

### **3.10 Traffic and Transportation**

#### **3.10.1 Existing Roadway Network**

##### Regional Network

The subject site is located to the south of US Route 6 and west of the Somers-Yorktown Town Line, as indicated on Figure 2-1 (see Project Description). Its proximity to the Taconic Parkway (Route 987G) make it ideally situated for easy north-south commuting. The site has frontage along US Route 6, which is a principal arterial (Federal Highway Administration Functional Classification) for east-west movement and shopping. US Route 6 consists of four lanes west of the Curry Street intersection. A fifth lane, consisting of opposing left turn lanes, exists at the Curry Street intersection. East of the Curry Street intersection, US Route 6 reverts to four lanes, and then to two lanes in advance of Windsor Road at the Town line. US Route 6 has a maximum speed limit of 55 miles per hour in the vicinity of the project site. US Route 6 connects to Peekskill and points further to the west over the Bear Mountain Bridge, and runs east towards Connecticut through the Towns of Somers, and Carmel.

The Taconic State Parkway is a four-to-six lane divided parkway that is classified as a principal arterial expressway. This major highway travels generally north-south, bisecting Westchester County. The Taconic State Parkway extends north from the Sprain Brook Parkway in Westchester County to Interstate-90 (the Thruway extension to the Massachusetts Turnpike) in Columbia County. The Taconic Parkway is currently undergoing capacity and safety improvements, including widening from four to six lanes, overpass upgrades, interchange and intersection improvements, intersection eliminations, and upgrades of intersections to interchanges.

The US Route 6/ Taconic Parkway interchange was recently upgraded. The NYS Route 35 & US Route 202 interchange to the south is currently being reconstructed. The Taconic State Parkway over NYS Route 35 & US Route 202 is being expanded from four to six lanes, permitting the Taconic to become six lanes up to US Route 6.

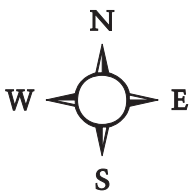
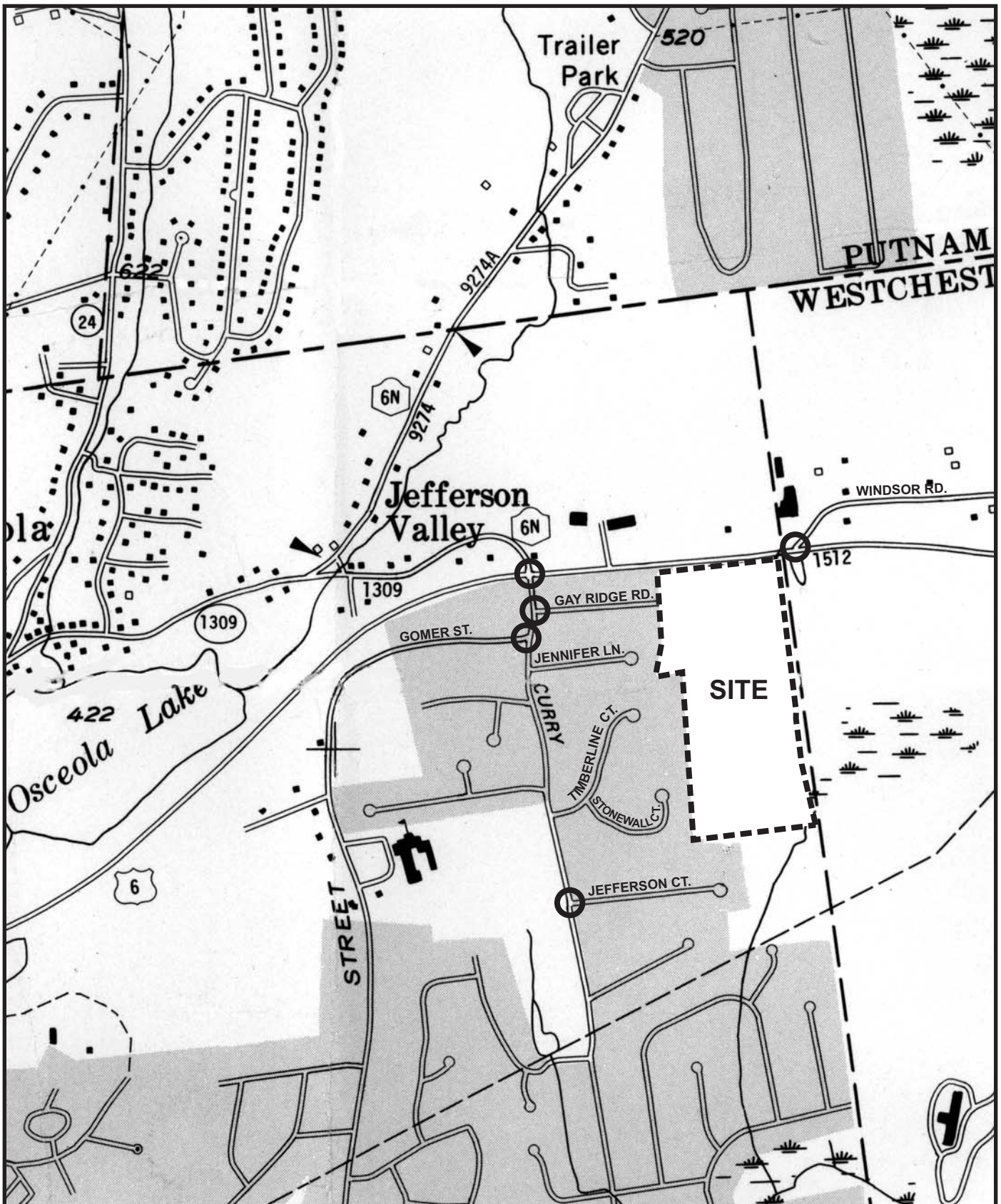
The Taconic State Parkway is currently limited to passenger cars and motorcycles only. The New York State Department of Transportation (NYS DOT) does permit limited use of the Taconic for commuter bus service. Currently, Westchester County's Bee-line bus service is the only bus service permitted to access the Taconic. This access is restricted to portions of the Taconic between the Sprain Brook Parkway in White Plains and Underhill Road in Yorktown, further south of US Route 6. The speed limit for the Taconic ranges from 40 to 55 miles per hour.

Route 6N begins at the US Route 6/NYS Route 6N/Curry Street intersection providing access into Mahopac Falls in the Town of Carmel to the North. From Mahopac Fall NYS Route 6N loops east to connect back to US Route 6.

##### Local Roads

Figure 3.10-1 depicts the local road network in the vicinity of the subject site and study intersections. The local streets closest to the site include the following:

- (1) Curry Street
- (2) Jefferson Court
- (3) Gay Ridge Road



**LEGEND**

○ Intersections Studied

**Figure 3.10-1: Local Roadway Network**

Yorktown Farms Subdivision

Town of Yorktown, Westchester County, New York

Base Map: USDOT Planimetric Map, Mohegan Lake Quad

Scale: 1 inch = 1,000 feet

- (4) Gomer Street (Extension)
- (5) Windsor Road
- (6) Stonewall Court
- (7) Jennifer Court
- (8) Timberlane Court

The above roads are each two-way, two lane roads. The speed limit on these streets is 30 miles per hour. Based on the Federal Highway Administration Functional Classification system, all of these streets are classified as local roads except Gomer Street and Curry Street. Gomer Street is a minor arterial. Curry Street is a minor arterial from US Route 6 to Gomer Street, and a collector street south of Gomer Street.

The draft Comprehensive Plan of the Town of Yorktown shows Curry Street, Gomer Street, US Route 6, and Route 6N as arterials under the Town's classification system. Windsor Road is located in the Town of Somers. It is a loop road with two intersections with US Route 6. The nearest intersection is referred to herein as Windsor Road (west)/US Route 6. Jennifer Court, Jefferson Court, Timberlane Court and Gay Ridge Road are all cul-de-sacs located off of Curry Street. Stonewall Court is a cul-de-sac located off of Timberlane Court. For the purposes of this analysis, traffic volumes between Gomer Street and Gay Ridge Road were balanced out, since their trips occurred in the same time period with limited intervening opportunities for vehicles to leave the network.

Jefferson Court, Gomer Street Extension, Jennifer Court, and Timberlane Court all have stop signs on approaches to Curry Street. Gay Ridge Road has a hedge intruding on the travel way and no visible stop sign. Windsor Road (west) has a stop sign on the approach to US Route 6.

The intersection of Curry Street and US Route 6 is signalized. The northern leg has a 25 mile per hour recommended speed limit based on the horizontal and vertical geometry.

### **3.10.2 Existing Traffic Conditions**

This traffic study reviews Existing Conditions based on 2003 traffic counts and historic data. The existing data forms the basis of the year 2008 No Build Condition (the scenario without the proposed action) and the 2008 Build Condition (with the proposed action).

Traffic volumes are provided for the following intersections as shown in Figure 3.10-1. The time periods shown are the peak hours for the specific locations.

1. US Route 6 and Windsor Road (west) (7:45 a.m. to 8:45 a.m. and 5:00 p.m. to 6:00 p.m.)
2. Gay Ridge Road and Curry Street (8:00 a.m. to 9:00 a.m. and 4:30 p.m. to 5:30 p.m.)
3. Gomer Street and Curry Street (8:00 a.m. to 9:00 a.m. and 4:30 p.m. to 5:30 p.m.)
4. Jefferson Court and Curry Street (8:00 a.m. to 9:00 a.m. and 4:00 p.m. to 5:00 p.m.)
5. US Route 6 and Curry Street (8:00 a.m. to 9:00 a.m. and 5:00 p.m. to 6:00 p.m.)

Figures 3.10-2 and 3.10-3 provide existing a.m. weekday and p.m. weekday traffic volumes at each of the subject intersections. Weekday a.m. and p.m. peak hour traffic counts were taken on Tuesday August 12, 2003, from 6:30 a.m. to 9:00 a.m., and from 4:00 p.m. to 6:30 p.m.. These encompass peak journey to work times from the 2000 census.

The counts identify the peak morning and afternoon weekday computation travel periods. The a.m. weekday peak hour typically occurs between 7:45 a.m. and 9:00 a.m.. The late a.m. peak hour is a combination of late commuter traffic and early shopping traffic. The afternoon traffic typically peaks between 4:00 p.m. and 5:30 p.m. on Curry Street and 5:00 p.m. to 6:00 p.m. for US Route 6 intersections. The US Route 6 traffic mixes shopping traffic from the Jefferson Valley area with residential commuter traffic. Year 2000 Census Data indicates that only 33.4 percent of journey to work trips from Yorktown occur in the peak commuting hour.

