

## **J. Traffic and Transportation**

### **1. Introduction**

A Traffic Impact Study has been prepared to evaluate the potential traffic impacts of the redevelopment of the former Harlem Valley Psychiatric Center (HVPC) property and an adjacent parcel (former Dykeman property) in the Town of Dover, New York on the surrounding roadway network. The following sections provide a summary description of the proposed Project and the tasks undertaken for the traffic impact analysis. The entire Traffic Impact Study can be found in the Appendix.

The proposed project consists of a mix of residential, office and retail development, including 1,376 residential units and 245,500 s.f. of commercial space consisting of 75,000 s.f. of office space and 170,500 s.f. of retail space (including a grocery store).

#### **a. Initial Phase of Development**

The initial phase of development is estimated to consist of approximately 506 residential units (to be developed on the west property) and 200,000 s.f. of commercial space (79,500 sf on the west property and 120,500 sf on the east property).

#### **b. Full Build-Out**

The full development will consist of a total 506 residential units and 79,500 s.f. of commercial space on the west property, and will consist of a total of 870 residential units and 166,000 s.f. of commercial space on the east property. For analysis purposes, a 2020 Design Year was utilized with the full development evaluated.

### **2. Existing Conditions**

#### **a. Traffic Data Collection**

##### **(1) Physical Conditions**

The site is primarily served by the NYS Route 22/55 Corridor with local access via Wheeler Road, Pleasant Ridge Road (C.R. 21), Hoags Corners Road (C.R.20)/West Dover Road (C.R. 20) and Hutchinson Avenue. The study area intersections are shown on Exhibits III.J-1A and III.J-1B.

##### **(a) NYS Route 22 and Cricket Hill Road (C.R. 26)**

Cricket Hill Road intersects with NYS Route 22 at an unsignalized intersection. The NYS Route 22 southbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 22 northbound approach consists of one lane in the form of a shared through/right turn lane. The Cricket Hill Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

##### **(b) NYS Route 22 and Rural Avenue (North Leg)**

Rural Avenue (North Leg) intersects with NYS Route 22 at an unsignalized intersection. The NYS Route 22 southbound approach consists of one lane

in the form of a shared left/through lane and the NYS Route 22 northbound approach consists of one lane in the form of a shared through/right turn lane. The Rural Avenue (North Leg) westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(c) NYS Route 22 and Rural Avenue (South Leg)

Rural Avenue (South Leg) intersects with NYS Route 22 at an unsignalized intersection. The NYS Route 22 southbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 22 northbound approach consists of one lane in the form of a shared through/right turn lane. The Rural Avenue (South Leg) westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(d) NYS Route 22 and Pleasant Ridge Road (C.R. 21)

Pleasant Ridge Road (C.R. 21) intersects with NYS Route 22 at a signalized intersection. All approaches to the intersection consist of one lane.

(e) NYS 22/55 Intersection

NYS Route 55 northbound splits with NYS Route 22 north of Wheeler Road and NYS Route 55 southbound joins NYS Route 22 south of Pleasant Ridge Road. NYS Route 55 southbound traffic enters the NYS Route 22 Corridor at an unsignalized intersection.

(f) NYS Route 22/55 and Wheeler Road

Wheeler Road intersects with NYS Route 22/55 a signalized intersection. All approaches to the intersection consist of one lane.

(g) NYS Route 22/55 and Furlong Road

Furlong Road intersects with NYS Route 22/55 at an unsignalized intersection. The NYS Route 22/55 southbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 22/55 northbound approach consists of one lane in the form of a shared through/right turn lane. The Furlong Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(h) NYS Route 22/55 and Kitchen Corners Road (North Leg)

Kitchens Corners Road (North Leg) intersects with NYS Route 22/55 at an unsignalized intersection. The NYS Route 22/55 northbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 22/55 southbound approach consists of one lane in the form of a shared through/right turn lane. The Kitchens Corners Road eastbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

- (i) NYS Route 22/55 and Hurds Corner Road/Old Pawling Road/Kitchen Corners Road

Hurds Corner Road, Old Pawling Road, Kitchen Corners Road (South Leg) intersects with NYS Route 22/55 at an unsignalized intersection. All approaches to the intersection consists of one lane with the Hurds Corner Road, Old Pawling Road, Kitchen Corners Road approaches “stop” sign controlled.

- (j) NYS Route 22/55 and N. Quaker Hill Road (C.R. 68)

N. Quaker Hill Road intersects with NYS Route 22/55 at an unsignalized intersection. The NYS Route 22/55 southbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 22/55 northbound approach consists of one lane in the form of a shared through/right turn lane. The N. Quaker Hill Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

- (k) Pleasant Ridge Road (C.R. 21) and Hoags Corners Road (C.R. 20)

Hoags Corners Road intersects with Pleasant Ridge Road at an unsignalized intersection. The Pleasant Ridge Road westbound approach consists of one lane in the form of a shared left/through lane and the Pleasant Ridge Road eastbound approach consists of one lane in the form of a shared through/right turn lane. The Hoags Corners Road northbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

- (l) Hoags Corners Road (C.R. 20) and Wheeler Road

Wheeler Road intersects with Hoags Corners Road at an unsignalized intersection. The Hoags Corners Road southbound approach consists of one lane in the form of a shared left/through lane and the Hoags Corners Road northbound approach consists of one lane in the form of a shared through/right turn lane. The Wheeler Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

- (m) West Dover Road (C.R. 20) and Old Pawling Road

Old Pawling Road intersects with West Dover Road at an unsignalized intersection. The West Dover Road southbound approach consists of one lane in the form of a shared left/through lane and the West Dover Road northbound approach consists of one lane in the form of a shared through/right turn lane. The Old Pawling Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(n) NYS Route 55 and Pleasant Ridge Road (C.R. 21)

Pleasant Ridge Road intersects with NYS Route 55 at an unsignalized intersection. The NYS Route 55 northbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 55 southbound approach consists of one lane in the form of a shared through/right turn lane. The Pleasant Ridge Road eastbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(o) NYS Route 55 and Hutchinson Avenue

Hutchinson Avenue intersects with NYS Route 55 at an unsignalized intersection. The NYS Route 55 southbound approach consists of one lane in the form of a shared left/through lane and the NYS Route 55 northbound approach consists of one lane in the form of a shared through/right turn lane. The Hutchinson Avenue westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(p) Hutchinson Avenue and Wheeler Road

