SB	B[15.8]	B[15.3]	B[16.0]	B[15.2]	B[16.0]	B[15.2]	
	OVERALL	C[23.4]	C[24.7]	C[26.0]	C[26.8]	C[26.8]	C[28.3]	
16	NYS ROUTE 300 & STOP N SHOP/NEWBURGH CINEMA DRIV	SIGNALIZED						
	EB	C[29.2]	C[28.6]	C[30.0]	C[29.4]	C[30.0]	C[29.4]	
	WB	C[24.9]	C[24.3]	C[25.1]	C[24.5]	C[25.1]	C[24.5]	
	NB	B[18.2]	B[17.9]	B[19.4]	B[19.1]	C[20.4]	C[20.6]	
	SB	B[17.7]	C[20.2]	B[18.4]	C[21.5]	B[19.0]	C[23.0]	
	OVERALL	B[19.6]	C[20.6]	C[20.5]	C[21.7]	C[21.2]	C[22.9]	

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED LOCATIONS AND THE KEY MOVEMENTS FOR THE UNSIGNALIZED INTERSECTIONS.

2) AT LOCATION 5, THE ROUTE 52 EASTBOUND SHOULDER LANE IS CURRENTLY USED FOR RIGHT TURN MOVEMENTS AND IS REFLECTED IN THE ANALYSIS.

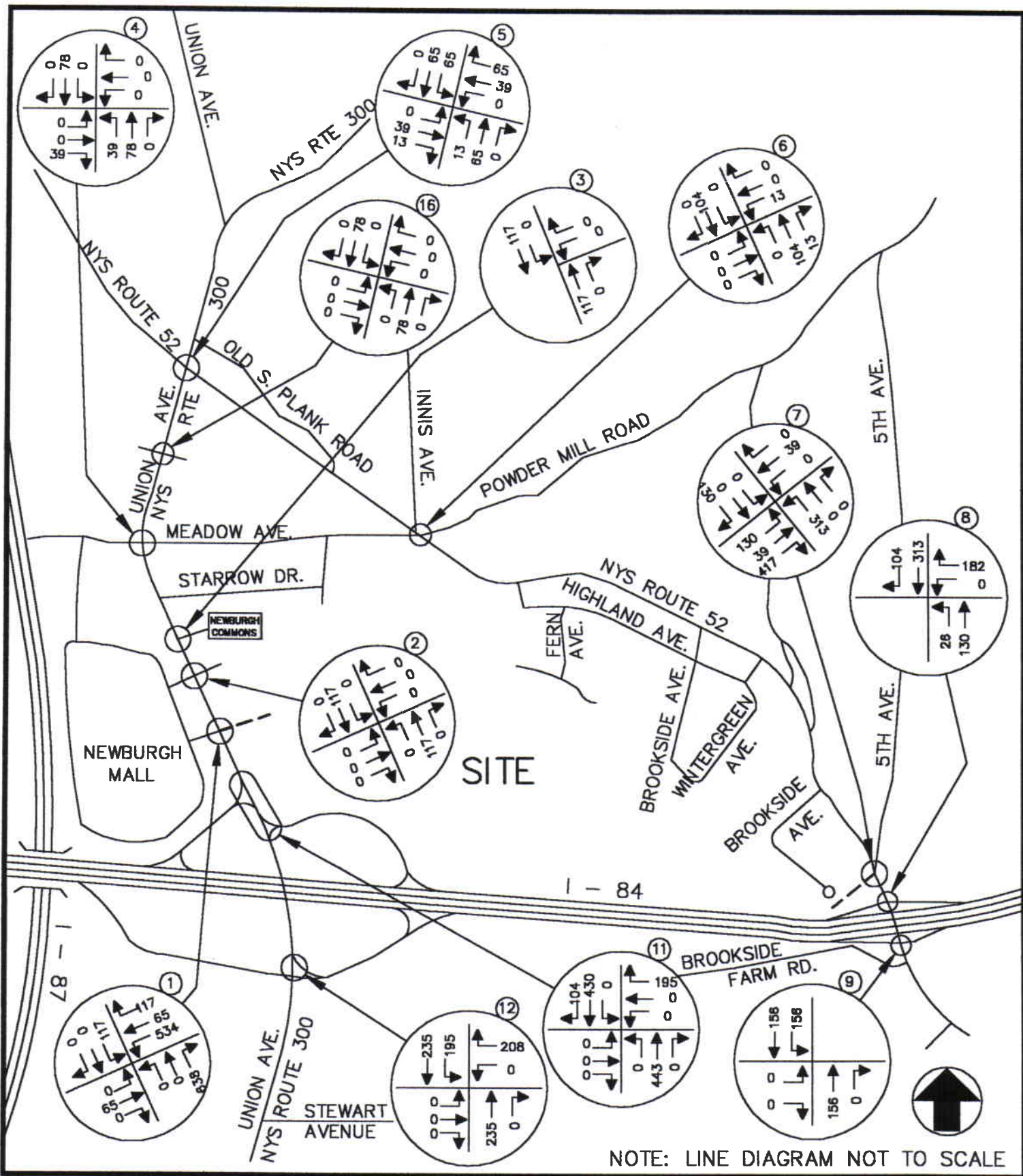


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

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

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 12

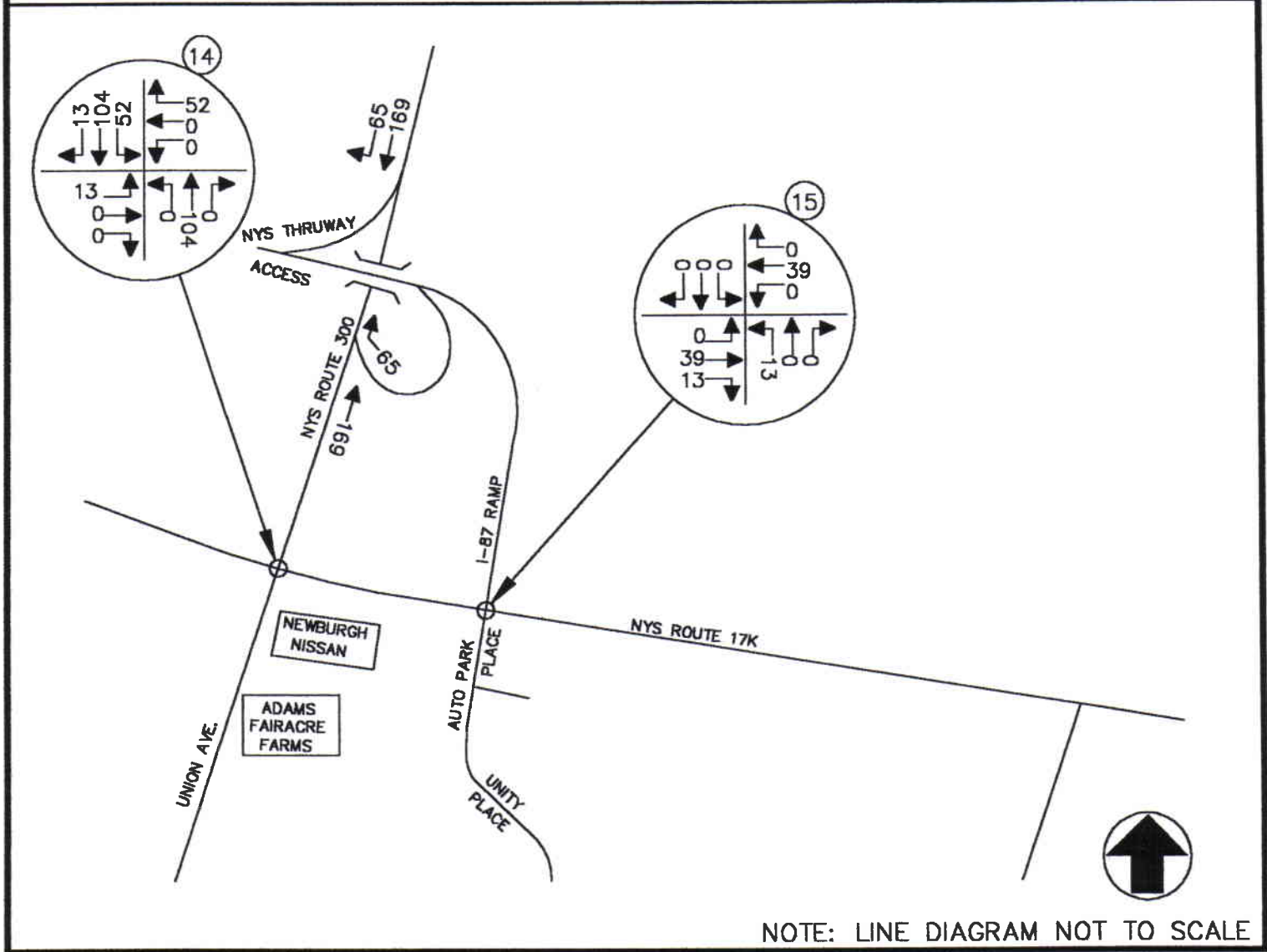
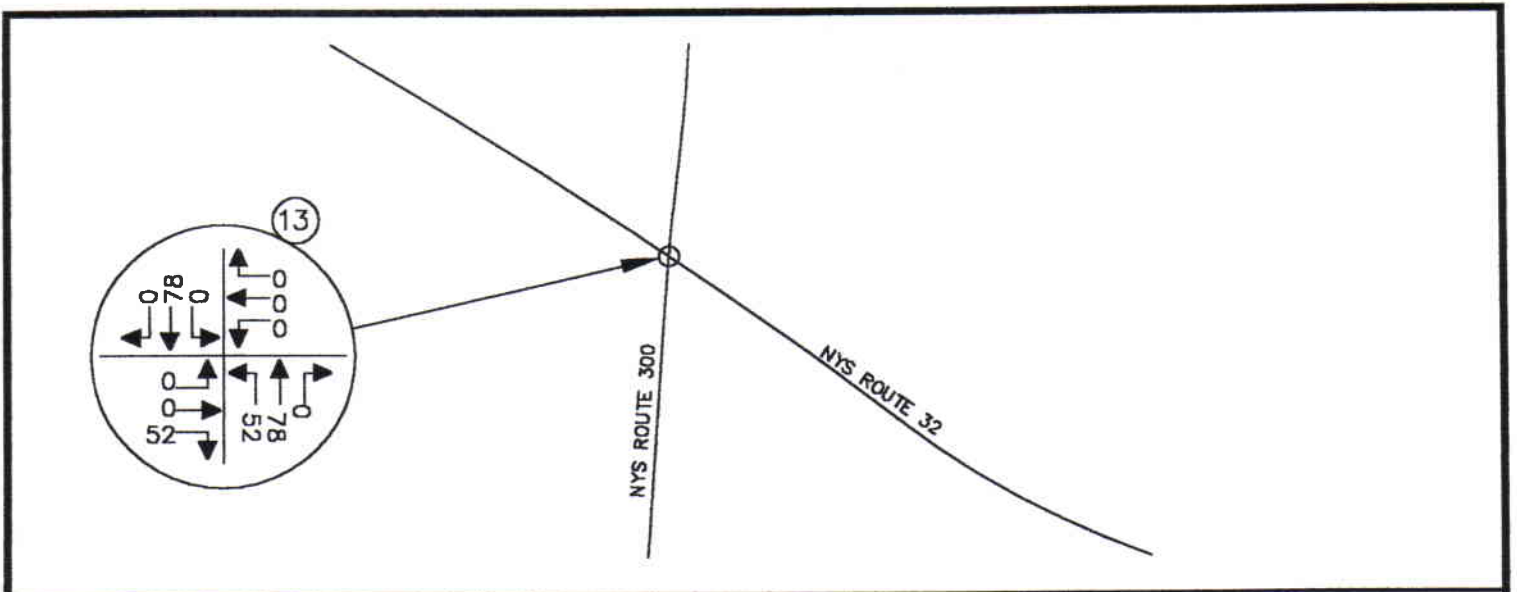