Traffic analyses for signalized and unsignalized intersections are based on traffic flow rates representing the highest 15 minute volume in the peak hours. The peak 15 minute traffic flows can be a much higher level of traffic activity compared to the rest of the peak hour. For some low volume roads, the 15 minute traffic flow comprises a high proportion of the hourly volume. The higher volume of traffic activity associated with residential uses during peak hours tends to result in a more consistent flow of traffic during those peak hour periods. By maintaining the existing high proportion of fifteen minute traffic, the traffic analysis is typically overestimating the traffic flow rate.

### **3.10.3 Level of Service Criteria**

The Highway Capacity Manual (National Science Academy, Transportation Research Board, National Research Council, Washington D.C. 2000) and the associated Highway Capacity Software procedures document the methodology for modeling level-of-service, delay and volume to capacity ratios at intersections. Level of service is a measure of the operational quality of an intersection; level of service A is the highest, most efficient level, and level of service F is the lowest level. The operational quality of an intersection is based on the average amount of time a vehicle is delayed.

Delay is referred to as either control delay, intersection delay or signal delay. Signal delay refers only to signal controlled intersections. The definition of control, intersection and signal delay consider all delays including startup, deceleration and acceleration delays. The New York State Department of Transportation specifies use of the Highway Capacity Manual methodologies.

Level-of-service for unsignalized intersections in Table 3.10-1 is based on control delay.

Table 3.10-2 presents the level of service criteria for signalized intersections. The New York State Department of Transportation generally seeks a minimum of level of service D (delay of 55 seconds or less) for all lane groups. The New York State Department of Transportation Highway Design Manual notes, "In some cases, it may be necessary to accept level of service E or F on individual lane groups due to unreasonable costs or impacts associated with improving the level of service." A lane group is a set of lanes on an approach having the same common movement(s). A level of service A is a condition with little or no delay for vehicles (zero to ten seconds). At level of service C, individual cycles may experience failure delays. At level of service E, cycle failure delays are frequent.

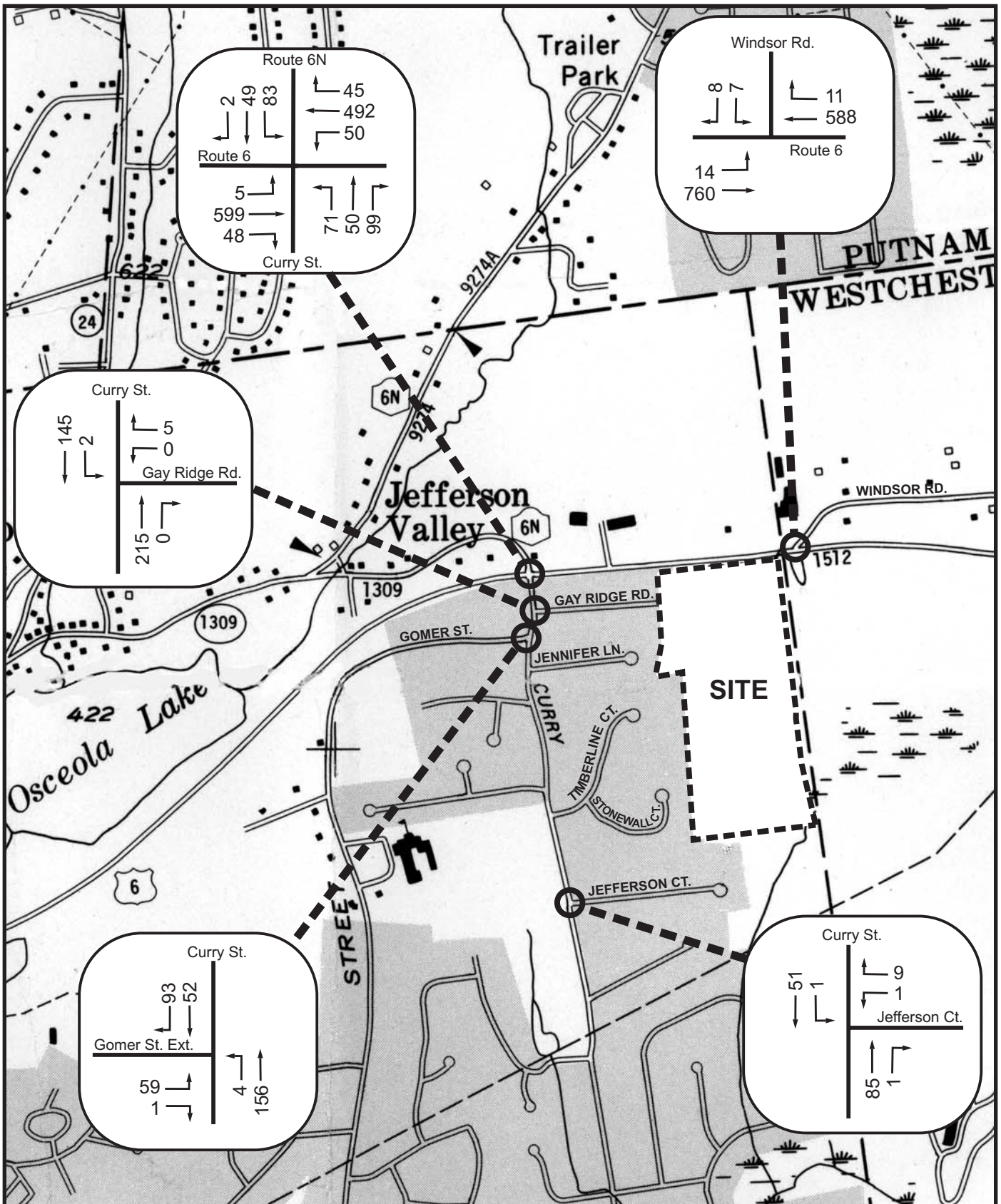
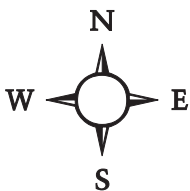


Figure 3.10-2: Existing AM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**

○ Intersections Studied

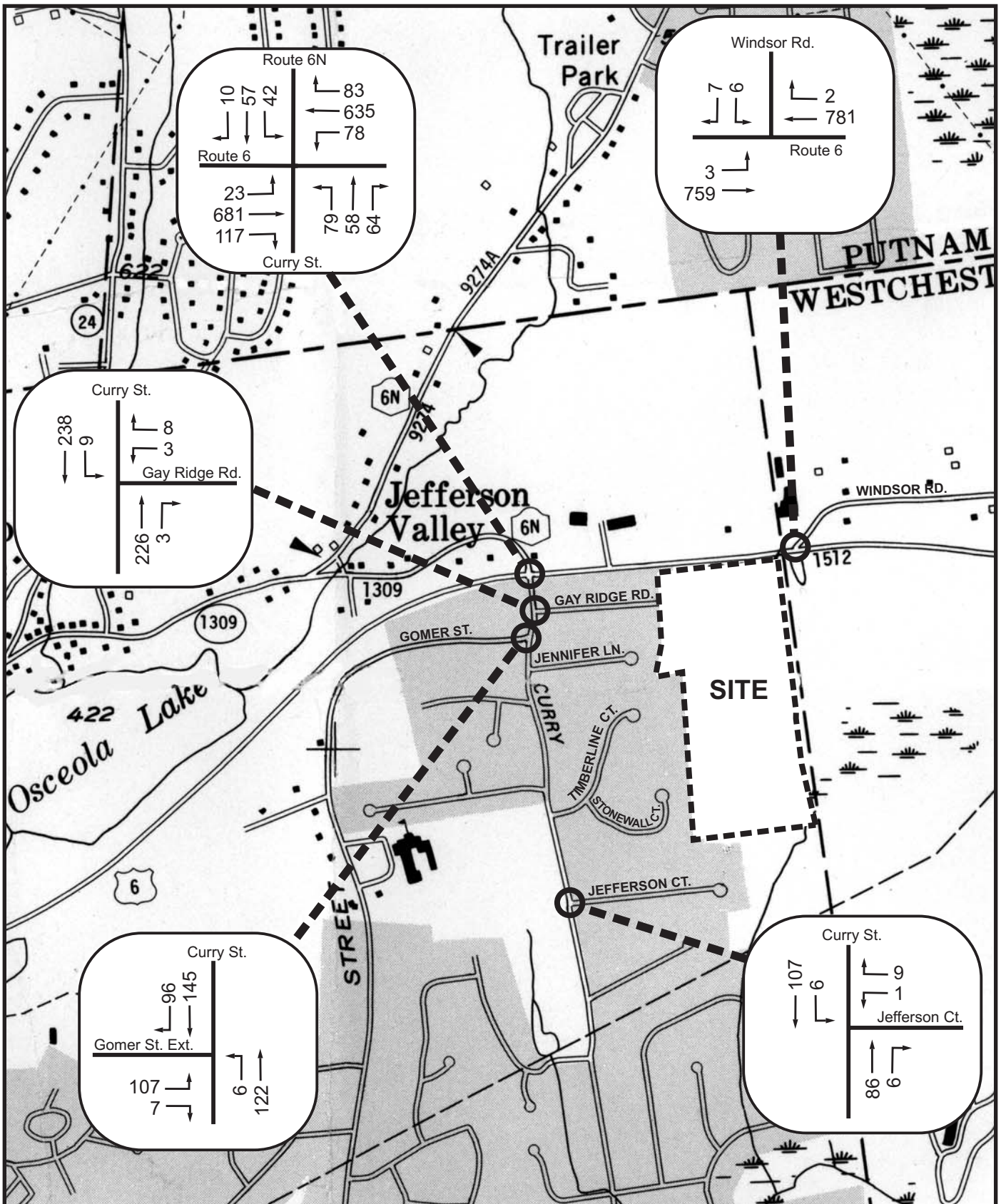
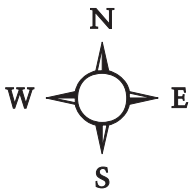


Figure 3.10-3: Existing PM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**  
 ○ Intersections Studied

| Table 3.10-1<br>Unsignalized Intersections<br>Level of Service Criteria |                                              |
|-------------------------------------------------------------------------|----------------------------------------------|
| Level of Service                                                        | Average Total Delay<br>(Seconds Per Vehicle) |
| A                                                                       | ≤ 10                                         |
| B                                                                       | >10 and ≤ 15                                 |
| C                                                                       | >15 and ≤ 25                                 |
| D                                                                       | >25 and ≤ 35                                 |
| E                                                                       | >35 and ≤ 50                                 |
| F                                                                       | > 50                                         |

SOURCE: Highway Capacity Manual, National Academy of Science, Transportation Research Board, National Research Council, Washington, D.C., 2000.

| Table 3.10-2<br>Signalized Intersections<br>Level of Service Criteria |                                        |
|-----------------------------------------------------------------------|----------------------------------------|
| Level of Service                                                      | Stopped Delay<br>(Seconds Per Vehicle) |
| A                                                                     | ≤ 10                                   |
| B                                                                     | >10 and ≤ 20                           |
| C                                                                     | >20 and ≤ 35                           |
| D *                                                                   | >35 and ≤ 55                           |
| E                                                                     | >55 and ≤ 80                           |
| F                                                                     | > 80.0                                 |

SOURCE: Highway Capacity Manual, National Academy of Science, Transportation Research Board, National Research Council, Washington, D.C., 2000.