Wheeler Road intersects Hutchinson Avenue at an unsignalized intersection. Hutchinson Avenue northbound approach consists of one lane in the form of a shared left/through lane and the Hutchinson Avenue southbound approach consists of one lane in the form of a shared through/right turn lane. The Wheeler Avenue eastbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(q) Hutchinson Avenue and Johnson Hill Road

Johnson Hill Road intersects Hutchinson Avenue at an unsignalized intersection. The Hutchinson Avenue southbound approach consists of one lane in the form of a shared left/through lane and the Hutchinson Avenue northbound approach consists of one lane in the form of a shared through/right turn lane. The Johnson Hill Road westbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

(r) Wheeler Road and Harlem Valley Golf Club

The Harlem Valley Golf Club intersects Wheeler Road at an unsignalized intersection. The Wheeler Road eastbound approach consists of one lane in the form of a shared left/through lane and the Wheeler Road westbound approach consists of one lane in the form of a shared through/right turn lane. The Harlem Valley Golf Club (southbound approach) consists of one lane for left and right turn movements and is “stop” sign controlled.

(2) Automatic Traffic Recorder and Manual Traffic Counts

To establish the existing traffic volumes for the study area intersections, manual turning movement traffic counts were conducted during June 2008 when school was in session between the hours of 6:30 AM and 9:30 AM to determine the

Weekday Peak AM Hour, between the hours of 3:30 PM and 6:30 PM to determine the Weekday Peak PM Hour and between the hours of 11:00 AM and 3:00 PM to determine the Saturday Peak Hour. As per the scope requirement for a seven-day study, machine counts were also conducted along NYS Route 22/55 in the vicinity of Wheeler Road from October 3, 2008 to October 10, 2008. In addition, NYSDOT count data was also referenced. Together this information was used to determine the Year 2008 Existing Traffic Volumes for the Weekday Peak AM Highway Hour, Weekday Peak PM Highway Hour and Saturday Peak Hour for the following locations as per the Scoping Document.

The following key intersections were evaluated.

1. NYS Route 22 and Cricket Hill Road (C.R. 26)
- 2a. NYS Route 22 and Rural Avenue (North Leg)
- 2b. NYS Route 22 and Rural Avenue (South Leg)
3. NYS Route 22 and Pleasant Ridge Road (C.R. 21)
4. NYS Route 22/55 Intersection
5. NYS Route 22/55 and Wheeler Road
6. NYS Route 22/55 and Furlong Road
7. NYS Route 22/55 and Kitchen Corners Road (North Leg)
8. NYS Route 22/55 and Hurds Corner Road/Old Pawling Road/Kitchen Corners Road (South Leg)
9. NYS Route 22/55 and N. Quaker Hill Road (C.R. 68)
10. Pleasant Ridge Road (C.R. 21) and Hoags Corners Road (C.R. 20)
11. Hoags Corners Road (C.R. 20) and Wheeler Road
12. West Dover Road (C.R. 20) and Old Pawling Road
13. NYS Route 55 and Pleasant Ridge Road (C.R. 21)
14. NYS Route 55 and Hutchinson Avenue
15. Hutchinson Avenue and Wheeler Road
16. Hutchinson Avenue and Johnson Hill Road
17. Wheeler Road and Harlem Valley Golf Club

Based on the above traffic count data, the existing peak hours are generally identified as follows:

- Weekday Peak AM Highway Hour - 6:30 AM to 7:30 AM
- Weekday Peak PM Highway Hour - 4:30 PM to 5:30 PM
- Saturday Peak Hour - 12:30 PM to 1:30 PM

(3) Existing 2008 Traffic Volumes

The resulting Year 2008 Existing Traffic Volumes for each of the study area locations are shown on Exhibits III.J-2A, III.J-2B, III.J-3A, III.J-3B, III.J-4A and III.J-4B for each of the peak hours, respectively

b. Capacity Analysis

In order to determine existing and future traffic operating conditions at the study area intersections, it was necessary to perform capacity analyses. A description of the analysis methodology utilized in this report can be found in the Traffic Impact Study included in the Appendix.

A narrative comparison of levels of service for the Existing, No Build, Build and Build with Other Development Traffic development scenarios can be found in the Traffic Impact Study in the Appendix of this DEIS and in Table III.J-3, below, which summarizes the results of the analysis for the Year 2008 Existing, Year 2020 No-Build and Year 2020 Build Traffic Volumes. Copies of the intersection capacity analysis are contained in Appendix “D” of the Traffic Impact Study included in the Appendix.

3. Future without the Proposed Project

a. Background Traffic Growth

For the purposes of analysis, a Design Year of 2020 has been utilized to evaluate future traffic conditions. Based on recent data, the background growth in the area is little to none. However, a total background growth of 6 percent (0.5 percent per year) was utilized to develop the Year 2020 No-Build Traffic Volumes which are shown on Exhibits III.J-5A, III.J-5B, III.J-6A, III.J-6B, III.J-7A, and III.J-7B for each of the peak hours, respectively.

To account for other potential development traffic in the area, an alternate Build Condition (as discussed in Section 4.d) was evaluated.

b. Capacity Analysis

Table III.J-3 summarizes the results of the capacity analysis for the Year 2008 Existing, Year 2020 No-Build and Year 2020 Build Traffic Volumes. Copies of the intersection capacity analysis are contained in Appendix “D” of the Traffic Impact Study included in the Appendix.

4. Potential Impacts of the Proposed Project

a. Trip Generation

To estimate the amount of traffic to be generated by the proposed project during each of the peak hours, the Hourly Trip Generation Rates and Anticipated Site Generated Traffic Volumes were developed based on information published by the Institute of Transportation Engineers (ITE) as outlined in their report titled, “Trip Generation”, 8th Edition, 2008.

Table III.J-1 summarizes the Initial Phase Trip Generation and III.J-2 summarizes the Full Development Trip Generation (which was evaluated) for each of the peak hours.