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 13



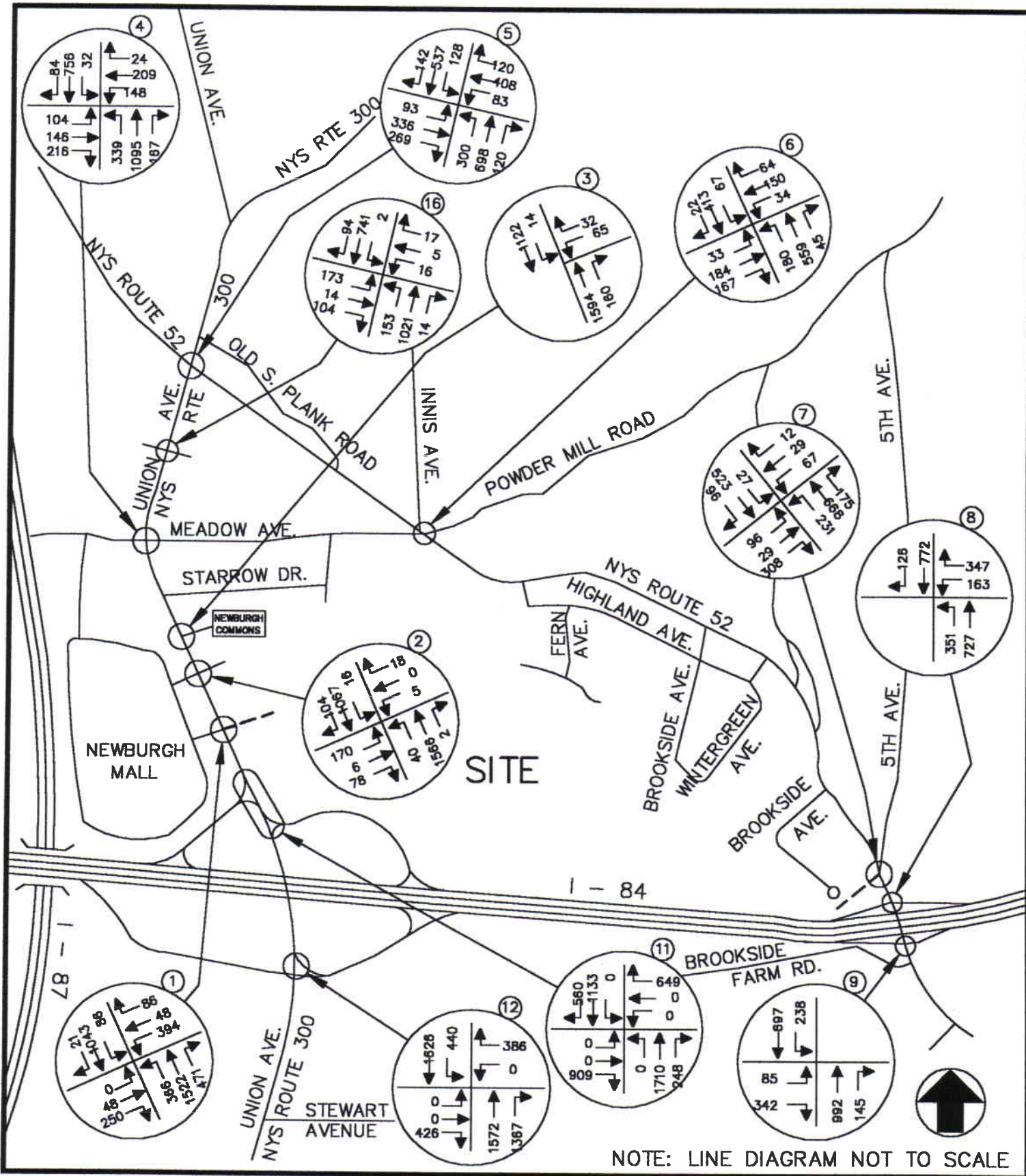
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