\* For urban areas, the minimum level of service for design of lane-groups (one or more movements) assuming reasonable costs and impacts.

For all intersections, the volume to capacity ratio (V/C) is an indication of unused capacity, or the ability of the intersection to process more traffic. It is possible to have a movement with an adequate level of service (level of service A, B, C or D) and be at capacity for the movement. It is also possible to have a movement with an unacceptable level of service (level of service E or F) with additional capacity available on the movement. The New York State Department of Transportation goal for volume to capacity ratios at signalized intersections for lane groups is generally below 0.95. The ability of an entire intersection to handle more traffic is a complex issue as traffic can be added to under-capacity movements without impacting over-capacity movements.

### 3.10.4 Existing Level of Service

The following intersections were evaluated for level of service:

1. US Route 6 and Windsor Road
2. Gay Ridge Road and Curry Street
3. Gomer Street Extension and Curry Street
4. Jefferson Court and Curry Street
5. US Route 6 and Curry Street

The results of the level of service analyses for these intersections are summarized in Tables 3.10-3 and 3.10-4. Capacity analysis calculations are provided in Appendix E.

Table 3.10-3 shows level of service at the unsignalized intersections. All approaches operate at level of service D or better.

Table 3.10-4 shows level of service at the existing signalized intersection of US Route 6/NYS Route 6N /Curry Street. The signalized intersection operates at level of service C or better for all lane groups.

| Table 3.10-3<br>Existing Condition Level of Service Summary<br>Unsignalized Intersections                                                      |                                                 |                          |                       |                  |                          |                       |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|-----------------------|------------------|--------------------------|-----------------------|------------------|
| Intersection Roads                                                                                                                             | Lane Group<br>(Approach Direction<br>-Movement) | A.M. Weekday Peak Hour   |                       |                  | P.M. Weekday Peak Hour   |                       |                  |
|                                                                                                                                                |                                                 | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service |
| <b>Windsor Road (west)/ US Route 6</b>                                                                                                         |                                                 |                          |                       |                  |                          |                       |                  |
| US Route 6                                                                                                                                     | EB-LT                                           | 0.02                     | 9.0                   | A                | 0.00                     | 9.6                   | A                |
| Windsor Road                                                                                                                                   | SB-LR                                           | 0.09                     | 24.0                  | C                | 0.20                     | 31.4                  | D                |
| <b>Gay Ridge Road/ Curry Street</b>                                                                                                            |                                                 |                          |                       |                  |                          |                       |                  |
| Curry Street                                                                                                                                   | SB-LT                                           | 0.00                     | 7.7                   | A                | 0.01                     | 7.8                   | A                |
| Gay Ridge Road                                                                                                                                 | WB-LR                                           | 0.01                     | 9.6                   | A                | 0.03                     | 10.6                  | B                |
| <b>Gomer Street extension/ Curry Street</b>                                                                                                    |                                                 |                          |                       |                  |                          |                       |                  |
| Curry Street                                                                                                                                   | SB-L                                            | 0.00                     | 7.5                   | A                | 0.01                     | 7.7                   | A                |
| Gomer Street Ext.                                                                                                                              | EB-LR                                           | 0.10                     | 11.1                  | B                | 0.24                     | 12.6                  | B                |
| <b>Jefferson Court/ Curry Street</b>                                                                                                           |                                                 |                          |                       |                  |                          |                       |                  |
| Curry Street                                                                                                                                   | SB-LT                                           | 0.00                     | 7.4                   | A                | 0.00                     | 7.5                   | A                |
| Jefferson Valley Court                                                                                                                         | WB-LR                                           | 0.02                     | 8.8                   | A                | 0.02                     | 9.3                   | A                |
| Level-of-Service (see Table 3.10-1 for level-of-service criteria).                                                                             |                                                 |                          |                       |                  |                          |                       |                  |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound<br>L = left, R = right, TR = through and right, (e.g. WB-L = Westbound left). |                                                 |                          |                       |                  |                          |                       |                  |



| Table 3.10-4<br>Existing Condition Level of Service Summary<br>Signalized Intersection |                                                 |                          |                       |                  |                          |                       |                  |
|----------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|-----------------------|------------------|--------------------------|-----------------------|------------------|
| Intersection Roads                                                                     | Lane Group<br>(Approach Direction<br>-Movement) | A.M. Weekday Peak Hour   |                       |                  | P.M. Weekday Peak Hour   |                       |                  |
|                                                                                        |                                                 | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service |
| US Route 6                                                                             | EB-L                                            | 0.02                     | 10.4                  | B                | 0.09                     | 10.9                  | B                |
|                                                                                        | EB-TR                                           | 0.45                     | 13.2                  | B                | 0.57                     | 14.4                  | B                |
| US Route 6                                                                             | WB-L                                            | 0.11                     | 8.3                   | A                | 0.17                     | 10.8                  | B                |
|                                                                                        | WB-TR                                           | 0.30                     | 6.9                   | A                | 0.36                     | 7.2                   | A                |
| Curry Street                                                                           | NB-LTR                                          | 0.60                     | 25.1                  | C                | 0.54                     | 23.9                  | C                |
| Curry Street                                                                           | SB-LTR                                          | 0.52                     | 24.1                  | C                | 0.44                     | 22.5                  | C                |
|                                                                                        | Overall                                         |                          | 13.6                  | B                |                          | 13.3                  | B                |
| Level of Service (see Table 3.10-2 for level-of-service criteria).                     |                                                 |                          |                       |                  |                          |                       |                  |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.                      |                                                 |                          |                       |                  |                          |                       |                  |
| L = Left, T = Through, R = Right, (e.g. WB-L = Westbound left).                        |                                                 |                          |                       |                  |                          |                       |                  |

### 3.10.5 Existing Public Transportation

#### Existing Bus Transportation Service

Bus transportation accounts for five percent of journey to work trips in Westchester County (source: Transit into the 21st Century, Final Report Westchester County Department of Transportation, 1994). Year 2000 Census data indicates that only one percent of Yorktown residents' journey to work trips are by bus, as shown in Table 3.10-5. Population density, work place density and bus availability are key reasons for lower bus use in Yorktown as compared to Westchester County.

The nearest bus stops to the site along Curry Street are at Timberlane Court and Gay Ridge Road. On US Route 6 bus stops are at Curry Street, and at Navajo Road east of Curry Street (bus stop with a shelter).

The Bee-Line 12 Bus Route runs on Curry Street south of US Route 6. The 16 and 77 bus routes run on US Route 6, with the 16 buses serving Peekskill Station. The Putnam Area Rapid Transit (PART) 2, 3 and 4 line buses run on US Route 6 near the project site.

| Table 3.10-5<br>Means of Journey to Work Town of Yorktown |                           |                                     |
|-----------------------------------------------------------|---------------------------|-------------------------------------|
| Means of Journey to Work                                  | Workers 16 years and over | Percentage of Journey to Work Trips |
| Drive Alone                                               | 14,131                    | 78.9%                               |
| Carpool                                                   | 1,326                     | 7.4%                                |
| Bus                                                       | 174                       | 1.0%                                |
| Railroad (including subway)                               | 1,337                     | 7.5%                                |
| Motorcycle                                                | 8                         | 0.0%                                |
| Bicycle                                                   | 23                        | 0.1%                                |
| Walk                                                      | 160                       | 0.9%                                |
| Other                                                     | 26                        | 0.1%                                |
| Work at home                                              | 733                       | 4.1%                                |
| <b>Total</b>                                              | <b>17,918</b>             | <b>100.0%</b>                       |
| 2000 US Census Data.                                      |                           |                                     |

Existing Rail Service

Rail comprises 7.5 percent of Yorktown residents' journey to work trips, as shown in Table 3.10-5. The Peekskill Railroad Station is the nearest station stop on Metro North's Hudson Line. As previously noted, bus service is available to the Peekskill Station via the number 16 bus route.

Metro North Railroad's Hudson Line division runs from Poughkeepsie to Grand Central Station in New York City. Metro North's Harlem line has stops at Purdy's, Golden Bridge, and Katonah. These four stations are nine to 11 miles away with driving times of about 20 to 26 minutes. Mean travel time to work is 37.3 minutes for work trips originating in Yorktown, making car-train trips longer than the average commuter trip.

**3.10.6 Future No-Build Condition Traffic: Network and Volumes**

Typically, a project's traffic impact is determined by comparing future traffic conditions without project-generated traffic (2008 No-Build conditions) to traffic conditions with project-generated traffic (2008 Build conditions).

The No-Build traffic condition is an interim scenario that establishes a future baseline condition. No-Build traffic conditions are ascertained based on a number of factors: (1) improvements in the local road network that are planned or underway; (2) traffic from general population growth in the local area; and, (3) traffic from identified development projects in the project site vicinity.

The New York State Department of Transportation (NYS DOT) is currently improving the NYS Route 35 & US Route 202/Taconic State Parkway interchange. Improving this interchange will allow the widening of the Taconic State Parkway from the existing four lanes to six lanes between NYS Route 35 & US Route 202 and US Route 6. No shift in traffic was assumed as a result of these projects.

Westchester County has recently completed the Bear Mountain Parkway Routes 202/35/6 Sustainable Development Study, which included US Route 6 west of the study area. Efforts

are ongoing to link that study to another State study of US Route 6 through the Town of Somers and in southwestern Carmel. Edwards and Kelcey, the traffic consultant for both the Sustainable Development Study and the subsequent US Route 6 study, was contacted for available data to supplement this analysis. However, no recent data was available from Edwards and Kelcey. The State study is intended to investigate the potential widening of US Route 6 and alternative NYS Route 6N connections, as discussed below as part of the draft Comprehensive Plan for the Town of Yorktown.

