

3.7 Transportation

This section describes the proposed project's location within the local and regional road network, identifies the existing traffic volumes along study area roadways, and evaluates the existing intersection operations in the project vicinity. This section also includes an estimate of the project's trip generation and describes potential impacts to area roadways and intersection operations. The proposed project's access and internal site circulation are also described and evaluated. Mitigation measures are provided where necessary to reduce the significance of potential project-related impacts to the traffic network.

3.7.1 Existing Conditions

As indicated previously, the Applicant is proposing the renovation of an existing golf course and clubhouse and the development of a vacation resort community on a 670±-acre project site located between US Route 44 and NYS Route 22 in the Town of Amenia, Dutchess County, New York. It is anticipated that construction of the project will be completed in the year 2012. A Traffic Impact Study (TIS) was conducted to determine existing and future operating conditions at relevant area intersections as identified in the Final Scoping Document (see Appendix 9.4, "Traffic Impact Study").

Description of Existing Roadway Network

The location of the site will provide convenient and efficient access to State and local roadways that will provide access to retail/commercial services and employment centers. A description of the area roadways is as follows:

NYS Route 22

NYS Route 22 is owned and maintained by the New York State Department of Transportation (NYSDOT). This roadway traverses the Town of Amenia in a north / south direction, and serves as a major regional corridor along New York's eastern border with Connecticut, Massachusetts, and Vermont. In the immediate vicinity of the project site, NYS Route 22 is a two-lane road that is 24± feet in width with 3 foot shoulders on each side. The portion of NYS Route 22 adjacent to the project site is in good condition and has a posted 55 mph speed limit. The posted speed limit decreases to 35 mph as NYS Route 22 enters the Hamlet of Amenia to the north of the project site.

US Route 44

US Route 44 is maintained by the NYSDOT. This roadway traverses the Town of Amenia in a southwest / northeast direction, and serves as a major east/west corridor through Dutchess County. US Route 44 is a two-lane road that is 24± in width with 1 to 3 foot shoulders in the vicinity of the project site. The portion of US Route 44 adjacent to the project site is in good condition and has a posted 55 mph speed limit. The posted speed limit decreases to 35 mph as US Route 44 approaches the Hamlet of Amenia to the north of the project site.

NYS Route 343

NYS Route 343 is owned and maintained by the NYSDOT. This roadway traverses easterly from US Route 44 into Connecticut. It is a two-lane highway that is 20 to 24 feet in width and has shoulders that vary in width from 2 to 8 feet. The portion of NYS Route 343 in proximity to the project site is in good condition and has a posted 35 mph speed limit.

DC Route 81

DC Route 81 (Amenia – Wassaic Road) is owned and maintained by Dutchess County. In the vicinity of the project site, the roadway has two lanes that are 20 to 24 feet in width with 2 to 4 foot shoulders. The road is in good condition and has a posted speed limit of 35 mph.

Lake Amenia Road

Lake Amenia Road is a Town owned and maintained roadway, which connects Route 22 with Route 44 in the vicinity of the site. The one-lane undivided roadway splits as it approaches Route 44 into two separate roadways with the westerly section known as West Lake Amenia Road and the easterly section known as Lake Amenia Road, both forming intersections with Route 44. The speed limit is not posted (55 mph statutory). There are no lane markings, but the pavement is in fair condition.

Dunn Road

Dunn Road is a Town owned and maintained roadway, which connects Route 22 (opposite Lake Amenia Road) with CR 81 in the vicinity of the site. At its intersection with Route 22, the Harlem Valley Rail Trail crosses with appropriate signing and pavement markings (crosswalk). There is a single lane in each direction. The speed limit is not posted (55 mph statutory). There are no lane markings, but the pavement is in fair condition.

2007 Existing Traffic Volumes

In order to establish the existing traffic volumes for the roadways and intersections identified in the scoping document, all available traffic count information was obtained from the New York State Department of Transportation, Dutchess County Department of Public Works, and the Town of Amenia. Detailed turning movement traffic counts were also taken at the following intersections (see Figure 3.7-1, “Critical Intersections Map”):

- Route 44 at Route 22,
- Lake Amenia Road/Dunn Road (CR 81) and Route 22,
- Existing site access at Route 22,
- West Lake Amenia Road and Route 24, and
- Lake Amenia Road and Route 44.

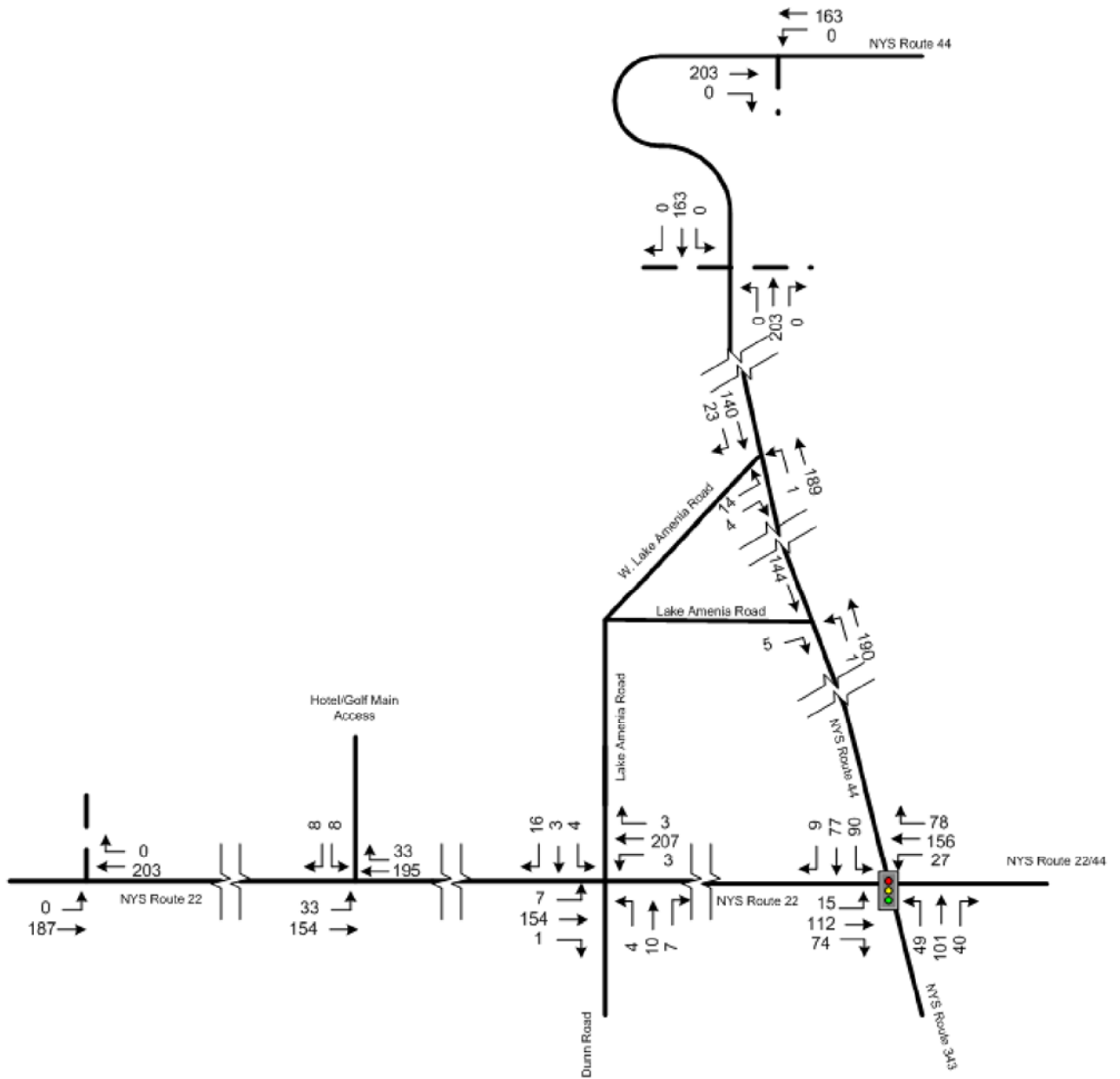
Traffic counts were conducted during the weeks of January 16 and January 23, 2006, between hours of 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM. These counts were confined to Tuesday through Thursday in an effort to capture typical weekday traffic conditions. Traffic counts were also taken on Friday, May 4 and Friday, May 11, 2007 between the hours of 4:00 PM and 6:00 PM; Saturdays May 5, 12 and 19, 2007 between the hours of 11:00 AM and 1:00 PM; and Sundays May 6 and 20, 2007 between the hours of 4:00 PM and 6:00 PM. These timeframes were chosen based upon the existing and proposed land uses specific to the project site and observations of existing traffic activity on the adjacent roadway network. The intent was to assess the “worst case” conditions as mandated in the Final Scoping Document and as such the following time periods were assessed:

- Weekday AM - 7:00 AM to 9:00 AM,
- Weekday (Friday) PM - 4:00 PM to 6:00 PM,
- Saturday Mid-Day - 11:00 AM to 1:00 PM, and
- Sunday PM - 4:00 PM to 6:00 PM

The resulting 2007 Existing Traffic Volumes for each of the intersections for these time periods are shown on Figures 3.7-2 through 3.7-5.

Figure 3.7-1 Critical Intersections Map





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Silo Ridge Resort Community
2007 Existing Traffic Volumes
Weekday AM Peak Hour

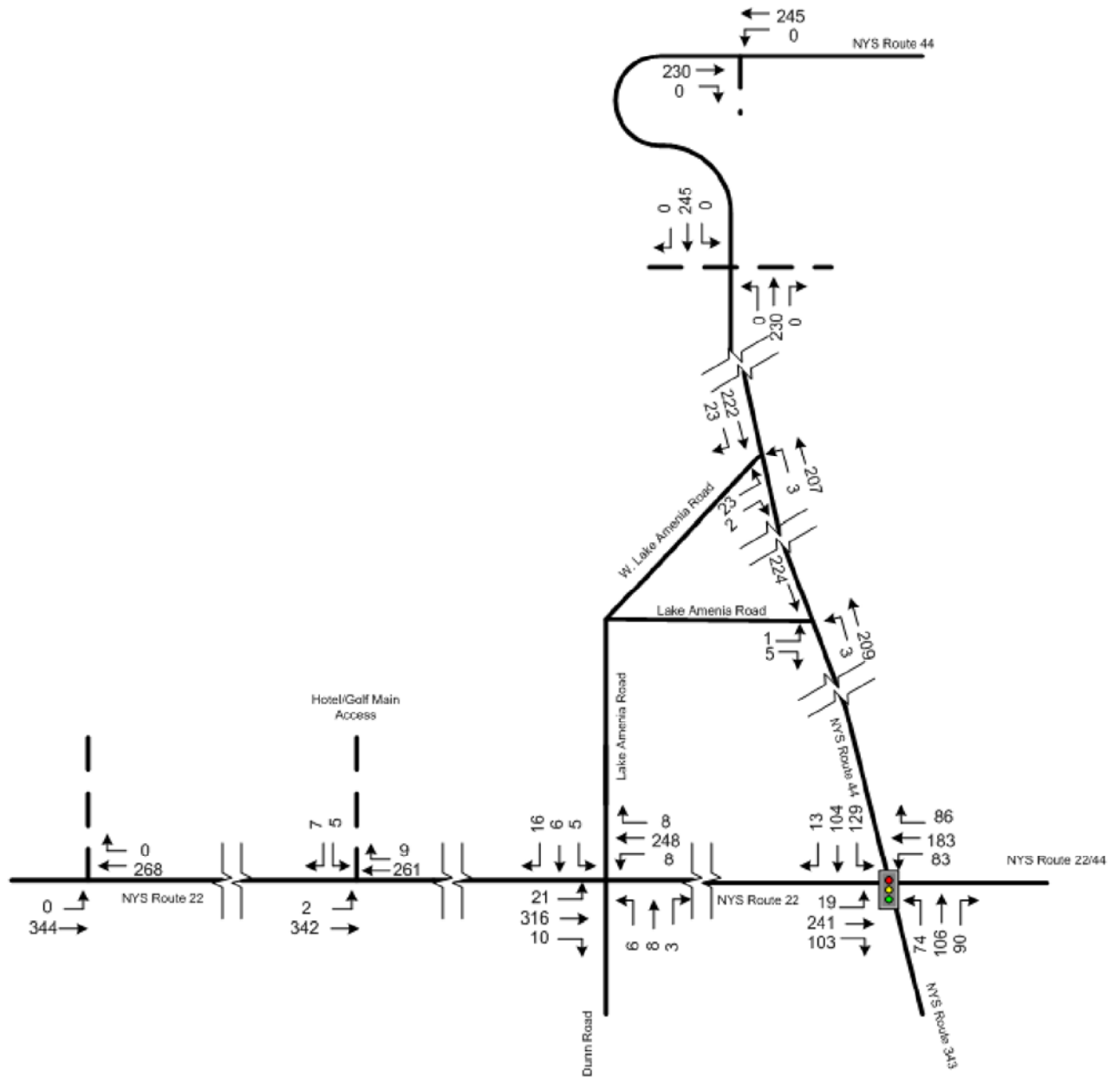
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

