

Master Development Plan
Silo Ridge Resort Community

Town of Amenia
Dutchess County, New York



ROBERT A.M. STERN ARCHITECTS

VILLAGE GREEN
SILO RIDGE GOLF RESORT
AMENIA, NEW YORK
10/12/2007

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Silo Ridge Resort Community
Master Development Plan Package

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I. Existing Conditions

The 670±-acre project site is located west of NYS Route 22 in the Town of Amenia in eastern Dutchess County, New York, approximately 25 miles east of Poughkeepsie, NY and five miles west of Sharon, CT. The site is approximately ½-mile southwest of the hamlet of Amenia and two miles north of the hamlet of Wassaic. It is accessible via US Route 44 from the east and west and NYS Route 22 from the north and south. The Wassaic Metro-North train station with service into New York City's Grand Central Station is located approximately ½-mile south of the site.

Approximately 170 acres of the project site consists of the Silo Ridge Country Club, an 18-hole golf course and clubhouse with associated amenities. The project area also includes approximately 47± acres of ponds, streams, and wetlands and 12± acres of roads, buildings, and other paved surfaces. A 2.2-acre parcel north of Route 44 is developed with an unoccupied residential building. The remaining acreage consists primarily of undeveloped land not in agricultural use. This includes approximately 230 acres of wooded land on the hillsides and ridge to the west of the golf course.

Land uses within a ½-mile radius of the project site include: agricultural; commercial; community and public services; industrial; residential; recreation and entertainment; wild, forested, conservation lands and public parks; and vacant land. The predominant land use within a ½-mile radius is "wild, forested, conservation lands and public parks." It should be noted that much of the land within the project site that is identified as "vacant land" is forested, particularly in the western portion of the site.

As noted above, the 670±-acre project area is largely vacant and undeveloped, except for a 2.2-acre residential parcel and the existing golf course and its associated amenities, which include a clubhouse and banquet facilities. The recreational facilities, including the golf course, encompass approximately 135 acres of the 170±-acre parcel. The 18-hole golf course is open to the public and supports approximately 30,000 rounds of golf per year. The clubhouse and banquet facilities are used for special events, including conferences, meetings, weddings, and other special occasion parties. In addition to the golf course, open space on the project site also includes the approximate 230-acre hillside and ridge in the western portion of the site.

The project site has varying topography, with slopes ranging from almost 100% to nearly flat. Approximately 58% of the project area has slopes greater than or equal to 15%.

A small area in the northeast portion of the project site along Route 22, south of Route 44, is adjacent to Amenia/Cascade Brook. Approximately 11.6± acres of this area of the site are within the 100-year flood plain. All other areas of the project site appear to be outside of the 100-year flood plain.

According to the Wetland Delineation Report prepared for the proposed project, there are eight streams on the project site, two of which are perennial (flow year-round) and six of which are intermittent (dry some of the time). One of the perennial streams is Amenia/Cascade Brook, which enters the project site south of Route 44, traverses along the eastern property boundary, and exits the site near the existing golf course entrance on Route 22. The other perennial stream is unnamed. The stream flows southeasterly and drains into Amenia/Cascade Brook off of the project site. The remaining streams are denoted on the wetland delineation map. There are 11 wetlands located throughout the project site, totaling approximately 36 acres.

The project site currently obtains water from a combination of sources. The existing clubhouse is served by a water supply system consisting of an onsite groundwater supply well, water treatment equipment, and finished water storage. The existing golf course irrigation system is a separate and independent system used to irrigate the tees, greens, and fairways. In total, approximately 135± acres are currently irrigated. Irrigation water is drawn from a natural spring pond onsite and distributed via a network of underground piping to irrigation sprinklers. The irrigation pond is fed by a natural spring source, a small onsite stream, and by stormwater runoff from the site.

The existing sanitary wastewater system consists of an onsite septic system with subsurface disposal via leach field. The system operates under New York State Pollution Discharge Elimination System (SPDES) permit number NY0234966, with a permitted flow rate of 0.0126 million gallons per day (MGD) or 12,600 gallons per day (gpd) and a permit expiration date of 2025.

The project site is currently accessible via a main entrance on NYS Route 22. This entrance provides access to the Silo Ridge Country Club. The residential parcel north of Route 44 is accessed by a driveway on the westbound side of Route 44. The eastern boundary of the project site is Route 22, which is a major north-south transportation route through eastern Dutchess County. US Route 44 bisects the project site in the northern portion of the property.