The draft Comprehensive Plan for the Town of Yorktown includes three potential roadway connection alternatives (Alternatives 4a, 4b, and 4c) in the area. Alternative 4a connects NYS Route 6N to US Route 6 east of the US Route 6/NYS Route 6N/Curry Street intersection, thereby reducing traffic at this intersection. Alternative 4b entails a more direct routing of NYS Route 6N to the existing US Route 6/NYS Route 6N/Curry Street intersection. However, such a change may not alter traffic at the intersection. Alternative 4c would connect NYS Route 6N to Gomer Street. As with Alternative 4a, this would likely reduce traffic at the intersection of US Route 6/NYS Route 6N/Curry Street. None of these alternatives were considered as part of future conditions as they are unlikely to be implemented within the time frame of this project.

The draft Comprehensive Plan for the Town of Yorktown includes policies to improve amenities at bus stops, improve service to train stations and provide jitney service to shopping and sporting events. Although the site has potentially convenient access to such improvements, no reduction in passenger vehicle traffic was assumed from improvements to transit services.

Peak hour traffic volumes for the a.m. and p.m. No-Build scenarios are provided in Figures 3.10-4 and 3.10-5. These figures reflect existing traffic plus the background traffic growth over five years, as well as growth from other area projects. A short-term traffic growth rate of two percent per year was used to establish background growth to 2008. The Applicant is anticipating occupancy by the end of 2008.

Area development projects are listed in Table 3.10-6. Trip generation data for the subject projects are included in Appendix C. The portion of Windsor Farms extending south of US Route 6 adjacent to the project site is to be open space, with 11 units transferred to the cluster units north of US Route 6.

The Planned Hamlet Zone project (formerly the Hunter Philipse project) is anticipated by 2010 at the earliest, two years after the Yorktown Farms Build Year of 2008. The project requires master plan approval and individual site plan approvals. Based on its size -- 260,000 square feet of commercial space, 154 townhouses and a 50,000-square foot nursing home -- the project would likely require an Environmental Impact Statement. Because this project is preliminary and requires master plan approvals, it has not been added as a pending project.

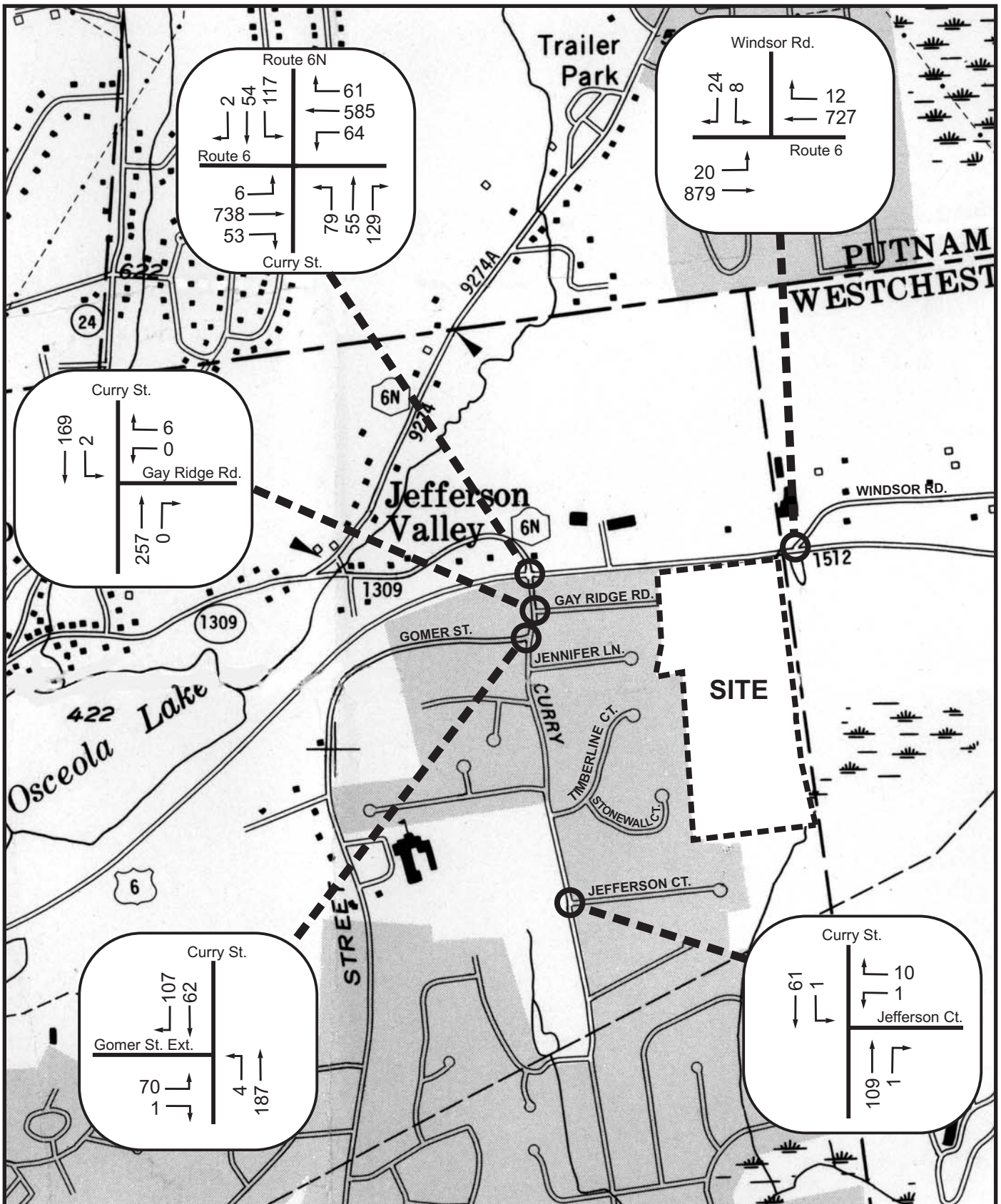


Figure 3.10-4: No Build AM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**  
 ○ Intersections Studied

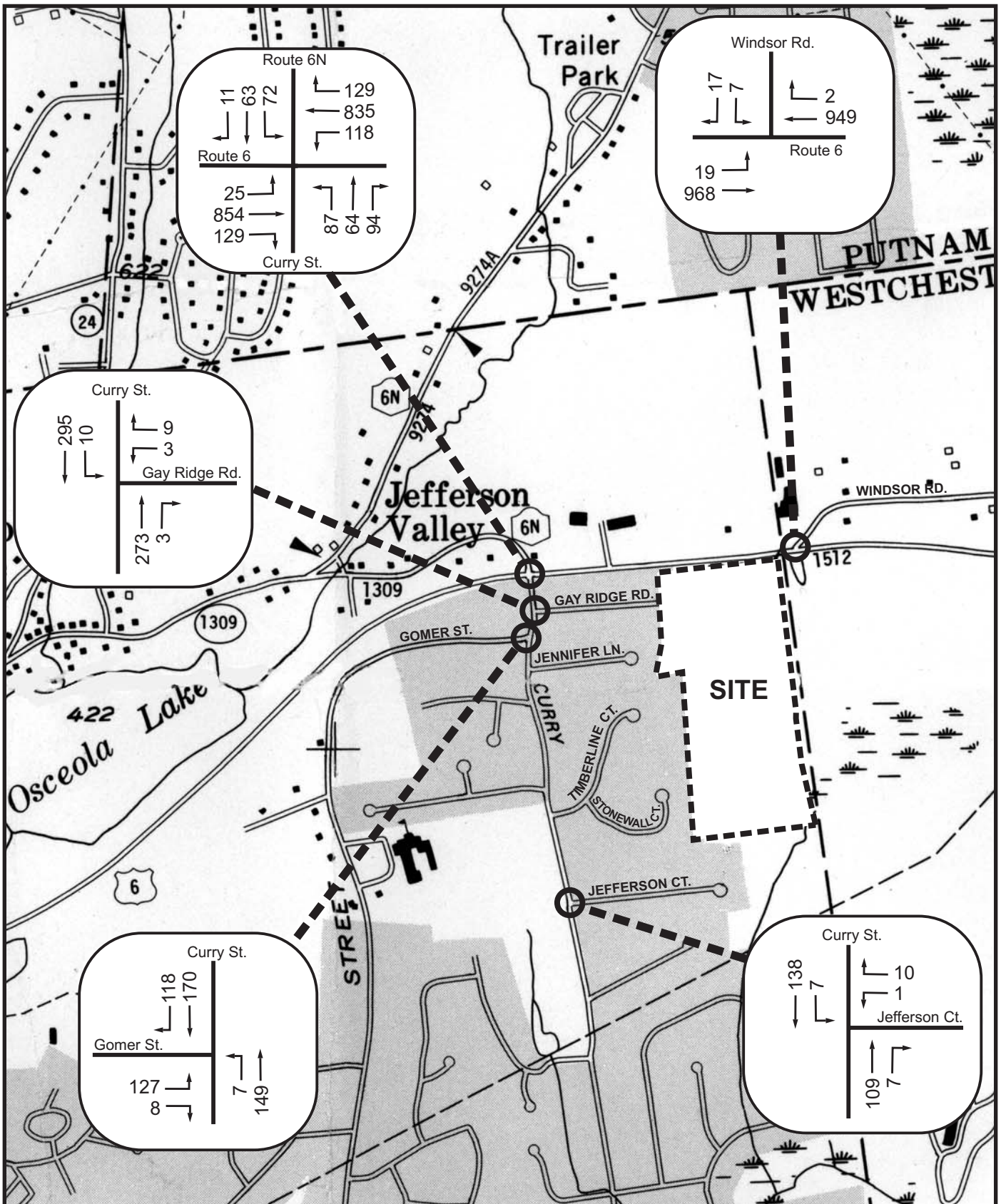
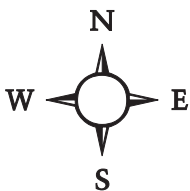