**Table III.J-1  
Initial Phase  
Hourly Trip Generation Rates and Site Generated Traffic Volumes**

	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
<b>RESIDENTIAL (111 Single Family Lots) (1)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.19	21	0.56	62	0.75	83
WEEKDAY PEAK PM HIGHWAY HOUR	0.64	71	0.37	41	1.01	112
SATURDAY PEAK HOUR	0.49	54	0.44	49	0.93	103
<b>68 AGE RESTRICTED (3)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.10	7	0.28	19	0.38	26
WEEKDAY PEAK PM HIGHWAY HOUR	0.32	22	0.18	12	0.50	34
SATURDAY PEAK HOUR	0.25	17	0.22	15	0.47	32
<b>191 TOWNHOUSE/APARTMENT UNITS (2)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.07	13	0.37	71	0.44	84
WEEKDAY PEAK PM HIGHWAY HOUR	0.35	67	0.17	32	0.52	99
SATURDAY PEAK HOUR	0.25	48	0.22	42	0.47	90
<b>136 AGE RESTRICTED (3)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.04	5	0.18	25	0.22	30
WEEKDAY PEAK PM HIGHWAY HOUR	0.18	24	0.08	11	0.26	35
SATURDAY PEAK HOUR	0.13	18	0.11	15	0.24	33
<b>TOTAL - RESIDENTIAL</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	<b>46</b>	-----	<b>177</b>	-----	<b>223</b>
WEEKDAY PEAK PM HIGHWAY HOUR	-----	<b>184</b>	-----	<b>96</b>	-----	<b>280</b>
SATURDAY PEAK HOUR	-----	<b>137</b>	-----	<b>121</b>	-----	<b>258</b>
<b>W/ 10% MASS TRANSIT CREDIT</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	<b>42</b>	-----	<b>159</b>	-----	<b>201</b>
WEEKDAY PEAK PM HIGHWAY HOUR	-----	<b>166</b>	-----	<b>86</b>	-----	<b>252</b>
SATURDAY PEAK HOUR	-----	<b>123</b>	-----	<b>109</b>	-----	<b>232</b>
<b>COMMERCIAL</b>						
<b>75,000 S.F. OF OFFICE SPACE (4)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	102	0.19	14	1.55	116
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	19	1.24	93	1.49	112
SATURDAY PEAK HOUR	0.22	17	0.19	14	0.41	31
<b>125,000 S.F. OF RETAIL SPACE (5)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.61	76	0.39	49	1.00	125
WEEKDAY PEAK PM HIGHWAY HOUR	1.83	229	1.90	237	3.73	466
SATURDAY PEAK HOUR	2.54	317	2.35	294	4.89	611
<b>TOTAL - COMMERCIAL</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	<b>178</b>	-----	<b>63</b>	-----	<b>241</b>
WEEKDAY PEAK PM HIGHWAY HOUR	-----	<b>248</b>	-----	<b>330</b>	-----	<b>578</b>
SATURDAY PEAK HOUR	-----	<b>334</b>	-----	<b>308</b>	-----	<b>642</b>
<b>TOTAL - W/ 25% RETAIL PASS-BY CREDIT</b>						

	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
WEEKDAY PEAK AM HIGHWAY HOUR	-----	159	-----	44	-----	203
WEEKDAY PEAK PM HIGHWAY HOUR	-----	191	-----	273	-----	464
SATURDAY PEAK HOUR	-----	255	-----	229	-----	484
<b>TOTAL "NEW" TRIPS</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	201	-----	203	-----	404
WEEKDAY PEAK PM HIGHWAY HOUR	-----	357	-----	359	-----	716
SATURDAY PEAK HOUR	-----	378	-----	338	-----	716

1. BASED ON ITE LAND USE 210 - AVERAGE SINGLE FAMILY RATES

2. BASED ON ITE LAND USE 230 - AVERAGE TOWNHOUSE / CONDOMINIUM RATES

3. IN ORDER TO ACCOUNT FOR THE AGE RESTRICTED TYPE OF UNITS PROPOSED, A 50% REDUCTION OF THE "TYPICAL" RESIDENTIAL RATES WERE UTILIZED

(4) - BASED ON ITE LAND USE 710 - AVERAGE OFFICE RATES

(5) - BASED ON ITE LAND USE 820 - AVERAGE SHOPPING CENTER RATES

**Table III.J-2  
Full Build-Out  
Hourly Trip Generation Rates and Site Generated Traffic Volumes**

	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
<b>RESIDENTIAL (272 Single Family Lots) (1)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.19	52	0.56	152	0.75	204
WEEKDAY PEAK PM HIGHWAY HOUR	0.64	174	0.37	101	1.01	275
SATURDAY PEAK HOUR	0.49	133	0.44	120	0.93	253
<b>182 AGE RESTRICTED (3)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.10	18	0.28	51	0.38	69
WEEKDAY PEAK PM HIGHWAY HOUR	0.32	58	0.18	33	0.50	91
SATURDAY PEAK HOUR	0.25	46	0.22	40	0.47	86
<b>666 TOWNHOUSE/APARTMENT UNITS (2)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.07	47	0.37	246	0.44	293
WEEKDAY PEAK PM HIGHWAY HOUR	0.35	233	0.17	113	0.52	346
SATURDAY PEAK HOUR	0.25	167	0.22	146	0.47	313
<b>256 AGE RESTRICTED (3)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.04	10	0.18	46	0.22	56
WEEKDAY PEAK PM HIGHWAY HOUR	0.18	46	0.08	21	0.26	67
SATURDAY PEAK HOUR	0.13	33	0.11	28	0.24	61
<b>TOTAL - RESIDENTIAL</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	127	-----	495	-----	622
WEEKDAY PEAK PM HIGHWAY HOUR	-----	511	-----	268	-----	779
SATURDAY PEAK HOUR	-----	379	-----	334	-----	713
<b>W/ 10% MASS TRANSIT CREDIT</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	-----	114	-----	446	-----	560
WEEKDAY PEAK PM HIGHWAY HOUR	-----	460	-----	241	-----	701
SATURDAY PEAK HOUR	-----	341	-----	301	-----	642