Not to Scale

Figure
3.7-2



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Silo Ridge Resort Community
2007 Existing Traffic Volumes
Weekday PM Peak Hour

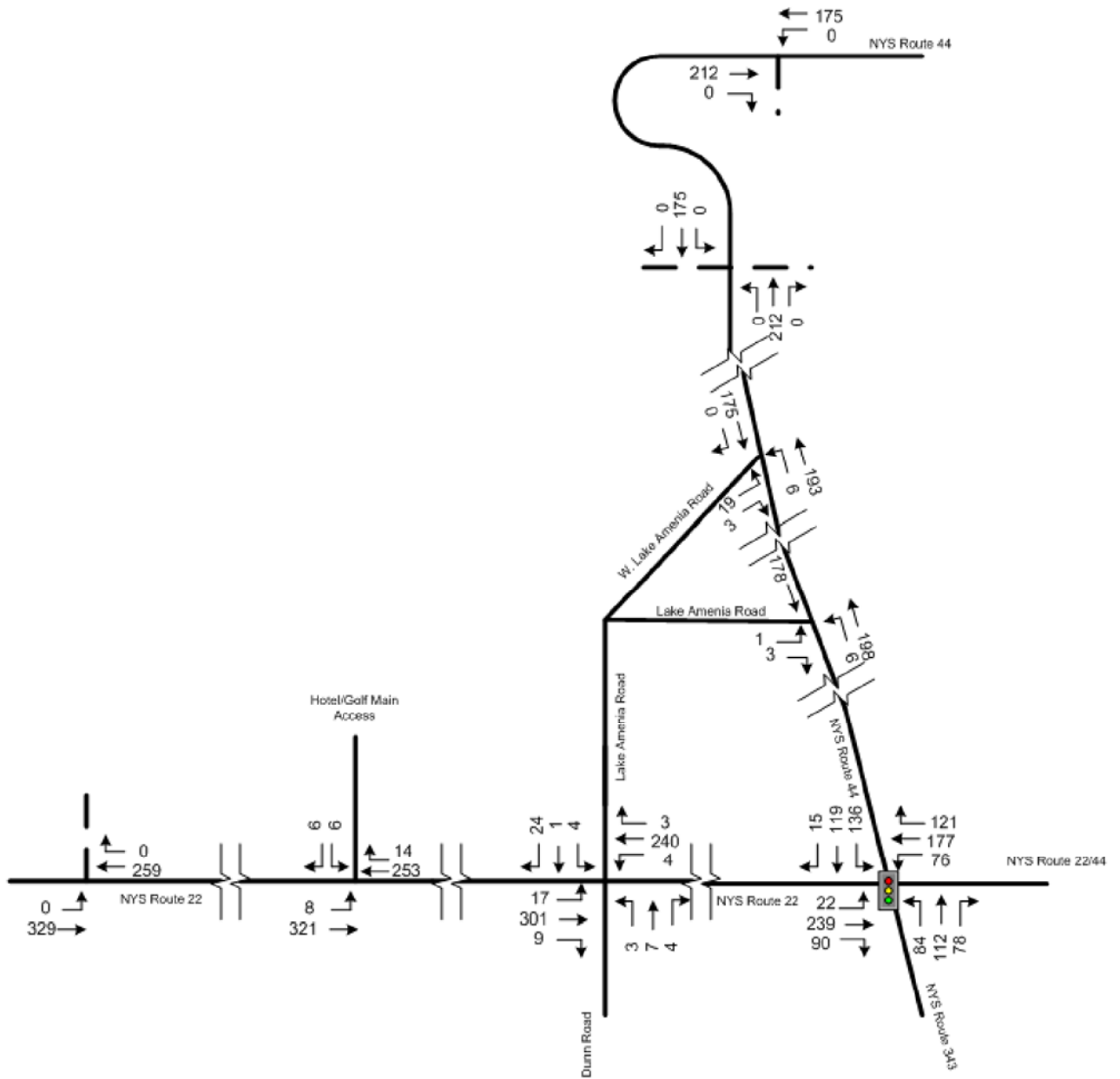
Town of Amenia, Dutchess County, New York

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Figure 3.7-3

Source: The Chazen Companies

Drawn by: DAE



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Silo Ridge Resort Community
2007 Existing Traffic Volumes
Saturday Mid-Day Peak Hour

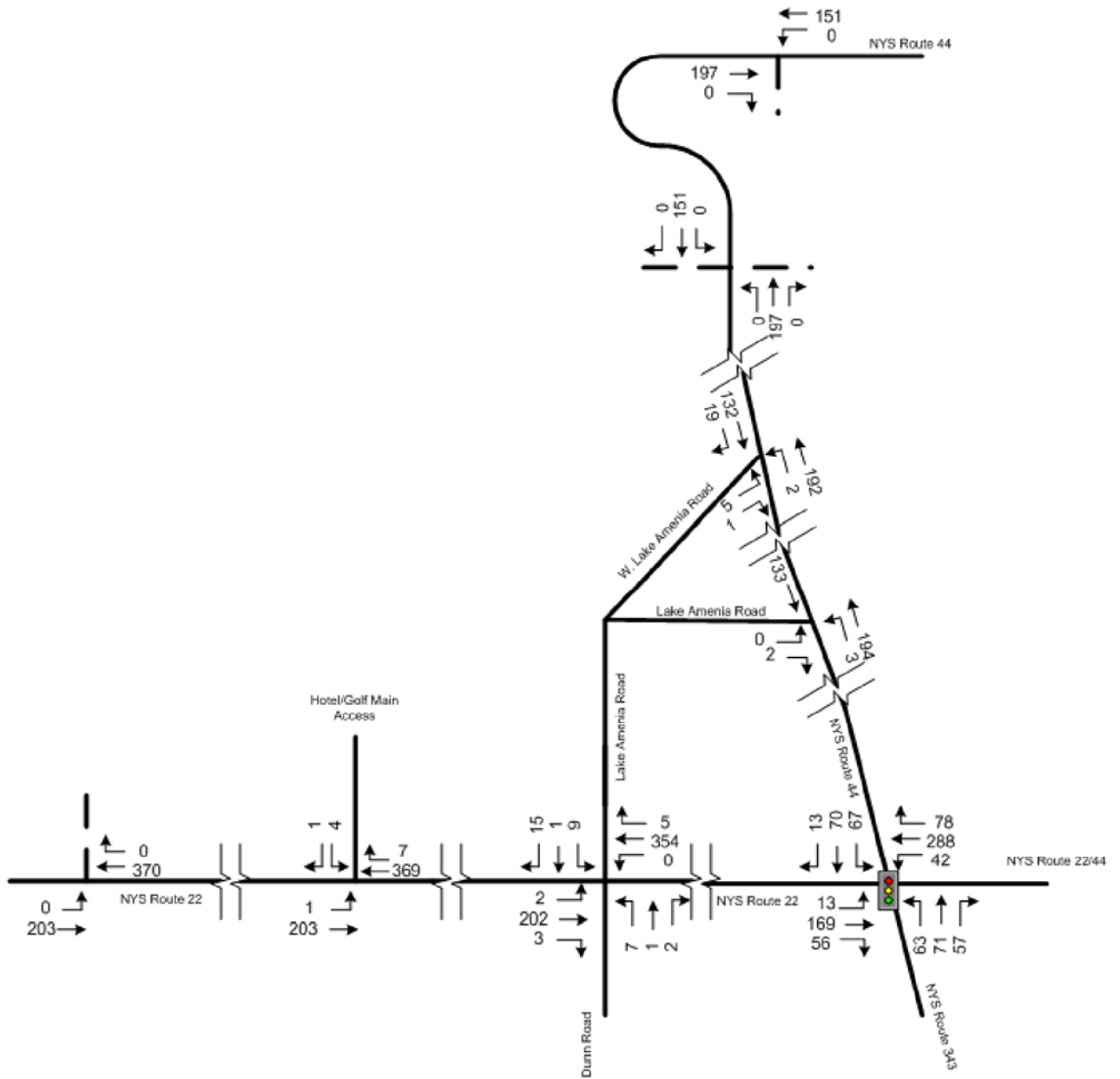
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

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Figure
3.7-4



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Silo Ridge Resort Community

2007 Existing Traffic Volumes

Sunday PM Peak Hour

Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

Not to Scale

Figure 3.7-5

Pedestrian / Biking Infrastructure

The roadway infrastructure surrounding the proposed development does not provide dedicated paths for biking and walking; however, there is sufficient road width along Route 22, Route 44, and Lake Amenia Road to support recreational biking and walking. The system of sidewalks in the area begins in the Hamlet of Amenia to the north of the project site.

The Harlem Valley Rail Trail travels adjacent to eastern sections of the project site, and offers an opportunity to enjoy walking, rollerblading, and biking. The Harlem Valley Rail Trail runs in a northeasterly direction and from the Wassaic train station through the Hamlet of Amenia, and into Columbia County to the north. The trail is maintained by Dutchess County in the south, the New York State Office of Parks, Recreation, and Historic Preservation to the north, and by a group of Harlem Valley Rail Trail Association volunteers along its entire length.²⁸

In addition, although all public roadways are open to bicyclists by law, the Dutchess County and New York State Departments of Transportation have been establishing bike routes and walking paths along many roadways. Along such roadways bicyclists share the right-of-way with motor vehicles. In proximity to the project site, NYS Route 343 is currently designated as a bike route, and US Route 44 and NYS Route 22 are being explored for future designation as bicycle and pedestrian routes.

Truck Routes / Construction Routes

The majority of construction vehicles in the vicinity of the project site travel along US Route 44 or NYS Route 22.

3.7.2 Potential Impacts

In order to identify intersections that may have issues of concern, a term called “Level of Service” (LOS) is used as it describes the average amount of time delay for each approach to the intersection as well as for the overall intersection. The capacity analyses were performed in accordance with the procedures described in the *Highway Capacity Manual* (2000) published by the Transportation Research Board.

Based on the results of the analysis, the construction of the proposed Silo Ridge Resort Community will not adversely impact the LOS on roadways and at intersections in the vicinity of the project site. LOS “A” represents optimum conditions and LOS “F” represents worst conditions. LOS “C” is generally used as a

²⁸ <http://www.hvrt.org/>

design standard while LOS “D” is acceptable during peak periods. LOS “E” represents an operation near capacity. The LOS criteria for signalized and unsignalized intersections are summarized in Tables 3.7-1 and 3.7-2, respectively.