II. Overview of Project

Sheet SP2 of the Master Development Plan (MDP) Set of Drawings dated 4-3-08 illustrates the overall Master Plan for the proposed Traditional Neighborhood Alternative. The project includes a 300-unit hotel and a total of 338 residential units, including single-family homes, golf villas, vineyard cottages, flats, and townhomes as described in the table below and in more detail on SP-4. The existing Silo Ridge golf course is proposed to be renovated under the direction of Els Design and will seek Audubon International's Silver Certification, and the existing clubhouse will be demolished and rebuilt in approximately the same location. The proposal also includes a "winery" themed restaurant and Artisan's Park overlook north of the hairpin turn on Route 44, which is intended to serve as a tourist destination and afford an opportunity to enjoy the views from DeLavernge Hill. The project is intended to be built and heavily marketed as a second-home, resort style community, where the vast majority of residential unit owners are expected to be part-time residents who occupy their homes on weekends or for short vacation stays.

Traditional Neighborhood Alternative Development Program

Land Use	Number/Size
Residential Units:	338 Total
Flats (All 2 Bedrooms)	136 (1,500 to 1,600 sf)
Townhouses (All 3 Bedrooms)	142 (1,700 to 2,700 sf)
Single Family and Golf Villa Units:	
3-Bedroom Units	31 (3,000 – 4,400 sf)
4-Bedroom Units	23 (3,500 – 5,400 sf)
5-Bedroom Units	6 (6,000 sf)
Hotel and Amenities:	
Hotel	300 Units (367 Keys)
Restaurant & Lounge	150 seats
Cafe	30 seats
Banquet Area	300 seats
Conference Space	145 seats
Golf Clubhouse:	29,000 sf
Restaurant	80 seats
Lounge/Bar	40 seats
Golf Shop	4,000 sf
Spa	46,000 sf
Retail Space	18,700 sf
Winery:	5,000 sf
Restaurant	80 seats

The Traditional Neighborhood Alternative plan creates a pedestrian-friendly environment by concentrating approximately 64% of the proposed residential units (216 units) and all 300 hotel units within a ¼-mile radius or "resort core area,"

which facilitates and encourages comfortable pedestrian travel between the various resort components and amenities. In addition to the residential units and hotel, this ¼-mile area also includes the spa, dining facilities, retail uses, below-ground parking, the golf clubhouse and pro-shop, and banquet/conference facilities. The Traditional Neighborhood Alternative also incorporates mixed-use buildings with small-scale ground-floor retail uses and residential uses on the upper floors, and emphasizes the use of public spaces such as greens and courtyards to unify the development and foster interaction among people. These elements of the project's design contribute to a sense of place and vitality, which are key attributes of a traditional neighborhood concept.

This Alternative layout also proposes a system of sidewalks and golf cart paths throughout the site to connect all major components of the development. The walks and paths will be separated from the street by planting strips and planting areas, as specified in the Final Scoping Document, and will follow the street alignment in some places and deviate from the street alignment in other locations to adjust to natural vegetation and topography. Street trees will be provided to create shade and add visual interest to the streetscape.

The retail uses and restaurants will provide for onsite entertainment and convenience. There is intended to be a synergy between the proposed resort and the hamlet, where retail uses in the hamlet would experience positive effects due to the existence of the proposed resort use.

III: Silo Ridge Resort Community Master Development Plan: Outline of Proposed Improvements

In furtherance of reducing grading impacts, reducing impervious surfaces, reducing impacts to wetlands, reducing visual impacts, reducing tree clearing, improving circulation, increasing green spaces, use of the green spaces, and increasing parking clarity, among other benefits, set forth below for your consideration are a number of proposed improvements included in this Master Development Plan ("MDP") submission dated 4-3-08. These proposed improvements to the MDP derive primarily from comments received during the public comment period on the Draft Environmental Impact Statement ("DEIS"), which commenced mid-October 2007, although they also reflect an effort by the project team to improve and better define the MDP as part of the on-going design process, with the overall effect being a reduction of the environmental impacts of certain components thereof. The estimated aggregate reduction is summarized at the end of this outline.

In the outline below, initially the general comment theme is identified and then the refinement explanation follows. The outline below represents an effort to advance the Master Development Plan design while trying to be responsive to some public comments in a positive manner in advance of the meetings that will occur regarding comment responses.