	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
<b>COMMERCIAL</b>						
<b>75,000 S.F. OF OFFICE SPACE (4)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	102	0.19	14	1.55	116
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	19	1.24	93	1.49	112
SATURDAY PEAK HOUR	0.22	17	0.19	14	0.41	31
<b>170,500 S.F. OF RETAIL SPACE (5)</b>						
WEEKDAY PEAK AM HIGHWAY HOUR	0.61	104	0.39	67	1.00	171
WEEKDAY PEAK PM HIGHWAY HOUR	1.83	312	1.90	324	3.73	636
SATURDAY PEAK HOUR	2.54	433	2.35	401	4.89	834
<b>TOTAL - COMMERCIAL</b>						
<b>WEEKDAY PEAK AM HIGHWAY HOUR</b>	-----	206	-----	81	-----	287
<b>WEEKDAY PEAK PM HIGHWAY HOUR</b>	-----	331	-----	417	-----	748
<b>SATURDAY PEAK HOUR</b>	-----	450	-----	415	-----	865
<b>TOTAL - W/ 25% RETAIL PASS-BY CREDIT</b>						
<b>WEEKDAY PEAK AM HIGHWAY HOUR</b>	-----	<b>180</b>	-----	<b>55</b>	-----	<b>235</b>
<b>WEEKDAY PEAK PM HIGHWAY HOUR</b>	-----	<b>253</b>	-----	<b>339</b>	-----	<b>592</b>
<b>SATURDAY PEAK HOUR</b>	-----	<b>342</b>	-----	<b>307</b>	-----	<b>649</b>
<b>TOTAL "NEW" TRIPS</b>						
<b>WEEKDAY PEAK AM HIGHWAY HOUR</b>	-----	<b>294</b>	-----	<b>576</b>	-----	<b>795</b>
<b>WEEKDAY PEAK PM HIGHWAY HOUR</b>	-----	<b>713</b>	-----	<b>580</b>	-----	<b>1293</b>
<b>SATURDAY PEAK HOUR</b>	-----	<b>683</b>	-----	<b>608</b>	-----	<b>1291</b>

1. BASED ON ITE LAND USE 210 - AVERAGE SINGLE FAMILY RATES

2. BASED ON ITE LAND USE 230 - AVERAGE TOWNHOUSE / CONDOMINIUM RATES

3. IN ORDER TO ACCOUNT FOR THE AGE RESTRICTED TYPE OF UNITS PROPOSED, A 50% REDUCTION OF THE "TYPICAL" RESIDENTIAL RATES WERE UTILIZED

(4) - BASED ON ITE LAND USE 710 - AVERAGE OFFICE RATES

(5) - BASED ON ITE LAND USE 820 - AVERAGE SHOPPING CENTER RATES

**b. Arrival and Departure Distribution**

As previously discussed, the proposed project consists of a mix of residential, office and retail development. In order to assign the site generated traffic volumes to the roadway network for the residential, office and retail development areas, it was necessary to establish arrival/departure distributions. Based on a review of the existing traffic volumes and expected travel patterns, the following assignments were utilized.

(1) Residential

The residential trips were assigned with some 25 percent to/from the north (15 percent to/from NYS Route 22 and 10 percent to/from NYS Route 55), 65 percent to/from the south (NYS Route 22/55) and 10 percent to/from the west (5 percent to/from Pleasant Ridge Road, 5 percent to/from West Dover Road).

(2) Office

The office trips were assigned with some 25 percent to/from the north (15

percent to/from NYS Route 22 and 10 percent to/from NYS Route 55), 65 percent to/from the south (NYS Route 22/55) and 10 percent to/from the west (5 percent to/from Pleasant Ridge Road, 5 percent to/from West Dover Road).

(3) Retail

The retail trips were assigned with some 45 percent to/from the north (25 percent to/from NYS Route 22 and 20 percent to/from NYS Route 55), 40 percent to/from the south (NYS Route 22/55), 10 percent from the west (5 percent to/from Pleasant Ridge Road, 5 percent to/from West Dover Road) and 5 percent to/from the east (Johnson Hill Road).

The above distributions were assigned to each driveway for each development area.

c. Site Generated Traffic Volumes

The site generated traffic volumes for the proposed development were assigned to the roadway network based on the above referenced distribution patterns. The resulting residential site generated traffic volumes are shown on Exhibits III.J-8A, III.J-8B, III.J-9A, III.J-9B and III.J-10A, III.J-10B and the commercial (office/retail) site generated traffic volumes are shown on Exhibits III.J-11A, III.J-11B, III.J-12A, III.J-12B and III.J-13A and III.J-13B for each of the peak hours.

d. Year 2020 Build Traffic Volumes

The site generated traffic volumes were then added to the Year 2020 No-Build Traffic Volumes to obtain the Year 2020 Build Traffic Volumes (with the proposed development). The resulting Year 2020 Build Traffic Volumes are shown on Exhibits III.J-14A, III.J-14B, III.J-15A, III.J-15B, III.J-16A and III.J-16B for each of the peak hours, respectively.

As discussed in Section 3.a, above, an Alternate Build Condition was also analyzed with other potential development traffic in the area. Based on conversations with the Town, the following developments were included:

- Country Squire, Dover Plains
- Lands of Furnia, Dover Plains
- Ketcham's Corners, Dover Plains
- Stony Brook Estates, Dover Plains
- Wind Rose, Wingdale and Pawling
- Brady Brook Falls, Pawling
- Madison Woods, Pawling
- Deerfield Estates, Pawling
- Castagna Commerce Park, Pawling
- Silo Ridge and Depot Hill Farm, Amenia
- The Carvel Property, Pine Plains.

The resulting other development traffic volumes are shown on Exhibits III.J-17A,

III.J-17B, III.J-18A, III.J-18B, III.J-19A and III.J-19B for each of the peak hours, respectively.

The resulting Year 2020 Build Traffic Volumes with other development traffic are shown on Exhibits III.J-20A, III.J-20B, III.J-21A, III.J-21B, III.J-22A and III.J-22B for each of the peak hours, respectively.

e. Capacity Analysis

Table III.J-3 summarizes the results of the analysis for the Year 2008 Existing, Year 2020 No-Build and Year 2020 Build Traffic Volumes. Copies of the intersection capacity analysis are contained in Appendix “D” of the Traffic Impact Study included in the Appendix.