Figure 3.10-5: No Build PM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**  
 ○ Intersections Studied

| Table 3.10-6                                                                                                        |                                                          |          |                                       |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------|---------------------------------------|
| Approved or Pending Projects                                                                                        |                                                          |          |                                       |
| Project, Size, and Type                                                                                             |                                                          | Status   | Location                              |
| 1                                                                                                                   | Windsor Farms, 34 Single Family Homes                    | Pending  | Windsor Road, Somers                  |
| 2                                                                                                                   | Baldwin Place, 13,164 square feet Daycare                | Approved | Baldwin Place                         |
| 3                                                                                                                   | Baldwin Woods, 17 single family lots                     | Pending  | Baldwin Place Road                    |
| 4                                                                                                                   | US Homes 77 single family homes                          | Pending  | Indian Hill Road and East Main Street |
| 5                                                                                                                   | New York Sports Club, 13,000 square feet sports club     | Approved | Somers Commons                        |
| 6                                                                                                                   | Tonndorf 116,000 square feet mixed use in four buildings | Pending  | US Route 6 and Navajo Road            |
| Sources: Somers Planning Department, Carmel Planning Department, Yorktown Planning Department, Kellard Engineering. |                                                          |          |                                       |

### 3.10.7 No-Build Condition Level of Service

Tables 3.10-7 and 3.10-8 contain levels of service summaries for the 2008 No-Build scenario for the unsignalized and signalized intersections. There are five declines in levels of service over the study intersections in the No-Build condition, of which one results in a poor level of service (level of service F). Windsor Road declines from level of service D to level of service F. The actual delays and level of service for Windsor Road p.m. peak hour traffic is anticipated to be better (level of service E) than shown as a result of changes in peak fifteen minute flows, as suggested later at the end of the Build Condition section. Level of service for lane groups of the signalized US Route 6/NYS Route 6N/Curry Street intersection are at level of service D or better.

| Table 3.10-7<br>No Build Condition Level of Service Summary<br>Unsignalized Intersections |                                                    |                                |                              |                        |                                |                              |                        |
|-------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------|------------------------------|------------------------|--------------------------------|------------------------------|------------------------|
| Intersection Roads                                                                        | Lane Group<br>(Approach<br>Direction<br>-Movement) | A.M. Weekday Peak Hour         |                              |                        | P.M. Weekday Peak Hour         |                              |                        |
|                                                                                           |                                                    | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service |
| <b>Windsor Road (west)/ US Route 6</b>                                                    |                                                    |                                |                              |                        |                                |                              |                        |
| US Route 6                                                                                | EB-LT                                              | 0.03                           | 9.6                          | A                      | 0.03                           | 10.6                         | B*                     |
| Windsor Road                                                                              | SB-LR                                              | 0.20                           | 26.8                         | D*                     | 0.52                           | 61.4                         | F*                     |
| <b>Gay Ridge Road/ Curry Street</b>                                                       |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                              | SB-LT                                              | 0.00                           | 7.8                          | A                      | 0.01                           | 8.0                          | A                      |
| Gay Ridge Road                                                                            | WB-LR                                              | 0.02                           | 9.9                          | A                      | 0.03                           | 11.2                         | B                      |
| <b>Gomer Street extension/Curry Street</b>                                                |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                              | SB-L                                               | 0.00                           | 7.5                          | A                      | 0.01                           | 7.9                          | A                      |
| Gomer Street Ext.                                                                         | EB-LR                                              | 0.13                           | 11.9                         | B                      | 0.31                           | 14.3                         | B                      |
| <b>Jefferson Court/ Curry Street</b>                                                      |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                              | SB-LT                                              | 0.00                           | 7.4                          | A                      | 0.00                           | 7.6                          | A                      |
| Jefferson Valley Court                                                                    | WB-LR                                              | 0.02                           | 9.0                          | A                      | 0.02                           | 9.6                          | A                      |
| Level of Service (see Table 3.10-1 for level-of-service criteria).                        |                                                    |                                |                              |                        |                                |                              |                        |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound                          |                                                    |                                |                              |                        |                                |                              |                        |
| L = left, R = right, TR = through and right, (e.g. WB-L = Westbound left).                |                                                    |                                |                              |                        |                                |                              |                        |
| * Reduction in level of service from existing condition.                                  |                                                    |                                |                              |                        |                                |                              |                        |

| Table 3.10-8<br>No Build Condition Level of Service Summary<br>Signalized Intersection |                                                    |                                |                              |                        |                                |                              |                        |
|----------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------|------------------------------|------------------------|--------------------------------|------------------------------|------------------------|
| Intersection Roads                                                                     | Lane Group<br>(Approach<br>Direction<br>-Movement) | A.M. Weekday Peak Hour         |                              |                        | P.M. Weekday Peak Hour         |                              |                        |
|                                                                                        |                                                    | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service |
| US Route 6                                                                             | EB-L                                               | 0.02                           | 10.4                         | B                      | 0.15                           | 11.5                         | B                      |
|                                                                                        | EB-TR                                              | 0.55                           | 14.2                         | B                      | 0.70                           | 16.6                         | B                      |
| US Route 6                                                                             | WB-L                                               | 0.16                           | 10.2                         | B*                     | 0.31                           | 15.8                         | B                      |
|                                                                                        | WB-TR                                              | 0.36                           | 7.3                          | A                      | 0.48                           | 8.0                          | A                      |
| Curry Street                                                                           | NB-LTR                                             | 0.72                           | 29.7                         | C                      | 0.68                           | 28.1                         | C                      |
| Curry Street                                                                           | SB-LTR                                             | 0.77                           | 37.8                         | D*                     | 0.70                           | 30.4                         | C                      |
|                                                                                        | Overall                                            |                                | 16.1                         | B                      |                                | 15.6                         | B                      |
| Level-of-Service (see Table 3.10-2 for level-of-service criteria).                     |                                                    |                                |                              |                        |                                |                              |                        |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.                      |                                                    |                                |                              |                        |                                |                              |                        |
| L = Left, T = Through, R = Right, (e.g. WB-L = Westbound left).                        |                                                    |                                |                              |                        |                                |                              |                        |

**3.10.8 Traffic and Transportation Build Condition**

Future Site Improvements

The Yorktown Farms subdivision will consist of 34 single-family homes. Additional Park Parcels are proposed for dedication to the Town as parkland. The Yorktown Farms site has frontage on US Route 6 and Gay Ridge Road. Proposed access is from US Route 6, with access to the parcel to the south potentially available for the future.

A Highway Work Permit from the New York State Department of Transportation is required for site access to US Route 6 and any utility work within the state right of way.

Trip Generation and Distribution

Table 3.10-9 shows trip generation rates using Institute of Transportation Engineers' Trip Generation data. Table 3.10-10 shows the trip generation projection for the development. Trips associated with the proposed soccer field are not included, since they will be primarily seasonal, weather dependent and will occur primarily on the weekends. Peak trips from the field would be two in the a.m. weekday peak hour, 20 in the p.m. weekday peak hour and 29 in the Saturday peak hour based on Trip Generation data for soccer complexes.

| Table 3.10-9<br>Yorktown Farms Trip Generation Rates       |                                    |                                     |                                    |                                     |
|------------------------------------------------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| Potential Land Use and Size {ITE Code} <sup>1</sup>        | Trips Rates                        |                                     |                                    |                                     |
|                                                            | A.M. Peak Hour                     |                                     | P.M. Peak Hour                     |                                     |
|                                                            | IN<br>(Trips/<br>dwelling<br>unit) | OUT<br>(Trips/<br>dwelling<br>unit) | IN<br>(Trips/<br>dwelling<br>unit) | OUT<br>(Trips/<br>dwelling<br>unit) |
| Single-Family Houses 34 dwelling units {210} <sup>**</sup> | 0.244                              | 0.733                               | 0.752                              | 0.442                               |

<sup>1</sup> Trip Generation, Institute of Transportation Engineers, 7th edition, Washington D.C., 2003.  
<sup>\*\*</sup> Based on equation rates.

| Table 3.10-10<br>Yorktown Farms Trip Generation Summary |                 |                |                  |                |                |                  |
|---------------------------------------------------------|-----------------|----------------|------------------|----------------|----------------|------------------|
| Potential Land Use and Size                             | Trip Generation |                |                  |                |                |                  |
|                                                         | A.M. Peak Hour  |                |                  | P.M. Peak Hour |                |                  |
|                                                         | IN<br>(Trips)   | OUT<br>(Trips) | Total<br>(Trips) | IN<br>(Trips)  | OUT<br>(Trips) | Total<br>(Trips) |
| Single-Family Houses 34 dwelling units                  | 8               | 25             | 33               | 26             | 15             | 41               |

Trip Generation, Institute of Transportation Engineers, 7th edition, Washington D.C., 2003.

The worst case traffic conditions for a weekday period would be the a.m. and p.m. peak hours with commuter traffic. The site traffic distribution is based on existing trips, and census data.