Main Resort Entry Road:

1. Comment: concerns about a "gated community", emergency vehicle access and traffic flow into the resort during busy times.
 - The Main Entry Road has been slightly refined to allow a smoother flow past the Welcome House and into the main Village Green area. Previously the entry started wider at route 22 and came to a T intersection past the Welcome House. We envision the front entry to be understated and elegant and have the feel of a country lane. The positive results of this revision are:
 - Smoother traffic flow past the Welcome House into the resort
 - A decrease of impervious road surface area.
 - To clarify the intent of the Welcome House, it provides a place for visitors to be greeted and given direction they may need. It also provides a control point for security and safety purposes. The hotel, hotel restaurants, hotel lounge and retail shops are open to the public. However, it is in the best interest of residents, guests, visitors and employees of the resort that a record of persons

entering the resort be catalogued. Therefore, if a visitor wants to go into the resort they would simply check in at the Welcome House and they would be provided direction from there. Protocol will be established by the Resort Operator.

Tennis courts:

2. Comment: Are tennis courts lit, effect on night sky, are they indoor or outdoor, impervious surfaces/runoff?
 - The tennis courts located to the east of the Spa on the Preliminary MDP have been relocated so some of this area to the east and north of the spa can stay green and naturally landscaped. We believe this change enhances the natural setting which will serve as backdrop to the Welcome House. These two tennis courts were re-located to south of the employee parking lot. They will be outdoor and not lit for night use.
 - The tennis courts (2) previously located at the north end of Block B have been eliminated. The positive results are:
 - This results is a net decrease of 14,400 square feet of impervious surface
 - The tennis court previously located adjacent to Wetlands L has been eliminated. The positive results are:
 - Reduced the impervious surfaces by 7,200 square feet.
 - Larger buffer area west of Wetland "L"

Block B:

3. Comment: Parking clarity, impervious, grading impacts
 2. Road and alleyways have been refined as follows:
 - The road previously located against the treed knoll has been shifted to the east side of buildings C-8, C-9, C-10, C-11 to the approximate previous alley location. We are also looking to increase the magnitude of this wooded knoll toward the north. This results in the following positives:
 - Reduces impervious surfaces
 - Reduced tree clearing

- Enhanced visual buffers
 - Reduced grading impacts
 - Provides for natural settings for rear yard enjoyment for C-8, 9, 10, 11.
 - Further activates the Middle Green in keeping with the pedestrian friendly vision and goal.
 - Parking is within the footprint of the buildings which eliminates the need for a rear alley thus further reducing the impervious surfaces.
 - Shared street parking for guests and residents
- The road that previously dissected the Middle Green has been eliminated which results in the following positives:
 - Reduces impervious surfaces
 - Reduced grading impacts
 - Allows for more contiguous shared green space
 - The parking area under the Middle Green has been eliminated. Positive results are:
 - Reduced all grading impacts associated with it.
 - Parking for units abutting this green will be within the footprint of the buildings.
 - The northeast portion of Block B has been configured to allow for another small neighborhood green. Positive results are:
 - Shared green space for residents

Block C:

4. Comment: Parking clarity, grading

- The Upper Green has been slightly elevated from previous elevation to allow more efficient flow and access to parking located below the green. The positive results are:
 - Reduce grading impacts
 - Increased parking efficiency and access.
- Shifted Building C-12 slightly to the south. The positive results are:
 - Reduced grading impacts

- Building C-13 was also shifted from behind C-14 so it has better access to the Upper Green

Block E:

5. Comment: Parking clarity, grading

- Rear alleys and detached garages were removed and parking was placed below grade. Additionally the road alignment was slightly re-aligned to move it off the wooded knoll more. Positive results are:
 - Reduced the impervious surfaces.
 - Reduced grading impacts
 - Reduced tree clearing
 - Year yard green space

Blocks F & G:

6. Comment: Visual Impacts

- The building massing adjacent to the 12th tee area has been reduced. Positive results are:
 - Reduced the visual impact
- The alley behind S-8 has been removed:
 - Increases wetland buffer
 - Less impervious surfaces

Block H:

7. Comment: Visual Impacts, Wetlands and Watercourses

- The 4 single family homes directly west of Wetland L have been removed from this area and placed at the southern end of the west road. This provides for no housing units south of the stream crossing on the east side of the sight adjacent to Wetlands L. Positive results are:
 - Reduced visual impact from Viewpoint 1 and 2
 - Increased wetland buffer