**Table III.J-3  
Level of Service Summary Table**

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
NYS ROUTE 22 & CRICKET HILL ROAD (C.R. 26) UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 8.0)	A ( 8.3)	A ( 7.9)	A ( 8.1)	A ( 8.3)	A ( 8.0)	A ( 8.3)	A ( 8.7)	A ( 8.4)	A ( 8.9)	A ( 9.8)	A ( 9.0)
	B (11.1)	B (11.5)	B (10.5)	B (11.3)	B (11.7)	B (10.6)	B (12.9)	C (16.3)	B (13.9)	C (16.5)	D (26.7)	C (19.9)
NYS ROUTE 22 & RURAL AVENUE (NORTH LEG) UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 8.0)	A ( 8.3)	A ( 8.0)	A ( 8.1)	A ( 8.4)	A ( 8.0)	A ( 8.3)	A ( 8.8)	A ( 8.4)	A ( 8.8)	A ( 9.8)	A ( 9.1)
	B (10.7)	B (11.7)	B (10.6)	B (10.9)	B (12.0)	B (10.8)	B (11.9)	B (13.5)	B (12.1)	B (13.9)	C (18.2)	B (14.9)
NYS ROUTE 22 & RURAL AVENUE (SOUTH LEG) UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT MONITOR FOR SIGNALIZATION	A ( 8.0)	A ( 8.4)	A ( 8.0)	A ( 8.1)	A ( 8.4)	A ( 8.1)	A ( 8.4)	A ( 8.9)	A ( 8.4)	A ( 8.9)	A ( 9.9)	A ( 9.1)
	B (14.6)	C (16.4)	B (14.7)	C (15.4)	C (17.3)	C (15.3)	C (18.4)	C (24.4)	C (21.4)	D (31.1)	F (51.3)	E (37.1)
	-----	-----	-----	-----	-----	-----	-----	-----	-----	B [12.2]	B [15.0]	B [11.7]
NYS ROUTE 22 & PLEASANT RIDGE ROAD (C.R. 21) SIGNALIZED							W/ SIGNAL TIMING CHANGES			W/ SIGNAL TIMING CHANGES		
EASTBOUND LEFT / THROUGH / RIGHT	B [15.5]	B [14.8]	B [11.5]	B [15.6]	B [14.9]	B [11.6]	C [28.7]	C [26.8]	C [27.4]	C [32.2]	C [27.4]	C [28.2]
EASTBOUND APPROACH	B [15.5]	B [14.8]	B [11.5]	B [15.6]	B [14.9]	B [11.6]	C [28.7]	C [26.8]	C [27.4]	C [32.2]	C [27.4]	C [28.2]
WESTBOUND LEFT / THROUGH / RIGHT	B [14.8]	B [14.5]	B [11.1]	B [14.9]	B [14.6]	B [11.2]	C [26.5]	C [25.9]	C [26.1]	C [26.6]	C [26.2]	C [26.3]
WESTBOUND APPROACH	B [14.8]	B [14.5]	B [11.1]	B [14.9]	B [14.6]	B [11.2]	C [26.5]	C [25.9]	C [26.1]	C [26.6]	C [26.2]	C [26.3]
NORTHBOUND LEFT / THROUGH / RIGHT	A [ 8.9]	B [10.1]	B [12.5]	A [ 9.0]	B [10.3]	B [12.6]	A [ 8.6]	B [10.4]	A [ 9.2]	A [ 9.7]	B [15.8]	B [11.3]
NORTHBOUND APPROACH	A [ 8.9]	B [10.1]	B [12.5]	A [ 9.0]	B [10.3]	B [12.6]	A [ 8.6]	B [10.4]	A [ 9.2]	A [ 9.7]	B [15.8]	B [11.3]
SOUTHBOUND LEFT / THROUGH / RIGHT	B [10.3]	B [10.5]	B [13.3]	B [10.6]	B [10.9]	B [13.5]	A [ 9.9]	B [11.2]	B [10.0]	B [14.3]	B [16.5]	B [13.4]

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
SOUTHBOUND APPROACH	B [10.3]	B [10.5]	B [13.3]	B [10.6]	B [10.9]	B [13.5]	A [9.9]	B [11.2]	B [10.0]	B [14.3]	B [16.5]	B [13.4]
OVERALL INTERSECTION	B [11.5]	B [11.3]	B [12.4]	B [11.7]	B [11.6]	B [12.6]	B [14.9]	B [14.1]	B [14.2]	B [16.7]	B [18.0]	B [15.7]
NYS ROUTE 22/55 SPLIT UNSIGNALIZED												
WESTBOUND LEFT MONITOR FOR SIGNALIZATION	C (24.7) -----	C (17.2) -----	B (14.3) -----	D (29.6) -----	C (18.5) -----	B (15.0) -----	F (58.8) B [17.1]	E (35.0) B [14.0]	D (26.2) B [13.8]	F (340.3) B [18.4]	F (149.9) B [17.9]	F (79.9) B [15.1]
NYS ROUTE 22/55 & WHEELER ROAD SIGNALIZED												
EASTBOUND LEFT / THROUGH / RIGHT	B [14.0]	B [14.1]	B [14.0]	B [14.0]	B [14.1]	B [14.1]	B [17.7]	C [32.2]	D [42.6]	B [17.7]	C [32.2]	D [42.6]
EASTBOUND APPROACH	B [14.0]	B [14.1]	B [14.0]	B [14.0]	B [14.1]	B [14.1]	B [17.7]	C [32.2]	D [42.6]	B [17.7]	C [32.2]	D [42.6]
WESTBOUND LEFT / THROUGH / RIGHT	B [13.6]	B [13.5]	B [13.5]	B [13.6]	B [13.5]	B [13.5]	B [14.4]	C [28.0]	C [20.1]	B [14.4]	C [28.0]	C [20.1]
WESTBOUND APPROACH	B [13.6]	B [13.5]	B [13.5]	B [13.6]	B [13.5]	B [13.5]	B [14.4]	C [28.0]	C [20.1]	B [14.4]	C [28.0]	C [20.1]
NORTHBOUND LEFT / THROUGH / RIGHT	A [9.4]	B [16.2]	B [11.3]	A [9.5]	B [18.4]	B [11.9]	B [13.8]	F [259.8]	F [162.6]	C [29.5]	F [472.2]	F [330.5]
NORTHBOUND APPROACH	A [9.4]	B [16.2]	B [11.3]	A [9.5]	B [18.4]	B [11.9]	B [13.8]	F [259.8]	F [162.6]	C [29.5]	F [472.2]	F [330.5]
SOUTHBOUND LEFT / THROUGH / RIGHT	B [17.3]	B [10.3]	B [10.0]	B [20.0]	B [10.6]	B [10.2]	D [39.4]	B [18.8]	B [19.3]	F [151.4]	D [54.8]	E [57.2]
SOUTHBOUND APPROACH	B [17.3]	B [10.3]	B [10.0]	B [20.0]	B [10.6]	B [10.2]	D [39.4]	B [18.8]	B [19.3]	F [151.4]	D [54.8]	E [57.2]
OVERALL INTERSECTION	B [14.9]	B [14.0]	B [11.0]	B [16.7]	B [15.4]	B [11.4]	C [27.2]	F [129.4]	F [80.3]	F [91.3]	F [247.8]	F [164.9]
W/ IMPROVEMENTS												
EASTBOUND LEFT	-----	-----	-----	-----	-----	-----	C [21.6]	C [23.5]	C [23.8]	C [21.6]	C [23.5]	C [23.8]
EASTBOUND THROUGH / RIGHT	-----	-----	-----	-----	-----	-----	C [23.1]	C [23.3]	C [24.0]	C [23.1]	C [23.3]	C [24.0]
EASTBOUND APPROACH	-----	-----	-----	-----	-----	-----	C [22.6]	C [23.4]	C [23.9]	C [22.6]	C [23.4]	C [23.9]
WESTBOUND LEFT	-----	-----	-----	-----	-----	-----	C [20.9]	C [24.3]	C [23.3]	C [20.9]	C [24.3]	C [23.3]
WESTBOUND THROUGH / RIGHT	-----	-----	-----	-----	-----	-----	C [20.6]	C [22.1]	C [21.9]	C [20.6]	C [22.1]	C [21.9]
WESTBOUND APPROACH	-----	-----	-----	-----	-----	-----	C [20.7]	C [23.3]	C [22.6]	C [20.7]	C [23.3]	C [22.6]
NORTHBOUND LEFT	-----	-----	-----	-----	-----	-----	B [10.9]	B [12.8]	B [12.4]	C [32.4]	B [17.7]	B [15.9]
NORTHBOUND THROUGH	-----	-----	-----	-----	-----	-----	B [10.8]	B [15.1]	B [11.8]	B [12.2]	C [30.0]	B [14.5]
NORTHBOUND RIGHT	-----	-----	-----	-----	-----	-----	A [9.6]	A [9.7]	A [9.8]	A [9.6]	A [9.7]	A [9.8]
NORTHBOUND APPROACH	-----	-----	-----	-----	-----	-----	B [10.6]	B [14.0]	B [11.7]	B [14.2]	C [26.1]	B [14.2]
SOUTHBOUND LEFT	-----	-----	-----	-----	-----	-----	A [9.5]	B [10.7]	B [10.2]	A [9.7]	D [44.1]	B [11.2]

