

Appendix G  
FAR Comparason Table

**KURY HOMES  
MOUNTAINVIEW AVENUE**

Plans Dated: 12/5/2008  
**Standard Layout** 4/3/2009  
**Cluster Layout**

Standard 11 Lot Layout		
Lot #	Lot Area (sq. ft.)	Max. Floor Area (20%) (incl. garage & 1/2 basemt) (sq. ft.)
6	30,849	6,169
4	30,547	6,109
5	30,136	6,027
8	29,967	5,993
7	29,904	5,980
10	28,684	5,737
3	29,638	5,927
9	29,400	5,880
11	28,576	5,715
1	28,828	5,765
12	28,667	5,733
		<b>65,035</b>

Cluster 11 Lot Layout				
Lot #	Lot Area (sq. ft.)	Theoretical FAR %	Proposed FAR %	Proposed Floor Area (incl. garage & 1/2 basemt) (sq. ft.)
8	28,397	21.72%	22%	6,247
7	28,231	21.64%	22%	6,211
6	24,747	24.35%	25%	6,187
4	29,224	20.51%	21%	6,137
5	22,655	26.40%	26%	5,890
2	21,529	26.65%	27%	5,813
3	22,303	26.57%	26%	5,799
9	19,610	29.98%	29%	5,687
10	19,607	29.15%	29%	5,686
11	19,607	29.40%	29%	5,686
12	19,606	29.24%	29%	5,686
				<b>65,029</b>

Difference (sq. ft.)
78
102
160
144
-90
76
-128
-193
-29
-79
-47
<b>-6</b>

Appendix H  
Sample Photos



Photo A



Photo B

Figure 1





Photo C



Photo D

Figure 2



Photo E



Photo F

Figure 3

Appendix I

ACOE  
Jurisdictional Determination  
2-4-2009





DEPARTMENT OF THE ARMY  
NEW YORK DISTRICT, CORPS OF ENGINEERS  
JACOB K. JAVITS FEDERAL BUILDING  
NEW YORK, N.Y. 10278-0090

FEB 04 2009

REPLY TO  
Regulatory Branch

SUBJECT: Permit Application Number NAN-2009-00015-EJE  
by Kury Homes, Inc.

Kury Homes, Inc.  
493 South Main Street  
New City, NY 10956

Dear Sirs or Mesdames:

On January 6, 2009, the New York District of the U.S. Army Corps of Engineers received a request for a Department of the Army jurisdictional determination for the above referenced project. This request was made by Robert G. Torgersen, as consultant for Kury Homes, Inc. The site consists of approximately 10.3 acres, in the Lower Hudson watershed, in the Town of Clarkstown, Rockland County, New York. The proposed project would involve residential development.

In the letter received on January 6, 2009, your office submitted a proposed delineation of the extent of waters of the United States within the project boundary. The USACE concurs with the delineation report prepared by Robert G. Torgersen, and dated December 22, 2008.

Based on the material submitted, this site has been determined to contain jurisdictional waters of the United States based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 that are either adjacent to or part of a tributary system; the presence of a defined water body (e.g. stream channel, lake, pond, river, etc.) which is part of a tributary system; and the fact that the location includes property below the ordinary high water mark, high tide line or mean high water mark of a water body as determined by known gage data or by the presence of physical markings including, but not limited to, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris or other characteristics of the surrounding area.

These jurisdictional waters of the United States are shown on the drawing entitled "Kury Homes Wetland Delineation Map", prepared by Atzl, Scatassa & Zigler, dated October 2, 2008. This drawing indicates that there is one (1) principal wetland area on the project site which is part of a tributary system, and is considered to be waters of the United States. The wetland is located in the western portion of the property and is approximately 1.06 acres within the project boundary. These wetlands are considered to be below the headwaters. Furthermore,



there are four (4) tributaries located on the project site which are part of a tributary system, and are considered to be waters of the United States. The tributaries total 875 linear feet of stream and approximately 0.12 acres. The tributaries flow to the Hudson River.

This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

This determination was documented using the Approved Jurisdictional Determination Form, promulgated by the Corps of Engineers in June 2007. A copy of that document is enclosed with this letter, and will be posted on the New York District website at:  
<http://www.nan.usace.army.mil/business/buslinks/regulat/jurisdet/index.htm>.

This written Corps jurisdictional determination (JD) has been conducted to identify whether a wetland and/or waterbody is subject to regulatory jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or under Section 9 or 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq.). If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed is a combined Notification of Appeal Process (NAP) and Request For Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the North Atlantic Division Office at the following address:

Michael G. Vissichelli, Regulatory Appeals Review Officer  
North Atlantic Division, U.S. Army Engineer Division  
Fort Hamilton Military Community  
General Lee Avenue, Building 301  
Brooklyn, New York 11252-6700

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by APR 04 2009. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

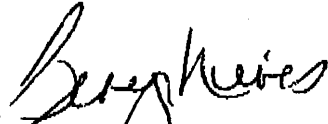
This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is strongly recommended that the development of the site be carried out in such a manner as to avoid as much as possible

the discharge of dredged or fill material into the delineated waters of the United States. If the activities proposed for the site involve such discharges, authorization from this office may be necessary prior to the initiation of the proposed work. The extent of such discharge of fill will determine the level of authorization that would be required.

If any questions should arise concerning this matter, please contact Stacey M. Jensen, of my staff, at (917) 790-8420.

Sincerely,

  
George Nieves  
Chief, Eastern Permits Section

Enclosures

Robert G. Torgersen  
3 Main Drive  
Nanuet, NY 10954

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Kury Homes, Inc.

File Number: NAN-2009-00015-EJE

Date: **FEB 04 2009**

Attached is:

See Section Below

INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)

A

PROFFERED PERMIT (Standard Permit or Letter of Permission)

B

PERMIT DENIAL

C

X APPROVED JURISDICTIONAL DETERMINATION

D

PRELIMINARY JURISDICTIONAL DETERMINATION

E

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

•**ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the New York District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.

•**OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the New York District Engineer. Your objections must be received by the New York District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the New York District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the New York District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit.

•**ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the New York District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

•**APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-ET-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-ET-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

•**ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

•**APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the New York District Engineer.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Richard L. Tomer  
U.S. Army Corps of Engineers, New York District  
Jacob K. Javits Federal Building  
New York, NY 10278-0090  
(917) 790-8510

If you only have questions regarding the appeal process you may also contact:

Michael G. Vissichelli, Regulatory Appeals Review Officer  
North Atlantic Division, U.S. Army Engineer Division  
Fort Hamilton Military Community  
General Lee Avenue, Building 301  
Brooklyn, NY 11252-6700  
(718) 765-7150  
E-mail: Michael.G.Vissichelli@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

Appendix J

Stormwater Management Report  
11 Lot Cluster Plan



**KURY HOMES**

**MOUNTAINVIEW AVENUE  
TOWN OF CLARKSTOWN  
ROCKLAND COUNTY  
NEW YORK**

**PRELIMINARY  
STORM WATER MANAGEMENT  
REPORT  
&  
CONCEPTUAL  
DETENTION POND DESIGN**

**BY**

**ATZL, SCATASSA & ZIGLER ENGINEERS-SURVEYORS-PLANNERS  
234 NORTH MAIN STREET  
NEW CITY, NEW YORK  
TEL (845)634-14694**

**DATE OF REPORT  
JUNE 29, 2009**

Surface layers: 0 to 4 inches, dark brown silt loam.

Subsoil: 4 to 10 inches, strong brown silt loam and 10 to 16 inches, reddish brown silt loam.

Permeability: moderate throughout.

Depth to water table: more than 6 feet.

Depth to bedrock: 10 to 20 inches.

### **DRAINAGE STUDY:**

We have prepared the attached Hydrological – Hydraulics analysis for the developed areas in the WS#1 and WS#2. The site will be subdivided into 11 lots. Lots 1 & 13 will be used for drainage purposes. The runoffs from lots 2 through 12 will be drained in to the proposed detention pond. The proposed outlet structure drains into the existing wetland. The proposed permanent pool is six feet deep which provide 100% of the water quality (0.29 ac-ft). The volume of the proposed pond above the permanent pool is 1.06 ac-ft. which exceed the combination of CPv and 100-year storages( 0.36 + 0.61=0.97 ac-ft). In addition, the existing wetland provides a live storage of over 4 ac-ft at elevation of 420. See subdivision maps for details.

As the result of developing the site, the runoff from the developed area will be increased due to the proposed impervious areas. The 100-year peak runoff storm from the combined watersheds WS#1 WS#2 (Site) will increase from 42.36 CFS to 49.50 CFS. It is required a 0.39 acs-ft to attenuate the peak runoffs.

Preliminary calculations are attached for your reference.

Very truly yours,



Ray Ahmadi, Ph.D., P.E.

C:Hydrology TR-55\2760\DRAINAGE STUDY

## **INTRODUCTION:**

The following drainage study has been prepared for Kury Homes in order to provide a zero net increase of peak runoff for a proposed 13-lot realty subdivisions in the town of Clarkstown, New York. The project is located on the easterly side of Mountain Avenue 400 feet south of Sierra Vista Road. The property in question consists of 10.3 acres as shown on a subdivision plat prepared by Atzl, Scatassa & Zigler P.C. dated June 22, 2009.

## **HYDROLOGICAL SOIL GROUP:**

The soils at the site are "Holyoke" with soil map symbols of HoC & HoD and Hydrological Soil Group of "C/D". Upland areas belong to group of "C" and wetland areas belong to group of "D". See sheet 29 of Soil Survey of Rockland County, New York, United States Department of Agriculture Soil Conservation Service, in cooperation with Cornell University Agricultural Experiment Station dated October 1990.

HoC Holyoke-Rock outcrop complex, rolling. This unit is on bedrock-controlled uplands. It consists of shallow, well drained or somewhat excessively drained Holyoke soils and areas of exposed bedrock that commonly appear as ledge. The unit consists of about 60 percent Holyoke soils. The Holyoke soils and rock outcrop are in such an intricate pattern that it was not practical to map them separately. The areas of the unit are irregular in shape and range from 10 to 100 acres. Slope ranges from 3 to 15 percent. The typical sequence, depth, and composition of the layers of the Holyoke soils are as follows:

Surface layers: 0 to 4 inches, dark brown silt loam.

Subsoil: 4 to 10 inches, strong brown silt loam and 10 to 16 inches, reddish brown silt loam.

Permeability: moderate throughout.

Depth to water table: more than 6 feet.

Depth to bedrock: 10 to 20 inches.