- Note: This potentially shifts the visual impact from viewpoint 7 (left) although it is our belief that the nature of the trees in the proposed location as opposed to the previous location provides a better visual buffer

Blocks I, J, K, and L:

8. Comment: Concerns about clearing single family sites, spec houses, grading, phasing.

- This area was spot surveyed to locate the proposed road, proposed lot locations, rock outcroppings and trees and then hiked by teams including civil engineers, architects/planners and Millbrook Ventures to review the proposed locations with the goal being to employ the best use of the existing grades/topography and try to save certain rock outcroppings. Our vision here is to create a country road that meanders through the foot of the hillside woods. The road is generally in the same location however subtle changes have been made based on rock outcroppings, grade and large trees. Some of the proposed home sites have been shifted slightly to better situate them with regard to grade as we wanted to reduce retaining wall heights and lengths and grading impacts. This approach will minimize the necessity to develop large pad areas for grouped homes which would have also included retaining walls. We are not trying to carve out flat pads for these homes, the intent is to custom design hillside style homes that work with the given topography of the home site. Positive results are:
 - Reduced grading impacts and retaining walls
 - Limit disturbance to a specific home site at a given time as opposed to creating multiple pads at a time

Block V:

9. Comment: Density and visual

- We have reduced 19 flats from this area. This area is proposed to be cottage style detached townhome style dwellings. Positive results are:
 - Decreased density
 - Less water needed
 - Less wastewater generated
 - Reduced bedroom count

- Reduced certain detached garage structures
- Note: Negative tax revenue due to less units, this will be re-calculated

Based on the above outlined improvements we estimate:

- 70,000 CY less grading disturbance
- 65,000 SF less impervious surface
- Reduced 2+ acres of clearing
- Reduced bedroom count by 38
- Increased wetland buffers
- Reduced visual impacts
- Reduction in retaining walls

In view of the foregoing, we believe that the proposed improvements enumerated above will clearly not create any new "significant adverse environmental impacts", and will actually reduce the environmental effects of the proposed MDP.

Note: An overlay plan comparing the Preliminary MDP submitted December 12, 2007 to the Master Development Plan being submitted April 3, 2008 can be provided to the town's planning consultants to verify the above.

IV. Overview of Silo Ridge Resort Community Master Development Plan set of drawings dated April 3, 2008:

Sheet T1 Title Sheet:

- Project Name and Applicant information
- Vicinity Map identifies the location of the project and its relation to Amenia
- Site Location Map indicates the project boundaries and adjoining property owners along with the associated lot and tax map numbers.
- List of Drawings shows the description of drawings that make up the MDP along with dates of drawings and revision dates
- Project Team: This lists the organizations that are most involved with the project at this point in time.

Sheet SP1 Existing Conditions:

- This plan shows the existing conditions of the Silo Ridge property including but not limited to golf course, roads, buildings, wetlands and watercourses, boundaries, contours. This is looking down on the site from above (typical) at a scale of 1" = 200'. The scale is shown in the Title Block at the lower right hand corner (typical). This "scale" represents 1" measured on the plan equals 200' at the actual site.
- Typically to get oriented on a plan you locate something you are familiar with. As an example, Route 22 can be seen at the bottom of the page and the existing Silo Ridge Clubhouse can be seen at approximately the center of the page. The direction arrow at the upper left hand corner of the sheet indicates north is to the right.
- Contour lines indicate the elevation of the ground above sea level at 2' intervals. The closer the contour lines are to each other the steeper the grade. As an example, the dark band of contour lines (close together) about 2/3 of the way up the sheet indicates steep terrain.
- The project boundary is the bold dashed line surrounding the property.

Sheet SP 2 Illustrative Master Plan (by RAMSA):

- This is an overall layout plan indicating buildings, roads, golf course layout and water features. The intent is for this sheet to be an illustrative plan that is supported by more technical details on later sheets in the MDP.

Sheet SP 3 Master Plan (Key Plan):

- This sheet shows the layout of the Master Plan as designed by Robert A.M. Stern Architects (RAMSA). This plan includes but is not limited to concept road configurations, approximate building footprints, and golf course layout.
- Overall project boundary is shown
- A Legend is included to identify the building types that are shown on the plan. A letter and number designation for each building on the plan has a corresponding description in the Legend. Further details for each building can be found on Sheet SP4.