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
SOUTHBOUND THROUGH	-----	-----	-----	-----	-----	-----	B [15.7]	B [11.5]	B [11.1]	C [32.6]	B [13.2]	B [12.6]
SOUTHBOUND RIGHT	-----	-----	-----	-----	-----	-----	A [ 9.6]	A [10.0]	B [10.1]	A [ 9.6]	A [10.0]	B [10.1]
SOUTHBOUND APPROACH	-----	-----	-----	-----	-----	-----	B [14.5]	B [11.0]	B [10.7]	C [29.3]	B [15.2]	B [11.9]
OVERALL INTERSECTION	-----	-----	-----	-----	-----	-----	B [15.0]	B [15.8]	B [15.0]	C [23.5]	C [22.3]	B [15.9]
NYS ROUTE 22/55 & FURLONG ROAD UNIGNALIZED <u>MAJOR APPROACH</u>												
SOUTHBOUND LEFT / THROUGH	A ( 7.7)	A ( 9.2)	A ( 8.5)	A ( 7.7)	A ( 9.3)	A ( 8.6)	A ( 8.2)	B (11.6)	B (10.1)	A ( 8.7)	B (13.6)	B (11.1)
<u>MINOR APPROACH</u>												
WESTBOUND LEFT / RIGHT	C (16.2)	C (17.4)	B (14.9)	C (17.3)	C (18.7)	C (15.6)	F (127.3)	F (217.7)	F (116.6)	F (476.0)	F (707.3)	F (375.5)
MONITOR FOR SIGNALIZATION	-----	-----	-----	-----	-----	-----	B [14.2]	C [25.4]	B [10.8]	C [29.1]	C [29.6]	B [14.8]
NYS ROUTE 22/55 & KITCHEN CORNERS ROAD (NORTH LEG) UNIGNALIZED <u>MAJOR APPROACH</u>												
NORTHBOUND LEFT / THROUGH	A ( 9.0)	A ( 8.0)	A ( 8.2)	A ( 9.2)	A ( 8.1)	A ( 8.3)	B (10.8)	A ( 9.2)	A ( 9.4)	B (12.2)	A ( 9.8)	B (10.1)
<u>MINOR APPROACH</u>												
EASTBOUND LEFT / RIGHT	*	*	*	*	*	*	*	*	*	*	*	*
NYS ROUTE 22/55 & HURDS CORNER ROAD / OLD PAWLING ROAD / KITCHEN CORNERS ROAD (SOUTH LEG) UNIGNALIZED <u>MAJOR APPROACH</u>												
NORTHBOUND LEFT / THROUGH / RIGHT	A ( 9.1)	A ( 8.1)	A ( 8.3)	A ( 9.2)	A ( 8.2)	A ( 8.4)	B (10.9)	A ( 9.4)	A ( 9.7)	B (12.4)	B (10.1)	B (10.4)
SOUTHBOUND LEFT / THROUGH / RIGHT	A ( 7.7)	A ( 9.0)	A ( 8.5)	A ( 7.7)	A ( 9.1)	A ( 8.6)	A ( 8.2)	B (11.2)	A (10.0)	A ( 8.6)	B (12.9)	B (10.9)
<u>MINOR APPROACH</u>												
WESTBOUND LEFT / THROUGH / RIGHT	C (17.2)	C (23.4)	C (20.7)	C (18.3)	D (25.6)	C (22.3)	E (48.8)	F (126.6)	F (84.5)	F (130.7)	F (448.6)	F (212.7)
EASTBOUND LEFT / THROUGH / RIGHT	C (16.9)	C (17.5)	B (14.4)	C (17.9)	C (18.3)	C (15.1)	E (36.1)	F (64.4)	E (35.9)	F (74.6)	F (267.6)	F (72.7)