Table 3.7-1 Signalized Level-of-Service

LOS	Control Delay Per Vehicle (seconds)
A	≤ 10
B	>10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Table 3.7-2 Unsignalized Level-of-Service

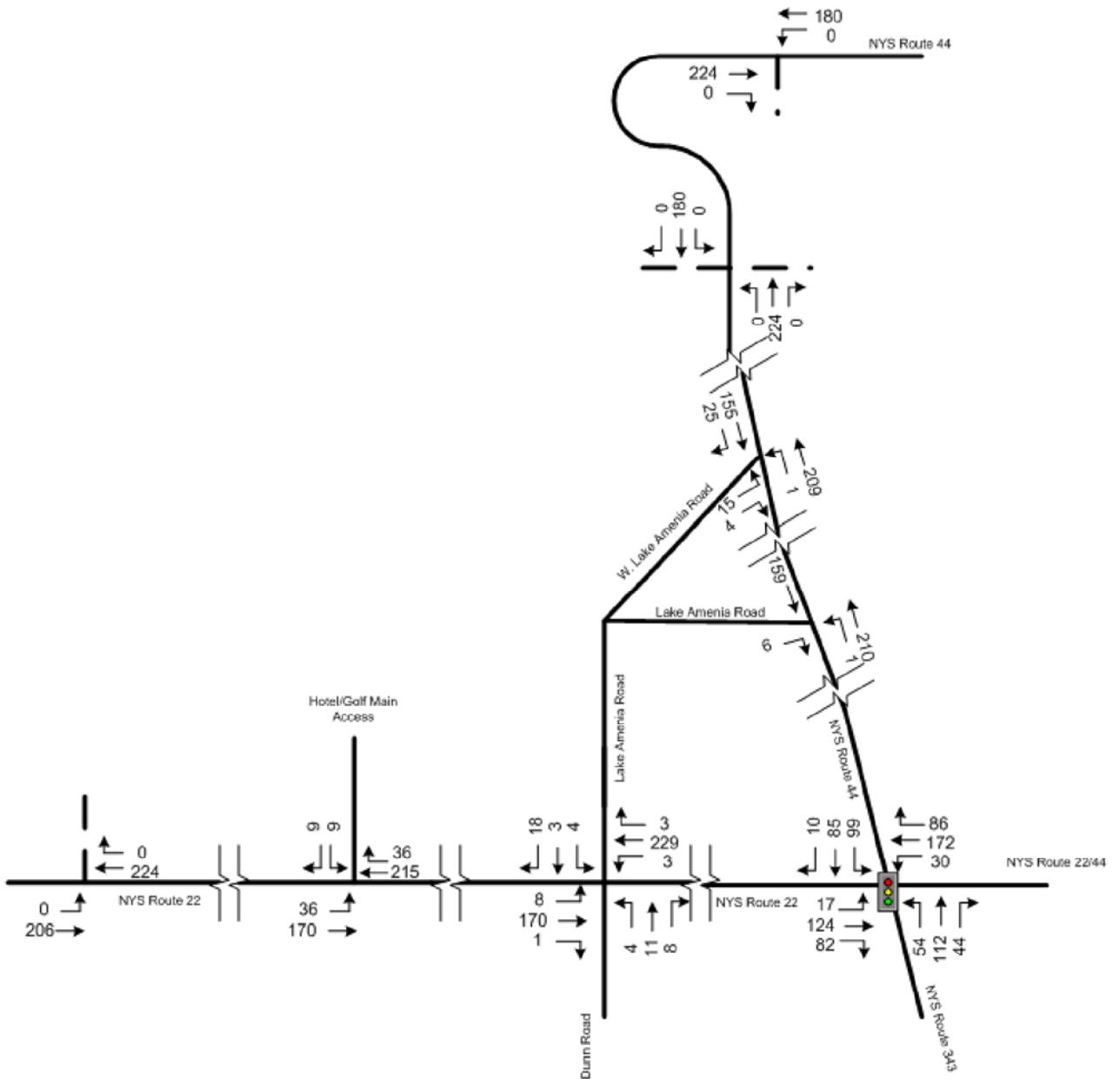
LOS	Control Delay Per Vehicle (seconds)
A	≤ 10
B	>10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

All roadways and intersections analyzed will maintain at least a LOS B upon full buildout of the proposed Silo Ridge Resort Community. Please refer to Table 3.7-3, “Trip Generation,” for a summary of site-generated traffic volumes for various peak hours.

In addition, the proposed site access connections are positioned at locations that provide adequate site distance for entering and exiting vehicles. The Resort Entrance, currently the existing entrance into the site from Route 22, will serve as the main entrance, as illustrated on the “Overall Layout Plan” (see “Engineering Drawings”).

2012 No-Build Traffic Volumes

To arrive at the anticipated traffic conditions for the design year or year of project completion minus the project itself, a background growth factor of 2% per year was applied to the 2007 existing traffic volumes. The resulting 2012 No-Build traffic volumes for each of the considered peak hours are shown on Figures 3.7-6 through 3.7-9 for the Weekday AM, Weekday (Friday) PM, Saturday Mid-Day, and Sunday PM peak hours respectively.



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Silo Ridge Resort Community
2012 No Build Traffic Volumes
Weekday AM Peak Hour

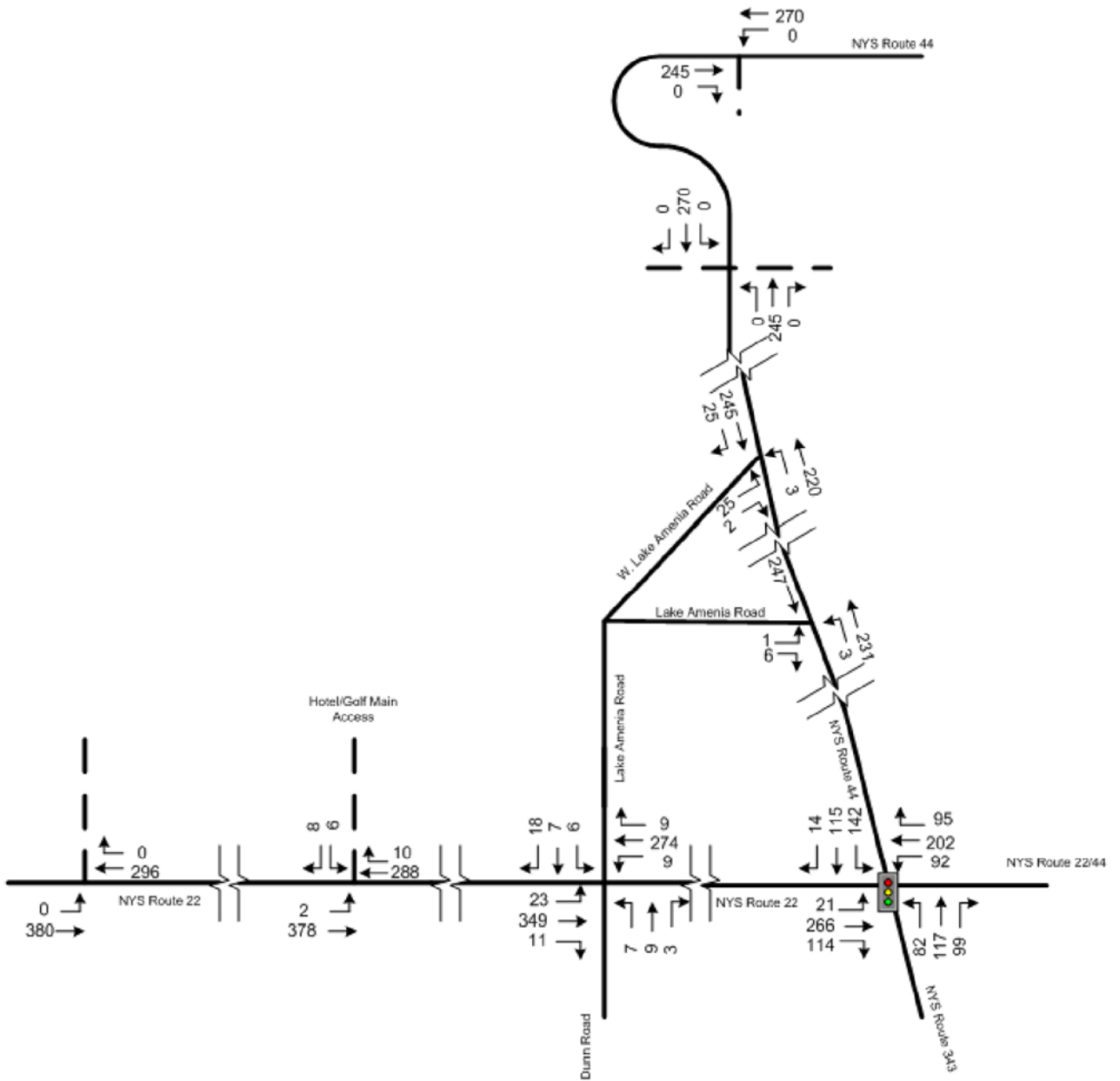
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

Not to Scale

Figure
3.7-6



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Silo Ridge Resort Community
2012 No Build Traffic Volumes
Weekday PM Peak Hour

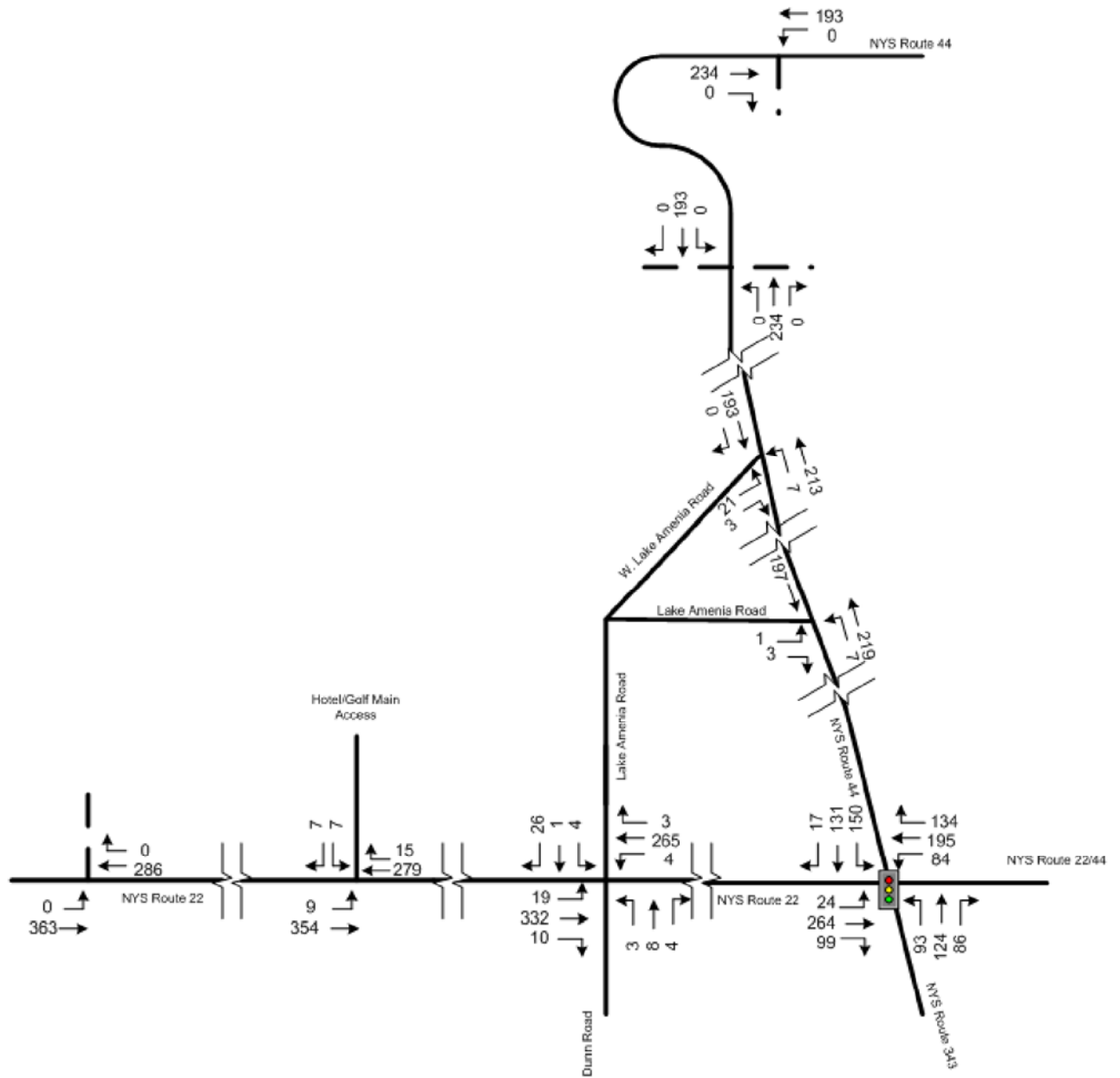
Town of Amenia, Dutchess County, New York