HoD Holyoke-Rock outcrop complex, hilly. This unit is on ridges and side slopes on bedrock-controlled uplands. It consists of shallow, well drained or somewhat excessively drained Holyoke soils and areas of exposed bedrock that commonly appear as ledges. The unit consists of about 55 percent Holyoke soils, 20 percent rock outcrop, and 25 percent other soils. The Holyoke soils and rock outcrop are in such an intricate pattern that it was not practical to map them separately. The areas of the unit are irregularly in shape and range from 10 to 150 acres. Slopes range from 15 to 25 percent. The typical sequence, depth, and composition of the layers of the Holyoke soils are as follows:

WinTR-55 Current Data Description

--- Identification Data ---

User: RA Date: 2009-06-29  
 Project: Kury Homes (Project #2760) Units: English  
 SubTitle: Existing Condition Areal Units: Acres  
 State: New York  
 County: Rockland  
 Filename: P:\hydrology TR-55\2760\Drainage 6-25-2009\WS\Existing Condition.w55

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
WS#1	WS east of Mountainview	Outlet	0.86	75	.1
WS#2	Up Hill Area	Outlet	8.57	75	.149
Total area: 9.43 (ac)					

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.5	4.5	5.0	6.0	7.0	7.5	2.7

Storm Data Source: Rockland County, NY (NRCS)  
 Rainfall Distribution Type: Type III  
 Dimensionless Unit Hydrograph: <standard>

=====  
 RA Kury Homes (Project #2760)  
 Existing Condition  
 Rockland County, New York

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
	2-Yr (cfs) (hr)	5-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	1-Yr (cfs) (hr)
SUBAREAS							
WS#1	1.15 12.12	1.82 12.11	2.17 12.12	2.90 12.11	3.65 12.11	4.02 12.11	0.66 12.13
WS#2	10.78 12.14	17.21 12.14	20.61 12.13	27.60 12.13	34.77 12.13	38.38 12.13	6.12 12.14

REACHES

OUTLET	11.88	18.99	22.73	30.45	38.33	42.36	6.74
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RA Kury Homes (Project #2760)  
Existing Condition  
Rockland County, New York

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
WS#1	.86	0.100	75	Outlet	WS east of Mountainview
WS#2	8.57	0.149	75	Outlet	Up Hill Area

Total Area: 9.43 (ac)

RA Kury Homes (Project #2760)  
Existing Condition  
Rockland County, New York

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
WS#1							
SHEET	100	0.0600	0.130				0.090
SHALLOW	150	0.2000	0.050				0.006
SHALLOW	60	0.1000	0.050				0.003
CHANNEL	140	0.0786	0.015	19.63	15.70	38.889	0.001

Time of Concentration .1  
=====

WS#2							
SHEET	100	0.0350	0.130				0.111
SHALLOW	700	0.1336	0.050				0.033
SHALLOW	80	0.1000	0.050				0.004
CHANNEL	140	0.0786	0.015	19.63	15.70	38.889	0.001

Time of Concentration .149  
=====

RA Kury Homes (Project #2760)  
Existing Condition  
Rockland County, New York

Sub-Area Land Use and Curve Number Details

Sub-Area	Hydrologic	Sub-Area	Curve
WinTR-55, Version 1.00.08	Page 2	2009-06-29	10:31:14



Identifier	Land Use	Soil Group	Area (ac)	Number
WS#1	Gravel (w/ right-of-way)	C	.09	89
	Woods	(fair) C	.75	73
	Woods	(fair) D	.02	79
	Total Area / Weighted Curve Number			.86
			===	==
WS#2	Paved parking lots, roofs, driveways	C	.1	98
	Gravel (w/ right-of-way)	C	.54	89
	Woods	(fair) C	7.4	73
	Woods	(fair) D	.53	79
	Total Area / Weighted Curve Number			8.57
			====	==

=====

WinTR-55 Current Data Description

--- Identification Data ---

User: RA Date: 2009-06-29  
 Project: Kury Homes (Project #2760) Units: English  
 SubTitle: Developed Condition Areal Units: Acres  
 State: New York  
 County: Rockland  
 Filename: P:\hydrology TR-55\2760\Drainage 6-25-2009\WS\Developed Condition.w55

--- Sub-Area Data ---

Name	Description	Reach	Area (ac)	RCN	Tc
WS#1	WS east of Mountainview	Outlet	0.86	79	.1
WS#2	Up Hill Area	Outlet	8.57	81	0.1

Total area: 9.43 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.5	4.5	5.0	6.0	7.0	7.5	2.7

Storm Data Source: Rockland County, NY (NRCS)  
 Rainfall Distribution Type: Type III  
 Dimensionless Unit Hydrograph: <standard>

=====

RA Kury Homes (Project #2760)  
 Developed Condition  
 Rockland County, New York

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
	2-Yr (cfs) (hr)	5-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	1-Yr (cfs) (hr)
SUBAREAS							
WS#1	1.39 12.12	2.11 12.11	2.47 12.11	3.22 12.11	3.98 12.11	4.36 12.11	0.86 12.12
WS#2	15.16 12.11	22.47 12.11	26.21 12.11	33.75 12.11	41.34 12.11	45.14 12.11	9.61 12.12

REACHES

OUTLET 16.55 24.57 28.68 36.98 45.32 49.50 10.47



RA Kury Homes (Project #2760)  
 Developed Condition  
 Rockland County, New York

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
WS#1	.86	0.100	79	Outlet	WS east of Mountainview
WS#2	8.57	0.100	81	Outlet	Up Hill Area
Total Area:		9.43 (ac)			

RA Kury Homes (Project #2760)  
 Developed Condition  
 Rockland County, New York

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
WS#1							
SHEET	100	0.0600	0.130				0.090
SHALLOW	150	0.2000	0.050				0.006
SHALLOW	60	0.1000	0.050				0.003
CHANNEL	140	0.0786	0.015	19.63	15.70	38.889	0.001
Time of Concentration							.1
=====							
WS#2							
SHEET	35	0.0143	0.130				0.069
SHALLOW	168	0.1250	0.050				0.008
CHANNEL	560	0.1010	0.012	3.14	6.28	25.926	0.006
CHANNEL	280	0.0786	0.015	19.63	15.70	38.889	0.002
Time of Concentration							0.1
=====							

RA Kury Homes (Project #2760)  
 Developed Condition  
 Rockland County, New York

Sub-Area Land Use and Curve Number Details

Sub-Area	Hydrologic	Sub-Area	Curve
WinTR-55, Version 1.00.08	Page 2	2009-06-29	10:39:21

Identifier	Land Use		Soil Group	Area (ac)	Number
WS#1	Open space; grass cover > 75%	(good)	C	.12	74
	Paved parking lots, roofs, driveways		C	.18	98
	Woods	(fair)	C	.54	73
	Woods	(fair)	D	.02	79
	Total Area / Weighted Curve Number				.86
				===	==
WS#2	Open space; grass cover > 75%	(good)	C	4.74	74
	Paved parking lots, roofs, driveways		C	2.28	98
	Woods	(fair)	C	1.02	73
	Woods	(fair)	D	.53	79
	Total Area / Weighted Curve Number				8.57
				====	==

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Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
Wetland	0.074	Downstream	5.294	414.39	12.26	187.82	2526.42

Kury Subdivision (Project #2760)  
Existing Over All Watershed

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm				
			1-yr (cfs)	2-yr (cfs)	5-yr (cfs)	10-yr (cfs)	25-yr (cfs)
WS#1	0.134E-02		0.7	1.2	1.8	2.2	2.9
WS#2	0.01		6.1	10.8	17.2	20.6	27.6
WS#3	0.06		38.1	59.1	86.7	100.7	129.0
Wetland	0.07		43.9	69.2	103.0	120.2	155.2
DOWNSTREAM			43.9	69.2	103.0	119.7	152.5
OUTLET	0.07		43.9	69.2	103.0	119.7	152.5

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm	
			50-yr (cfs)	100-yr (cfs)
WS#1	0.134E-02		3.7	4.0
WS#2	0.01		34.8	38.4
WS#3	0.06		157.4	171.6
Wetland	0.07		190.5	208.2
DOWNSTREAM			179.3	187.8
OUTLET	0.07		179.3	187.8



STORM 100-yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
Wetland	0.074	Downstream	5.422	414.43	12.25	188.76	2538.96

Kury Subdivision (Project #2760)

Developed Over All Watershed

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm				
			1-yr (cfs)	2-yr (cfs)	5-yr (cfs)	10-yr (cfs)	25-yr (cfs)
WS#1	0.134E-02		0.9	1.4	2.1	2.5	3.2
WS#2	0.01		9.6	15.2	22.5	26.2	33.8
WS#3	0.06		38.1	59.1	86.7	100.7	129.0
Wetland	0.07		45.4	71.0	104.6	121.8	156.6
DOWNSTREAM			45.4	71.0	104.6	121.1	153.3
Pond	0.01		10.5	16.6	24.6	28.7	37.0
DOWNSTREAM			10.5	16.5	24.6	28.7	37.0
OUTLET	0.07		45.4	71.0	104.6	121.1	153.3

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm		
			50-yr (cfs)	100-yr (cfs)	(cfs)
WS#1	0.134E-02		4.0	4.4	
WS#2	0.01		41.3	45.1	
WS#3	0.06		157.4	171.6	
Wetland	0.07		191.6	209.0	
DOWNSTREAM			179.9	188.8	
Pond	0.01		45.3	49.5	
DOWNSTREAM			45.3	49.5	
OUTLET	0.07		179.9	188.8	



WinTR-55 Current Data Description

--- Identification Data ---

User: RA Date: 2009-06-29  
 Project: Kury Homes (Project #2760) Units: English  
 SubTitle: Over All Existing Condition Areal Units: Acres  
 State: New York  
 County: Rockland  
 Filename: P:\hydrology TR-55\2760\Drainage 6-25-2009\WS\Overall Existing Condition.w55

--- Sub-Area Data ---

Name	Description	Reach	Area (ac)	RCN	Tc
WS#1	WS east of Mountainview	Outlet	0.86	75	.1
WS#2	Up Hill Area	Outlet	8.57	75	.149
WS#3	Condo's	Outlet	38.15	83	.285

Total area: 47.58 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.5	4.5	5.0	6.0	7.0	7.5	2.7

Storm Data Source: Rockland County, NY (NRCS)  
 Rainfall Distribution Type: Type III  
 Dimensionless Unit Hydrograph: <standard>

RA Kury Homes (Project #2760)  
 Over All Existing Condition  
 Rockland County, New York

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
	2-Yr (cfs) (hr)	5-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	1-Yr (cfs) (hr)
SUBAREAS							
WS#1	1.15 12.12	1.82 12.11	2.17 12.12	2.90 12.11	3.65 12.11	4.02 12.11	0.66 12.13
WS#2	10.78 12.14	17.21 12.14	20.61 12.13	27.60 12.13	34.77 12.13	38.38 12.13	6.12 12.14
WS#3	59.11 12.20	86.67 12.21	100.72 12.20	128.98 12.19	157.40 12.20	171.60 12.20	38.12 12.22



=====

RA Kury Homes (Project #2760)  
Over All Existing Condition  
Rockland County, New York

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
WS#1	Gravel (w/ right-of-way)	C	.09	89
	Woods	(fair) C	.75	73
	Woods	(fair) D	.02	79
	Total Area / Weighted Curve Number			.86
			===	==
WS#2	Paved parking lots, roofs, driveways	C	.1	98
	Gravel (w/ right-of-way)	C	.54	89
	Woods	(fair) C	7.4	73
	Woods	(fair) D	.53	79
Total Area / Weighted Curve Number			8.57	75
			====	==
WS#3	Paved parking lots, roofs, driveways	C	15.19	98
	Woods	(fair) C	22.45	73
	Woods	(fair) D	.51	79
Total Area / Weighted Curve Number			38.15	83
			=====	==



WinTR-55 Current Data Description

--- Identification Data ---

User: RA Date: 2009-06-29  
 Project: Kury Homes (Project #2760) Units: English  
 SubTitle: Over All WS, Developed Condition Areal Units: Acres  
 State: New York  
 County: Rockland  
 Filename: P:\hydrology TR-55\2760\Drainage 6-25-2009\WS\Over All Developed Condition.w55

--- Sub-Area Data ---

Name	Description	Reach	Area (ac)	RCN	Tc
WS#1	WS east of Mountainview	Outlet	0.86	79	.1
WS#2	Up Hill Area	Outlet	8.57	81	0.1
WS#3	Condos	Outlet	38.15	83	.285

Total area: 47.58 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.5	4.5	5.0	6.0	7.0	7.5	2.7

Storm Data Source: Rockland County, NY (NRCS)  
 Rainfall Distribution Type: Type III  
 Dimensionless Unit Hydrograph: <standard>

RA Kury Homes (Project #2760)  
 Over All WS, Developed Condition  
 Rockland County, New York

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
	2-Yr (cfs) (hr)	5-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	1-Yr (cfs) (hr)
SUBAREAS							
WS#1	1.39 12.12	2.11 12.11	2.47 12.11	3.22 12.11	3.98 12.11	4.36 12.11	0.86 12.12
WS#2	15.16 12.11	22.47 12.11	26.21 12.11	33.75 12.11	41.34 12.11	45.14 12.11	9.61 12.12
WS#3	59.11 12.20	86.67 12.21	100.72 12.20	128.98 12.19	157.40 12.20	171.60 12.20	38.12 12.22