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
MONITOR FOR SIGNALIZATION	-----	-----	-----	-----	-----	-----	C [20.5]	C [31.7]	B [14.0]	C [22.7]	D [43.6]	B [17.1]
NYS ROUTE 22/55 & NORTH QUAKER HILL ROAD (C.R. 68) UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH	A ( 7.8)	A ( 9.3)	A ( 8.7)	A ( 7.8)	A ( 9.5)	A ( 8.8)	A ( 8.3)	B (11.9)	B (10.4)	A ( 8.8)	B (14.0)	B (11.5)
<u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	C (18.6)	C (20.2)	C (19.4)	C (20.2)	C (21.9)	C (21.0)	F (53.6)	F (79.7)	F (74.3)	F (165.5)	F (253.7)	F (201.6)
MONITOR FOR SIGNALIZATION	-----	-----	-----	-----	-----	-----	C [25.7]	B [18.4]	B [13.5]	C [29.3]	D [37.2]	C [24.2]
PLEASANT RIDGE ROAD (C.R. 21) & HOAGS CORNERS ROAD (C.R. 20) UNSIGNALIZED <u>MAJOR APPROACH</u> WESTBOUND LEFT / THROUGH	A ( 7.6)	A ( 7.6)	A ( 7.5)	A ( 7.6)	A ( 7.7)	A ( 7.6)	A ( 7.6)	A ( 7.8)	A ( 7.7)	A ( 7.7)	A ( 7.9)	A ( 7.7)
<u>MINOR APPROACH</u> NORTHBOUND LEFT / RIGHT	A ( 9.9)	B (10.1)	A ( 9.5)	A (10.0)	B (10.2)	A ( 9.6)	B (10.4)	B (11.1)	B (10.3)	B (10.4)	B (11.9)	B (10.6)
HOAGS CORNERS ROAD (C.R. 20) & WHEELER ROAD UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.6)	A ( 7.5)	A ( 7.5)	A ( 7.6)	A ( 7.6)
<u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 9.0)	A ( 9.0)	A ( 9.1)	A ( 9.0)	A ( 9.1)	A ( 9.2)	A ( 9.4)	A ( 9.9)	A ( 9.9)	A ( 9.7)	B (10.3)	B (10.3)
WEST DOVER ROAD (C.R. 20) & OLD PAWLING ROAD UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.6)	A ( 7.5)	A ( 7.5)	A ( 7.6)	A ( 7.6)

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
<u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 8.7)	A ( 8.9)	A ( 8.9)	A ( 8.7)	A ( 8.9)	A ( 8.9)	A ( 8.9)	A ( 9.2)	A ( 9.1)	A ( 9.1)	A ( 9.5)	A ( 9.4)
NYS ROUTE 55 & PLEASANT RIDGE ROAD (C.R. 21) UNSIGNALIZED <u>MAJOR APPROACH</u> NORTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> EASTBOUND LEFT / RIGHT	A ( 8.6)	A ( 7.8)	A ( 7.9)	A ( 8.7)	A ( 7.8)	A ( 8.0)	A ( 8.8)	A ( 8.1)	A ( 8.3)	A ( 9.0)	A ( 8.2)	A ( 8.3)
	B (14.2)	B (14.5)	B (13.5)	B (15.0)	C (15.3)	B (14.1)	C (17.9)	C (21.1)	C (19.6)	C (19.7)	C (23.3)	C (20.5)
NYS ROUTE 55 & HUTCHINSON AVENUE UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 7.5)	A ( 8.0)	A ( 7.8)	A ( 7.5)	A ( 8.0)	A ( 7.9)	A ( 7.6)	A ( 8.4)	A ( 8.2)	A ( 7.7)	A ( 8.4)	A ( 8.2)
	A ( 8.9)	B (10.1)	A ( 9.7)	A ( 8.9)	B (10.2)	A ( 9.7)	A ( 9.3)	B (11.1)	B (10.5)	A ( 9.3)	B (11.3)	B (10.5)
HUTCHINSON AVENUE & WHEELER ROAD UNSIGNALIZED <u>MAJOR APPROACH</u> NORTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> EASTBOUND LEFT / RIGHT	A ( 7.3)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.7)	A ( 7.6)	A ( 7.7)	A ( 7.7)	A ( 7.6)	A ( 7.7)
	A ( 8.5)	A ( 8.6)	A ( 8.6)	A ( 8.5)	A ( 8.6)	A ( 8.6)	A ( 9.6)	B (10.5)	B (10.4)	A ( 9.6)	B (10.5)	B (10.4)
HUTCHINSON AVENUE & JOHNSON HILL ROAD UNSIGNALIZED <u>MAJOR APPROACH</u> SOUTHBOUND LEFT / THROUGH <u>MINOR APPROACH</u> WESTBOUND LEFT / RIGHT	A ( 7.3)	A ( 7.4)	A ( 7.4)	A ( 7.3)	A ( 7.5)	A ( 7.4)	A ( 7.4)	A ( 7.8)	A ( 7.7)	A ( 7.4)	A ( 7.8)	A ( 7.7)
	A ( 8.9)	A ( 8.9)	A ( 8.8)	A ( 8.9)	A ( 9.0)	A ( 8.9)	A ( 9.5)	A ( 9.9)	A ( 9.5)	A ( 9.5)	A ( 9.9)	A ( 9.5)

LOCATION	YEAR 2008 EXISTING CONDITIONS			YEAR 2020 NO-BUILD CONDITIONS			YEAR 2020 BUILD CONDITIONS			W/ OTHER DEVELOPMENT TRAFFIC YEAR 2020 BUILD CONDITIONS		
	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY	WEEKDAY		SATURDAY
	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR	AM Peak Hour	PM Peak Hour	PEAK HOUR
WHEELER ROAD & HARLEM VALLEY GOLF CLUB UNSIGNALIZED <u>MAJOR APPROACH</u> EASTBOUND LEFT / THROUGH	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.4)	A ( 7.6)	A ( 7.8)	A ( 7.7)	A ( 7.6)	A ( 7.8)	A ( 7.7)
<u>MINOR APPROACH</u> SOUTHBOUND LEFT / RIGHT	A ( 9.0)	A ( 8.8)	A ( 9.0)	A ( 9.0)	A ( 8.8)	A ( 9.0)	A ( 9.9)	B (10.4)	B (10.2)	A ( 9.9)	B (10.4)	B (10.2)

f. Driveway Evaluation

An analysis of the site driveways was also conducted. The resulting volumes are shown on Exhibits III.J-23A, III.J-24A, III.J-25A, III.J-26A, III.J-27A and III.J-28A for each of the peak hours. The resulting Levels of Service, and the driveway analyses are contained in Appendix "D" of the Traffic Impact Study included in the Appendix.

g. Accident Data

Accident data was obtained from the New York State Department of Transportation Records Access Office at the study area intersections for the latest available three year period (January 2003 through December 2007). A copy of the NYSDOT Accident Summary Tables and Accident Reports are contained in Appendix "E" of the Traffic Impact Study included in the Appendix.