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3.7-7

Source: The Chazen Companies

Drawn by: DAE



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Silo Ridge Resort Community
2012 No Build Traffic Volumes
Saturday Mid-Day Peak Hour

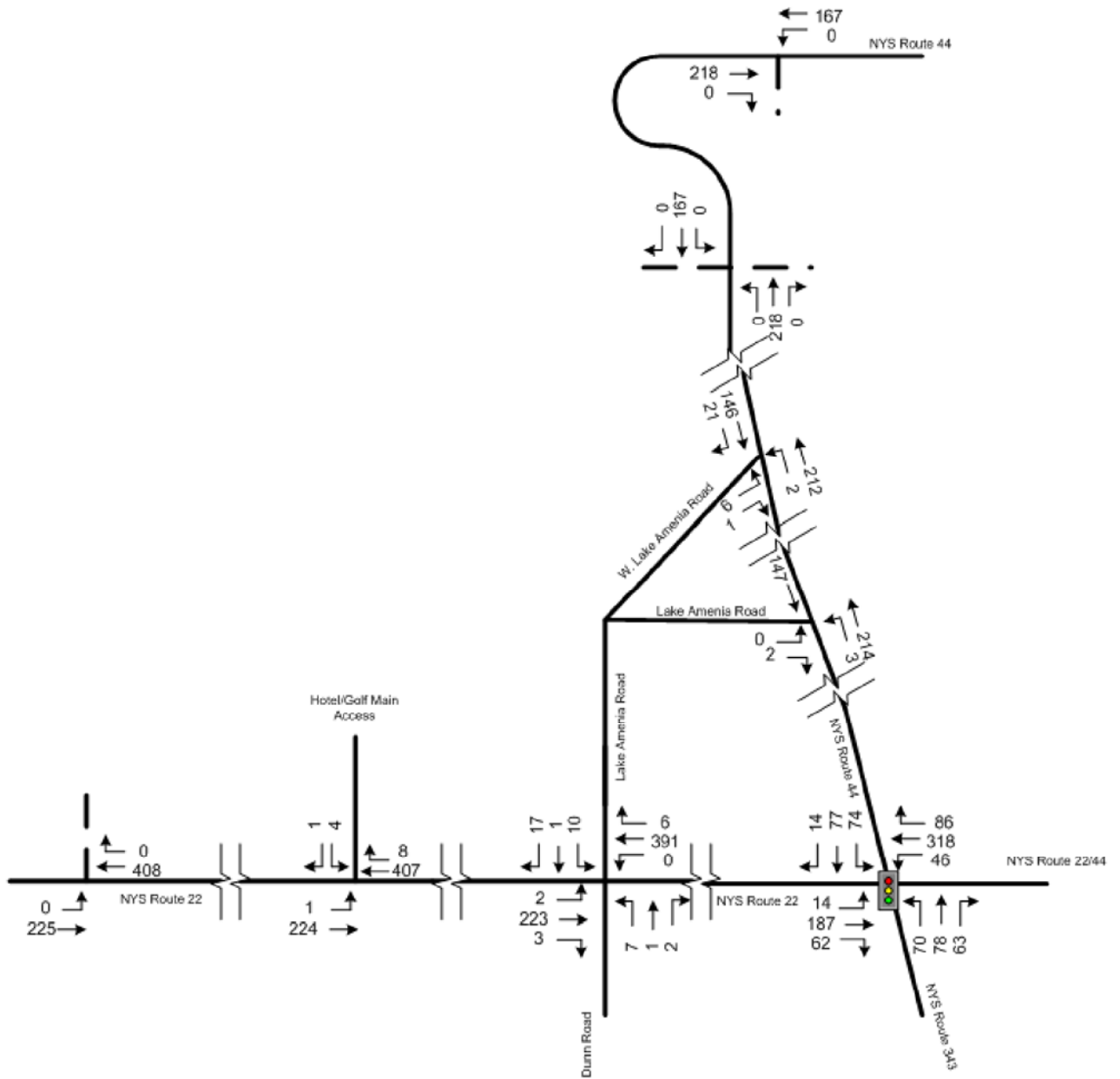
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

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Figure
3.7-8



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Silo Ridge Resort Community
**2012 No Build Traffic Volumes
Sunday PM Peak Hour**

Town of Amenia, Dutchess County, New York

Not to Scale

**Figure
3.7-9**

Source: The Chazen Companies

Drawn by: DAE

Project-Generated Traffic Volume

In order to identify the expected traffic generation associated with the proposed development, information published by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation, 7th Edition, 2003 was referenced to develop the trip generation for the site. It is important to note that each different land use component of the proposed project was considered independently for the purposes of estimating traffic generation. Thus, while considerable patronage of onsite retail and spa uses from site residents and hotel occupants is expected, traffic volumes on the adjacent roadway network were not adjusted to for this fact. This is consistent with the intent to present the “worst-case” conditions for the purpose of this DEIS.

It should also be noted that the trip generation rates presented in the ITE manual for non-residential land uses, such as the proposed hotel and spa/health/fitness facility, account for both user traffic and employee traffic.

Table 3.7-3, “Trip Generation,” summarizes the estimated project generated traffic volumes for peak hour periods considered. Under the “worst-case” conditions assessed the proposed project will generate an estimated 371 weekday AM peak hour trips, 458 Friday PM peak hour trips, 476 Saturday Mid-Day peak hour trips, and 407 Sunday PM peak hour trips.

Table 3.7-3 Trip Generation

Generator	AM Peak Hour Volumes		PM Peak Hour Volumes		Saturday Peak Hour Volumes		Sunday Peak Hour Volumes	
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Land Use #210 Single Family Homes (41 Units)	10	29	30	18	26	22	22	20
Land Use #230 Townhouse (328 Units)	23	111	107	53	74	63	61	64
Land Use #310 Hotel (320 Rooms) Includes banquet/conference space, retail, restaurant uses	109	70	100	89	129	101	82	97
Land Use #492 Spa/Health/Fitness (15,000 sf)	8	11	31	30	31 ¹	30 ¹	31 ¹	30 ¹
Total Site Activity	150	221	268	190	260	216	196	211
	371		458		476		407	

¹ In the absence of ITE data for Saturday and Sunday peak hour trip generation, the estimated weekday PM volumes have been used.

Arrival and Departure Distributions

Based upon a review of the existing traffic volumes as well as commuter patterns and the location of residential and commercial centers in the area, an arrival and departure distribution was developed for the site. This was accomplished in order to assign the site generated traffic volumes to the roadway network, based on a review of the existing traffic flows, employment and population centers in the area.

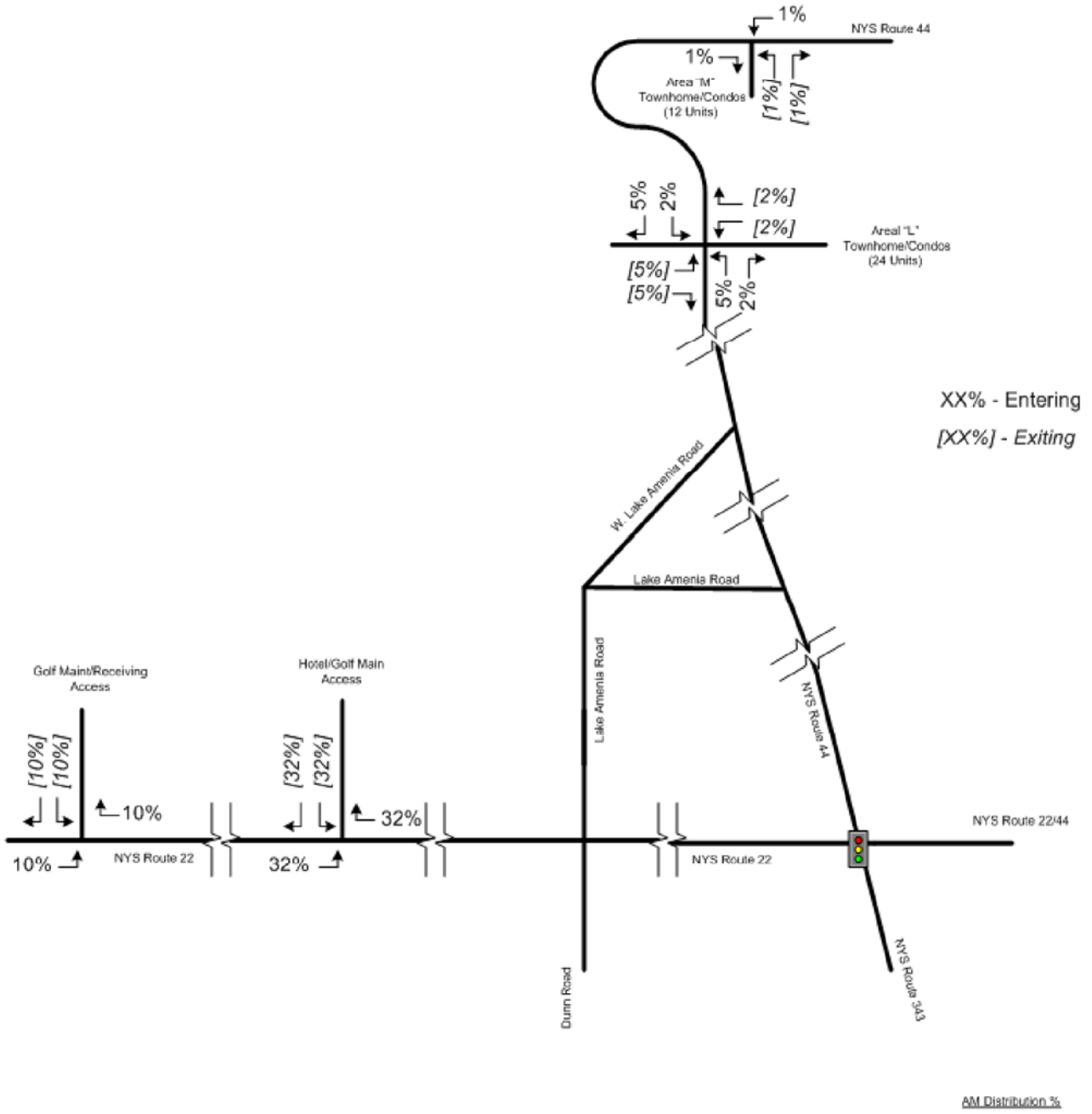
For the purpose of analyzing site generated arrival and departure distributions, the site is divided into three areas. The “main site” is the portion of the project site south of Route 44 that contains the existing Silo Ridge Golf Club. The other two areas located north of Route 44 are shown as Areas “M” (the cluster of six townhomes within the Route 44 hairpin curve) and “L” (the cluster of 24 townhomes located further east of the hairpin curve). Figure 3.7-10 shows the arrival and departure distribution for project-generated traffic from each area, and Figures 3.7-11 through 3.7-14 show project-generated traffic volumes for the weekday AM and PM, Saturday Mid-Day, and Sunday PM Peak Hours.

2012 Build Traffic Volumes

The project-generated traffic volumes were added to the intersections and site access roads, based on the vehicle generation distribution percentages, and combined with the 2012 No-Build Traffic Volumes, which are shown in Figures 3.7-15 through 3.7-18. To estimate the potential impacts of the proposed resort community to local area roadways, a capacity analysis was undertaken at each of the intersections for each of the weekday AM and PM peak hours utilizing 2012 No-Build and 2012 Build Traffic Volumes (see Table 3.7-4, “Levels of Service”). The following is a brief description of the analysis method that was utilized in this study.