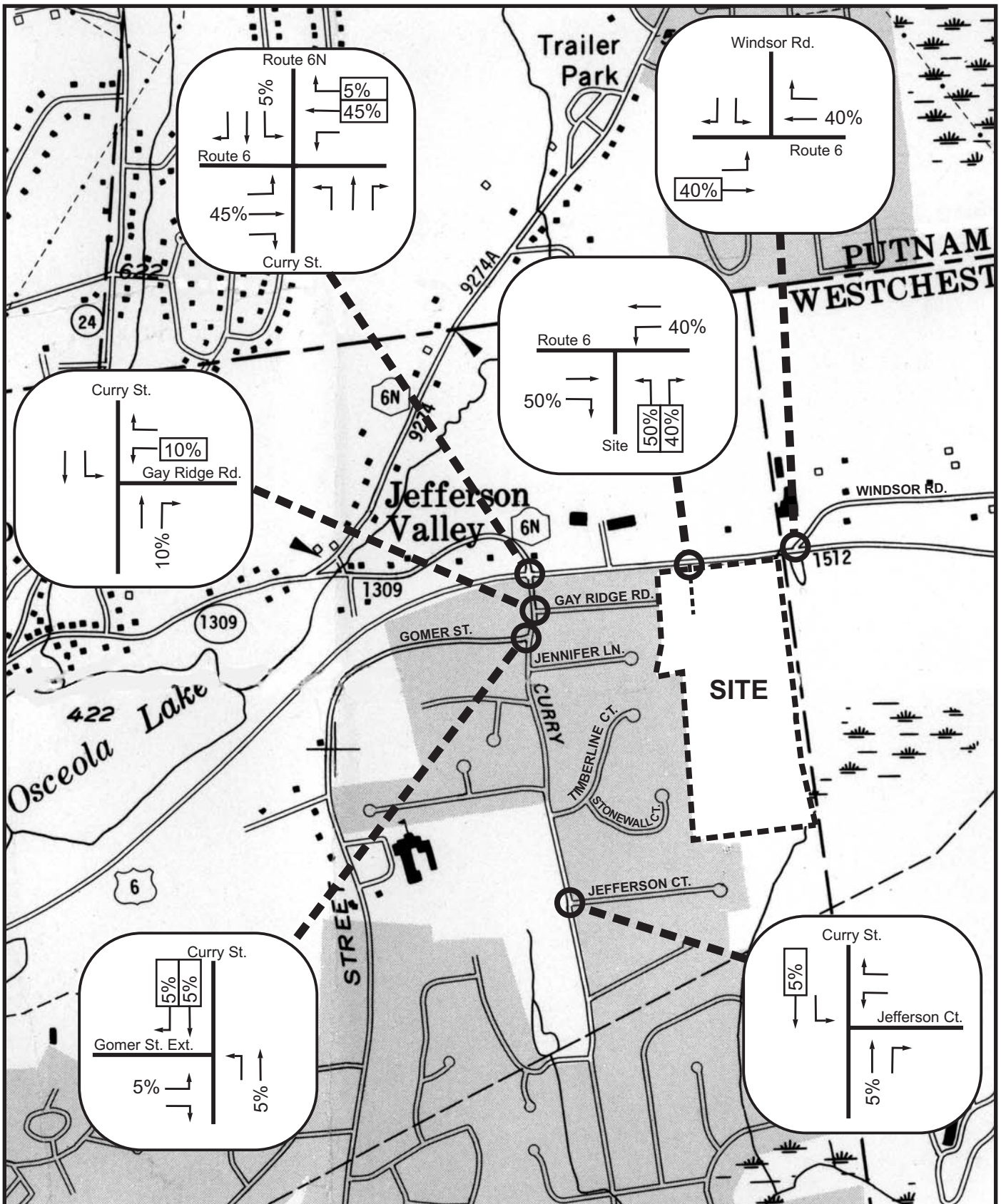


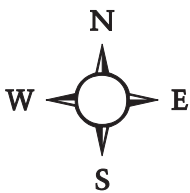
Figure 3.10-6: Site Distribution Peak Hour Traffic

Yorktown Farms Subdivision

Town of Yorktown, Westchester County, New York

Base Map: USDOT Planimetric Map, Mohegan Lake Quad

Scale: 1 inch = 1,000 feet



**LEGEND**

○ Intersections Studied

XX% Inbound Traffic

XX% Outbound Traffic

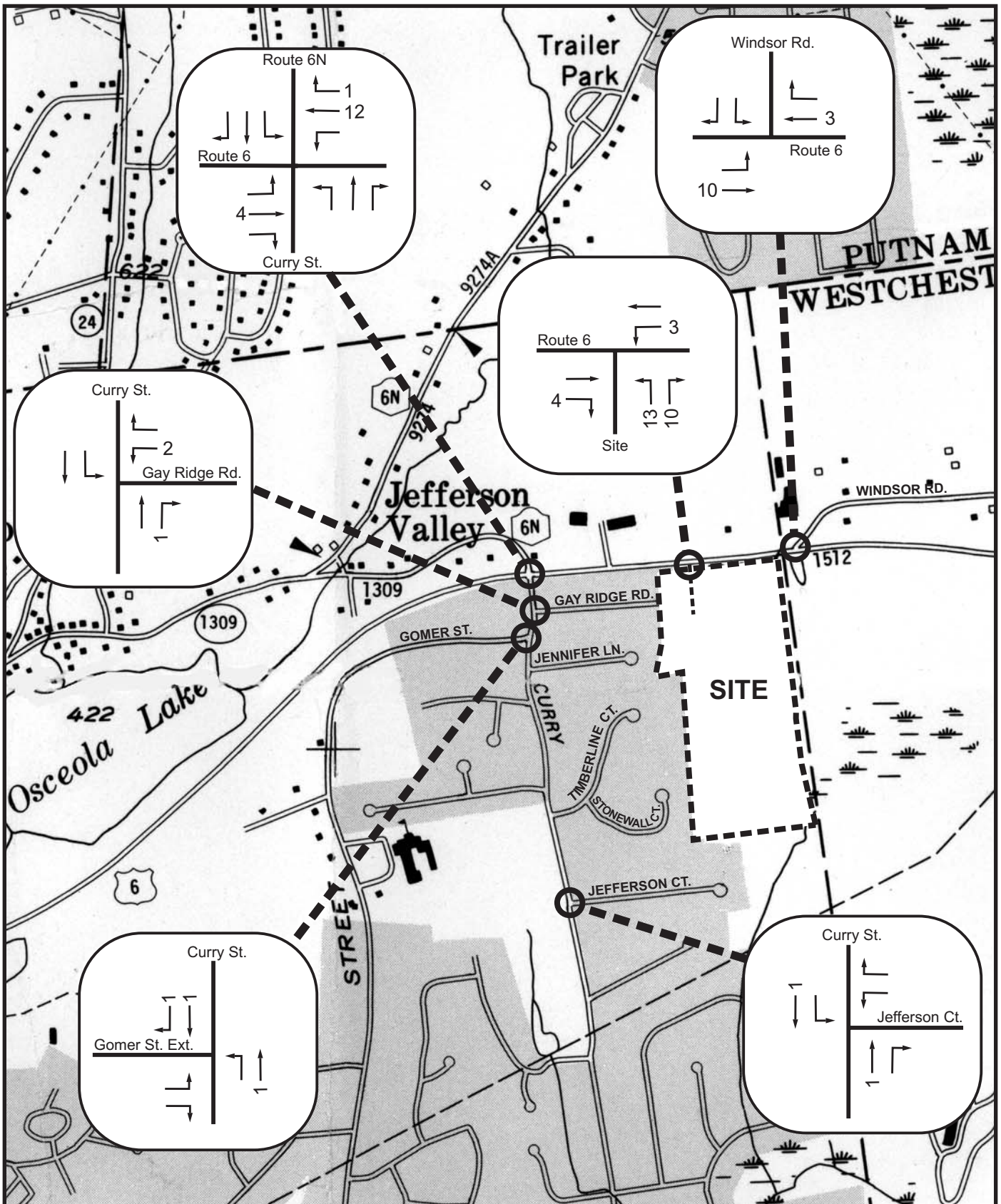


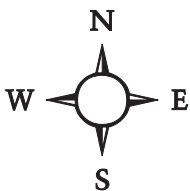
Figure 3.10-7: Site Generated AM Peak Hour Traffic

Yorktown Farms Subdivision

Town of Yorktown, Westchester County, New York

Base Map: USDOT Planimetric Map, Mohegan Lake Quad

Scale: 1 inch = 1,000 feet



**LEGEND**

○ Intersections Studied

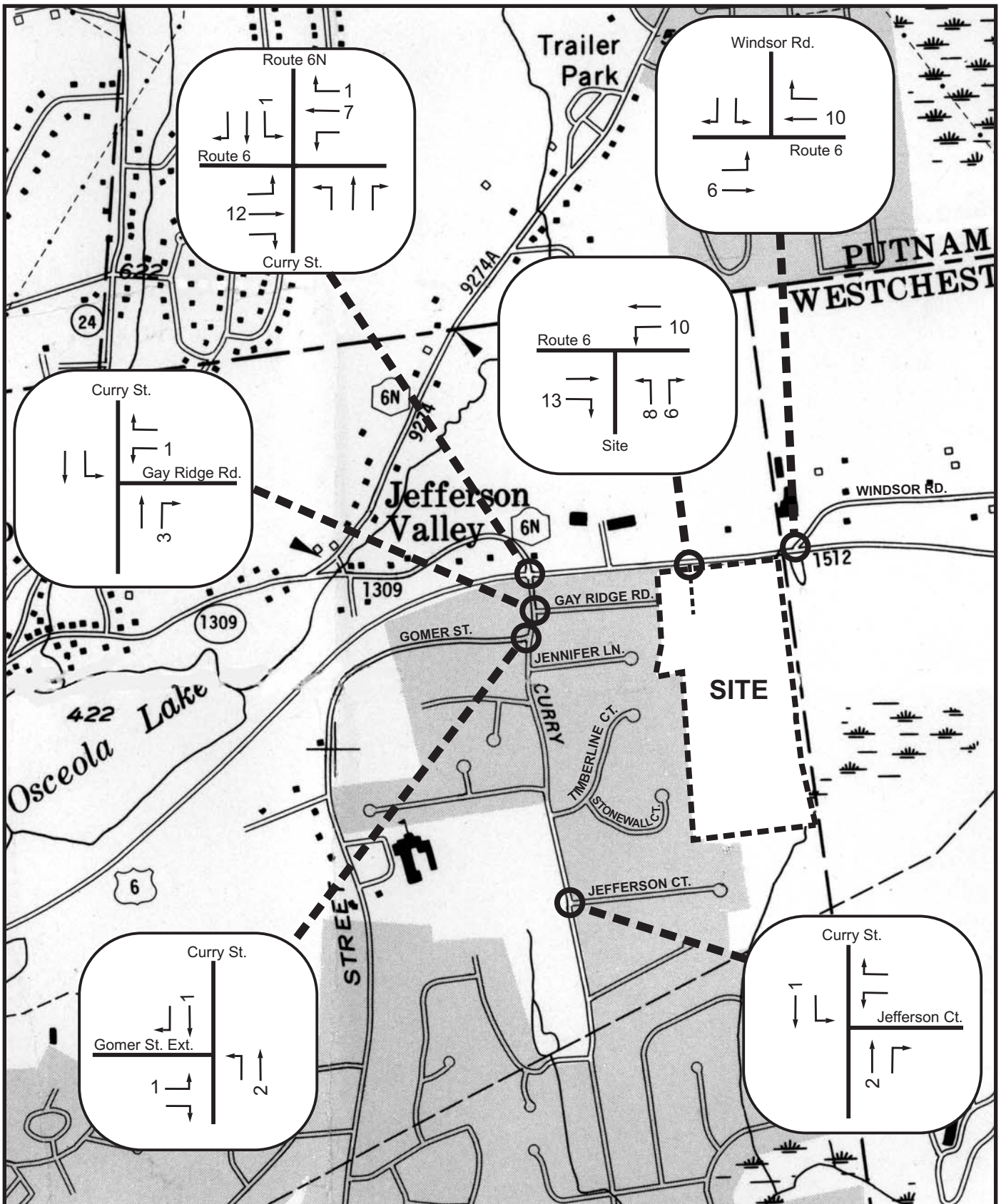


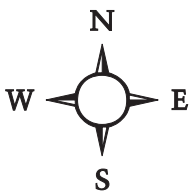
Figure 3.10-8: Site Generated PM Peak Hour Traffic