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HAWTHORNE, NEW YORK

PROJECT NO. 837 DATE: DEC 2006 FIG. NO.13A



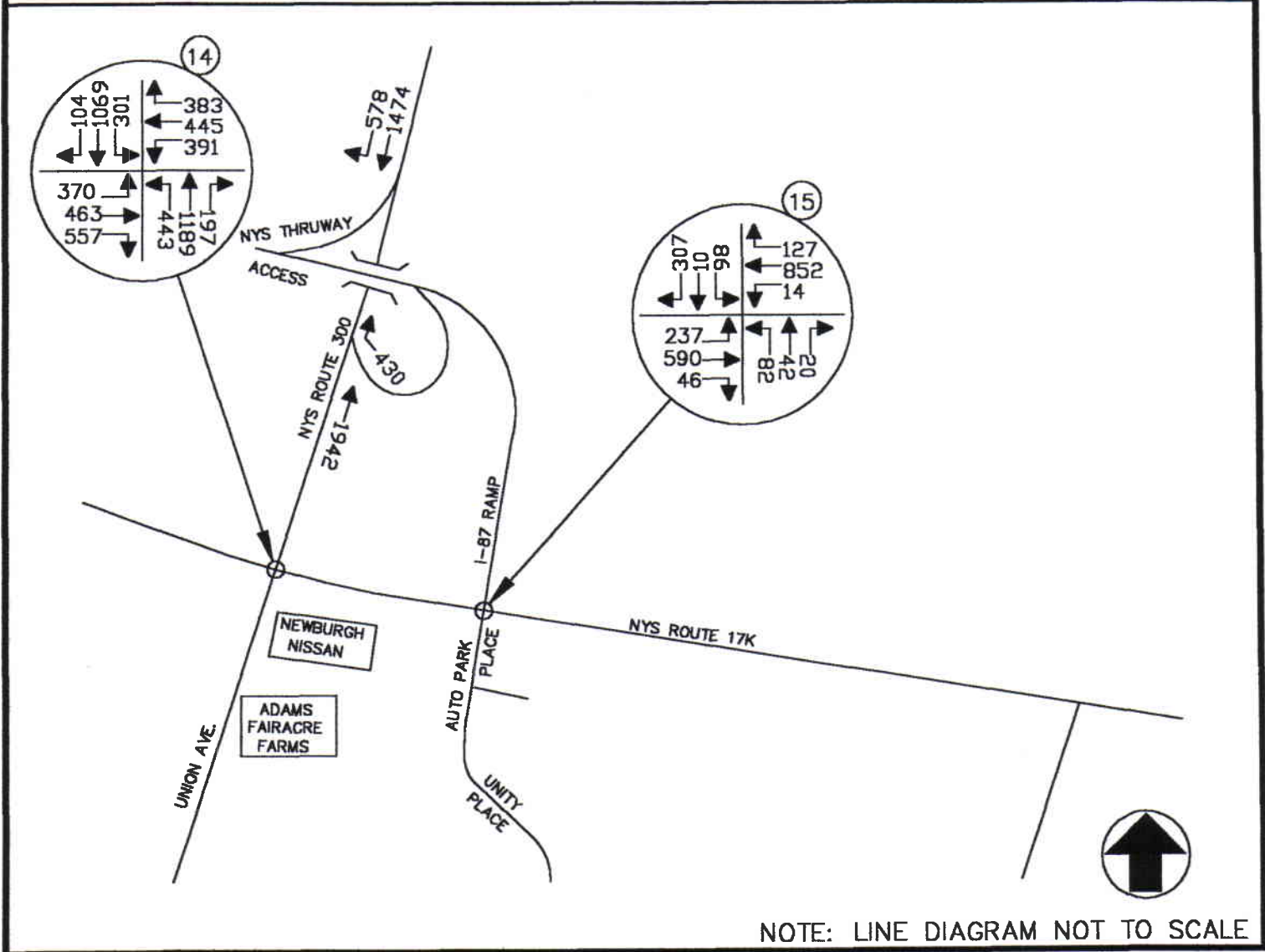
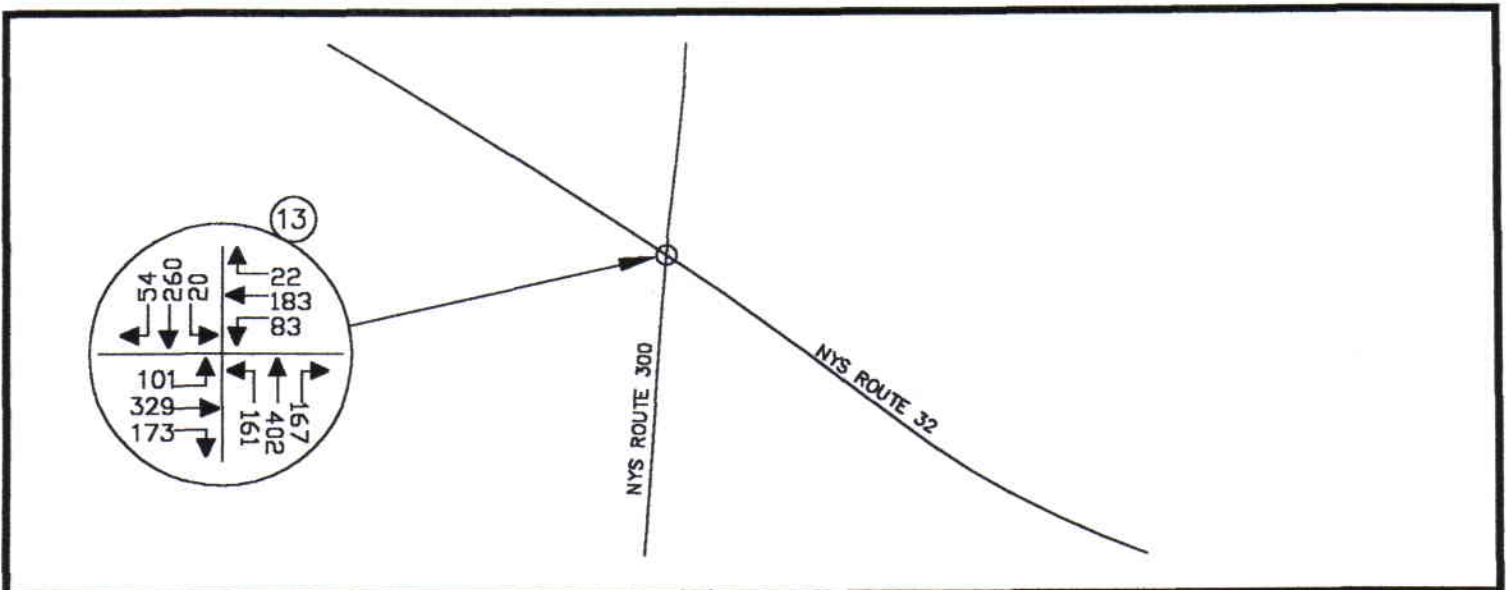
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

2008 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

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 HAWTHORNE, NEW YORK

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 14



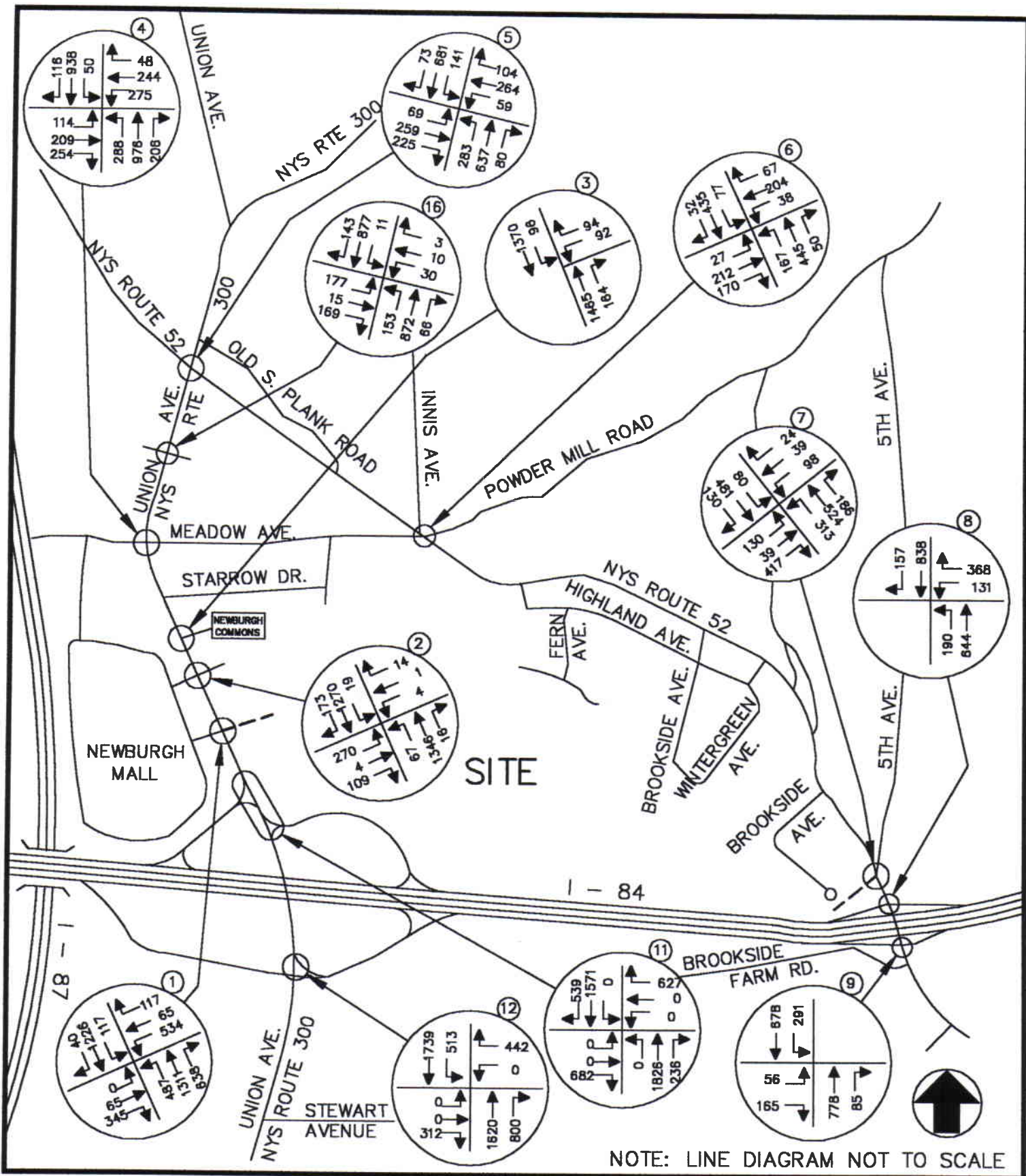
NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2008 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