Intersection Capacity Analysis

As previously stated, LOS A represents the best condition and LOS F represents the worst condition. A LOS C is generally used as a design standard while an intersection LOS D is acceptable during peak periods given that all approaches have LOS D or better. LOS E represents an operation at or near capacity. In order to identify a signalized intersection’s level-of-service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the over-all intersection. For unsignalized intersections, the average vehicle delay is computed for each critical movement to the intersection, which are normally the stop or yield controlled approaches along with the left-turns from the main roadways. The LOS criteria for signalized and unsignalized intersections are summarized above in Tables 3.7-1 and 3.7-2, respectively.



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Silo Ridge Resort Community

Assigned Percentage of Site Generated Traffic at Proposed Access Driveways

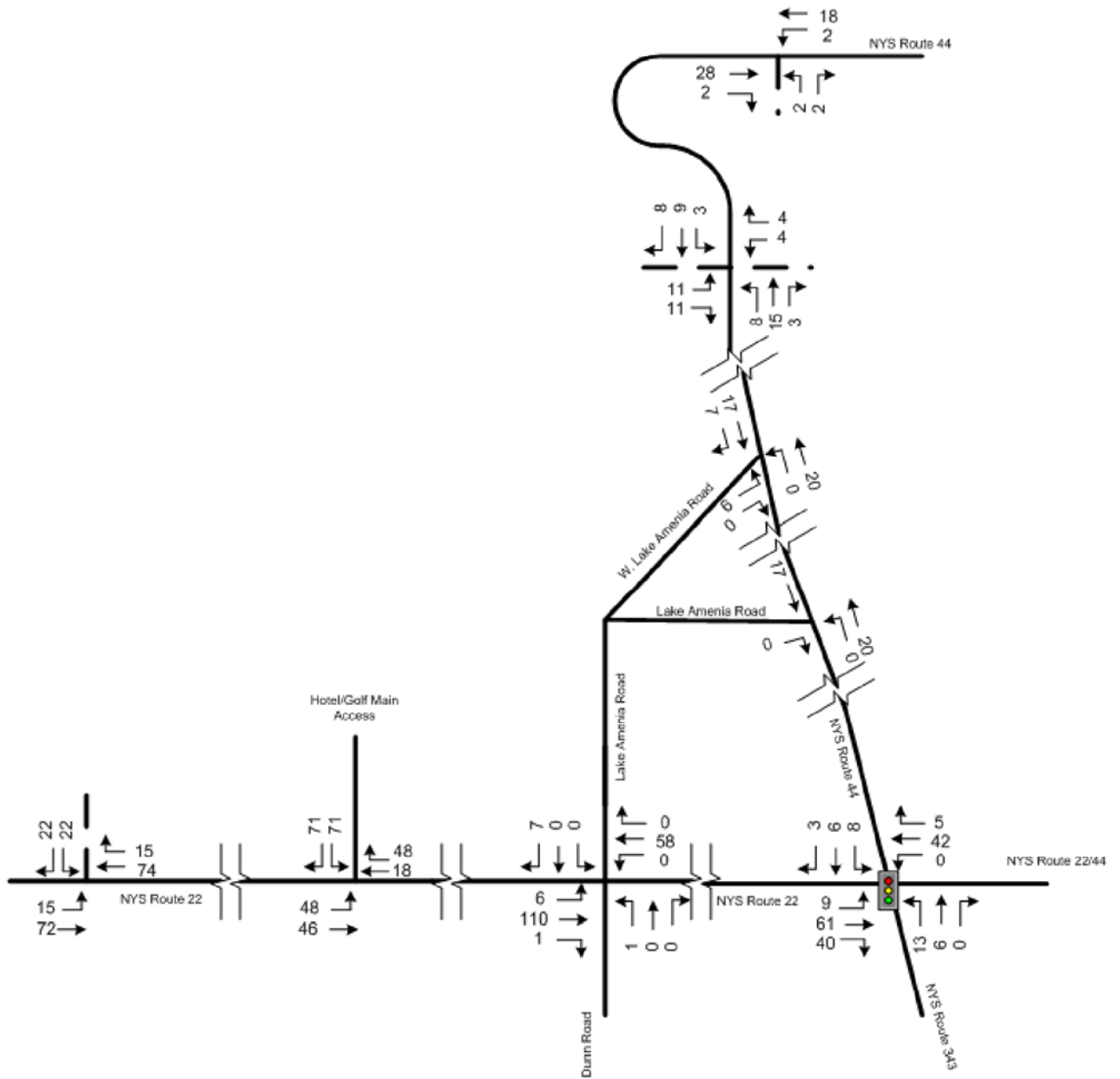
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

Not to Scale

Figure 3.7-10



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Silo Ridge Resort Community
Site Generated Traffic Volumes
Weekday AM Peak Hour

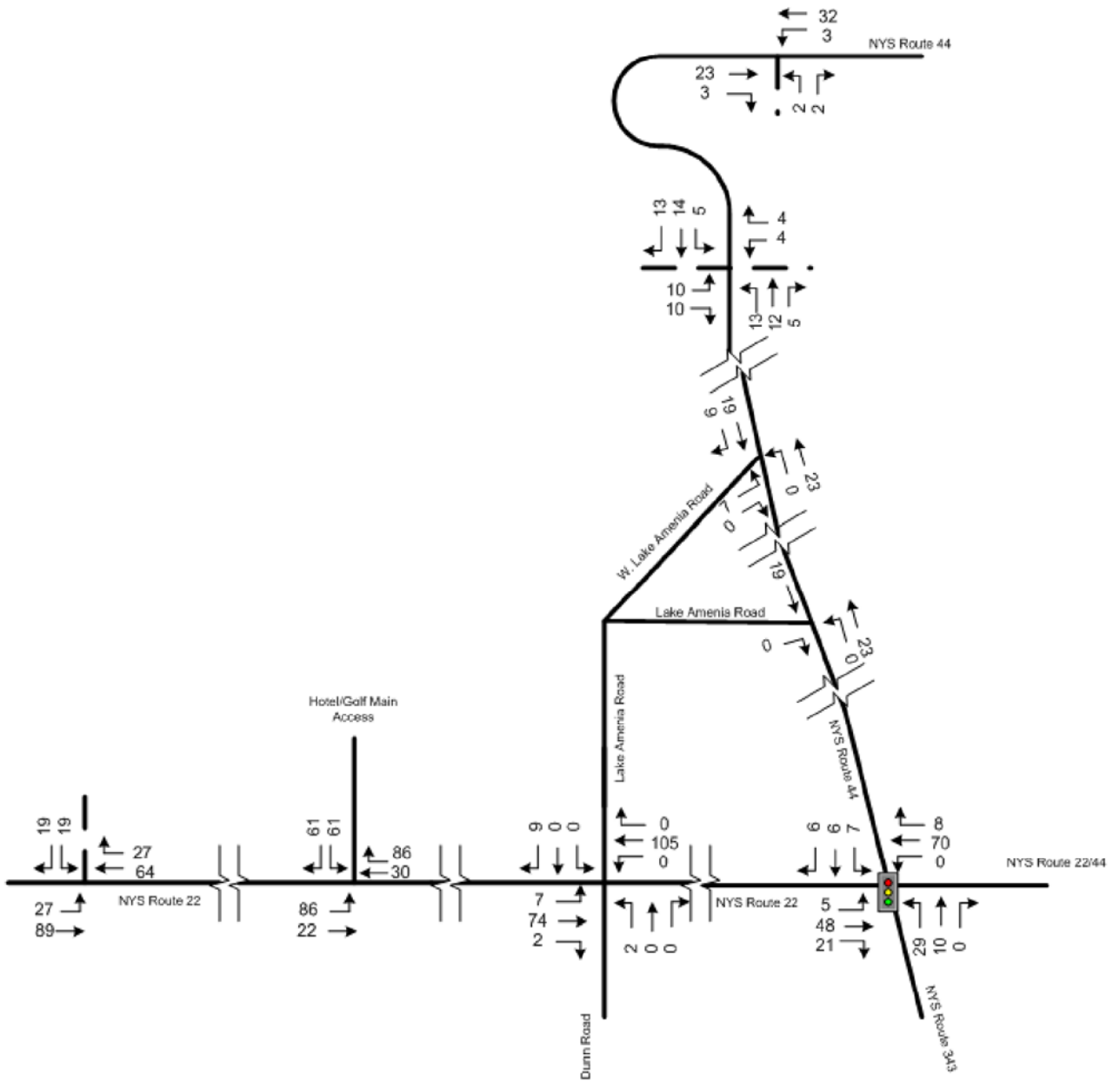
Town of Amenia, Dutchess County, New York

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Figure
3.7-11

Source: The Chazen Companies

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Silo Ridge Resort Community
Site Generated Traffic Volumes
Weekday PM Peak Hour

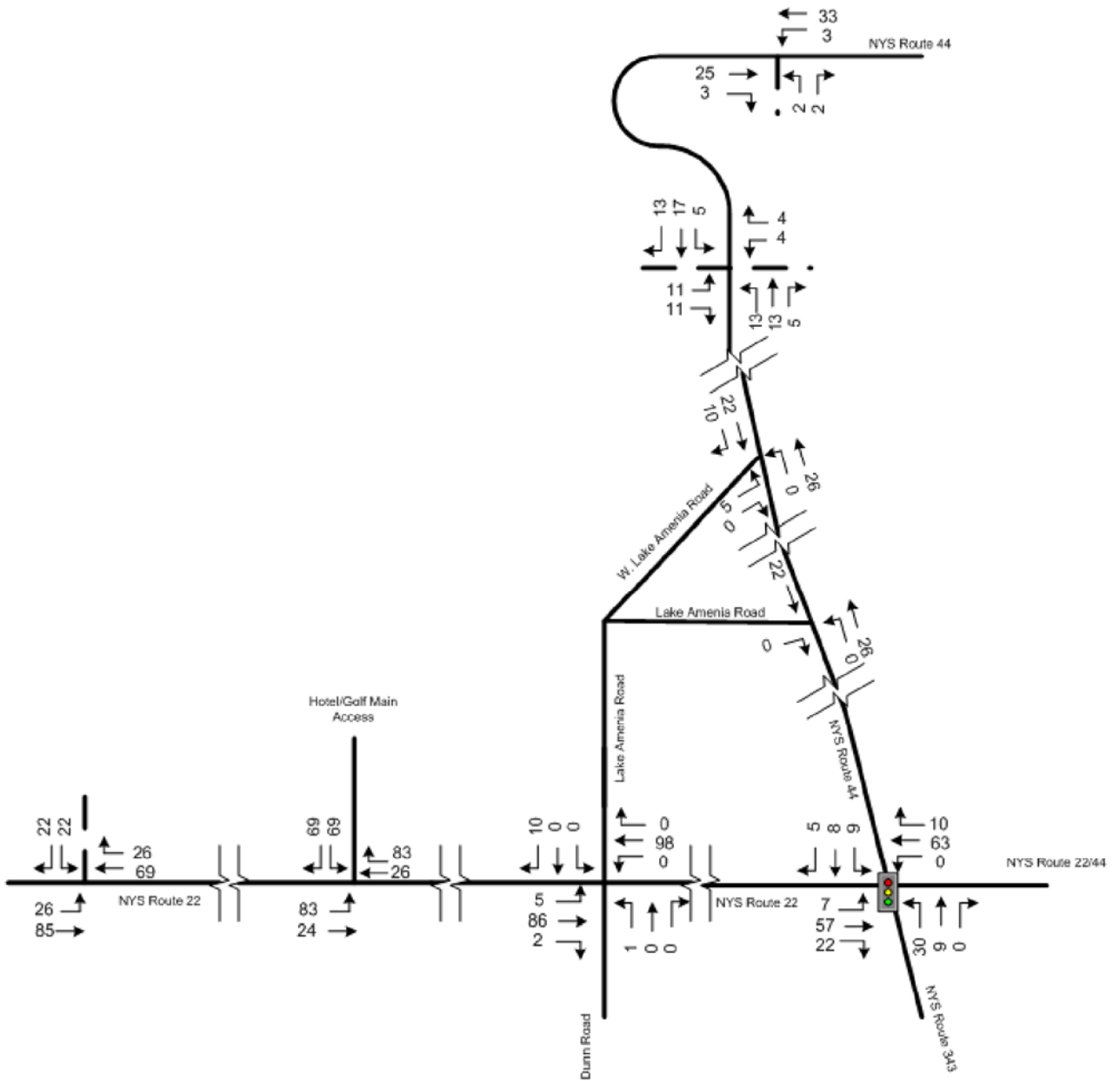
Town of Amenia, Dutchess County, New York