Based on a review of the Accident Reports, the accidents are typical types of accidents, such as rear-end accidents and turning accidents with apparent contributing factors such as failure to yield right of way and driver inattention/driver inexperience. It is not expected that this Project will have an impact on the accident rate on the area roadways.

h. Parking

The proposed neighborhood residential units are generally self-supporting in that the units supply spaces in garages that are generally setback from the front of the homes, tucked underneath for certain townhome and duplex configurations, or accessed from rear alleys. On-street parking is also provided along roadways in the neighborhood areas in order to provide space for visitors, consistent with traditional neighborhood design principles.

The commercial uses are concentrated in the Town Center and are served by surface parking areas located to the rear of the buildings. This configuration allows for a vibrant, active and pedestrian friendly downtown and is intended to provide an environment where visitors would park once and leave their car while potentially making visits to multiple businesses. Similar to municipal lots in established downtowns, usage of the lots would be shared by all of the businesses in the Town Center. The largest surface lots would be located to the south of Wheeler Road near the proposed grocery store. On-street parking would also be provided to supply additional parking for visitors to the Town Center and to encourage slower vehicle speeds. It is expected that Our Lady of Solace, and potentially Smith Hall, would receive periodic use for community events. The large surface lots proposed on the south side of Wheeler Road would be available to accommodate visitors for these uses, as well.

The projected parking needs of the Town Center components have been calculated using typical design standards of 4 spaces per 1,000 square feet for commercial uses, 3 spaces per 1,000 feet for community or amenity spaces, and 1.5 spaces per Main Street dwelling unit. As detailed on the parking configurations and parking space

counts on the Site Plan Drawing Sheet SP-0.1, the total number of conveniently available parking in the Town Center exceeds the projected combined parking needs of 1,886 spaces. This calculation does not take a shared-parking credit, which is sometimes utilized to reduce projected parking demand for mixed-use projects with components anticipated to have differing peak parking time periods.

i. Circulation

Primary vehicular access to the western neighborhoods and the Town Center is anticipated to occur at the Route 22 and Wheeler Road intersection, which is proposed for improvement to accommodate additional turning lanes. There are two additional project entrances along Route 22 that may be used as access points for residents in those neighborhoods towards the northern or southern ends of the east side. Additional road network connections are available onto Pleasant Ridge Road and Hoags Corner Road on the west side, and to NYS Route 55 and eventually Route 22 south of the project site from Hutchinson Avenue on the east side.

Delivery vehicles would be anticipated to access the Town Center from the Route 22/Wheeler Road intersection. A loading area to service the potential grocery store is provided on the east side of the building and accessible from Wheeler Road. Consistent with the function of traditional downtowns, most of the less intense loading activity for the smaller Main Street commercial uses would be anticipated to occur on-street. As the project is still at the conceptual site plan stage, the exact commercial tenants, and the timing and frequency of their deliveries, are unknown. However, it is anticipated that, with the exception of the grocery store, the Town Center buildings would generally accommodate and attract smaller offices, retailers, and restaurants which would be expected to receive deliveries via van and panel trucks, rather than tractor trailers.

j. Public Transportation

The project site is traversed by the Metro-North Harlem line, a commuter rail service, with the Harlem Valley/Wingdale station located in the heart of the project at the intersection of NYS Route 22 and Wheeler Road. Travel time from the Harlem Valley/Wingdale station to White Plains is just over one hour and express service available during peak travel hours to Grand Central Station in Midtown Manhattan is 1¾ hours. Current weekday rail service consists of 13 southbound trains, including four during the morning peak commute period, and 14 northbound trains, with five during the afternoon peak commute period. The site also receives very limited service from the Dutchess County LOOP bus system.

The majority of the project dwellings (935) are within the 10-minute walk radius of the railroad station. This is consistent with transit-oriented design principles, which encourage denser development around mass transit. It is also possible that the project would employ a neighborhood shuttle to further facilitate access to the station from outlying housing sites. Representatives from Metro-North have expressed a desire for approximately 275 spaces to meet their projected future demands for parking at the station. The conceptual site plan currently includes approximately 295 spaces to the

south of the Power Plant to accommodate potential station needs. See Exhibit II-17, Railroad Station Area Detail. It is anticipated that these spaces and the associated maintenance responsibilities would be transferred to Metro-North.

5. Mitigation

The project proposes a reconstruction of the Route 22/Wheeler Road intersection to accommodate additional turning lanes, as well as signal timing changes at the Route 22/Pleasant Ridge Road intersection. As summarized in the table above, the project will not significantly affect the roadway system in the vicinity of the site with these proposed improvements. At a few locations, the calculations indicate that operating conditions by 2020 for some movements may include LOS E and F. These locations include:

- Route 22 and Rural Avenue (south leg)
- Route 22/55 Split
- Route 22/55 and Furlong Road
- Route 22/55 and Hurds Corner Road/Old Pawling Road
- Route 22/55 and North Quaker Hill Road

For these locations, monitoring for signalization is recommended since the modeled traffic volumes from regional growth and the specific projects identified for the No-Build may not be realized. Additionally, volumes on the side roads are relatively modest compared to the traffic on Route 22, and it may be difficult to meet warrants that would justify a traffic signal. The analyses indicate that if these future volumes are realized, with signalization, these intersections would all operate at acceptable conditions.

In addition, as indicated in the analysis there is no need to widen NYS Route 22 to a multi-lane roadway within the Project Area. However, at certain locations there may be a need for turning lanes and/or signalization. South of the Project Area, especially just north of I-84, there is currently a need for a multi-lane roadway. This is under study by the New York State Department of Transportation (NYSDOT). Since the NYSDOT is an involved agency in this Project, the traffic information relating to this Project as well as the other developments in the area can be used by the NYSDOT in their study.