REACHES

OUTLET            70.79      104.34      121.45      156.15      190.89      208.24      45.31

RA

Kury Homes (Project #2760)  
Over All WS, Developed Condition  
Rockland County, New York

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
WS#1	.86	0.100	79	Outlet	WS east of Mountainview
WS#2	8.57	0.100	81	Outlet	Up Hill Area
WS#3	38.15	0.285	83	Outlet	Condos

Total Area: 47.58 (ac)

RA

Kury Homes (Project #2760)  
Over All WS, Developed Condition  
Rockland County, New York

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
WS#1							
SHEET	100	0.0600	0.130				0.090
SHALLOW	150	0.2000	0.050				0.006
SHALLOW	60	0.1000	0.050				0.003
CHANNEL	140	0.0786	0.015	19.63	15.70	38.889	0.001
							Time of Concentration
							.1

WS#2							
SHEET	35	0.0143	0.130				0.069
SHALLOW	168	0.1250	0.050				0.008
CHANNEL	560	0.1010	0.012	3.14	6.28	25.926	0.006
CHANNEL	280	0.0786	0.015	19.63	15.70	38.889	0.002
							Time of Concentration
							0.1

WS#3							
SHEET	100	0.0550	0.400				0.228
SHALLOW	245	0.0615	0.050				0.017
SHALLOW	335	0.1493	0.050				0.015
CHANNEL	800	0.0700	0.015	3.14	6.28	17.094	0.013
CHANNEL	590	0.0542	0.030	26.70	20.00	13.657	0.012
							Time of Concentration
							.285

=====

RA

Kury Homes (Project #2760)  
Over All WS, Developed Condition  
Rockland County, New York

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
WS#1	Open space; grass cover > 75%	(good) C	.12	74
	Paved parking lots, roofs, driveways	C	.18	98
	Woods	(fair) C	.54	73
	Woods	(fair) D	.02	79
	Total Area / Weighted Curve Number			.86
			===	==
WS#2	Open space; grass cover > 75%	(good) C	4.74	74
	Paved parking lots, roofs, driveways	C	2.28	98
	Woods	(fair) C	1.02	73
	Woods	(fair) D	.53	79
	Total Area / Weighted Curve Number			8.57
			====	==
WS#3	Paved parking lots, roofs, driveways	C	15.19	98
	Woods	(fair) C	22.45	73
	Woods	(fair) D	.51	79
	Total Area / Weighted Curve Number			38.15
			=====	==

Appendix K  
Traffic Analysis



# *Traffic Study*

## **KURY HOMES**

TOWN OF CLARKSTOWN  
ROCKLAND COUNTY, NEW YORK

*Prepared for:*

Kury Homes, Inc.  
495 South Main Street  
New City, NY 10956

*Prepared by:*

Tim Miller Associates, Inc.  
10 North Street  
Cold Spring, NY 10516  
(845) 265-4400

**June 16, 2009**

# Traffic Study

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### **APPENDIX**

Appendix A: Level of Service Calculations

## 1.0 EXECUTIVE SUMMARY

### 1.1 Introduction

This traffic report has been prepared to assess the effect of potential traffic generated by the proposed Kury Homes residential development located on the east side of Mountainview Avenue, Town of Clarkstown, Rockland County, New York. The site has one proposed access point onto Mountainview Avenue, located north of Forest Ridge Road and south of Sierra Vista Lane. The site location is shown on Figure 1 (all figures are provided after page 10).

### 1.2 Objective and Methodology of Study

The methodology used to prepare this study is as follows:

1. Existing peak hour (2008) traffic volumes were collected at the following intersection for the weekday a.m. and weekday p.m. peak hour periods:
  - Mountainview Avenue and Forest Ridge Road
2. The future 2011 No Build condition was established using an annual regional growth traffic rate of two percent per year over a period of three years.
3. Trip generation rates for the proposed Kury Homes site are based upon data contained in the Institute of Transportation Engineers' (ITE) Trip Generation, 2008.
4. The levels of service at the above intersection was evaluated using the Transportation Research Board's Highway Capacity Manual<sup>1</sup> methodology. The 2008 Existing, 2011 Future No Build Condition (future without the project), and 2011 Build Condition (future with the project).
5. No Build Condition (future without the project), and Build Condition (future with the project) evaluations show the change in traffic operations that are a result of traffic generated by the proposed Kury Homes project.

### 1.3 Findings

The applicant proposes to construct 11 single family homes. The project site is currently vacant. The proposed action is projected to generate up to 17 trips during the a.m. peak hour and 11 trips during the p.m. peak hour.

Peak hour delays were calculated to establish the quality of operation (level of service) of the intersections studied under the Existing Condition, the No-Build Condition and the Build Condition. Level of service is graded on a scale of A (best) to F (worst).

A review of the traffic network in proximity to the site indicates the morning peak hour for the intersection studied occurs between 7:30 a.m. and 8:30 a.m. The afternoon peak hour for traffic traveling on Mountainview Avenue occurs between 5:00 p.m. and 6:00 p.m.

---

<sup>1</sup> Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

## 2.0 TRAFFIC AND TRANSPORTATION

### 2.1 Roadway Network

As described, the project site is located on the east side of Mountainview Avenue. The site has one proposed access point onto Mountainview Avenue, located north of Forest Ridge Road and south of Sierra Vista Lane. The project site is currently vacant, three existing houses have been removed. The project site location is shown in Figure 1.

Mountainview Avenue - is a two lane Town roadway with a single lane of traffic in each direction. Mountainview Avenue could be classified as a collector road providing residential access as it travels in a north-south connecting NYS Route 59 to the south with . Mountainview Avenue provides eastbound access to Exit 11 of the NYS Thruway, Interstate 87/287. The posted speed limit on Mountainview Avenue in the vicinity of the proposed site access is 30 miles per hour.

Forest Ridge Road - is a two lane private road which provides residential access to the Forest Ridge Condominium complex, south of the proposed project.

Sierra Vista Lane - is a two lane private road which provides residential access to the Mountainview Condominium complex, north of the proposed project.

NYS Thruway - The NYS Thruway I-87/287 is a six-lane limited access divided highway. Interstate 287 provides regional east-west access crossing southern Westchester County from the Tappan Zee Bridge to Interstate 95 (the New England Thruway). Interstate 87 provides regional north-south access crossing from New York City to Albany. The annual average daily traffic volumes (AADT) for Interstate 87/287 in the vicinity of the project site is 136,759 vehicles per day, (Source: NYS DOT Traffic Data Viewer). The posted speed limit on Interstate 87/287 in the vicinity of Exit 11 is 55 miles per hour.

### 3.0 EXISTING TRAFFIC CONDITIONS

#### 3.1 Existing Peak Hour Volumes

Manual turning movement counts were taken on Wednesday, August 7, 2008 from 6:30 a.m. to 9:30 a.m. and on Wednesday, August 13, 2008 from 4:00 p.m. to 7:00 p.m. Existing peak hour turning movement volumes are shown on Figures 2 and 3 respectively for the intersection noted below:

- Mountainview Avenue and Forest Ridge Road

The manual turning movement counts establish the 2008 existing traffic volumes. The existing data forms the basis of the 2011 No Build Condition (the scenario without the proposed action) and the 2011 Build Condition (conditions with the proposed action).

The counts identify the weekday morning and afternoon peak hour periods. The morning peak hour for the intersection studied occurs between 7:30 a.m. and 8:30 a.m. The afternoon peak hour for the intersection studied occurs between 5:00 p.m. and 6:00 p.m. The peak hours are influenced predominantly by commuter traffic along Mountainview Avenue.

Traffic analyses conducted for these intersections is based on traffic flow rates for the highest fifteen minute volumes in the peak hours as is standard practice.

#### 3.2 Level of Service Criteria

The Highway Capacity Manual and the *Highway Capacity Software* procedures document the methodology used for modeling levels of service, average vehicle delay, and volume to capacity ratios at unsignalized 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. Levels of service are examined by lane group, i.e. the set of lanes allowing the same movements on an approach.

Table 1 presents the Unsignalized Intersections Level of Service Criteria.

Table 1 Unsignalized Intersections - Level of Service Criteria	
Level of Service	Average Control Delay (Seconds Per Vehicle)
A	less than or equal to 10
B	greater than 10 and less than or equal to 15
C	greater than 15 and less than or equal to 25
D	greater than 25 and less than or equal to 35
E	greater than 35 and less than or equal to 50
F	greater than 50

Source: Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

The *Highway Capacity Software* model results apply to peak hour periods only and do not represent every minute of traffic operations. During off peak periods, which is the majority of the time, drivers typically will find operations better than the modeled peak hour results. During peak periods the experience of individual drivers can vary, because the model calculates average vehicle delay.

Peak 15 minute traffic flows typically do not all occur in the same 15 minute period in the peak hour. The traffic model does not always account for the ability of the traffic signal to compensate for shifting traffic volumes and thus may overestimate delay. For unsignalized intersections, the model conservatively assumes peak approach volumes occur simultaneously.

### 3.3 Existing Levels of Service

The study intersections were evaluated for existing levels of service. The results of the level of service analyses are summarized in Table 2. Capacity analysis calculations for Existing, No-Build, and Build conditions are provided as Appendix A of this report.

Table 2 shows that all of the lane groups for the movements studied operate at levels of service B or better during both the a.m. and p.m. peak hours. There is a high southbound volume along Mountainview Avenue during the a.m. peak hour as a result of access to eastbound I-287, however average delay from the minor street is still less than 15 seconds per vehicle or level of service B.

Table 2 Existing Condition Level of Service Summary							
Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Volume/ Capacity Ratio	Delay (seconds /vehicle)	Level of Service	Volume/ Capacity Ratio	Delay (seconds/ vehicle)	Level of Service
<b>Mountainview Avenue at Forest Ridge Road - Unsignalized</b>							
<i>Mountainview Avenue</i>	<i>SB - L, T</i>	<i>0.00</i>	<i>7.4</i>	<i>A</i>	<i>0.00</i>	<i>7.8</i>	<i>A</i>
<i>Forest Ridge Road</i>	<i>WB - L, R</i>	<i>0.06</i>	<i>11.0</i>	<i>B</i>	<i>0.02</i>	<i>10.8</i>	<i>B</i>
Level of Service (see Table 1 for level of service criteria). NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound. Source: Tim Miller Associates, 2009.							

#### 4.0 SIGHT DISTANCE

##### *Sight Distance*

Stopping sight distance is the distance a vehicle would require to be able to stop on wet pavement to avoid a collision with a vehicle entering the traffic stream. Intersection sight distance provides an additional margin of safety above stopping sight distance.

The New York State Department of Transportation (NYS DOT) *Policy and Standards for the Design of Entrances to State Highways* (November 24, 2003) discusses both stopping and intersections sight distance. "Driveways should be located where the stopping sight distance meets or exceeds the values in American Association of State Highway and Transportation Officials' (AASHTO) latest (2004) *A Policy on Geometric Design of Highways and Streets*." Where stopping sight distance is nonstandard mitigation need to be "considered".

The NYS DOT policies and standards note that intersection sight distance from *A Policy on Geometric Design of Highways and Streets* should also be met or exceeded where possible, although "Lower sight distances may be used if the Regional Traffic Engineer determines that they will not significantly degrade traffic safety and operations and there is no reasonable alternative."

*A Policy on Geometric Design of Highways and Streets* states "The provision of stopping sight distance at all locations along the highway or street, including intersection approaches is fundamental to intersection operation." As stopping sight distance may require major street traffic to stop or slow for minor road vehicles it also states "To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road."