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Figure
3.7-12

Source: The Chazen Companies

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Silo Ridge Resort Community
Site Generated Traffic Volumes
Saturday Mid-Day Peak Hour

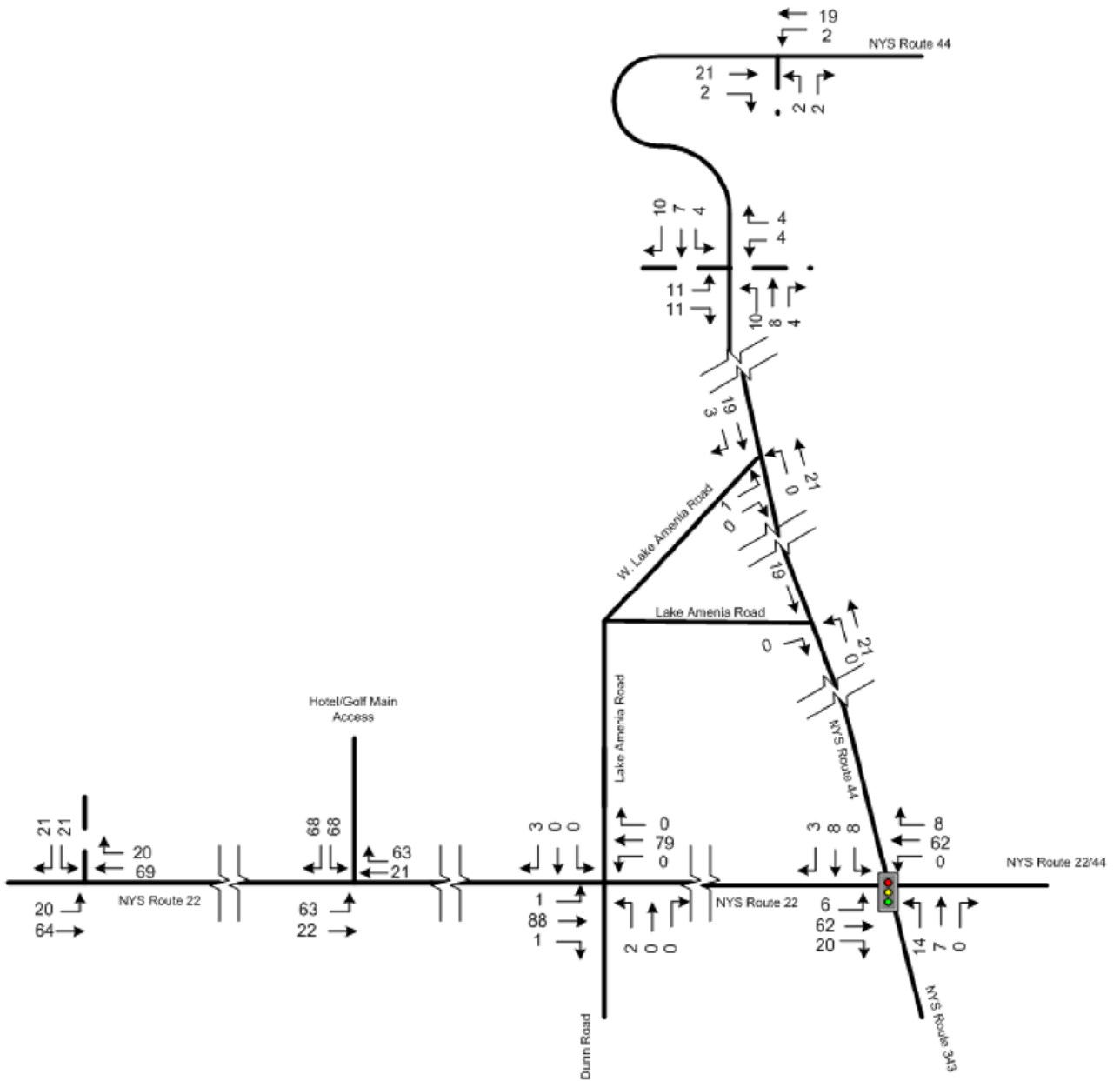
Town of Amenia, Dutchess County, New York

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Figure
3.7-13

Source: The Chazen Companies

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Silo Ridge Resort Community
**Site Generated Traffic Volumes
Sunday PM Peak Hour**

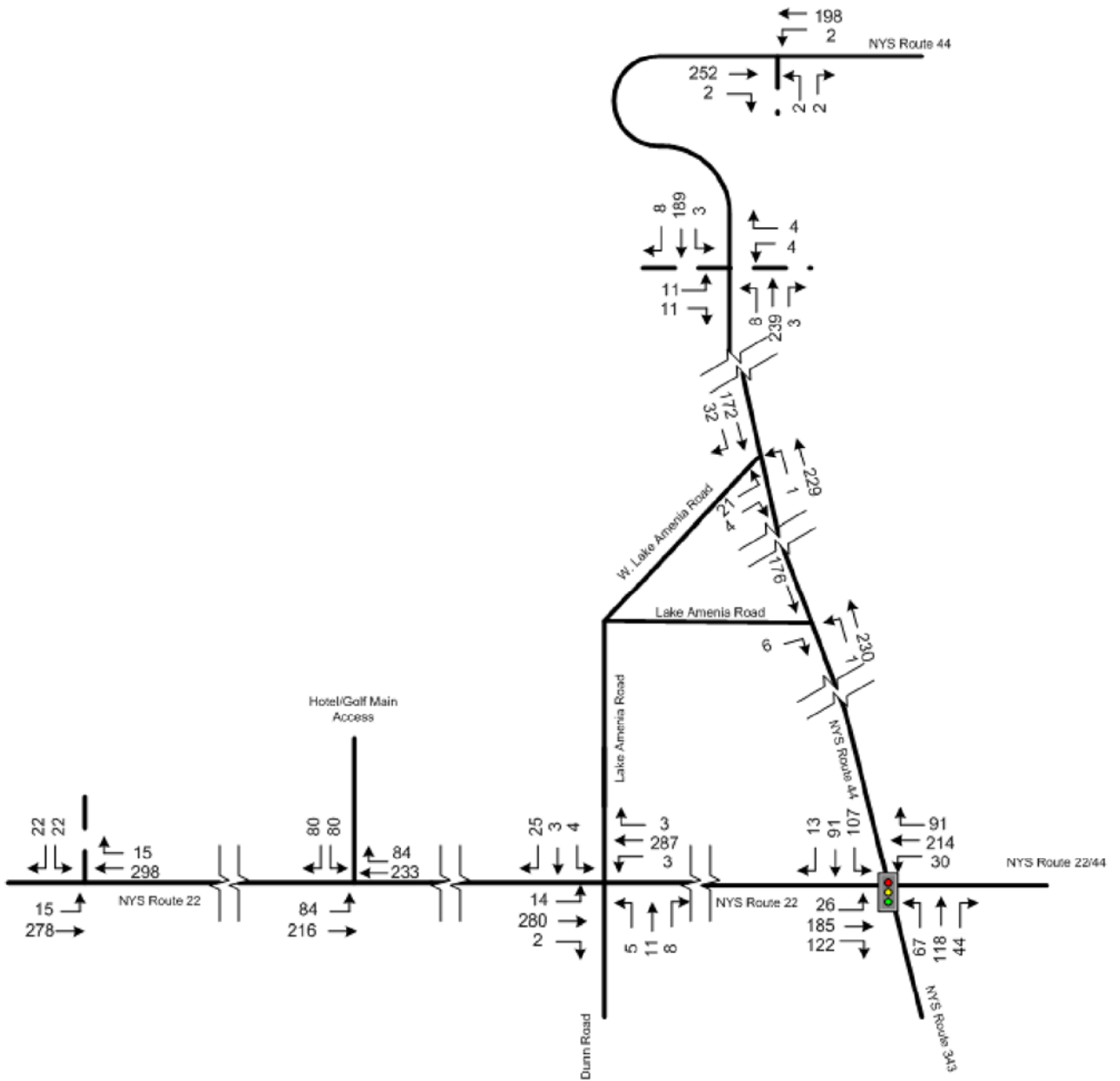
Town of Amenia, Dutchess County, New York

Source: The Chazen Companies

Drawn by: DAE

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**Figure
3.7-14**



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Silo Ridge Resort Community
**2012 Build Traffic Volumes
Weekday AM Peak Hour**

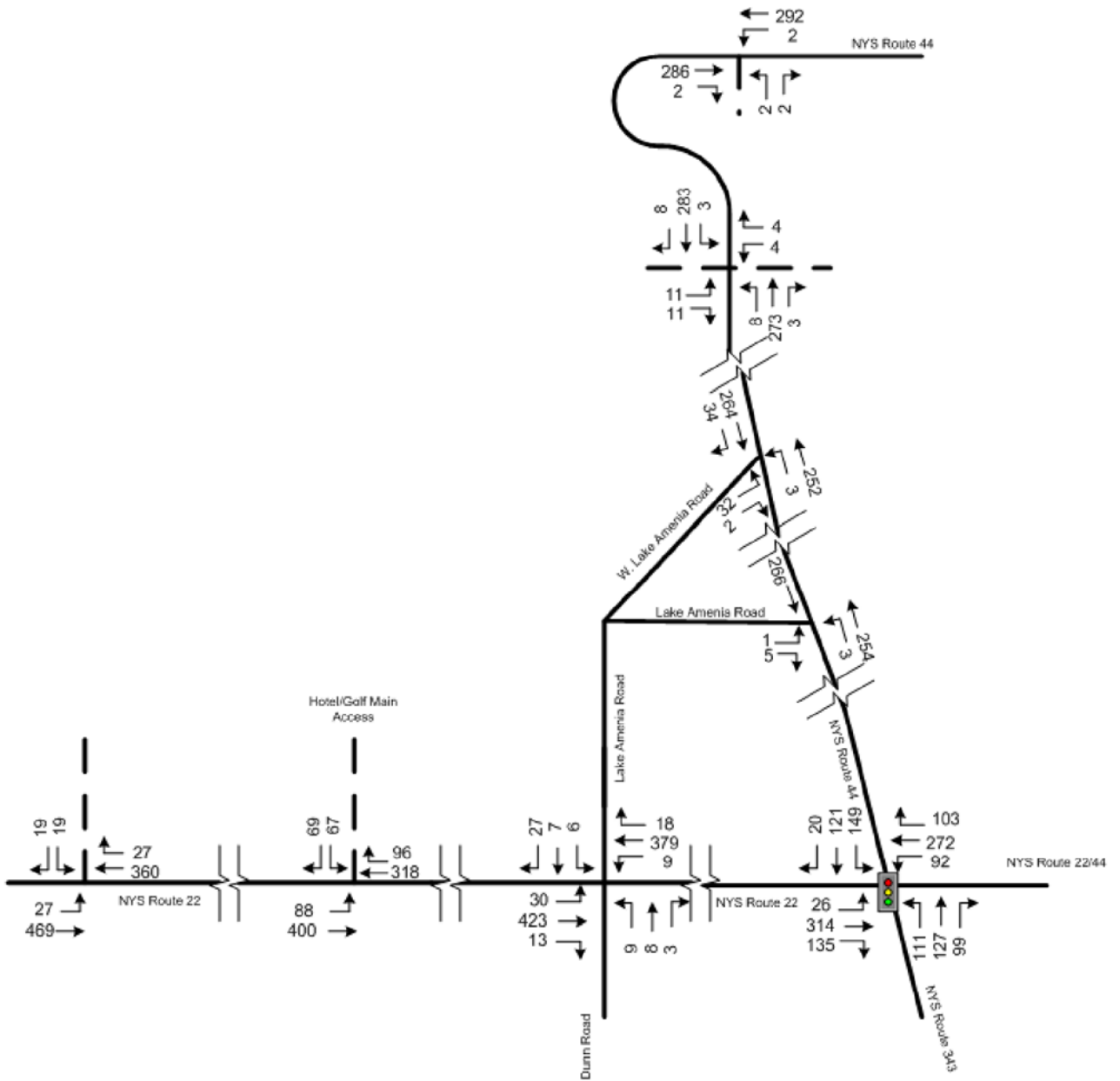
Town of Amenia, Dutchess County, New York