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

PROJECT NO. 837 DATE: DEC 2006 FIG. NO.14A

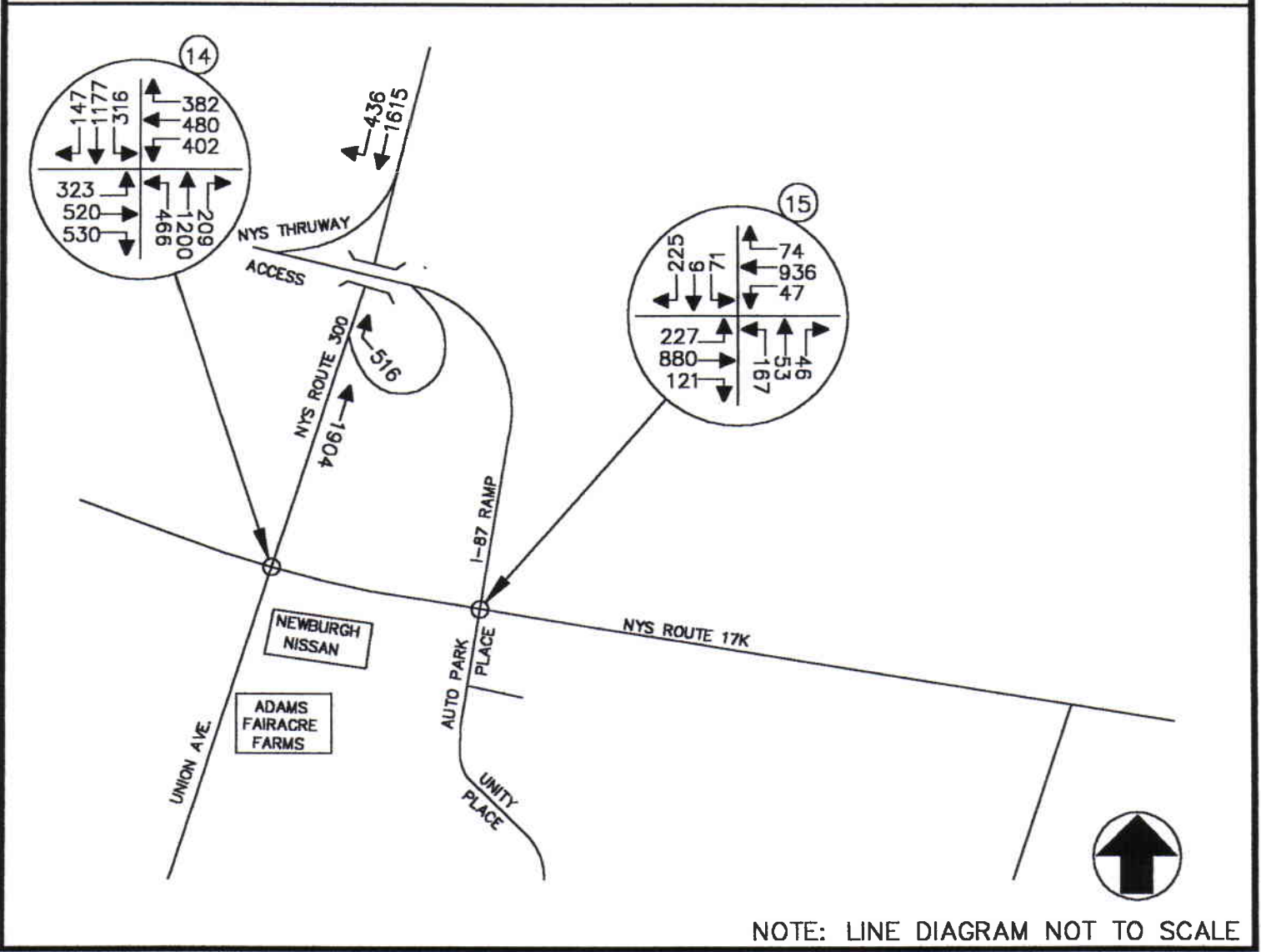
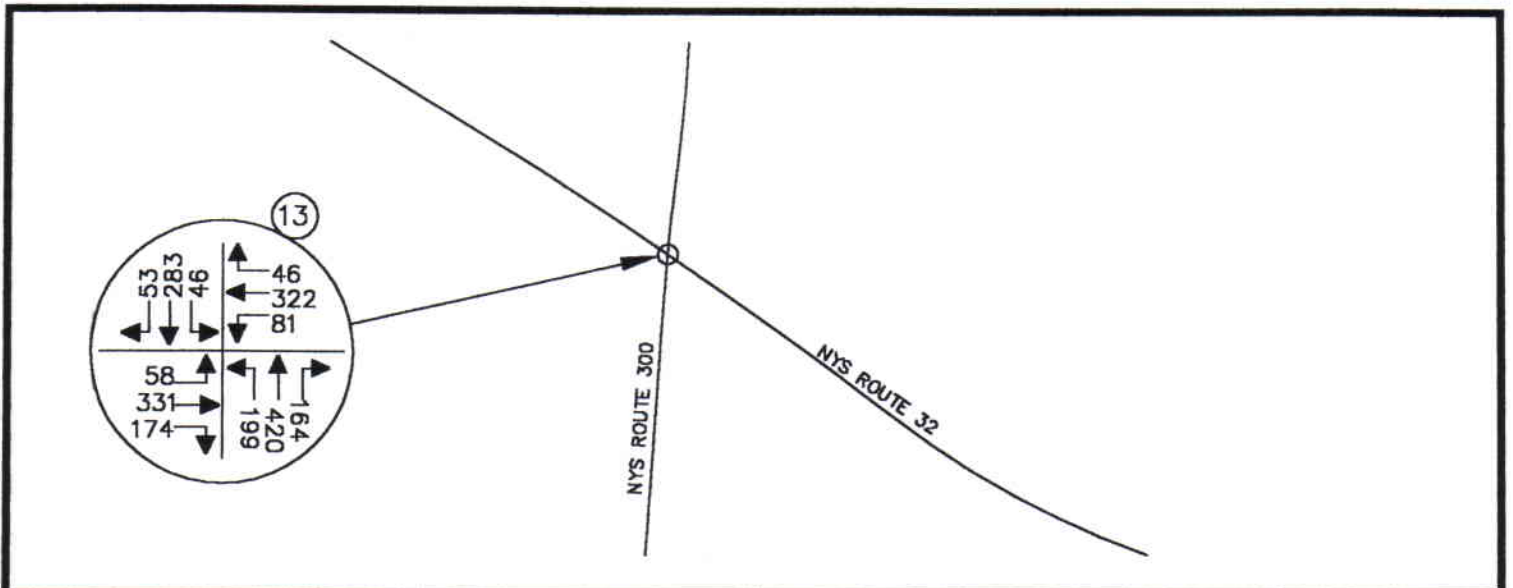


THE MARKET PLACE AT NEWBURGH
 NEWBURGH, NEW YORK

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

2008 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SAT HIGHWAY HOUR
 (15% PASS-BY) (700,000 S.F.)

PROJECT NO. 837 DATE: DEC 2006 FIG. NO. 15



NOTE: LINE DIAGRAM NOT TO SCALE

THE MARKET PLACE AT NEWBURGH
NEWBURGH, NY

2008 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HIGHWAY HOUR
(15% PASS-BY) (700,000 S.F.)