Intersection sight distance is defined as the sight distance that is necessary for a vehicle to safely enter the traffic stream requiring only minor speed adjustments by vehicles in the traffic stream. Table 3 shows the Stopping and Intersection Sight Distances recommended by the American Association of State Highway and Transportation Officials (AASHTO).

<b>Table 3 Sight Distance</b>		
<b>Speed (in miles/hour)</b>	<b>Stopping Sight Distance</b>	<b>Intersection Sight Distance</b>
30	200 Feet	335 Feet
35	250 Feet	390 Feet
40	305 Feet	445 Feet
45	360 Feet	500 Feet
50	425 Feet	555 Feet

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 5th ed., 2004.

The proposed Kury Homes project will have one access onto Mountainview Avenue, as shown on the proposed site plan. As shown on the site plan, the available sight distances of the 11 lot Cluster Alternative are 700 feet looking to the north and 500 feet looking to the south.

### *Prevailing Speed*

A prevailing speed study was conducted on Mountainview Avenue based upon the location of the proposed site access point. The speed limit on Mountainview Avenue is 30 miles per hour. A spot speed study was conducted to ascertain the 85th percentile of vehicle operating speeds on this roadway. The 85th percentile observed speed is the most frequently used measure of operating speeds associated with a location. The speed study was conducted on Mountainview Avenue in the vicinity of the proposed site access.

Speed data were collected under dry pavement conditions between 1 p.m. and 3 p.m. on Wednesday, August 13, 2008. Volumes during this period are typical of free flowing, daylight traffic conditions. A radar gun was utilized to collect speed data. A survey size of 75 vehicles per direction was used to provide a 95 percent confidence level with an estimated error of  $\pm 2$  miles per hour. Based on the data collected, the 85th percentile speed for Mountainview Avenue is 36 mph for vehicles traveling northbound and 36 mph for vehicles traveling southbound. A vehicle speed graph is attached. The 85th percentile speed is the speed at which 85 percent of vehicles travel at or below.

### *Sight Distance at the proposed Site Access Points*

For intermediate speed values, other than those listed in Table 8, the intersection sight distance is determined by the following equation from *A Policy on Geometric Design of Highways and Streets*. Intersection sight distance is 1.47 times design speed of the major road times the time gap for minor road vehicle to enter the major road.

$$1.47 V_{(major)} T_g = ISD$$

ISD = intersection sight distance

$V_{(major)}$  = design speed of major road in mph as 85th percentile equals 36 mph

$T_g$  = time gap in seconds based on a passenger car, two-way highway with two lanes, driveway approach grade not exceeding 3% is 7.5 seconds. Passenger cars are the typical vehicles expected using the site driveways.

Thus,  $1.47 (36) (7.5) = 396.9$  feet is the intersection sight distance required looking south at northbound approaching vehicles with a prevailing speed of 36 miles per hour. For the purpose of analysis the required intersection sight distance is rounded up to 400 feet. As shown on the site plan the available sight distance in this direction is 500 feet from the proposed access point.

Similarly,  $1.47 (36) (7.5) = 396.9$  feet is the intersection sight distance required looking north at southbound approaching vehicles with a prevailing speed of 36 miles per hour. For the purpose of analysis the required intersection sight distance is rounded up to 400 feet. As shown on the site plan the available sight distance in this direction is 700 feet from the proposed access point.

Based upon these calculations, there is sufficient intersection sight distance in both directions at the proposed site access point to meet the AASHTO recommendations for prevailing operating speeds of vehicles traveling along Mountainview Avenue.



## 5.0 FUTURE NO-BUILD TRAFFIC CONDITIONS

### 5.1 No-Build Traffic: Network and Volumes

The project is expected to be fully occupied by 2011. Typically, a project's traffic impact is assessed by comparing future traffic conditions without the project (the 2011 No-Build Condition) to traffic conditions with project-generated traffic (the 2011 Build Condition).

No-Build traffic conditions are determined 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 region and, (3) traffic from identified development projects in the project vicinity.

The New York State Department of Transportation (NYS DOT) does not have any major plans for road improvements in this area, thus no adjustments for road improvements were made to the No-Build or Build traffic analysis.

The Planning Departments of the Town of Clarkstown was contacted regarding pending development applications in the project vicinity. There are no other pending projects in this area which would have affect the No-Build or Build traffic analysis.

Peak hour traffic volumes for the a.m. and p.m. No-Build Conditions represent background traffic growth of two percent per year added to existing traffic volumes for a period of three years. No-Build traffic volumes are shown on Figures 4 and 5.

### 5.2 No-Build Level of Service

Table 4 summarizes the levels of service projected for the No-Build Condition. As shown in Table 4, there is no change anticipated in operating conditions as a result of the growth in the area. All movements remain are level of service B or better under future No-Build Conditions.

Table 4 No-Build Condition Level of Service Summary							
Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Volume/Capacity Ratio	Delay (seconds /vehicle)	Level of Service	Volume/Capacity Ratio	Delay (seconds/ vehicle)	Level of Service
<b>Mountainview Avenue at Forest Ridge Road - Unsignalized</b>							
Mountainview Avenue	SB - L, T	0.00	7.4	A	0.00	7.8	A
Forest Ridge Road	WB - L, R	0.07	11.2	B	0.02	11.0	B
Level of Service (see Table 1 for level of service criteria). NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound. Source: Tim Miller Associates, 2009.							

## 6.0 FUTURE BUILD TRAFFIC CONDITIONS

### 6.1 Build Traffic: Network and Volumes

This traffic report has been prepared to assess the effect of potential traffic generated by the proposed Kury Homes residential development located on the east side of Mountainview Avenue, Town of Clarkstown, Rockland County, New York. The project site is currently vacant, the three previous residences have been removed. The site has one proposed access point onto Mountainview Avenue, located north of Forest Ridge Road and south of Sierra Vista Lane. The proposed Site Plan is shown in Figure 6.

Traffic to be generated by 11 single family residential lots was projected using the Trip Generation, Institute of Transportation Engineers (ITE), 8th edition, Washington, DC, 2008. In order to provide a conservative analysis the fitted curve equation rates were used. These rates overstate the trip generation for small single family residential projects. In addition no deduction has been taken for the three existing building lots which could be rebuilt, thus making the traffic analysis even more conservative. The proposed action is projected to generate up to 17 new trips during the a.m. peak hour and 11 new trips during the p.m. peak hour. The entering and exiting trip rates and anticipated trips from the proposed project are shown in Tables 5 and 6.

Table 5 Project Site Trip Rate Summary				
Land Uses {ITE Code}	Trip Rate			
	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	IN (Trips/ Unit)	OUT (Trips/ Unit)	IN (Trips/ Unit)	OUT (Trips/ Unit)
Single Family Residential 11 units {210}	0.396	1.189	0.649	0.381
Trip Generation, Institute of Transportation Engineers, 8th edition, Washington, DC, 2008.				

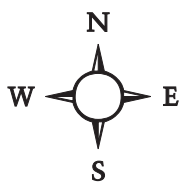
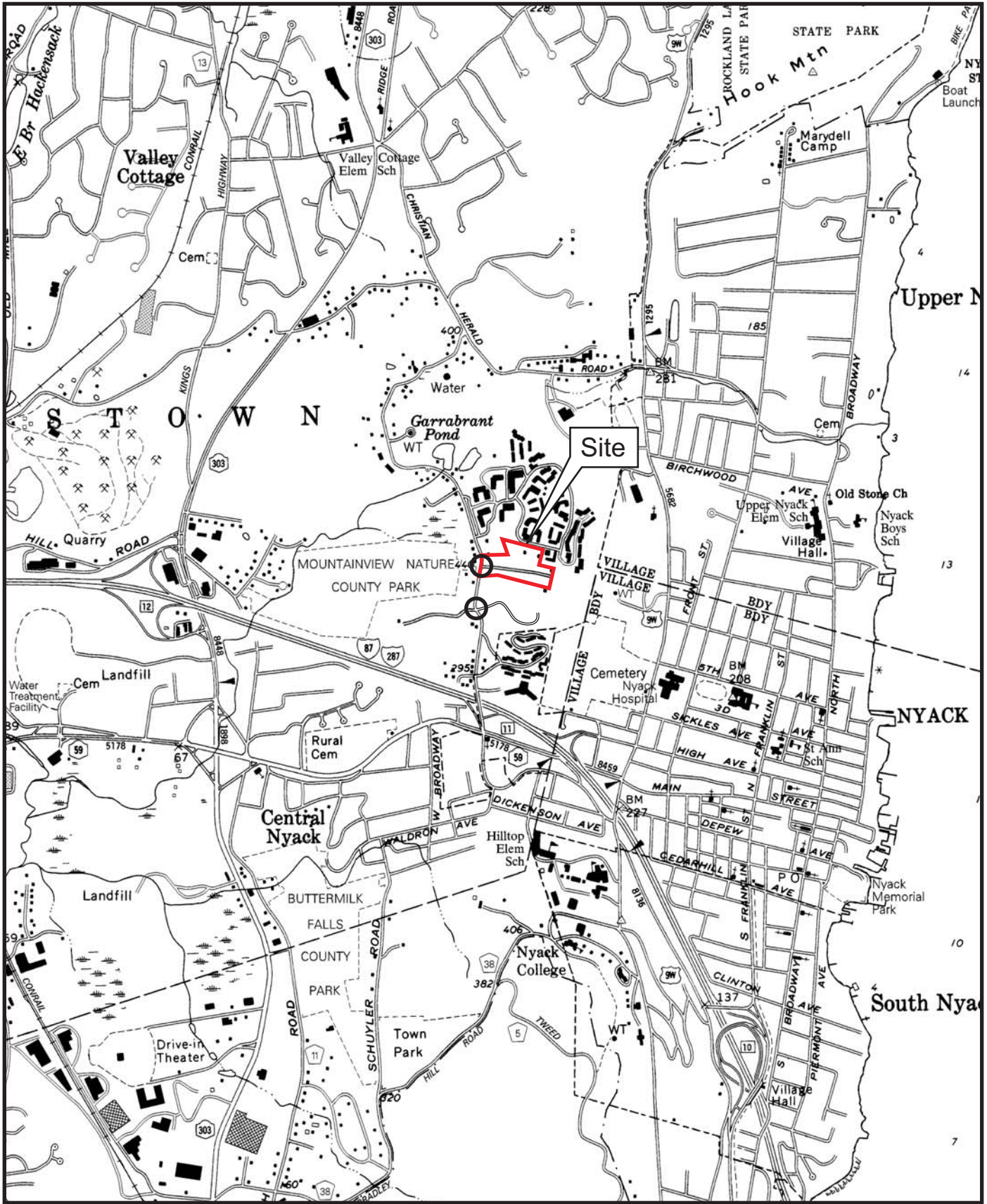
Table 6 Project Site Total Trips Generated						
Land Uses	Site Generated Trips					
	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
	IN Trips	OUT Trips	TOTAL Trips	IN Trips	OUT Trips	TOTAL Trips
Single Family Residential 11 units {210}	4	13	17	7	4	11
Trip Generation, Institute of Transportation Engineers, 8th edition, Washington, DC, 2008.						

The percentage distribution of the site generated trips is shown in Figure 7; the site generated trips (Figures 8 and 9) were added to the No-Build traffic volumes (Figures 4 and 5) to obtain the Build traffic volumes (Figures 10 and 11).

### 5.2 Build Level of Service

Table 7 summarizes the levels of service projected for the Build Condition. As shown in Table 7, there is no change anticipated in operating conditions as a result of the construction of the 11 homes proposed at Kury Homes. All movements remain are level of service B or better under future Build Conditions. Operating conditions at the Kury Homes Site Access can be expected to be similar to the current conditions at Forest Ridge Road.