Sheet SP 4 Program Detail Summary

- This sheet includes the Unit Count, Parking Allocation and other Master Development Plan Information. The items included in this table are reflective of what is shown on the Key Plan. For example C-10 is shown on the Key Plan, you then locate C-10 on the Program Details and find further information such as # of units, square footage, maximum height, ownership, and parking among other things.
- The detail on this sheet is also broken down by Phase

Sheet SP 5 Open Space Plan:

- This sheet indicates the open space areas when the project is completed. Per Resort District Overlay in July 2007 Zoning Law, 80% open space is required. This plan indicates how the 80% open space calculation was derived. The open space is broken down into different habitat designations which are color coded.

Sheet SP 6 Overall Phasing Plan:

- This sheet shows the concept of how the project is expected to be phased by color coding the phases on the Master Plan. Each color is a different phase.
- The Phasing Schedule shows the anticipated time allocated to each component of each phase.

Sheet SP 7 Site Plan – Phase 1 Village Core:

- This sheet is an enlargement plan of the Village Core area, which includes roads, driveways, plantings and building footprints. Building footprints are in red, lawn areas in light green and trees shown in dark green.
- The scale is 1/32" = 1'- 0"

Sheet SP 8 Site Plan - Phase 1 Hotel, Spa and Pool:

- This sheet is an enlargement plan of the Hotel, Spa and Pool area, which includes roads, drives, parking areas, plantings, building footprints, pool and spa areas. Building footprints are in red, lawn areas light green, and trees shown in dark green.
- The scale is $1/32" = 1' - 0"$

Sheet SP 9 Site Plan - Phase 1 Golf Clubhouse and Villas:

- This sheet is an enlargement plan of the Golf Clubhouse and Villas area, which includes roads, drives, paths, plantings, Golf course area with some contours and building footprints. Building footprints are in red, lawn are light green and trees shown in dark green.
- The scale is $1/32" = 1' - 0"$

Sheet SP10 Site Plan – Phase 1 Welcome House:

- This sheet is an enlargement plan of the Welcome House area showing the smooth flow from the Main entrance road into the site. This includes paths, fairway areas with contour elevations for holes 4 and 5 to the right side, building footprints, plantings, large pond and grass areas.
- The scale is $1/32" = 1' - 0"$

Sheet SP11 Site Plan – Phase 1 Winery:

- This sheet is an enlargement plan of the Winery area which includes the building footprint, driveway, parking areas, plantings and Artisan's Park overlook area.
- The scale is $1/32" = 1' - 0"$

Sheet SP12 Site Sections – Hotel Lawn and Gardens:

This sheet shows section views of the Hotel area including the Terrace stairway, trees and Hotel Lawn. The section location is depicted in the Key Plan box on the bottom right of this drawing.

Sheet SP 13 Site Sections – Phase 1 Hotel Pool

This sheet shows section views of the Hotel pool area which includes the stepped terraces, trees, pool terrace and golf path areas.

Sheet SP 14 Site Sections – Phase 1 Shared Gardens:

- This sheet shows section views of the Shared Garden areas for the hotel and spa.

Sheet SP 15 Site Sections – Phase 1 Golf Clubhouse:

This sheet shows section views of the Golf Clubhouse area which includes the underground parking, terraced lawn over the parking area, roads, sidewalks and planting areas.

Sheet SP 16 Site Sections – Phase 1 Golf Villas:

This sheet shows a section view of a typical Golf Villa as it relates to the contours of the site. This section includes roads, sidewalks, parking, trees, lawns, drives, yards, sidewalk terraces and transitions into the golf course.

Sheet SP 17 Site Sections – Phase 1 Winery:

This sheet shows a section view of the Winery area which includes sidewalks, parking lot, plantings, trees and an observation area.

Sheet A-5 “Winery” Restaurant Elevations:

- This sheet shows 2 architectural elevations of the “winery” themed restaurant

Sheet A-6 “Winery” Restaurant Elevations:

- This sheet shows 2 architectural elevations of the “winery” themed restaurant

Sheet A-7 Winery Renderings from Visual Points #1 and #4:

- This sheet shows 2 renderings of the winery that have been excerpted from the video being produced to how the winery looks while driving on Route 44
- The viewpoints are generally in the same location as was requested in the DEIS with the exception that from viewpoint 1 the camera was turned further east so the winery would come into view.