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**Figure
3.7-15**

Source: The Chazen Companies

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Silo Ridge Resort Community
2012 Build Traffic Volumes
Weekday PM Peak Hour

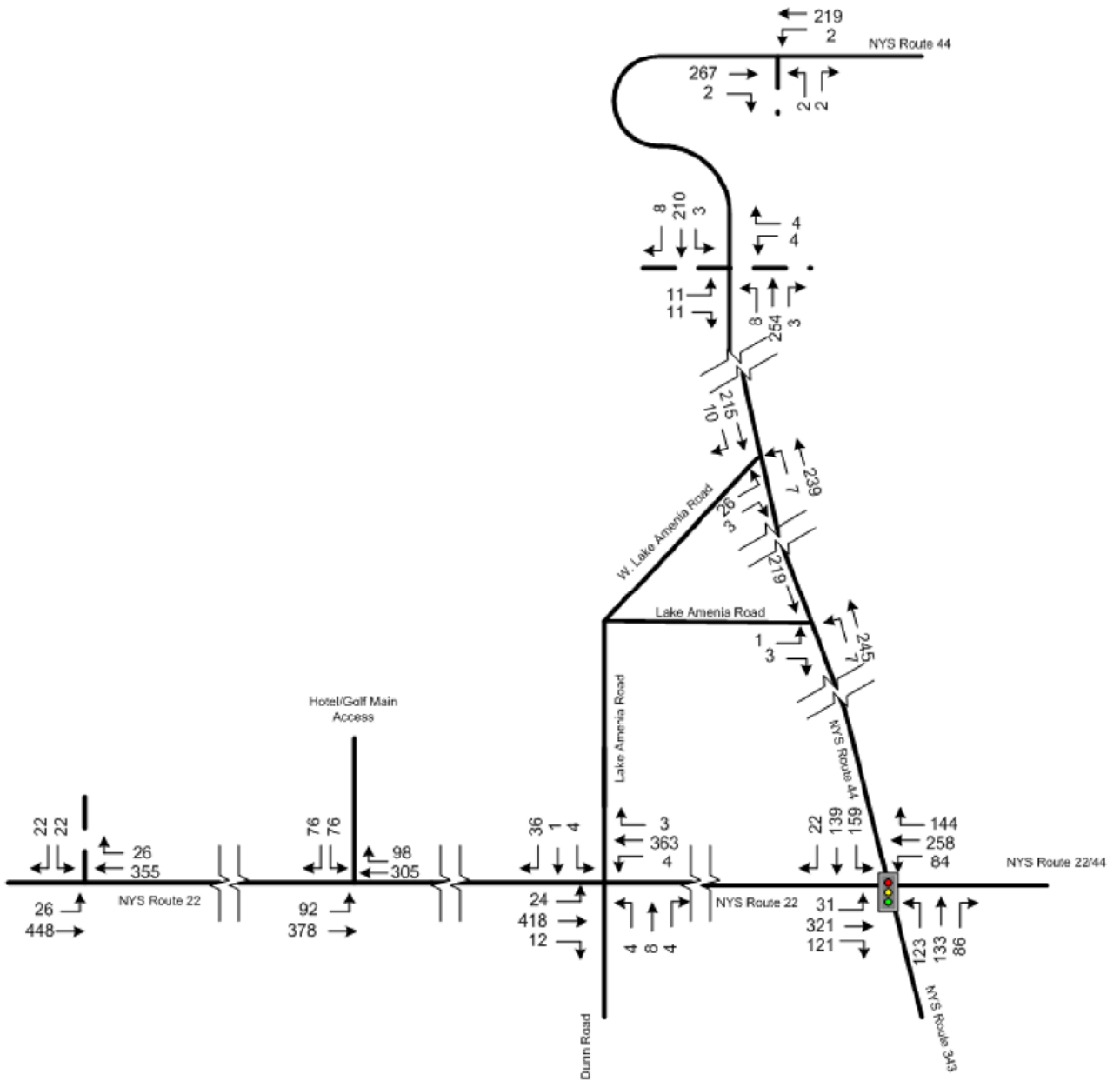
Town of Amenia, Dutchess County, New York

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Figure
3.7-16

Source: The Chazen Companies

Drawn by: DAE



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Silo Ridge Resort Community
2012 Build Traffic Volumes
Saturday Mid-Day Peak Hour

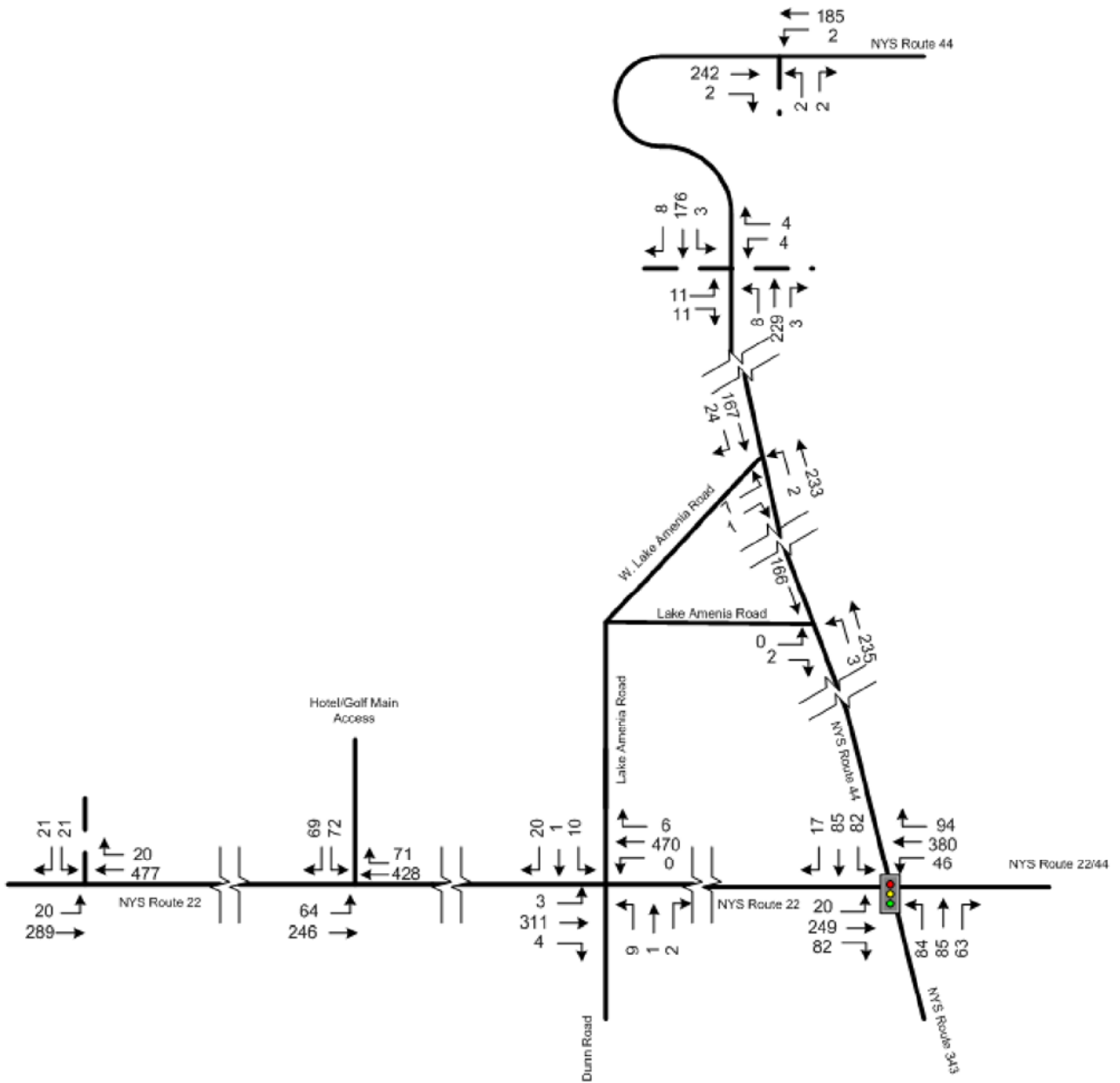
Town of Amenia, Dutchess County, New York

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Figure
3.7-17

Source: The Chazen Companies

Drawn by: DAE



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Silo Ridge Resort Community
**2012 Build Traffic Volumes
Sunday PM Peak Hour**

Town of Amenia, Dutchess County, New York

Not to Scale

**Figure
3.7-18**

Source: The Chazen Companies

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A summary of the capacity analyses and Levels of Service is provided in Table 3.7-4, and the results are described below.

Table 3.7-4 Levels of Service

Capacity Summary					
Level-of-Service/Estimated Delay (Seconds per vehicle)					
INTERSECTION	PEAK	APPROACH	EXISTING VOLUMES 2006	NO BUILD VOLUMES 2012	BUILD VOLUMES 2012
Route 44 at Route 22 Signalized	AM	OVERALL	B/10.7	B/11.9	B/14.3
		EB	B/12.1	B/13.7	B/16.3
		WB	B/11.0	B/12.3	B/14.6
		NB	A/9.0	A/9.8	B/13.1
		SB	B/10.9	B/12.0	B/13.9
	PM	OVERALL	B/17.6	C/21.4	C/27.9
		EB	C/21.0	C/27.4	D/37.6
		WB	B/16.8	B/19.9	C/28.7
		NB	B/14.6	B/16.3	B/18.8
		SB	B/19.0	C/24.0	C/30.9
	Saturday Mid-Day	OVERALL	B/19.3	C/23.8	C/32.3
		EB	C/23.8	C/31.2	D/43.0
WB		B/16.5	B/19.1	C/25.3	
NB		B/18.3	C/21.0	C/28.0	
SB		B/19.2	C/24.4	C/34.3	
Sunday PM	OVERALL	B/14.3	B/16.4	C/21.1	
	EB	B/15.9	B/17.4	B/19.7	
	WB	B/17.6	B/19.9	C/25.2	
	NB	A/9.7	B/11.0	B/14.7	
	SB	B/14.9	B/17.7	C/24.0	
Route 22 at Lake Amenia Rd. and Dunn Rd. (CR 81) Unsignalized	AM	EB	B/11.1	B/11.4	B/12.8
		WB	B/11.8	B/12.3	C/15.4
		NB	A/0.5	A/0.6	A/0.7
		SB	A/0.3	A/0.3	A/0.2
	PM	EB	C/16.6	C/23.0	C/21.7
		WB	C/22.4	D/32.2	E/38.4
		NB	A/1.0	A/1.1	A/1.3
		SB	A/0.4	A/0.4	A/0.5
	Saturday Mid-Day	EB	B/12.0	B/12.6	B/14.8
		WB	C/16.5	C/18.2	D/26.8
		NB	A/1.0	A/1.1	A/1.4
		SB	A/0.3	A/0.3	A/0.2
Sunday PM	EB	C/15.7	C/17.3	C/22.5	
	WB	C/19.5	C/22.0	E/35.6	
	NB	A/0.3	A/0.3	A/0.4	
	SB	A/0.0	A/0.0	A/0.0	
Route 22 at Existing Hotel/Golf Course Driveway Unsignalized	AM	EB(LEFT)	B/11.8	B/12.3	C/17.8
		EB(RIGHT)	A/9.5	A/9.6	B/10.5
		NB	A/1.6	A/1.6	A/2.8
	PM	EB(LEFT)	C/18.9	C/21.3	F/Undetermined
		EB(RIGHT)	B/10.1	B/10.3	B/12.2
		NB	A/0.2	A/0.2	A/7.4
	Saturday Mid-Day	EB(LEFT)	C/15.2	C/16.4	F/87.7
		EB(RIGHT)	B/10.1	B/10.3	C/15.7
		NB	A/0.4	A/0.5	A/4.4
	Sunday PM	EB(LEFT)	C/17.4	C/19.9	F/Undetermined
		EB(RIGHT)	B/12.2	B/12.9	D/30.0
		NB	A/0.2	A/0.1	A/7.3