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

PROJECT NO. 837 DATE: DEC 2006 FIG. NO.15A

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB1 (700K W/2 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	48	250	394	48	86	366	1522	471	88	1043	21
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		18.0	8.5			21.5	42.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LT	140	1810	0.37	0.08	49.9	D	35.3	D
R	489	1538	0.56	0.32	32.5	C		

Westbound

L	565	3450	0.76	0.16	41.2	D		
T	296	1810	0.18	0.16	32.1	C	39.2	D
R	252	1538	0.37	0.16	33.9	C		

Northbound

L	425	1719	0.94	0.62	54.0	D		
T	2145	3445	0.77	0.62	3.8	A	10.8	B
R	1538	1538	0.33	1.00	0.1	A		

Southbound

L	168	269	0.57	0.62	6.2	A		
T	1315	3445	0.86	0.38	18.1	B	16.9	B
R	706	1538	0.03	0.46	2.5	A		

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL SO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB1 (700K W/2 ACCESS DRIVES)
 E/W St: NEWBURGH MALL SOUTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	2	1	1	1	2	1	1	2	1
LGConfig		LT	R	L	T	R	L	T	R	L	T	R
Volume	0	65	345	534	65	117	487	1311	638	117	1226	40
Lane Width		12.0	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			60			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right		A	A		EB Right	A		
SB Right			A		WB Right			
Green		21.0	10.0			29.5	39.5	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	157	1881	0.43	0.08	54.2	D	34.4	C
R	593	1599	0.50	0.37	29.8	C		
Westbound								
L	628	3586	0.89	0.17	52.3	D		
T	329	1881	0.21	0.17	33.7	C	47.9	D
R	280	1599	0.44	0.17	35.9	D		
Northbound								
L	497	1770	1.02	0.62	76.8	E		
T	2187	3547	0.62	0.62	2.4	A	16.7	B
R	1583	1583	0.42	1.00	0.2	A		
Southbound								
L	229	371	0.53	0.62	4.1	A		
T	1168	3547	1.09	0.33	76.1	E	68.0	E
R	653	1583	0.06	0.41	6.4	A		
Intersection Delay = 37.1 (sec/veh)					Intersection LOS = D			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB2 (700K W/2 ACCESS DRIVES)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L	TR		L	TR	
Volume	170	6	78	5	0	18	40	1566	2	16	1067	104
Lane Width	12.0 12.0			12.0			12.0	12.0		12.0	12.0	
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				52.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	492	1295	0.39	0.38	23.1	C	22.3	C
R	584	1538	0.15	0.38	20.5	C		
Westbound								
LTR	589	1551	0.04	0.38	19.6	B	19.6	B
Northbound								
L	113	218	0.38	0.52	16.5	B		
TR	1791	3445	0.95	0.52	34.6	C	34.2	C
Southbound								
L	72	139	0.24	0.52	14.8	B		
TR	1767	3399	0.72	0.52	19.9	B	19.8	B

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS RTE 300 & NEWBURGH MALL NO
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK SAT HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB2 (700K W/2 ACCESS DRIVES)
 E/W St: NEWBURGH MALL NORTH DRIVEWAY N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig	LT R			LTR			L TR			L TR		
Volume	270	4	109	4	1	14	67	1346	16	19	1270	173
Lane Width	12.0 12.0			12.0			12.0 12.0			12.0 12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.5				58.5			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group	Approach	
			v/c	g/C	Delay	LOS	Delay LOS
Eastbound							
LT	419	1331	0.69	0.31	35.0-	C	32.3 C
R	499	1583	0.23	0.31	25.6	C	
Westbound							
LTR	502	1594	0.04	0.31	23.8	C	23.8 C
Northbound							
L	93	159	0.76	0.58	46.2	D	
TR	2071	3540	0.70	0.58	15.6	B	17.1 B
Southbound							
L	113	193	0.18	0.58	10.4	B	
TR	2038	3483	0.75	0.58	17.0	B	16.9 B

Intersection Delay = 18.8 (sec/veh) Intersection LOS = B

HCS+: Unsignalized Intersections Release 5.2

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: DECEMBER 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB3 (850K W/3 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound				Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1594	160	14	1122		
Peak-Hour Factor, PHF		0.92	0.92	0.92	0.92		
Hourly Flow Rate, HFR		1732	173	15	1219		
Percent Heavy Vehicles		--	--	5	--	--	
Median Type/Storage RT Channelized?	Undivided			/			
Lanes Configuration		2 T	0 TR		1 L	2 T	
Upstream Signal?		No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	65		32			
Peak Hour Factor, PHF	0.92		0.92			
Hourly Flow Rate, HFR	70		34			
Percent Heavy Vehicles	5		5			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
Lanes Configuration	1 L		1 R			

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound		
	1	4 L	7 L	8	9 R	10	11	12
v (vph)		15	70		34			
C(m) (vph)		297	23		254			
v/c		0.05	3.04		0.13			
95% queue length		0.16	8.84		0.46			
Control Delay		17.8	1274		21.4			
LOS		C	F		C			
Approach Delay				864.4				
Approach LOS				F				

HCS+: Unsignalized Intersections Release 5.2

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: DECEMEBR 2006
 Analysis Time Period: PEAK SAT HOUR
 Intersection: NYS ROUTE 300 & AUTO ZONE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837SATB3 (700K W/2 ACCESS DRIVES)
 East/West Street: AUTO ZONE DRIVEWAY
 North/South Street: NYS ROUTE 300
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach Movement	Northbound				Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R	
Volume		1465	164	96	1370		
Peak-Hour Factor, PHF		0.94	0.94	0.94	0.94		
Hourly Flow Rate, HFR		1558	174	102	1457		
Percent Heavy Vehicles		--	--	2	--	--	
Median Type/Storage	Undivided			/			
RT Channelized?							
Lanes		2	0		1	2	
Configuration		T	TR		L	T	
Upstream Signal?		No			No		

Minor Street: Approach Movement	Westbound			Eastbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume	92		94			
Peak Hour Factor, PHF	0.94		0.94			
Hourly Flow Rate, HFR	97		100			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach Movement Lane Config	NB	SB	Westbound			Eastbound		
	1	4 L	7 L	8	9 R	10 	11	12
v (vph)		102	97		100			
C(m) (vph)		360	15		297			
v/c		0.28	6.47		0.34			
95% queue length		1.15	13.04		1.44			
Control Delay		18.9	2962		23.2			
LOS		C	F		C			
Approach Delay				1470				
Approach LOS				F				

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB3 (700K W/2 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				65		32	1594	160		14	1122	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru						A		
Right						A		
Peds								
WB Left		A						
Thru						A		
Right		A						
Peds								
NB Right								
SB Right								
Green		23.0			6.0	56.0		
Yellow		3.0			3.0	3.0		
All Red		2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	395	1719	0.18	0.23	31.1	C	30.9	C
R	354	1538	0.10	0.23	30.5	C		

Northbound

TR	1903	3398	1.00	0.56	43.1	D	43.1	D
----	------	------	------	------	------	---	------	---

Southbound

L	176	1719	0.09	0.67	21.1	C		
T	2308	3445	0.53	0.67	8.7	A	8.8	A

Intersection Delay = 29.7 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB3 (700K W/2 ACCESS DRIVES)

E/W St: AUTO ZONE DRIVEWAY

Inter.: NYS ROUTE 300 & AUTO DRIVEWAY

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	2	0
LGConfig				L		R		TR		L	T	
Volume				92		94	1465	164		96	1370	
Lane Width				12.0		12.0	12.0			12.0	12.0	
RTOR Vol						0		0				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		25.0				8.0	52.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group	Approach	
			v/c	g/C	Delay	LOS	Delay LOS

Eastbound

Westbound

L	443	1770	0.22	0.25	30.0	C	30.2	C
R	396	1583	0.25	0.25	30.4	C		
Northbound								
TR	1816	3493	0.95	0.52	35.0-	C	35.0-	C
Southbound								
L	217	1770	0.47	0.65	21.6	C		
T	2306	3547	0.63	0.65	11.0	B	11.7	B

Intersection Delay = 24.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: MEADOW AVE. & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: DECEMBER 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB4 (700K W/2 ACCESS DRIVES)

E/W St: MEADOW AVENUE

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	104	146	216	148	209	24	339	1095	167	32	758	84
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left	A		
Thru	A	A			Thru	A		
Right	A	A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	27.0			18.0	29.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	294	1090	0.38	0.27	30.6	C		
TR	447	1654	0.83	0.27	47.0	D	43.2	D
Westbound								
L	230	1719	0.70	0.38	38.0	D		
TR	677	1782	0.37	0.38	22.7	C	28.7	C
Northbound								
L	391	1719	0.94	0.52	53.3	D		
TR	1760	3384	0.77	0.52	7.4	A	17.3	B
Southbound								
L	106	366	0.33	0.29	22.1	C		
T	999	3445	0.82	0.29	29.9	C	29.3	C
R	446	1538	0.20	0.29	27.0	C		

Intersection Delay = 25.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB4 (700K W/2 ACCESS DRIVES)