Yorktown Farms Subdivision

Town of Yorktown, Westchester County, New York

Base Map: USDOT Planimetric Map, Mohegan Lake Quad

Scale: 1 inch = 1,000 feet



**LEGEND**

○ Intersections Studied

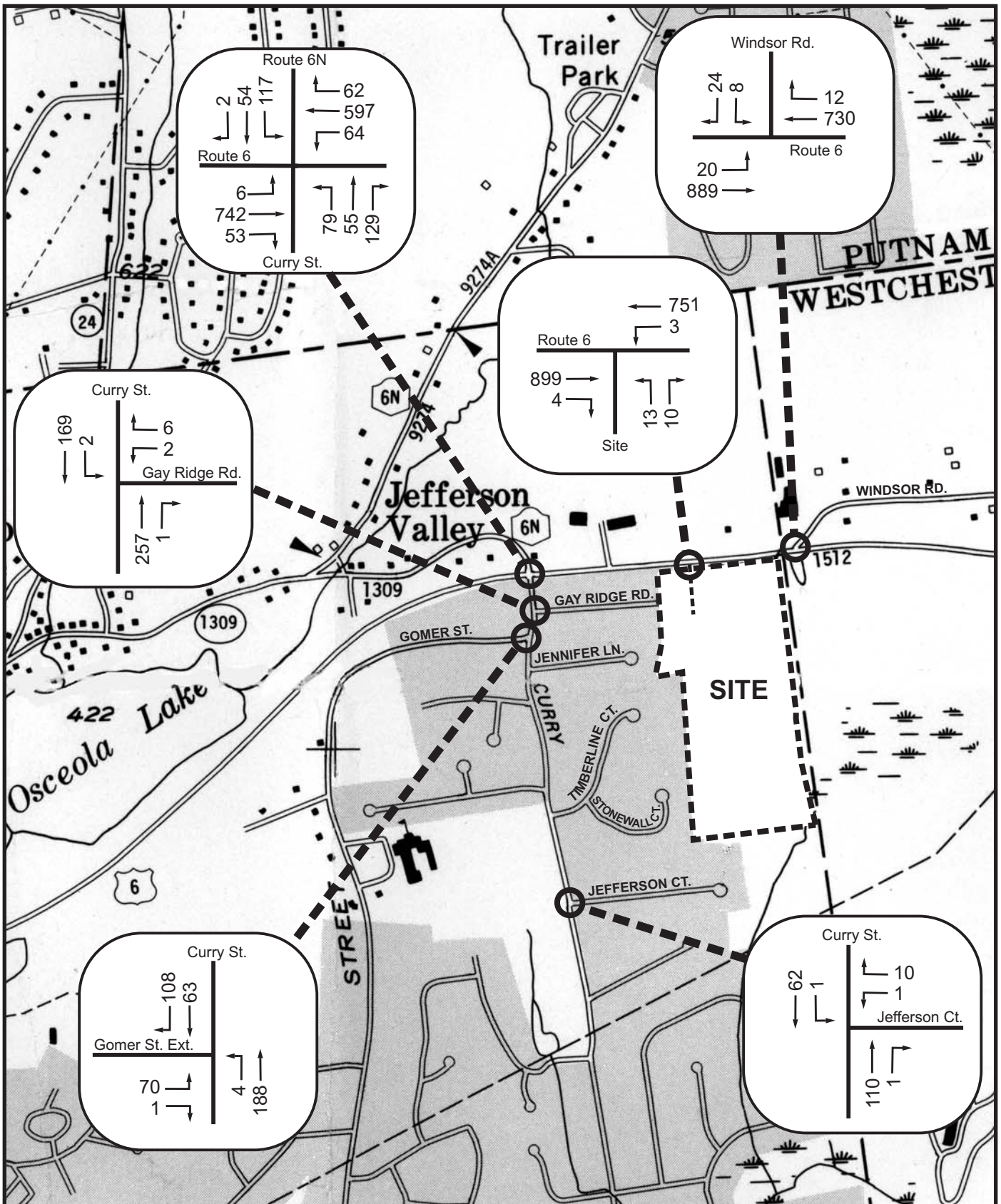
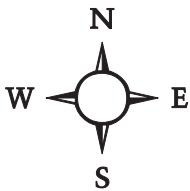


Figure 3.10-9: Build AM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**  
 ○ Intersections Studied

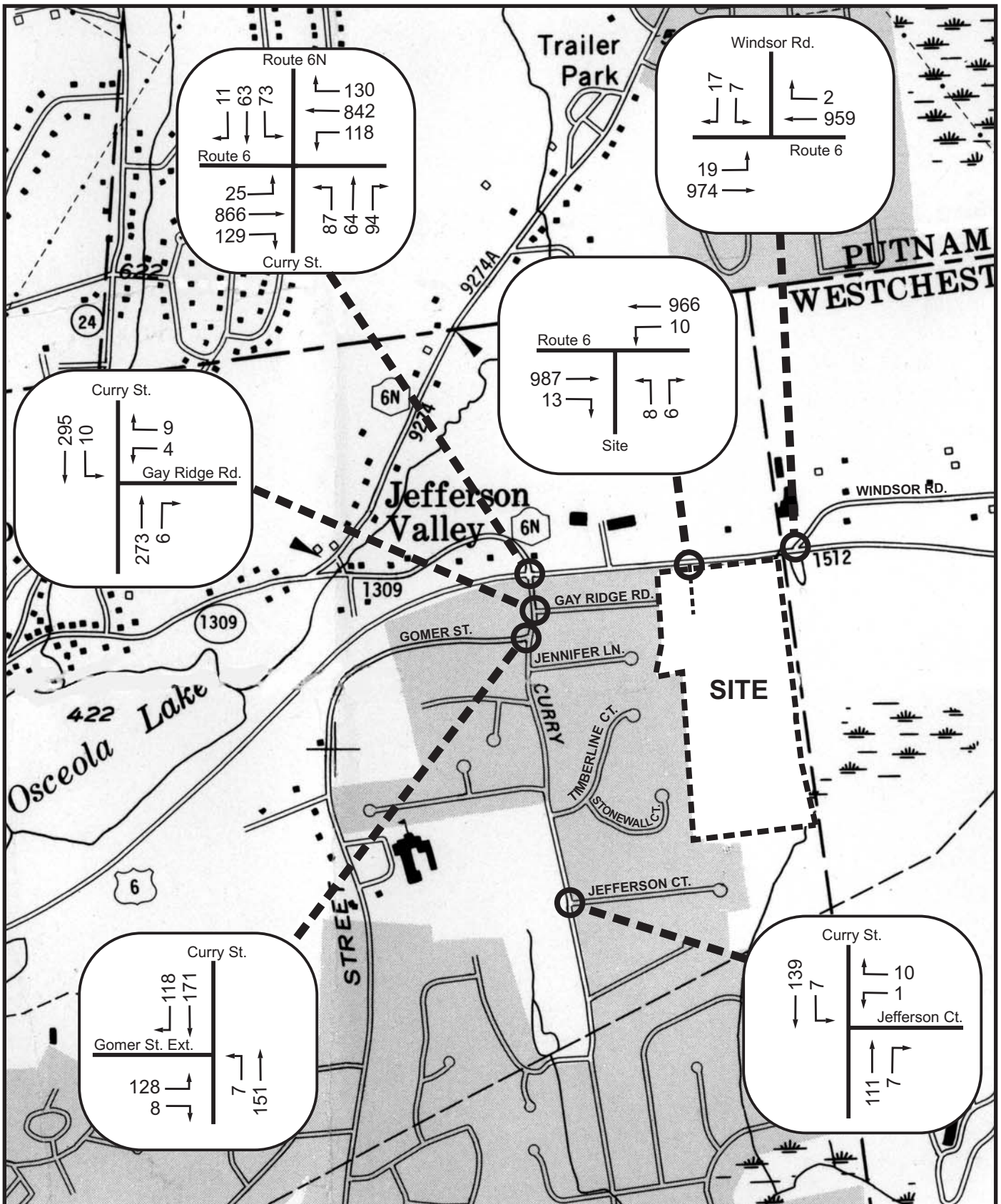
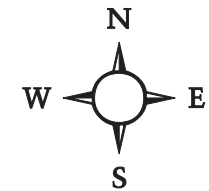


Figure 3.10-10: Build PM Peak Hour Traffic  
 Yorktown Farms Subdivision  
 Town of Yorktown, Westchester County, New York  
 Base Map: USDOT Planimetric Map, Mohegan Lake Quad  
 Scale: 1 inch = 1,000 feet



**LEGEND**  
 ○ Intersections Studied

Figure 3.10-6 shows the anticipated traffic distribution. Figures 3.10-7 and 3.10-8 show the site-generated traffic associated with the proposed development. Build Condition Figures 3.10-9 and 3.10-10 show the site-generated trips (Figures 3.10-7 and 3.10-8) added to the No-Build condition volumes (Figures 3.10-4 and 3.10-5).