<b>Table 7 Build Condition Level of Service Summary</b>							
<b>Intersection Road</b>	<b>Lane Group (Approach Direction - Movement)</b>	<b>A.M. Weekday Peak Hour</b>			<b>P.M. Weekday Peak Hour</b>		
		<b>Volume/ Capacity Ratio</b>	<b>Delay (seconds /vehicle)</b>	<b>Level of Service</b>	<b>Volume/ Capacity Ratio</b>	<b>Delay (seconds/ vehicle)</b>	<b>Level of Service</b>
<b><i>Mountainview Avenue at Forest Ridge Road - Unsignalized</i></b>							
<i>Mountainview Avenue</i>	<i>SB - L, T</i>	<i>0.00</i>	<i>7.4</i>	<i>A</i>	<i>0.00</i>	<i>7.8</i>	<i>A</i>
<i>Forest Ridge Road</i>	<i>WB - L, R</i>	<i>0.07</i>	<i>11.3</i>	<i>B</i>	<i>0.02</i>	<i>11.0</i>	<i>B</i>
<b><i>Mountainview Avenue at Kury Homes Site Access - Unsignalized</i></b>							
<i>Mountainview Avenue</i>	<i>SB - L, T</i>	<i>0.00</i>	<i>7.3</i>	<i>A</i>	<i>0.00</i>	<i>7.8</i>	<i>A</i>
<i>Kury Homes Site Access</i>	<i>WB - L, R</i>	<i>0.02</i>	<i>10.2</i>	<i>B</i>	<i>0.01</i>	<i>10.3</i>	<i>B</i>
Level of Service (see Table 1 for level of service criteria). NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound. Source: Tim Miller Associates, 2009.							



- Site Property Boundary
- Intersections Studied

Figure 1: Site Location Map

Kury Homes

Town of Clarkstown, Rockland County, New York

Base Map: US DOT Planimetric Map, Nyack Quad

Scale: 1" = 2,000'



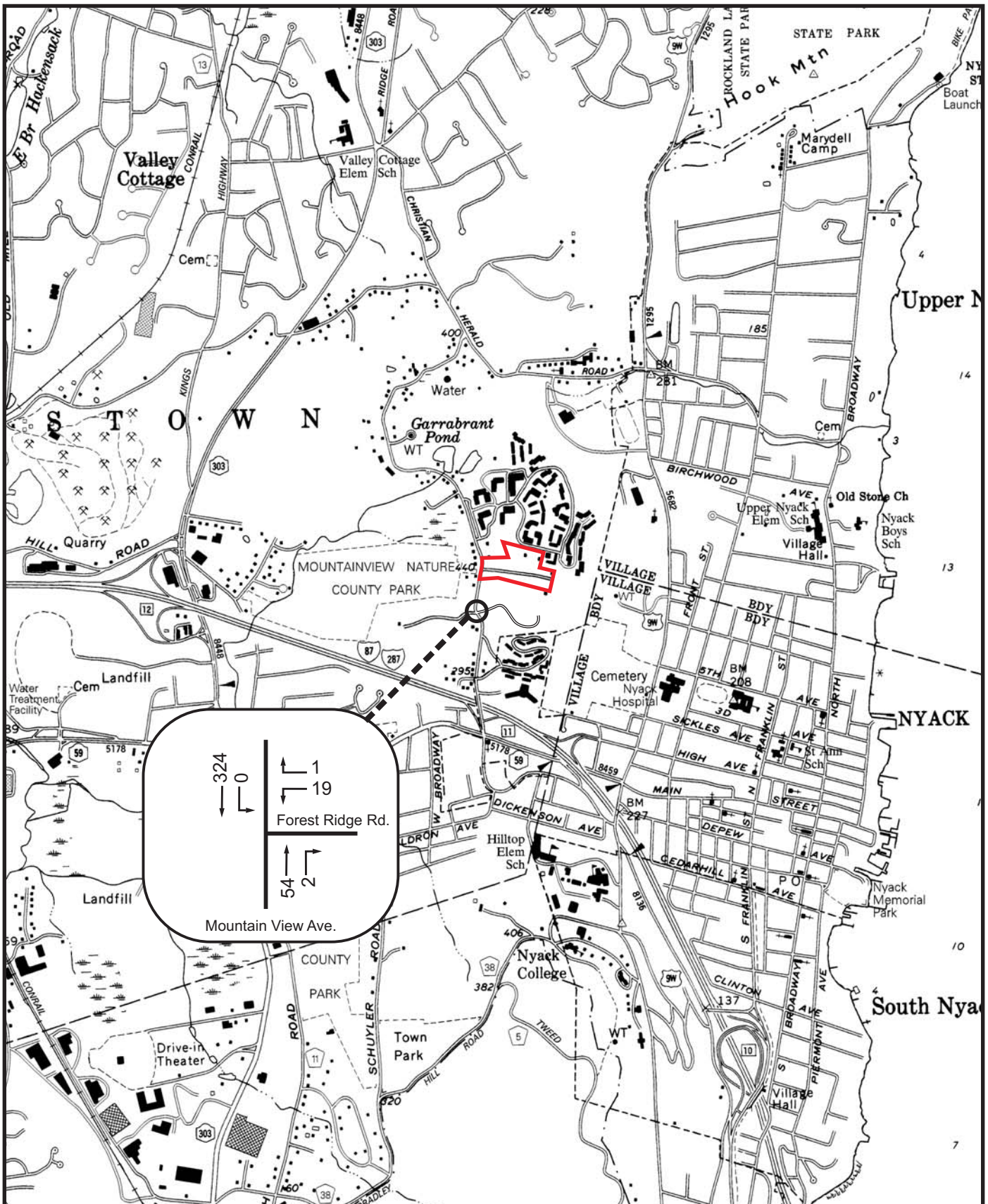
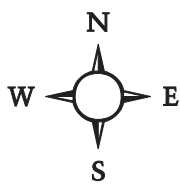


Figure 2: Existing AM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'





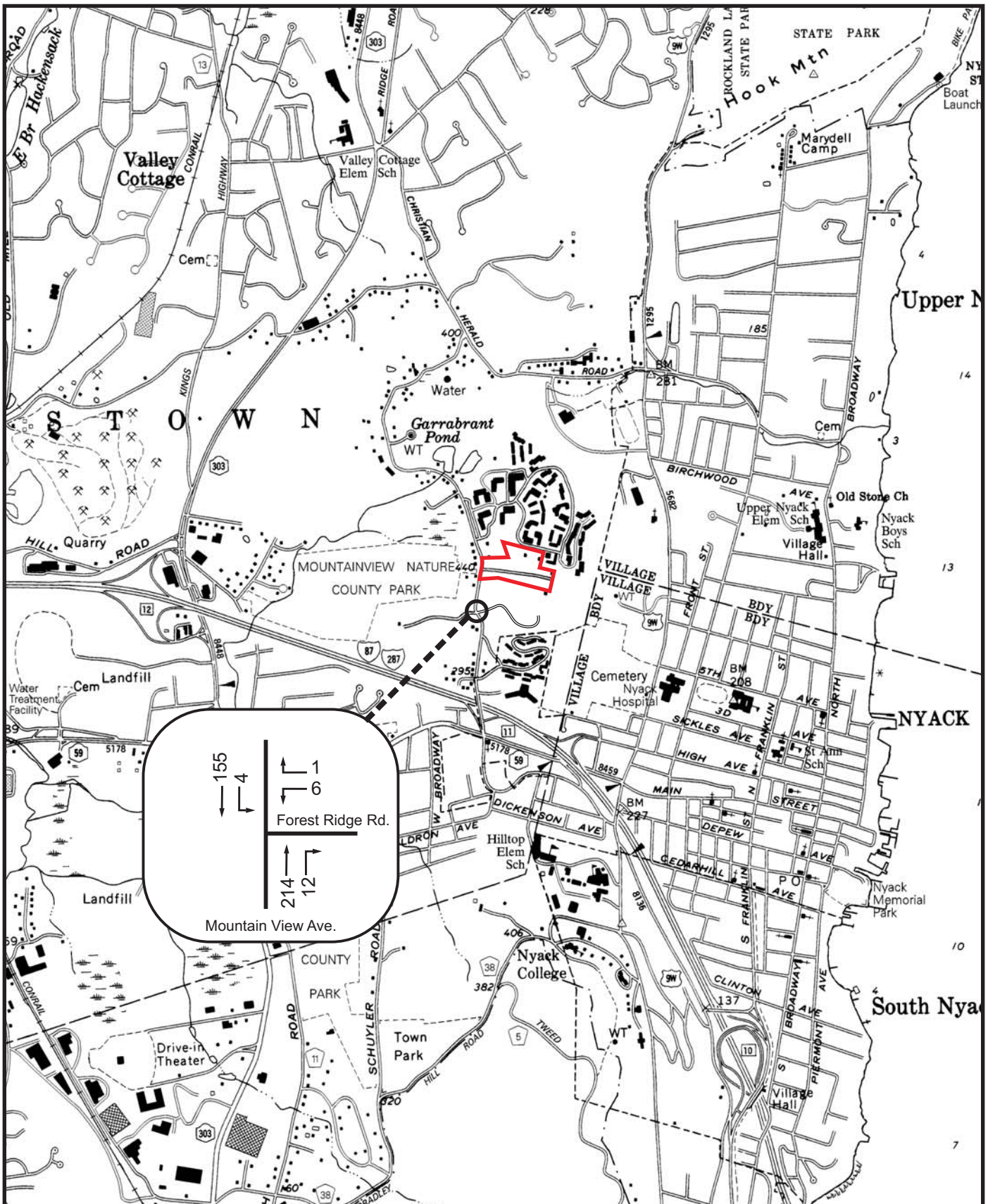
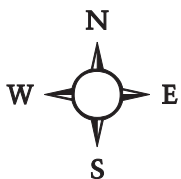


Figure 3: Existing PM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'





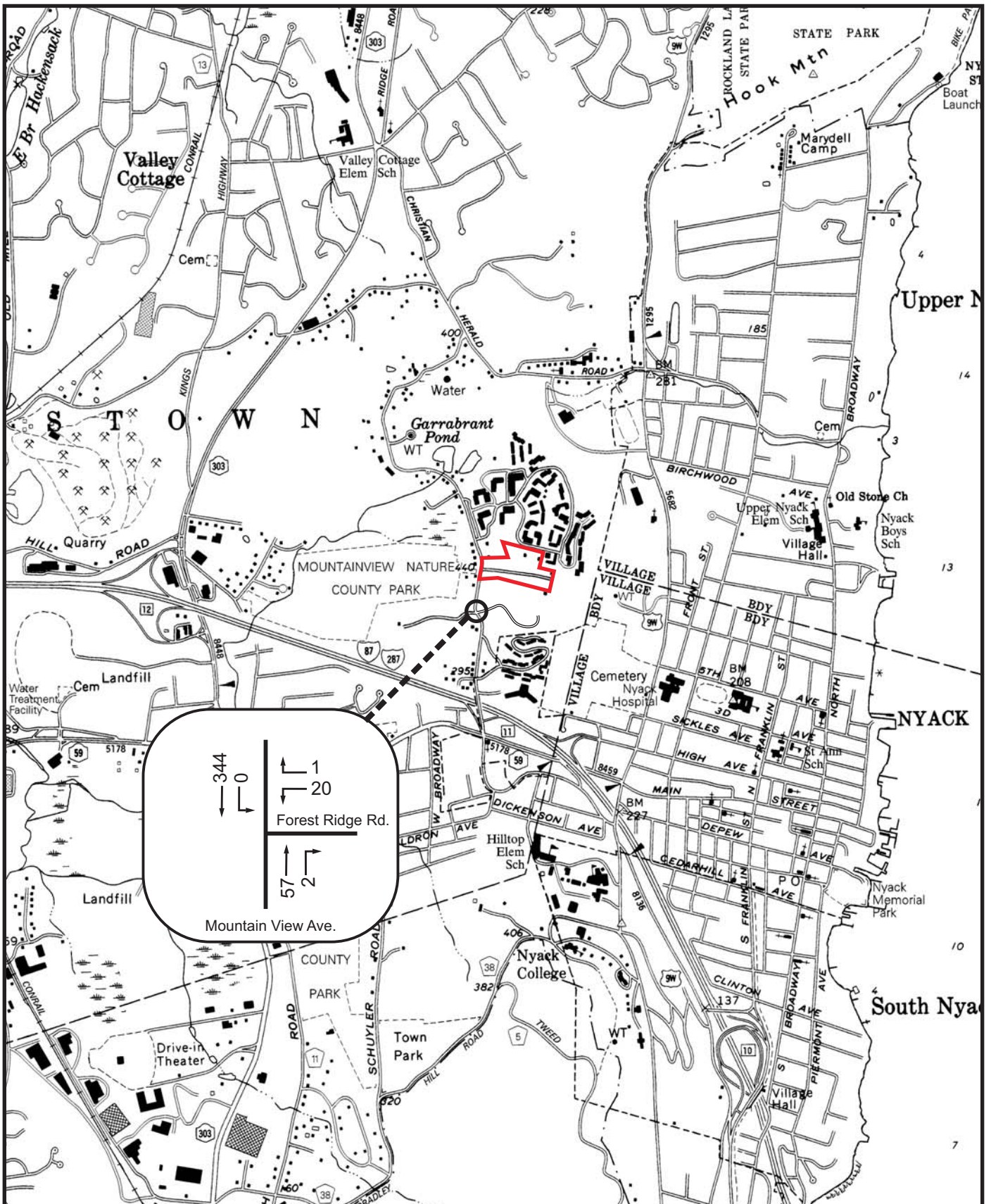
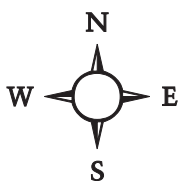