E/W St: MEADOW AVENUE

Inter.: MEADOW AVE. & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	114	209	254	275	244	48	288	976	206	50	938	116
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			20			0			20			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A	A			SB Left		A	
Thru	A	A			Thru		A	
Right	A	A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	12.0	27.0			13.0	28.0		
Yellow	3.0	3.0			3.0	3.0		
All Red	2.0	2.0			2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	289	1071	0.41	0.27	30.9	C		
TR	463	1715	1.00	0.27	77.7	E	68.1	E
Westbound								
L	287	1770	1.00	0.44	79.0	E		
TR	799	1817	0.38	0.44	19.1	B	48.2	D
Northbound								
L	305	1770	0.98	0.46	72.0	E		
TR	1592	3461	0.76	0.46	11.9	B	23.8	C
Southbound								
L	122	434	0.43	0.28	24.2	C		
T	993	3547	0.98	0.28	51.1	D	47.5	D
R	443	1583	0.27	0.28	28.4	C		

Intersection Delay = 41.4 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB5 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	93	336	269	83	408	120	300	698	120	128	537	142
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	36.0				8.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	223	619	2.04	0.36	517.5	F	324.4	F
R	704	1436	0.41	0.49	16.6	B		
Westbound								
LT	322	894	1.62	0.36	325.4	F	264.2	F
R	704	1436	0.18	0.49	14.4	B		
Northbound								
L	200	1604	1.60	0.54	317.9	F		
TR	726	1770	1.20	0.41	118.7	F	172.1	F
Southbound								
L	200	1604	0.68	0.54	30.2	C		
TR	719	1753	1.00	0.41	64.1	E	58.7	E

Intersection Delay = 194.1 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB5 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	1	1	1	0	1	1	0
LGConfig		LT	R		LT	R	L	TR		L	TR	
Volume	69	259	225	59	264	104	283	637	80	141	681	73
Lane Width		12.0	10.0		12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green	30.0				14.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	332	1106	1.03	0.30	92.4	F	61.2	E
R	724	1478	0.32	0.49	15.7	B		
Westbound								
LT	356	1186	0.94	0.30	67.6	E	54.6	D
R	724	1478	0.15	0.49	14.1	B		
Northbound								
L	303	1652	0.97	0.60	61.3	E		
TR	751	1832	0.99	0.41	47.2	D	51.2	D
Southbound								
L	303	1652	0.49	0.60	19.6	B		
TR	753	1836	1.04	0.41	73.9	E	65.3	E

Intersection Delay = 58.0 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB5 (700K W/2 ACCESS DRIVES) (WITH IMPROVEMENTS)

E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	93	336	269	83	408	120	300	698	120	128	537	142
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			30			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	A
Thru		A			Thru		A	A
Right		A			Right		A	A
Peds					Peds			
WB Left		A	A		SB Left	A		A
Thru		A			Thru			A
Right		A			Right			A
Peds					Peds			
NB Right					EB Right	A	A	
SB Right					WB Right	A		
Green		30.0	5.0			7.0	6.0	47.0
Yellow		3.0	3.0			3.0	3.0	3.0
All Red		2.0	2.0			2.0	2.0	2.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	199	1662	0.50	0.33	50.9	D		
T	453	1810	0.79	0.25	51.1	D	42.0	D
R	574	1436	0.50	0.40	27.7	C		
Westbound								
L	241	1662	0.37	0.33	44.3	D		
T	453	1810	0.96	0.25	76.1	E	63.1	E
R	443	1436	0.29	0.31	31.9	C		
Northbound								
L	301	1604	1.06	0.58	78.7	E		
TR	859	1778	0.98	0.48	27.9	C	41.9	D
Southbound								
L	269	1604	0.51	0.45	22.1	C		
TR	687	1753	1.05	0.39	85.0	F	75.0	E

Intersection Delay = 54.3 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB5 (700K W/2 ACCESS DRIVES) (WITH IMPROVEMENTS)

E/W St: NYS ROUTE 52

Inter.: NYS ROUTE 52 & NYS ROUTE 300

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	69	259	225	59	264	104	283	637	80	141	681	73
Lane Width	11.0	12.0	10.0	11.0	12.0	10.0	10.0	12.0		10.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right	A		
Green		25.0				15.0	45.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	171	682	0.43	0.25	33.2	C		
T	466	1863	0.59	0.25	35.0+	D	28.0	C
R	665	1478	0.36	0.45	18.4	B		
Westbound								
L	174	697	0.36	0.25	32.2	C		
T	466	1863	0.60	0.25	35.3	D	30.3	C
R	665	1478	0.17	0.45	16.5	B		
Northbound								
L	320	1652	0.94	0.65	64.1	E		
TR	824	1832	0.93	0.45	28.0	C	38.2	D
Southbound								
L	339	1652	0.44	0.65	16.1	B		
TR	826	1836	0.97	0.45	51.2	D	45.6	D

Intersection Delay = 37.4 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB6 (700K W/2 ACCESS DRIVES)

E/W St: POWDER MILL ROAD/MEADOW AVENUE N/S St: NYS ROUTE 52

Inter.: NYS RT 52 & POWDER MILL/MEADOW

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	33	184	167	34	150	64	180	559	45	67	413	22
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		30.0				8.0	37.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	300	901	0.12	0.33	21.0	C		
TR	560	1680	0.70	0.33	29.8	C	29.1	C
Westbound								
LTR	436	1307	0.63	0.33	28.3	C	28.3	C
Northbound								
L	374	1719	0.53	0.56	14.3	B		
TR	735	1789	0.91	0.41	40.8	D	34.7	C
Southbound								
L	239	1719	0.31	0.56	16.2	B		
TR	738	1796	0.65	0.41	23.5	C	22.5	C

Intersection Delay = 29.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB6 (700K W/2 ACCESS DRIVES)

E/W St: POWDER MILL ROAD/MEADOW AVENUE N/S St: NYS ROUTE 52

Inter.: NYS RT 52 & POWDER MILL/MEADOW

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	1	0	1	1	0
LGConfig	L	TR			LTR		L	TR		L	TR	
Volume	27	212	170	38	204	67	167	445	50	77	435	32
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				8.0	34.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	301	822	0.10	0.37	18.9	B		
TR	619	1689	0.69	0.37	27.3	C	26.8	C
Westbound								
LTR	496	1353	0.69	0.37	28.3	C	28.3	C
Northbound								
L	308	1719	0.60	0.52	18.5	B		
TR	673	1782	0.82	0.38	33.0	C	29.3	C
Southbound								
L	285	1719	0.30	0.52	15.2	B		
TR	677	1791	0.77	0.38	29.8	C	27.7	C

Intersection Delay = 28.2 (sec/veh) Intersection LOS = C

HCS+: Unsignalized Intersections Release 5.2

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H.
 Agency/Co.: JCE
 Date Performed: DECEMBER 2006
 Analysis Time Period: PEAK PM HOUR
 Intersection: NYS ROUTE 52 & 5TH AVENUE
 Jurisdiction: SENSITIVITY ANALYSIS
 Units: U. S. Customary
 Analysis Year: 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB7 (700K W/2 ACCESS DRIVES)
 East/West Street: 5TH AVENUE
 North/South Street: NYS ROUTE 52
 Intersection Orientation: NS

Study period (hrs): 0.25

Major Street: Approach Movement	Vehicle Volumes and Adjustments					
	Northbound			Southbound		
	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	231	668	175	27	523	96
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	256	742	194	30	581	106
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?				No		
Lanes	1	1	1		1	0
Configuration	L	T	R		L	TR
Upstream Signal?	No				No	

Minor Street: Approach Movement	Vehicle Volumes and Adjustments					
	Westbound			Eastbound		
	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	67	29	12	96	29	308
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	74	32	13	106	32	342
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)	0				0	
Flared Approach: Exists?/Storage				No	/	/
Lanes	0	1	0		0	1
Configuration		LTR			LT	R

Approach Movement	Delay, Queue Length, and Level of Service					
	NB	SB	Westbound		Eastbound	
	1	4	7	8	9	10
Lane Config	L	L	LTR	LTR	LTR	LT
v (vph)	256	30		119		138
C(m) (vph)	907	732		2		13
v/c	0.28	0.04		59.50		10.62
95% queue length	1.16	0.13		17.22		18.43
Control Delay	10.5	10.1		29849		4896
LOS	B	B		F		F
Approach Delay				29849		1428
Approach LOS				F		F

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB7 (700K W/2 ACCESS DRIVES)

E/W St: 5TH AVENUE

Inter.: NYS ROUTE 52 & 5TH AVENUE

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig		LT	R		LTR		L	T	R	L	TR	
Volume	96	29	308	67	29	12	231	668	175	27	523	96
Lane Width		12.0	12.0		14.0		12.0	12.0	12.0	10.0	12.0	
RTOR Vol			0			0			40			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left			A		NB Left		A	
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green		8.0	13.0			5.0	44.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS

Eastbound

LT	264	1830	0.53	0.14	37.6	D	42.7	D
R	413	1615	0.83	0.26	44.8	D		

Westbound

LTR	166	1868	0.72	0.09	53.7	D	53.7	D
-----	-----	------	------	------	------	---	------	---

Northbound

L	313	640	0.82	0.49	35.5	D		
T	885	1810	0.84	0.49	27.1	C	27.2	C
R	752	1538	0.20	0.49	13.2	B		

Southbound

L	209	1604	0.14	0.60	13.7	B		
TR	1068	1780	0.64	0.60	13.1	B	13.1	B

Intersection Delay = 27.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB7 (700K W/2 ACCESS DRIVES)

E/W St: 5TH AVENUE

Inter.: NYS ROUTE 52 & 5TH AVENUE

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	1	1	1	1	0
LGConfig		LT	R		LTR		L	T	R	L	TR	
Volume	130	39	417	98	39	24	313	524	186	80	481	130
Lane Width		12.0	12.0		14.0		12.0	12.0	12.0	10.0	12.0	
RTOR Vol			80			0			40			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left			A		NB Left	A	A	
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right	A		
SB Right					WB Right			
Green		13.0	12.0			16.0	39.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	220	1830	0.85	0.12	68.8	E	45.2	D
R	533	1615	0.70	0.33	33.3	C		
Westbound								
LTR	241	1856	0.74	0.13	53.6	D	53.6	D
Northbound								
L	365	1805	0.95	0.60	65.4	E		
T	706	1810	0.82	0.39	35.3	D	42.8	D
R	600	1538	0.27	0.39	21.0	C		
Southbound								
L	369	1604	0.24	0.60	13.6	B		
TR	690	1770	0.98	0.39	60.0	E	54.6	D

Intersection Delay = 47.5 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: I-84 RAMP (WB) & NYS ROUTE 52

Agency: JCE

Area Type: All other areas

Date: DECEMBER 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK PM HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837PMB8 (700K W/2 ACCESS DRIVES)

E/W St: I-84 RAMP WEST BOUND

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				163		347	351	727			772	126
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left	A				SB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	21.0				41.0	13.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group	Approach	
			v/c	g/C	Delay LOS	Delay LOS	

Eastbound

Westbound

L	401	1719	0.44	0.23	30.3	C	39.7	D
R	359	1538	0.81	0.23	45.4	D		

Northbound

L	425	1719	0.90	0.66	50.7	D		
T	1187	1810	0.67	0.66	2.8	A	18.4	B

Southbound

T	825	1810	1.02	0.46	39.6	D	34.4	C
R	701	1538	0.20	0.46	2.5	A		

Intersection Delay = 28.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB8 (700K W/2 ACCESS DRIVES)

E/W St: I-84 RAMP WEST BOUND

Inter.: I-84 RAMP (WB) & NYS ROUTE 52

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	1	0	0	1	1
LGConfig				L		R	L	T			T	R
Volume				131		368	190	644			838	157
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						80						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		24.0				47.0	4.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	458	1719	0.31	0.27	26.8	C		
R	410	1538	0.76	0.27	38.7	D	35.0-	C
Northbound								
L	252	1719	0.82	0.62	53.2	D		
T	1126	1810	0.62	0.62	2.5	A	14.0	B

Southbound

T	945	1810	0.96	0.52	36.1	D	31.8	C
R	803	1538	0.21	0.52	8.6	A		

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB9 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF RAMP EASTBOUND

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	0
LGConfig	L		R					T	R	L	T	
Volume	85		342					992	145	238	697	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vol			60						60			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A							
Thru								
Right	A							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								
SB Right								
Green	7.0				17.0	51.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	134	1719	0.69	0.08	54.1	D	34.2	C
R	496	1538	0.62	0.32	28.2	C		
Westbound								
Northbound								
T	1026	1810	1.05	0.57	46.7	D	43.1	D
R	872	1538	0.11	0.57	1.2	A		
Southbound								
L	325	1719	0.80	0.19	42.4	D		
T	1026	1810	0.74	0.57	4.7	A	14.3	B

Intersection Delay = 30.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS RTE 52 & I-84 ON/OFF (EB)

Agency: JCE

Area Type: All other areas

Date: DECEMBER 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB9 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF RAMP EASTBOUND

N/S St: NYS ROUTE 52

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
No. Lanes	1	0	1	0	0	0	0	1	1	1	1	1	0
LGConfig	L		R					T	R	L	T		
Volume	56		165					778	85	291	678		
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
RTOR Vol			60						60				

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A							
Thru						A		
Right	A					A		
Peds								
WB Left					A	A		
Thru						A		
Right								
Peds								
NB Right					A			
SB Right								
Green	19.0				8.0	48.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	363	1719	0.17	0.21	29.3	C	23.5	C
R	547	1538	0.21	0.36	20.4	C		
Westbound								
Northbound								
T	965	1810	0.88	0.53	13.6	B	13.2	B
R	820	1538	0.03	0.53	2.4	A		
Southbound								
L	372	1719	0.85	0.68	27.3	C		
T	965	1810	0.76	0.53	7.6	A	13.5	B

Intersection Delay = 14.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB11 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF WESTBOUND RAMP

Inter.: NYS ROUTE 300 & I-84 WB RAMP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				909		649		1710	248		1133	560
Lane Width				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vol						0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right	A		
Green		30.0				50.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

Westbound

L	1113	3338	0.91	0.33	39.5	D	23.1	C
R	1538	1538	0.47	1.00	0.2	A		
Northbound								
T	1914	3445	0.99	0.56	38.6	D	35.1	D
R	854	1538	0.32	0.56	11.1	B		
Southbound								
T	1914	3445	0.66	0.56	14.8	B	15.9	B
R	854	1538	0.73	0.56	18.1	B		

Intersection Delay = 25.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB11 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF WESTBOUND RAMP

Inter.: NYS ROUTE 300 & I-84 WB RAMP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	2	1	0	2	1
LGConfig				L		R		T	R		T	R
Volume				682		627	1826	236		1571	539	
Lane Width				12.0		12.0	12.0	12.0		12.0	12.0	
RTOR Vol						0		0			0	

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left		A						
Thru								
Right		A						
Peds								
NB Right								
SB Right								
Green		25.0				55.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group	Approach	
			v/c	g/C	Delay LOS	Delay LOS	

Eastbound

Westbound

L	927	3338	0.82	0.28	36.2	D	19.0	B
R	1538	1538	0.45	1.00	0.2	A		

Northbound

T	2105	3445	0.96	0.61	28.8	C	26.5	C
R	940	1538	0.28	0.61	8.4	A		

Southbound

T	2105	3445	0.83	0.61	16.7	B	15.7	B
R	940	1538	0.64	0.61	12.6	B		

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB12 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF EASTBOUND RAMP

Inter.: NYS ROUTE 300 & I-84 EB RAMP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			426			386		1572	1367	440	1626	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								
SB Right								
Green					30.0	50.0		
Yellow					3.0	3.0		
All Red					2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c g/C		Lane Group Delay LOS		Approach Delay LOS	
Eastbound								
R	869	1565	0.54	0.56	13.5	B	13.5	B
Westbound								
R	1478	1565	0.29	0.94	0.3	A	0.3	A
Northbound								
T	1914	3445	0.91	0.56	25.2	C	31.6	C
R	1453	1538	1.05	0.94	38.9	D		
Southbound								
L	654	1719	0.75	0.94	27.3	C		
T	4655	4929	0.39	0.94	0.3	A	6.0	A

Intersection Delay = 19.1 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB12 (700K W/2 ACCESS DRIVES)

E/W St: I-84 ON/OFF EASTBOUND RAMP

Inter.: NYS ROUTE 300 & I-84 EB RAMP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	1	0	0	1	0	2	1	1	3	0
LGConfig			R			R		T	R	L	T	
Volume			312			442		1620	800	513	1739	
Lane Width			12.0			12.0		12.0	12.0	12.0	12.0	
RTOR Vol			0			0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right		A	
SB Right					WB Right	A	A	
Green						28.0	52.0	
Yellow						3.0	3.0	
All Red						2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
R	904	1565	0.38	0.58	10.6	B	10.6	B
Westbound								
R	1478	1565	0.33	0.94	0.3	A	0.3	A
Northbound								
T	1990	3445	0.90	0.58	8.3	A	16.3	B
R	889	1538	1.00	0.58	32.5	C		
Southbound								
L	682	1719	0.84	0.94	25.8	C		
T	4655	4929	0.42	0.94	0.3	A	6.1	A