### 3.10.9 Build Condition Levels of Service

Level of service summaries for the 2008 proposed Build condition are shown in Tables 3.10-11 and 3.10-12. If on-site land use and growth occurs as outlined herein, the levels of service at all study intersections would remain unchanged except for one decrease from level of service A to B. For site traffic exiting to US Route 6, levels of service would be level of service E in the a.m. and F in the p.m. peak hours, assuming one lane exiting the site and all site traffic using the direct access rather than Gay Ridge Road to reach US Route 6.

| <b>Table 3.10-11<br/>Build Condition Level of Service Summary<br/>Unsignalized Intersections</b> |                                                    |                                |                              |                        |                                |                              |                        |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------|------------------------------|------------------------|--------------------------------|------------------------------|------------------------|
| Intersection Roads                                                                               | Lane Group<br>(Approach<br>Direction<br>-Movement) | A.M. Weekday Peak Hour         |                              |                        | P.M. Weekday Peak Hour         |                              |                        |
|                                                                                                  |                                                    | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service | Volume to<br>Capacity<br>Ratio | Delay<br>(secs./<br>vehicle) | Level<br>of<br>Service |
| <b>Windsor Road (west)/ US Route 6</b>                                                           |                                                    |                                |                              |                        |                                |                              |                        |
| US Route 6                                                                                       | EB-LT                                              | 0.03                           | 9.6                          | A                      | 0.03                           | 10.6                         | B                      |
| Windsor Road                                                                                     | SB-LR                                              | 0.20                           | 27.0                         | D                      | 0.53                           | 63.1                         | F                      |
| <b>Gay Ridge Road/ Curry Street</b>                                                              |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                                     | SB-LT                                              | 0.00                           | 7.8                          | A                      | 0.01                           | 8.0                          | A                      |
| Gay Ridge Road                                                                                   | WB-LR                                              | 0.03                           | 10.3                         | B*                     | 0.04                           | 11.4                         | B                      |
| <b>Gomer Street extension/ Curry Street</b>                                                      |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                                     | SB-L                                               | 0.00                           | 7.5                          | A                      | 0.01                           | 7.9                          | A                      |
| Gomer Street<br>Extension                                                                        | EB-LR                                              | 0.13                           | 11.9                         | B                      | 0.31                           | 14.4                         | B                      |
| <b>Jefferson Court/ Curry Street</b>                                                             |                                                    |                                |                              |                        |                                |                              |                        |
| Curry Street                                                                                     | SB-LT                                              | 0.00                           | 7.5                          | A                      | 0.01                           | 7.6                          | A                      |
| Jefferson Valley<br>Court                                                                        | WB-LR                                              | 0.02                           | 9.0                          | A                      | 0.02                           | 9.6                          | A                      |
| <b>US Route 6/Site Access</b>                                                                    |                                                    |                                |                              |                        |                                |                              |                        |
| US Route 6                                                                                       | WB-LT                                              | 0.00                           | 10.2                         | B                      | 0.02                           | 10.5                         | B                      |
| Site Access                                                                                      | NB-LR                                              | 0.19                           | 40.9                         | E                      | 0.17                           | 57.0                         | F                      |
| Level-of-Service (see Table 3.10-1 for level-of-service criteria).                               |                                                    |                                |                              |                        |                                |                              |                        |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound                                 |                                                    |                                |                              |                        |                                |                              |                        |
| L = left, R = right, TR = through and right, (e.g. WB-L = Westbound left).                       |                                                    |                                |                              |                        |                                |                              |                        |
| * Indicates reduction in level of service compared to the No Build Condition.                    |                                                    |                                |                              |                        |                                |                              |                        |

| Table 3.10-12<br>Build Condition Level of Service Summary<br>Signalized Intersections |                                                 |                          |                       |                  |                          |                       |                  |
|---------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|-----------------------|------------------|--------------------------|-----------------------|------------------|
| Intersection Roads                                                                    | Lane Group<br>(Approach Direction<br>-Movement) | A.M. Weekday Peak Hour   |                       |                  | P.M. Weekday Peak Hour   |                       |                  |
|                                                                                       |                                                 | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service |
| US Route 6                                                                            | EB-L                                            | 0.02                     | 10.5                  | B                | 0.15                     | 11.5                  | B                |
|                                                                                       | EB-TR                                           | 0.55                     | 14.2                  | B                | 0.71                     | 16.7                  | B                |
| US Route 6                                                                            | WB-L                                            | 0.16                     | 10.3                  | B                | 0.31                     | 16.1                  | B                |
|                                                                                       | WB-TR                                           | 0.37                     | 7.3                   | A                | 0.48                     | 8.1                   | A                |
| Curry Street                                                                          | NB-LTR                                          | 0.72                     | 29.7                  | C                | 0.68                     | 28.1                  | C                |
| Curry Street                                                                          | SB-LTR                                          | 0.77                     | 37.8                  | D                | 0.71                     | 30.6                  | C                |
|                                                                                       | Overall                                         |                          | 16.1                  | B                |                          | 15.7                  | B                |
| Level of Service (see Table 3.10-2 for level-of-service criteria).                    |                                                 |                          |                       |                  |                          |                       |                  |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.                     |                                                 |                          |                       |                  |                          |                       |                  |
| L = Left, T = Through, R = Right, (e.g. WB-L = Westbound left).                       |                                                 |                          |                       |                  |                          |                       |                  |

Drivers typically respond to delays in the network where alternatives are available. Drivers can be expected to alter driving patterns at the US Route 6 access and at the Windsor Road approach to US Route 6.

Traffic from the site making left turns onto US Route 6 are expected to encounter delays of sufficient duration as to make a diversion through Gay Ridge Road likely. A portion of the 13 a.m. peak hour and eight p.m. peak hour left turning vehicles from the site are expected to utilize Gay Ridge Road to make the left turn onto US Route 6 at the Curry Street traffic signal. As these drivers will be primarily from the project site, they will most likely be familiar with the alternative route and the applicable times to use it. Table 3.10-13 shows the resultant level of service and delays to vehicles turning right from the site onto US Route 6, assuming all left turning vehicles divert to Gay Ridge Road. The impact to level of service at the intersections of Gay Ridge Road/Curry Street and Curry Street/US Route 6 can be surmised based on the sensitivity analysis found in Chapter 4.0 (see Tables 4-4 and 4-5). This analysis indicates that shifting all of the site traffic through Gay Ridge Road only changes the a.m. peak hour level of service for Gay Ridge Road from an A to a B. Therefore, the inference can be made that a partial shift of site traffic to Gay Ridge Road would result in an equal or smaller change in delays and level of service.

The assumption that all left turning vehicles would shift to Gay Ridge Road would effectively be the same as having a left turn prohibition with regard to delays and levels of service during the peak hours. A prohibition on left turns at the site access during some off peak hours may actually increase delays for drivers, and would also force off peak traffic to travel past Gay Ridge Road homes.

For the purpose of maintaining consistency in this comparative analysis, no variation in the traffic flow rates from Windsor Road has been assumed. In actuality, the variance (peaking) of traffic decreases as volume increases. The peaking characteristics of the low volume of

Windsor Road traffic during the p.m. peak hour is such that the addition of Windsor Farms traffic and delays at US Route 6 are likely to result in a more evenly distributed pattern of departure times over the peak hour. This is likely to reduce delays from Windsor Road. Table 3.10-13 shows the effect of this anticipated spreading out of traffic over the p.m. peak hour, which amounts to a greater peak hour factor increase (from 0.36 to 0.75). This peaking change would also apply to the No Build Condition, thus there would continue to be no anticipated reduction in level of service compared to the No Build Condition.

| Table 3.10-13<br>Build Condition Adjustments Level of Service Summary<br>Unsignalized Intersections |                                                 |                          |                       |                  |                          |                       |                  |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|-----------------------|------------------|--------------------------|-----------------------|------------------|
| Intersection Roads                                                                                  | Lane Group<br>(Approach Direction<br>-Movement) | A.M. Weekday Peak Hour   |                       |                  | P.M. Weekday Peak Hour   |                       |                  |
|                                                                                                     |                                                 | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service | Volume to Capacity Ratio | Delay (secs./vehicle) | Level of Service |
| <b>Windsor Road (West)/ US Route 6</b>                                                              |                                                 |                          |                       |                  |                          |                       |                  |
| US Route 6                                                                                          | EB-LT                                           |                          | NA                    |                  | 0.03                     | 10.6                  | B                |
| Windsor Road                                                                                        | SB-LR                                           |                          |                       |                  | 0.25                     | 43.4                  | E                |
| <b>US Route 6/Site Access</b>                                                                       |                                                 |                          |                       |                  |                          |                       |                  |
| US Route 6                                                                                          | WB-LT                                           | 0.00                     | 10.2                  | B                | 0.02                     | 10.5                  | B                |
| Site Access                                                                                         | NB-LR                                           | 0.03                     | 17.5                  | C                | 0.02                     | 18.1                  | C                |
| Level-of-Service (see Table 3.10-1 for Level-of-Service criteria).                                  |                                                 |                          |                       |                  |                          |                       |                  |
| NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound                                    |                                                 |                          |                       |                  |                          |                       |                  |
| L = left, R = right, TR = through and right, (e.g. WB-L = Westbound left).                          |                                                 |                          |                       |                  |                          |                       |                  |
| Indicates no reduction in level of service compared to the No Build Condition.                      |                                                 |                          |                       |                  |                          |                       |                  |

### 3.10.10 Public Transportation Impacts

#### Bus Transportation Future Condition

Bus service is available within walking distance of the site. Census data indicate that one percent of journey to work trips are by bus. However some areas of the Town do not have bus coverage. If journey to work bus trips are assumed to be double the average rate for the Town (given the project site's access to bus lines) the project would still only generate one trip by bus in the peak hour. This does not include rail users riding a bus as a means to access a railroad station. Therefore, no adjustment was made for site traffic to reflect bus use. An increase in ridership would also likely be beneficial to the bus system.

#### Rail Transit Future Condition

Site-generated trips to and from the railroad station may account for less than three trips in each of the peak hours. Within the traffic study area, these trips were assumed to be by car and no reduction was taken in the level of trip generation. Metro North Railroad can, and does, alter its train sizes and operations to reflect increases in use. Parking availability has become an increasing problem for Metro North commuters. The project site's commuters will



be well positioned -- with several stations to choose from -- to take advantage of available parking capacity now and in the future.

*Consistency with Plans*

The functional classification systems provide guidance on the purpose of roadways with regard to the degree that land access and through traffic are served. The proposed site layout does not permit direct driveway access to US Route 6 (an arterial whose primary purpose is to serve through traffic). It does connect a local street to a principal arterial without utilizing streets of intermediate classification within the federal classification system. The Town Classification system shows US Route 6 and Curry Street as being arterials.

Placing a local street onto US Route 6 when alternative connections leading traffic to the existing traffic signal at US Route 6/Curry Street are available may be in conflict with the State's arterial management policies and with the Town's draft Comprehensive Plan Goal 3-B. Goal 3-B concerns reducing traffic congestion and improving safety on arterials such as US Route 6. Specifically, the new site access road becomes a new conflict point on US Route 6. These goals favor placing the site access on one or more local roads.

Placing a site access on US Route 6 minimizes potential traffic impacts on existing cul-de-sac streets. This is consistent with the Town's draft Comprehensive Plan Goal 3-E, which is to "Work to reduce speeding and traffic volumes along local residential streets and create a safe environment for pedestrians and bicyclists in those areas." This goal indicates that traffic should be directed to US Route 6 rather than local cul-de-sacs.

As described above, in having access to both Gay Ridge Road and US Route 6 the proposed access solution represents a compromise between conflicting draft Town goals concerning traffic safety. In essence, the individual drivers are being given discretion to choose their routing.