Figure 4: No Build AM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'





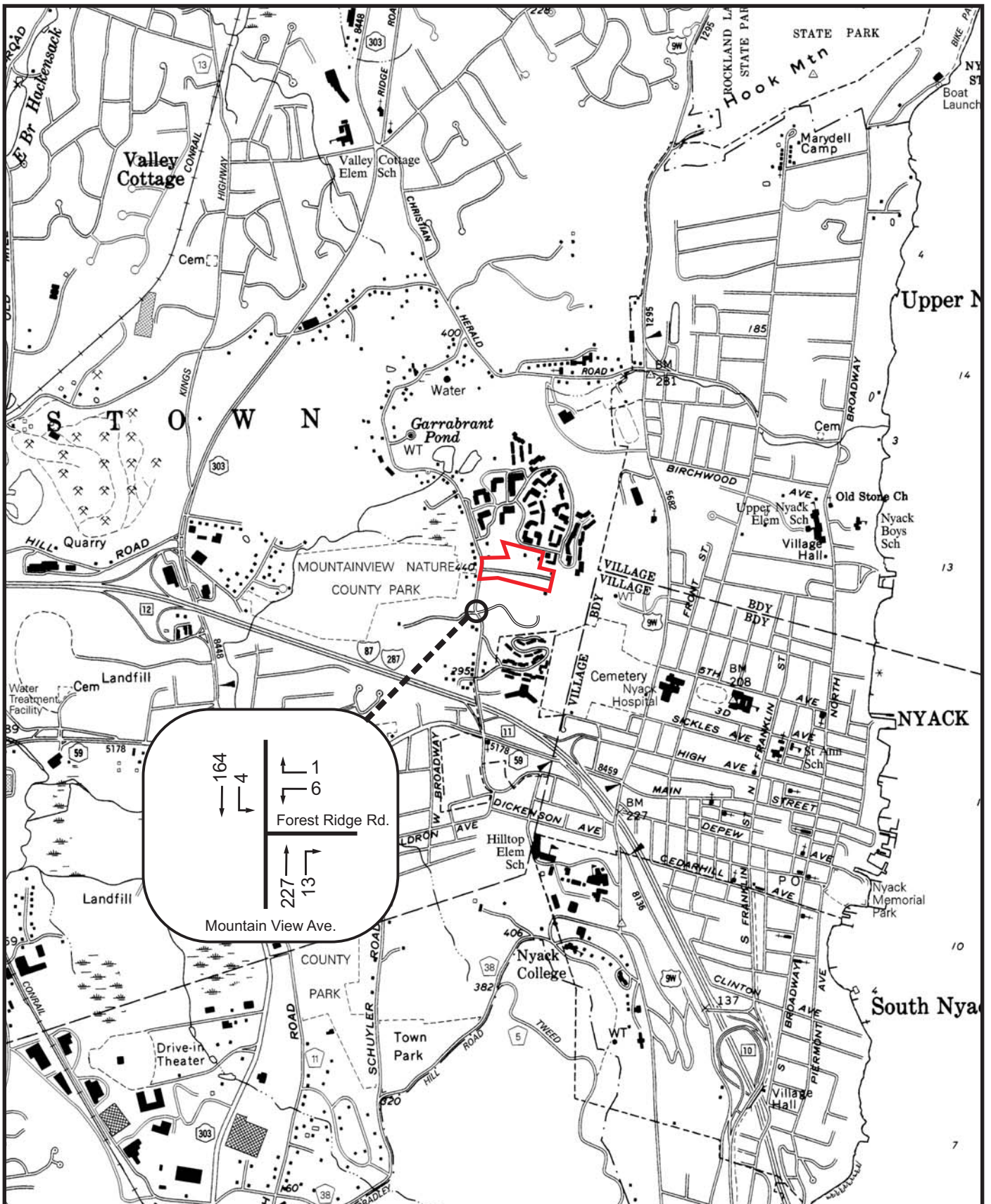
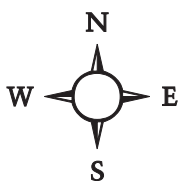
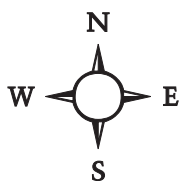
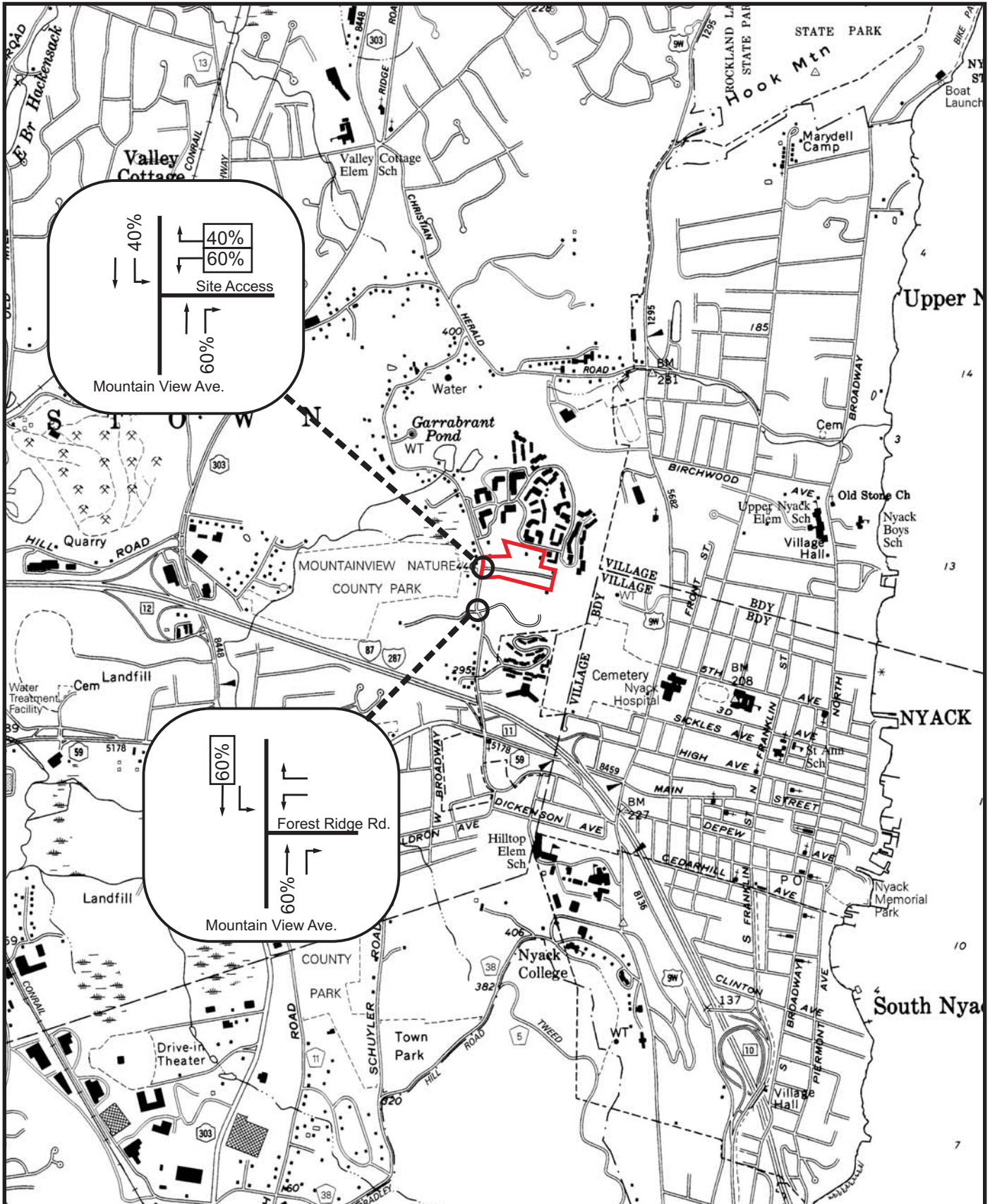


Figure 5: No Build PM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'