Intersection Delay = 10.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.2

Analyst: R.H. Inter.: NYS ROUTE 32 & NYS ROUTE 300
 Agency: JCE Area Type: All other areas
 Date: DECEMBER 2006 Jurisd: SENSITIVITY ANALYSIS
 Period: PEAK PM HOUR Year : 2008 BUILD TRAFFIC VOLUMES
 Project ID: 837PMB13 (700K W/2 ACCESS DRIVES)
 E/W St: NYS ROUTE 32 N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L	TR		L	TR		L	TR	
Volume	101	329	173	83	183	22	161	402	167	20	260	54
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		33.0				7.0	35.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	514	1401	0.93	0.37	51.0	D	42.4	D
R	564	1538	0.34	0.37	21.0	C		
Westbound								
L	171	467	0.54	0.37	25.9	C		
TR	653	1781	0.35	0.37	21.0	C	22.4	C
Northbound								
L	431	1719	0.42	0.52	13.3	B		
TR	673	1730	0.94	0.39	47.9	D	40.2	D
Southbound								
L	221	1719	0.10	0.52	15.7	B		
TR	686	1763	0.51	0.39	21.6	C	21.2	C

Intersection Delay = 35.0+ (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Inter.: NYS ROUTE 32 & NYS ROUTE 300

Agency: JCE

Area Type: All other areas

Date: DECEMBER 2006

Jurisd: SENSITIVITY ANALYSIS

Period: PEAK SAT HOUR

Year : 2008 BUILD TRAFFIC VOLUMES

Project ID: 837SATB13 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 32

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	1	0	1	1	0
LGConfig		LT	R	L	TR		L	TR		L	TR	
Volume	58	331	174	81	322	46	199	420	164	46	283	53
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				7.0	35.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	485	1323	0.87	0.37	42.4	D	35.8	D
R	580	1583	0.33	0.37	20.8	C		
Westbound								
L	219	596	0.40	0.37	22.4	C		
TR	670	1828	0.60	0.37	24.6	C	24.2	C
Northbound								
L	430	1770	0.50	0.52	14.0	B		
TR	694	1784	0.91	0.39	42.9	D	35.6	D
Southbound								
L	226	1770	0.22	0.52	16.4	B		
TR	707	1818	0.52	0.39	21.7	C	21.1	C

Intersection Delay = 30.7 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB14 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	370	463	557	391	445	383	443	1189	197	301	1069	104
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
NB Right		A			EB Right	A		
SB Right					WB Right	A		
Green		8.0	23.0			21.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	508	3338	0.81	0.30	49.7	D		
T	660	3445	0.78	0.19	52.0	D	51.2	D
R	628	1538	0.91	0.41	51.5	D		
Westbound								
L	517	3338	0.84	0.30	52.2	D		
T	660	3445	0.75	0.19	50.5	D	45.0	D
R	628	1538	0.61	0.41	29.6	C		
Northbound								
L	1163	3338	0.42	0.62	18.5	B		
T	1378	3445	0.96	0.40	50.5	D	39.6	D
R	782	1538	0.22	0.51	16.5	B		
Southbound								
L	362	1719	0.92	0.62	66.4	E		
TR	1366	3416	0.92	0.40	44.7	D	49.3	D

Intersection Delay = 45.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB14 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 17K

Inter.: NYS ROUTE 300 & NYS ROUTE 17K

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: NYS ROUTE 300

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	2	2	1	2	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	T	R	L	TR	
Volume	323	520	530	402	480	382	466	1200	209	316	1177	147
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			40			40			40			40

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru		A	
Right			A		Right			A
Peds					Peds			
WB Left		A			SB Left	A		
Thru					Thru		A	
Right			A		Right			A
Peds					Peds			
NB Right		A			EB Right		A	
SB Right					WB Right			A
Green		7.0	23.0			22.0	48.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		2.0	2.0			2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
L	496	3437	0.68	0.29	42.3	D		
T	680	3547	0.80	0.19	52.9	D	44.0	D
R	660	1583	0.77	0.42	35.8	D		
Westbound								
L	516	3437	0.81	0.29	50.3	D		
T	680	3547	0.74	0.19	49.8	D	43.7	D
R	660	1583	0.54	0.42	27.2	C		
Northbound								
L	1315	3437	0.37	0.63	19.2	B		
T	1419	3547	0.88	0.40	40.1	D	32.7	C
R	792	1583	0.22	0.50	17.0	B		
Southbound								
L	387	1770	0.85	0.63	52.1	D		
TR	1401	3502	0.95	0.40	49.5	D	50.0	D

Intersection Delay = 42.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB15 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	237	590	46	14	852	127	82	42	20	98	10	307
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
L	328	1719	0.80	0.57	34.9	C		
TR	1253	3416	0.56	0.37	23.2	C	26.4	C
Westbound								
L	431	1719	0.04	0.57	9.8	A		
TR	1243	3390	0.85	0.37	32.2	C	31.9	C
Northbound								
LT	430	1335	0.32	0.32	23.5	C	22.1	C
R	803	1538	0.02	0.52	10.4	B		
Southbound								
LT	378	1174	0.32	0.32	23.5	C	16.0	B
R	803	1538	0.36	0.52	12.9	B		

Intersection Delay = 26.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB15 (700K W/2 ACCESS DRIVES)

E/W St: NYS ROUTE 17K

Inter.: I-87 RAMP/U.P. PL & NYS RT 17K

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

N/S St: I-87 ON/OFF RAMP / UNITY PLACE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	1	2	0	0	1	1	0	1	1
LGConfig	L	TR		L	TR			LT	R		LT	R
Volume	227	880	121	47	936	74	167	53	46	71	6	225
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vol			10			25			5			50

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru			A		Thru	A		
Right			A		Right	A		
Peds					Peds			
NB Right		A			EB Right			
SB Right		A			WB Right			
Green		13.0	33.0			29.0		
Yellow		3.0	3.0			3.0		
All Red		2.0	2.0			2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	339	1770	0.73	0.57	27.5	C		
TR	1279	3487	0.84	0.37	31.4	C	30.7	C
Westbound								
L	339	1770	0.15	0.57	13.0	B		
TR	1291	3520	0.83	0.37	30.6	C	29.8	C
Northbound								
LT	434	1348	0.55	0.32	26.7	C	24.2	C
R	827	1583	0.05	0.52	10.6	B		
Southbound								
LT	342	1060	0.25	0.32	22.8	C	15.2	B
R	827	1583	0.23	0.52	11.8	B		
Intersection Delay = 28.3 (sec/veh)					Intersection LOS = C			

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK PM HOUR

Project ID: 837PMB16 (700K W/2 ACCESS DRIVES)

E/W St: STOP N SHOP/NEWBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

Inter.: NYS ROUTE 300 & STOP N SHOP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	173	14	104	16	5	17	153	1021	14	2	741	94
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0				10.0	41.0		
Yellow	3.0				3.0	3.0		
All Red	2.0				2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
LT	343	1287	0.61	0.27	31.9	C	30.0	C
R	410	1538	0.28	0.27	26.6	C		
Westbound								
LTR	391	1467	0.11	0.27	25.1	C	25.1	C
Northbound								
L	364	1719	0.47	0.62	10.7	B		
TR	1566	3438	0.73	0.46	21.9	C	20.4	C
Southbound								
L	297	1719	0.01	0.62	9.9	A		
TR	1543	3387	0.60	0.46	19.0	B	19.0	B

Intersection Delay = 21.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.2

Analyst: R.H.

Agency: JCE

Date: DECEMBER 2006

Period: PEAK SAT HOUR

Project ID: 837SATB16 (700K W/2 ACCESS DRIVES)

E/W St: STOP N SHOP/NEUBURGH CINEMA DR N/S St: UNION AVENUE (NYS ROUTE 300)

Inter.: NYS ROUTE 300 & STOP N SHOP

Area Type: All other areas

Jurisd: SENSITIVITY ANALYSIS

Year : 2008 BUILD TRAFFIC VOLUMES

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	1	0	1	2	0	1	2	0
LGConfig		LT	R		LTR		L	TR		L	TR	
Volume	177	15	169	30	10	3	153	872	66	11	877	143
Lane Width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		25.0				10.0	40.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	356	1283	0.60	0.28	31.0	C	29.4	C
R	427	1538	0.44	0.28	27.5	C		
Westbound								
LTR	362	1303	0.13	0.28	24.5	C	24.5	C
Northbound								
L	294	1719	0.58	0.61	15.8	B		
TR	1515	3409	0.69	0.44	21.3	C	20.6	C
Southbound								
L	320	1719	0.04	0.61	9.6	A		
TR	1499	3373	0.76	0.44	23.2	C	23.0	C

Intersection Delay = 22.9 (sec/veh) Intersection LOS = C