Table 3.7-4 Levels of Service

Capacity Summary					
Level-of-Service/Estimated Delay (Seconds per vehicle)					
INTERSECTION	PEAK	APPROACH	EXISTING VOLUMES 2006	NO BUILD VOLUMES 2012	BUILD VOLUMES 2012
Route 44 at West Lake Amenia Rd. Unsignalized	AM	WB	A/0.2	A/0.1	A/0.1
		NB	B/10.6	B/11.0	B/11.6
	PM	WB	A/0.3	A/0.3	A/0.3
		NB	B/12.4	B/13.2	B/14.1
Saturday Mid-Day	WB	A/0.6	A/0.6	A/0.6	
	NB	B/11.6	B/12.2	B/13.0	
Sunday PM	WB	A/0.1	A/0.1	A/0.1	
	NB	B/10.6	B/11.0	B/11.5	
Route 44 at Lake Amenia Rd. Unsignalized	AM	WB	A/0.2	A/0.1	A/0.1
		NB	A/9.2	A/9.3	A/9.5
	PM	WB	A/0.3	A/0.3	A/0.3
		NB	B/10.5	B/10.7	B/10.9
Saturday Mid-Day	WB	A/0.6	A/0.6	A/0.6	
	NB	B/10.6	B/10.9	B/11.3	
Sunday PM	WB	A/0.3	A/0.3	A/0.3	
	NB	A/9.0	A/9.1	A/9.2	
Route 22 at Loop Road Unsignalized	AM	EB	X	X	B/10.9
		NB	X	X	A/0.5
	PM	EB	X	X	C/15.5
		NB	X	X	A/0.7
Saturday Mid-Day	EB	X	X	C/15.4	
	NB	X	X	A/0.7	
Sunday PM	EB	X	X	C/15.3	
	NB	X	X	A/0.8	
Route 44 at Site Access/Area "L" Unsignalized	AM	EB	X	X	A/0.1
		WB	X	X	A/0.3
		NB	X	X	B/11.2
		SB	X	X	B/11.3
	PM	EB	X	X	A/0.1
		WB	X	X	A/0.3
		NB	X	X	B/12.5
		SB	X	X	B/12.4
Saturday Mid-Day	EB	X	X	A/0.1	
	WB	X	X	A/0.3	
	NB	X	X	B/11.5	
	SB	X	X	B/11.6	
Sunday PM	EB	X	X	A/0.1	
	WB	X	X	A/0.3	
	NB	X	X	B/11.0	
	SB	X	X	B/11.1	
Route 44 at Area "M" Unsignalized	AM	WB	X	X	B/10.8
		SB	X	X	A/0.1
	PM	WB	X	X	C/16.0
		SB	X	X	A/8.8
Saturday Mid-Day	WB	X	X	B/11.0	
	EB	X	X	A/0.1	
Sunday PM	WB	X	X	B/10.6	
	SB	X	X	A/0.1	

Route 44 at Route 22 (Hamlet of Amenia)

The analysis of this four-way signalized intersection indicates a LOS C or better throughout the peak hour periods analyzed. Observations indicate that opposing left-turn movements (eastbound Route 44 and westbound Route 343) should require some caution due to the significant numbers of vehicles making these movements on the same green phase and the geometric configuration of the intersection. Although the signal operation is currently providing for safe vehicular and pedestrian movements, at some time in the future increased pedestrian activity may necessitate the provision of a separate exclusive pedestrian phase.

Route 22 at Lake Amenia Drive and Dunn Road (CR 81)

The results of the analysis of this unsignalized four-way intersection, indicates acceptable LOS for all movements during the weekday AM and Saturday Mid-Day peak hour periods; LOS D or better. During the weekday (Friday) and Sunday PM and peak periods analyzed it is anticipated that traffic exiting Dunn Road (WB) shall experience LOS E under Build conditions with a maximum delay of 38.4 seconds per vehicle. A review of the computed 95th percentile queue length indicates a maximum of 23 feet or approximately two vehicles occurring during the weekday PM. As such, and the impact of the proposed project is not considered significant although re-assessment of this location upon project completion is recommended.

Route 22 at Existing Main Site Access

The results of the capacity analysis reveal that traffic exiting the site will experience significant delays and associated queues during all peak periods analyzed except for the weekday AM peak hour. It is the intent to formally petition the NYSDOT, via its highway work permit process, that the signalization of this intersection is permitted as part of the overall project. Signalization would likely include the addition of designated turn lanes on both the northbound and southbound sides of Route 22 for entry into the project site.

Route 44 at Lake Amenia Drive/West Lake Amenia Drive

The results of the capacity analysis reveal that these intersections will maintain a LOS A in both peak hours for Lake Amenia Road and LOS B for West Lake Amenia Road. These two intersections carry very low volumes which will not change significantly with the proposed development.

Route 22 at Main Site New Access (Loop Road Access)

The analysis of this proposed access indicates acceptable LOS for all traffic conditions analyzed; LOS A for left-turns into the site and LOS C or better for

exiting traffic. The operation of this access will not adversely affect the flow of traffic on Route 22.

Route 44 at New Access Main Site and to Area L

The analysis of this new access, which services both the main site (to the south) and Area L (to the north), indicates an acceptable LOS under all future traffic conditions; LOS A (ingress left-turns) and LOS B for traffic leaving the driveways. For purposes of operational efficiency, it is recommended that left-turn lanes be created on Route 44 in both the eastbound and westbound directions for traffic entering the driveways. This action, in conjunction with placement of the common access at the point of greatest sight lines, will provide safety and efficiency. Therefore, given this cross-section modification, the operation of this new access will be acceptable and will not have any significant impact on traffic flow.

Route 44 at New Access to Area M

The analysis of this proposed access location on the north side of Route 44 west of the hairpin curve indicated an acceptable LOS for all future traffic conditions. The driveway access is carefully located to maximize sight lines both to and from the drive. This segment of Route 44 is critically affected by alignment and grade; therefore, the degree of new activity at this location is critical. Thus this new site parcel is limited to a small number of townhouse units, resulting in favorable operating conditions. Therefore, the operation of this access will be acceptable and will not have any significant impact on traffic flow.

Accident History

The analyses of the historical accident history for the adjacent roadway network did not show any significant current condition which merits mitigation other than additional warning for motorists approaching, in the eastbound direction, the Route 44 "hairpin" curve near the site. The number of incidents (10) that occurred, 90% of which involved eastbound vehicles, suggest that additional advance warning is appropriate. It is recommended that the maintaining agency, the NYSDOT, consider flashing beacons and/or other devices which will highlight the significant change in alignment and grade of Route 44. No other locations within the network exhibited patterns of contributing circumstances, location, or weather conditions which would be exacerbated by the new traffic generation from the proposed development. Therefore, given the moderate generated traffic volumes, it is anticipated that no new traffic safety issues will be created.

Pedestrian / Biking Infrastructure

The internal design of the proposed Silo Ridge Resort Community will provide an interconnected series of walkways, paths, and trails with sufficient width and site distance to foster safe pedestrian walking and biking activities.

As previously stated, the roadway infrastructure surrounding the proposed development does not provide dedicated paths for biking and walking. However, there is sufficient road width along Route 22, Route 44, and Lake Amenia Road to support recreational biking and walking and connect with the system of sidewalks that begins in the Hamlet of Amenia to the north of the project site. In addition, the Harlem Valley Rail Trail travels adjacent to eastern sections of the project site, and offers an opportunity to enjoy walking, rollerblading, and biking. The Harlem Valley Rail Trail runs from the Wassaic train station through the Hamlet of Amenia, and into Columbia County to the north. In addition, NYS Route 343 is currently designated as a bike route, and US Route 44 and NYS Route 22 are being explored for future designation as bicycle and pedestrian routes.

Truck Routes / Construction Routes

It is anticipated that most construction vehicles will come to the project site from US Highway 44 and NYS Route 22. During the initial stages of construction, the main site entrance along Route 22 will link the site to the regional highway network. However, as construction proceeds, vehicles and equipment will also enter the project site via access from Route 44 for Areas "L" and "M," which are located to the north of Route 44. Heavy equipment will be delivered to the site and will remain on the site until that piece of equipment is no longer needed. Daily access traffic will be passenger vehicles that will bring workers to and from the site.

3.7.3 Proposed Mitigation Measures

The Traffic Impact Study for the Proposed Action analyzed the impact of future traffic conditions with and without the proposed Silo Ridge Resort Community in relationship to the existing roadway network. As outlined in Table 3.7-4, all studied intersections except Route 22 at the proposed Hotel/Golf Course main access/egress will maintain acceptable LOS under all of the future traffic conditions analyzed. As mitigation for the project's potential traffic impacts, the Applicant will pursue the signalization of the intersection at Route 22 and the main site access via the NYSDOT highway work permit process. The signal improvements, if approved by the NYSDOT, would include turning lanes on both the northbound and southbound sides of the road for entry into the project site.

Based upon the results of the analysis, the existing roadway network will not be adversely affected by future traffic conditions as a result of the proposed

development. In addition, the internal roadway network will provide adequate road width and site distance to foster safe pedestrian and biking movements.

While not required as mitigation, the Applicant is considering the use of alternative energy vehicles to be available to project users for on-site use and for local exploration of tourism, shopping, and recreation opportunities within Amenia. Shuttle service between the project site and the hamlet of Amenia and the Wassaic MetroNorth train station will also be provided as a community service. It is anticipated that the hotel operator will operate the shuttle, as is typical of many hotels, and the details of the program will be addressed when a hotel operator is identified. It should be noted that the traffic analysis presented above does not account for either of these features in estimating future traffic impacts of the project. Therefore, implementation of either one or both would result in a reduction in traffic from the numbers presented in the impact analysis.

As noted above in Section 3.7.2, each different land use component of the proposed project was considered independently for the purposes of estimating traffic generation. Therefore, while the proposed onsite retail uses, including the spa and restaurants, are expected to receive considerable patronage from site residents and hotel occupants, traffic volumes on the adjacent roadway network were not adjusted to take this into account in order to present a worst-case scenario for estimating traffic impacts. It is anticipated that the provision of onsite retail uses, as is proposed, would cause actual offsite traffic volumes to be less than those analyzed for the purposes of this DEIS.

Construction Vehicles/Access

Construction traffic and activities will generally be conducted Monday through Saturday, between 7:00 AM and 6:00 PM. As construction vehicles will be coming to the site from various locations at various times, it is anticipated that there will not be significant impacts to surrounding roadways from construction vehicles. Furthermore, heavy equipment will be delivered to the site and will remain on the site until that piece of equipment is no longer needed, thereby reducing daily traffic trips. No further mitigation is proposed.

Access Points Relative to Traffic Safety

The internal roadway network will be designed to accommodate emergency vehicles and the proposed site access connections are located at areas that provide adequate sight distance for exiting and entering vehicles. No mitigation measures are proposed.

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