**LEGEND**

- Intersections Studied
- XX% Outbound
- XX% Inbound

**Figure 7: Percent Distribution Kury Homes**  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'



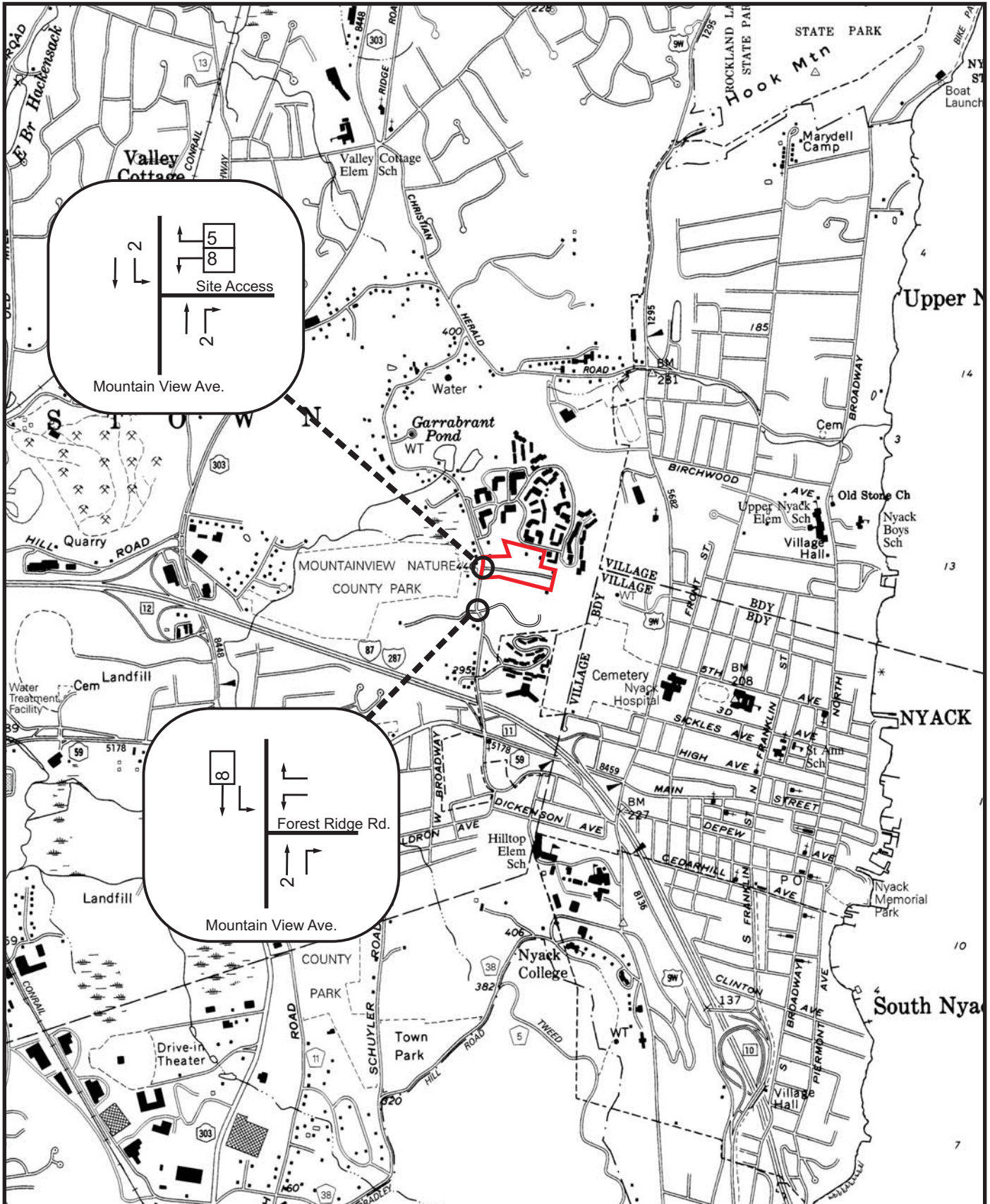
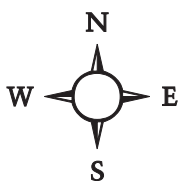


Figure 8: Site Generated AM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'



LEGEND	
XX	Outbound
XX	Inbound



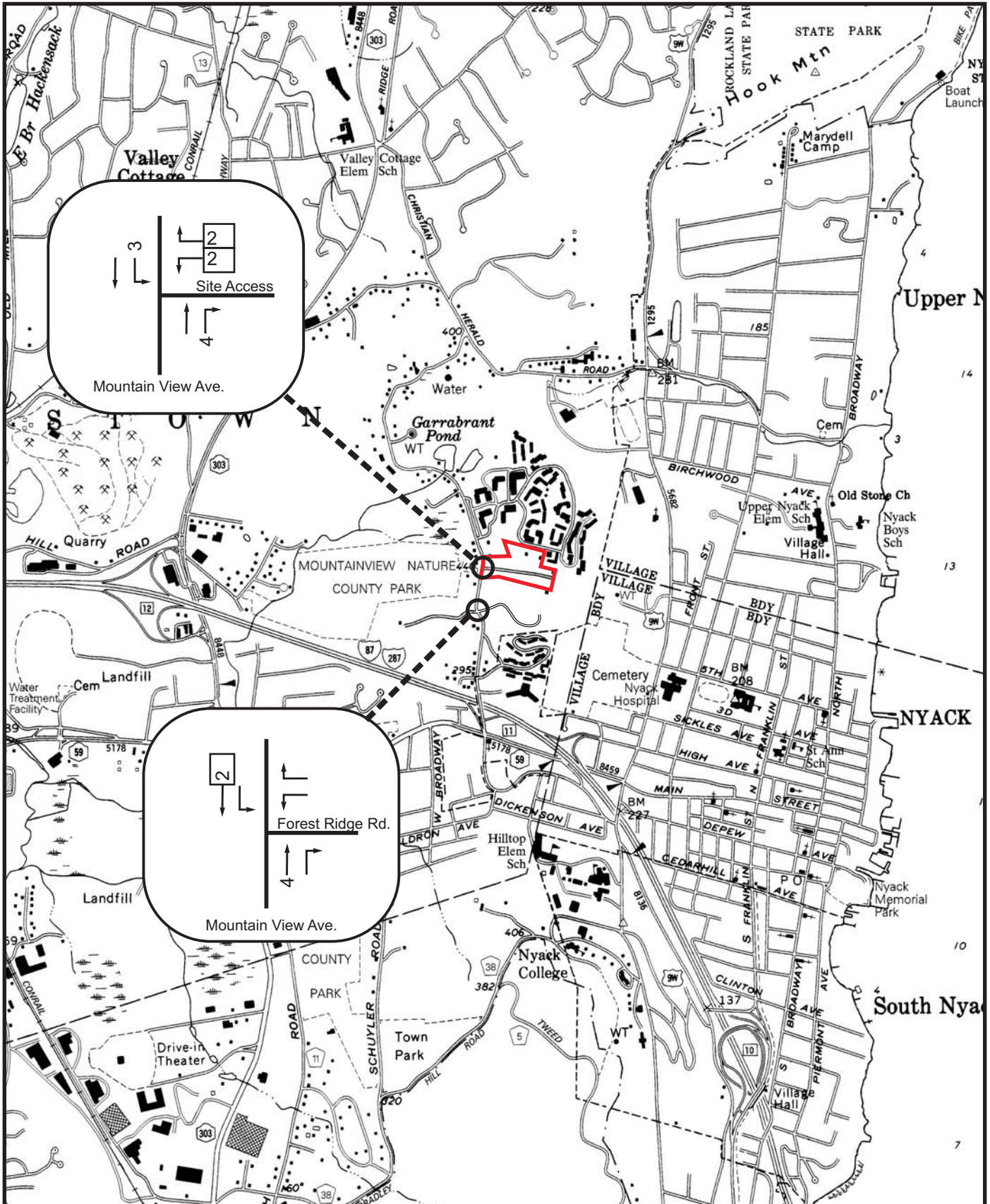
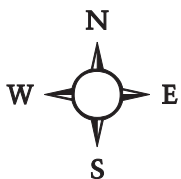


Figure 9: Site Generated PM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'



LEGEND	
XX	Outbound
XX	Inbound



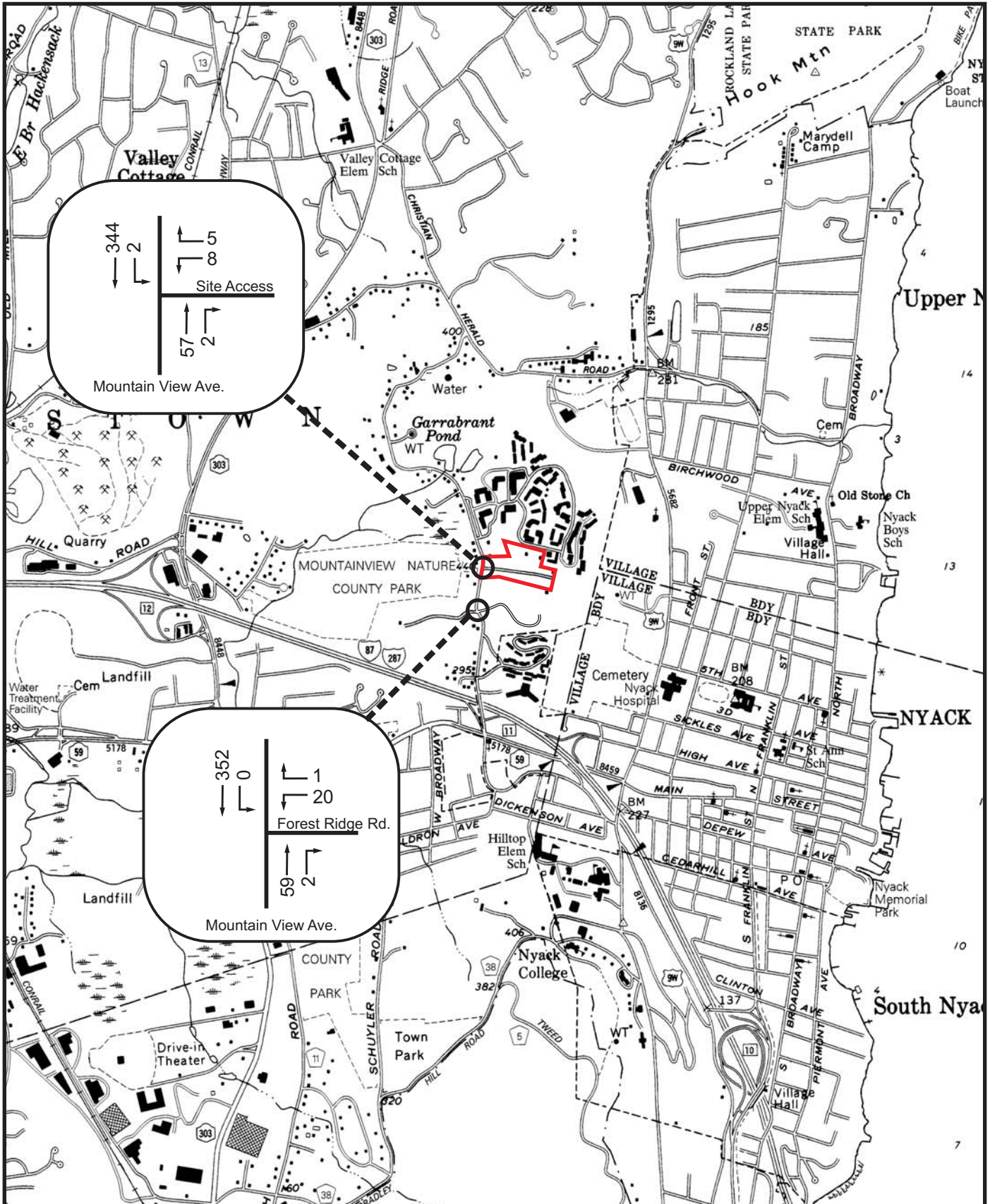


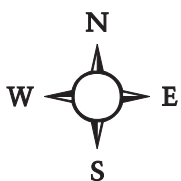
Figure 10: Build AM Peak Hour Traffic

Kury Homes

Town of Clarkstown, Rockland County, New York

Base Map: US DOT Planimetric Map, Nyack Quad

Scale: 1" = 2,000'





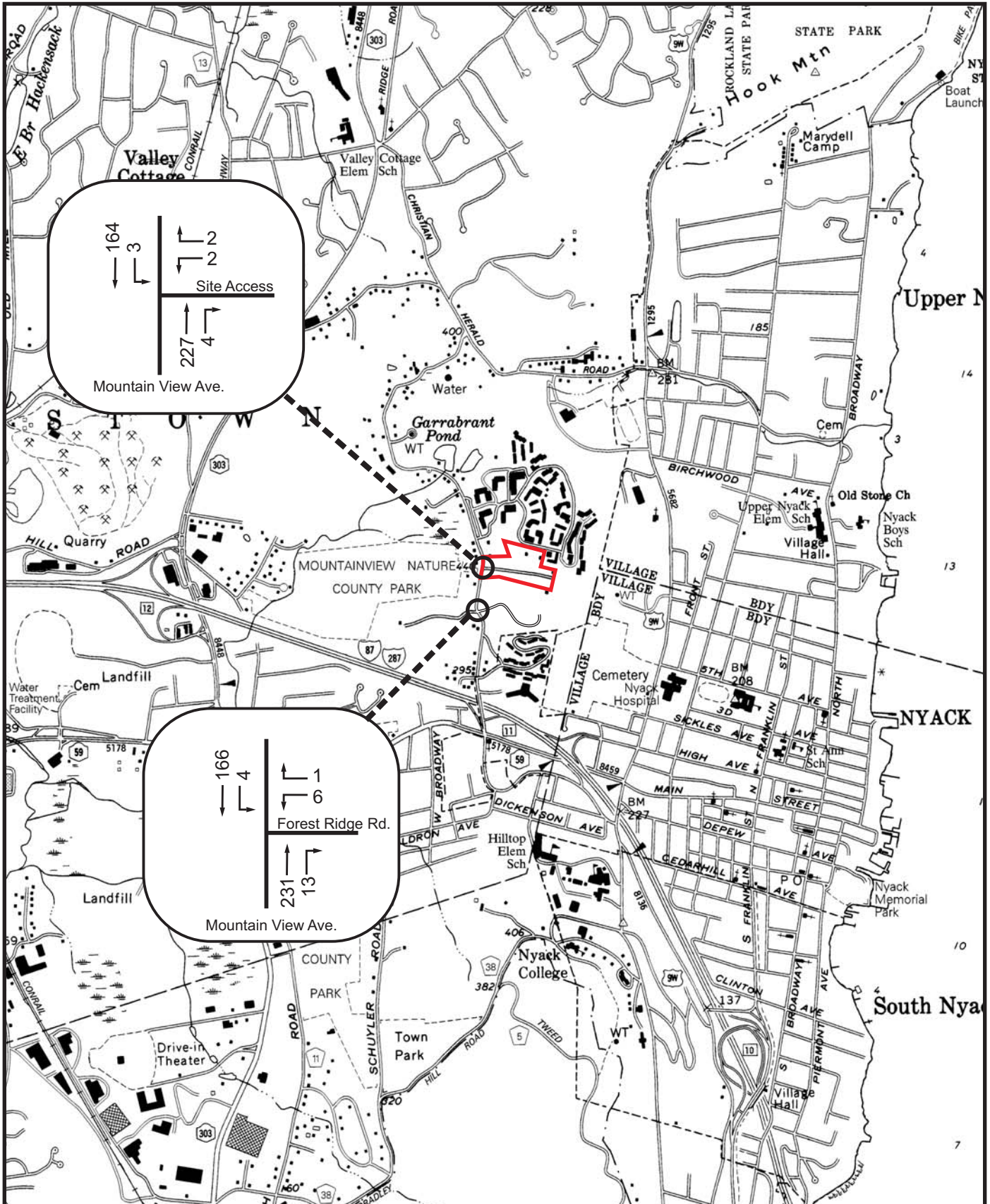
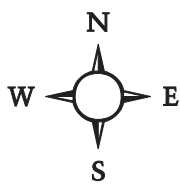


Figure 11: Build PM Peak Hour Traffic  
 Kury Homes  
 Town of Clarkstown, Rockland County, New York  
 Base Map: US DOT Planimetric Map, Nyack Quad  
 Scale: 1" = 2,000'



Appendix A

Level of Service Worksheets

# CAPACITY CALCULATIONS APPENDIX A

## EXISTING

Mountainview Avenue and Forest Ridge Road Existing AM Peak Hour	1
Mountainview Avenue and Forest Ridge Road Existing PM Peak Hour	2

## NO-BUILD

Mountainview Avenue and Forest Ridge Road No-Build AM Peak Hour	3
Mountainview Avenue and Forest Ridge Road No-Build PM Peak Hour	4

## BUILD

Mountainview Avenue and Forest Ridge Road Build AM Peak Hour	5
Mountainview Avenue and Kury Homes Site Access Build AM Peak Hour	6
Mountainview Avenue and Forest Ridge Road Build PM Peak Hour	7
Mountainview Avenue and Kury Homes Site Access Build PM Peak Hour	8

## TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	AAC			Intersection	Mountainview Av Forest Ridge		
Agency/Co.	TMA			Jurisdiction	Town of Clarkstown		
Date Performed	6/17/2009			Analysis Year	Existing Condition		
Analysis Time Period	AM Peak Hour						
Project Description <i>Kury Homes</i>							
East/West Street: <i>Forest Ridge Road</i>				North/South Street: <i>Mountainview Avenue</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		54	2	0	324		
Peak-Hour Factor, PHF	1.00	0.64	0.64	0.94	0.94	1.00	
Hourly Flow Rate, HFR (veh/h)	0	84	3	0	344	0	
Percent Heavy Vehicles	0	--	--	1	--	--	
Median Type	<i>Undivided</i>						
RT Channelized			0				0
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				19		1	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.50	1.00	0.50	
Hourly Flow Rate, HFR (veh/h)	0	0	0	38	0	2	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			-3		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		0		40			
C (m) (veh/h)		1515		641			
v/c		0.00		0.06			
95% queue length		0.00		0.20			
Control Delay (s/veh)		7.4		11.0			
LOS		A		B			
Approach Delay (s/veh)	--	--	11.0				
Approach LOS	--	--	B				



## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Forest Ridge
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	Existing Condition
Analysis Time Period	PM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Forest Ridge Road</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			214	12	4	155	
Peak-Hour Factor, PHF		1.00	0.87	0.87	0.86	0.86	1.00
Hourly Flow Rate, HFR (veh/h)		0	245	13	4	180	0
Percent Heavy Vehicles		0	--	--	1	--	--
Median Type	<i>Undivided</i>						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration				TR	LT		
Upstream Signal			0			0	

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					6		1
Peak-Hour Factor, PHF		1.00	1.00	1.00	0.58	1.00	0.58
Hourly Flow Rate, HFR (veh/h)		0	0	0	10	0	1
Percent Heavy Vehicles		0	0	0	0	0	0
Percent Grade (%)			0			-3	
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	0	0	0
Configuration						LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (veh/h)		4		11				
C (m) (veh/h)		1313		633				
v/c		0.00		0.02				
95% queue length		0.01		0.05				
Control Delay (s/veh)		7.8		10.8				
LOS		A		B				
Approach Delay (s/veh)	--	--	10.8					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Forest Ridge
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	No-Build Condition
Analysis Time Period	AM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Forest Ridge Road</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			57	2	0	344	
Peak-Hour Factor, PHF		1.00	0.64	0.64	0.94	0.94	1.00
Hourly Flow Rate, HFR (veh/h)		0	89	3	0	365	0
Percent Heavy Vehicles		0	--	--	1	--	--
Median Type	<i>Undivided</i>						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration				TR	LT		
Upstream Signal			0			0	

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					20		1
Peak-Hour Factor, PHF		1.00	1.00	1.00	0.50	1.00	0.50
Hourly Flow Rate, HFR (veh/h)		0	0	0	40	0	2
Percent Heavy Vehicles		0	0	0	0	0	0
Percent Grade (%)		0			-3		
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	0	0	0
Configuration						LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (veh/h)		0		42				
C (m) (veh/h)		1509		622				
v/c		0.00		0.07				
95% queue length		0.00		0.22				
Control Delay (s/veh)		7.4		11.2				
LOS		A		B				
Approach Delay (s/veh)	--	--	11.2					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Forest Ridge
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	No-Build Condition
Analysis Time Period	PM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Forest Ridge Road</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			227	13	4	164	
Peak-Hour Factor, PHF		1.00	0.87	0.87	0.86	0.86	1.00
Hourly Flow Rate, HFR (veh/h)		0	260	14	4	190	0
Percent Heavy Vehicles		0	--	--	1	--	--
Median Type	<i>Undivided</i>						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration				TR	LT		
Upstream Signal			0			0	

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					6		1
Peak-Hour Factor, PHF		1.00	1.00	1.00	0.58	1.00	0.58
Hourly Flow Rate, HFR (veh/h)		0	0	0	10	0	1
Percent Heavy Vehicles		0	0	0	0	0	0
Percent Grade (%)		0			-3		
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	0	0	0
Configuration						LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (veh/h)		4		11				
C (m) (veh/h)		1295		616				
v/c		0.00		0.02				
95% queue length		0.01		0.05				
Control Delay (s/veh)		7.8		11.0				
LOS		A		B				
Approach Delay (s/veh)	--	--	11.0					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Forest Ridge
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	Build Condition
Analysis Time Period	AM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Forest Ridge Road</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street Movement	Northbound			Southbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)		59	2	0	352	
Peak-Hour Factor, PHF	1.00	0.64	0.64	0.94	0.94	1.00
Hourly Flow Rate, HFR (veh/h)	0	92	3	0	374	0
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type	<i>Undivided</i>					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street Movement	Eastbound			Westbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)				20		1
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.50	1.00	0.50
Hourly Flow Rate, HFR (veh/h)	0	0	0	40	0	2
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			-3		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (veh/h)		0		42				
C (m) (veh/h)		1505		613				
v/c		0.00		0.07				
95% queue length		0.00		0.22				
Control Delay (s/veh)		7.4		11.3				
LOS		A		B				
Approach Delay (s/veh)	--	--	11.3					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Kury Access
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	Build Condition
Analysis Time Period	AM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Kury Homes Site Access</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		57	2	2	344	
Peak-Hour Factor, PHF	1.00	0.85	0.85	0.85	0.85	1.00
Hourly Flow Rate, HFR (veh/h)	0	67	2	2	404	0
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type	<i>Undivided</i>					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				8		5
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	0.75
Hourly Flow Rate, HFR (veh/h)	0	0	0	10	0	6
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			-3		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		2		16				
C (m) (veh/h)		1538		704				
v/c		0.00		0.02				
95% queue length		0.00		0.07				
Control Delay (s/veh)		7.3		10.2				
LOS		A		B				
Approach Delay (s/veh)	--	--	10.2					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AAC	Intersection	Mountainview Av Forest Ridge
Agency/Co.	TMA	Jurisdiction	Town of Clarkstown
Date Performed	6/17/2009	Analysis Year	Build Condition
Analysis Time Period	PM Peak Hour		
Project Description <i>Kury Homes</i>			
East/West Street: <i>Forest Ridge Road</i>		North/South Street: <i>Mountainview Avenue</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			231	13	4	166	
Peak-Hour Factor, PHF		1.00	0.87	0.87	0.86	0.86	1.00
Hourly Flow Rate, HFR (veh/h)		0	265	14	4	193	0
Percent Heavy Vehicles		0	--	--	1	--	--
Median Type	<i>Undivided</i>						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration				TR	LT		
Upstream Signal			0			0	

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					6		1
Peak-Hour Factor, PHF		1.00	1.00	1.00	0.58	1.00	0.58
Hourly Flow Rate, HFR (veh/h)		0	0	0	10	0	1
Percent Heavy Vehicles		0	0	0	0	0	0
Percent Grade (%)			0			-3	
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	0	0	0
Configuration						LR	

### Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (veh/h)		4		11				
C (m) (veh/h)		1289		611				
v/c		0.00		0.02				
95% queue length		0.01		0.05				
Control Delay (s/veh)		7.8		11.0				
LOS		A		B				
Approach Delay (s/veh)	--	--	11.0					
Approach LOS	--	--	B					

## TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	AAC			Intersection	Mountainview Av Kury Access		
Agency/Co.	TMA			Jurisdiction	Town of Clarkstown		
Date Performed	6/17/2009			Analysis Year	Build Condition		
Analysis Time Period	PM Peak Hour						
Project Description <i>Kury Homes</i>							
East/West Street: <i>Kury Homes Site Access</i>				North/South Street: <i>Mountainview Avenue</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		227	4	3	164		
Peak-Hour Factor, PHF	1.00	0.85	0.85	0.85	0.85	1.00	
Hourly Flow Rate, HFR (veh/h)	0	267	4	3	192	0	
Percent Heavy Vehicles	0	--	--	1	--	--	
Median Type	<i>Undivided</i>						
RT Channelized			0				0
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				2		2	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	0.75	
Hourly Flow Rate, HFR (veh/h)	0	0	0	2	0	2	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			-3		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		3		4			
C (m) (veh/h)		1298		684			
v/c		0.00		0.01			
95% queue length		0.01		0.02			
Control Delay (s/veh)		7.8		10.3			
LOS		A		B			
Approach Delay (s/veh)	--	--	10.3				
Approach LOS	--	--	B				