Sheet A-1 Elevations:

- This sheet shows Architectural elevations from RAMSA

Sheet A-2 Elevations:

- This sheet shows Architectural elevations from RAMSA

Sheet A-3 Elevations:

- This sheet shows Architectural elevations from RAMSA

Sheet A-4 Elevations:

- This sheet shows Architectural elevations from RAMSA

Sheet P-1 Parking Table:

- This table shows how the parking allocation has evolved. On the left portion it indicates DEIS minimum parking requirement, in the center it shows Preliminary Master Development Plan allocation and on the right is the Master Development Plan allocation. This plan also has the “Shared Use” reduction calculations.

Sheet P-2 Parking Allocations:

- This sheet shows specific information as to how many parking spaces have been allocated to each building or use and what type of parking facility is provided.

Sheet P-3 Parking Site Plan:

- This sheet shows the layout for the 3 main underground parking structures.

Sheet P-4 Parking One – Plan:

- This sheet shows the layout of the main Parking Structure for the resort

Sheet P-5 Parking One – Sections:

- This sheet shows typical sections views of the main Parking Structure

Sheet P-6 Parking Two – Plan:

- This sheet shows the layout of under hotel Parking Garage

Sheet P-7 Parking Three – Plan:

- This sheet shows the layout of the parking at the Clubhouse/ Upper Green area.

Sheet P-8 Parking – Residential Garages:

- This sheet shows a few typical layouts of the parking areas for some of the Residential multi-family buildings.

Sheet GP-1 Grading Plan:

- This sheet shows the northern half of the site which includes the layout of roads, buildings, retaining walls and proposed grading contours in two foot increments. The darker contours represent the proposed grades. The contour numbers represent the elevation in feet above sea level.
- The scale is 1" = 100'

Sheet GP-2 Grading Plan:

- This sheet shows the southern half of the site which includes the layout of the roads, buildings, retaining walls and proposed grading contours in two foot increments.
- The scale is 1" = 100'

Sheet U-1 Overall Wastewater Master Plan:

- This sheet indicates the wastewater conveyance system with colored lines identifying specific pipe uses.
- The Legend shows the colors identifying pipe uses.

Sheet U-2 Wastewater Treatment Plant – Site Plan:

- This sheet indicates specific layout of the structures at the WWTP site

Sheet U-3 Wastewater Treatment Plant – Elevations:

- This sheet shows elevation views of the Wastewater Treatment plant

Sheet U-4 Overall Water Supply System Master Plan:

- This sheet indicates the water supply system with colored lines identifying specific pipe uses.
- The legend shows the colors identifying pipe uses.

Sheet LA-1 Site Diagram – Planting:

- This sheet shows the proposed planting design layout.
- Photos indicate proposed typical plantings to be used.

Sheet LA-2 Site Diagram – Lighting:

- This sheet shows the proposed site lighting along the main roadways (Upper Drive, Main Street, South Lawn Drive and South Lawn Lane). This is conceptual in nature and will be more fully reviewed to comply with LEED requirements.

Sheet LA-3 Site Diagram – Walls:

- This sheet shows a plan view of the site estimated wall locations indicated in red. Photos of typical stone walls and stairs are shown also with a description of how we plan to blend into the natural landscape. This concept plan reflects the architects understanding of key landscape stone wall features.

Sheet LA-4 Site Diagram – Materials and Furnishings:

- This sheet shows the proposed Paving, Curbing, Sidewalks, Steps, Pathways and Site furnishings. See the key note box on the right side of the drawing for the appropriate color coded symbols.

Sheet LA-5 Site Diagram – Signage:

- This sheet shows a plan view of the proposed location of signage for the Main areas, the Golf Course areas and the Way finding areas. See the key note box on the right side of the drawing for the appropriate symbols.

Sheet LA-6 Precedent Images – Hotel, Spa and Pool:

- This sheet shows examples of other Pools and Spas. We intend on using these as a guide in our design.

Sheet LA-7 Precedent Images – Winery:

- This Sheet shows examples of other Winery and Valley views. We will use these as a guide for the look we want to achieve.

Sheet ENV-1 Environmental Constraints Map:

- This sheet shows slopes, wetlands, visually sensitive, golf course and buffers

Sheet ENV-2 Management Zones:

- This sheet depicts the buffers and management zones that have been collaborated on between Els Design (golf course) and Audubon Environmental (Silver Certification) for the golf course and adjacent areas.
- This sheet is being submitted under separate cover

V. Silo Ridge Resort Community: Parking Management Strategy

Note: This narrative is supported by Drawings P-1 through P-8 of the MDP drawing set dated 4-3-08.

Applicable Zoning Provisions and Other Standards

In pertinent part, the RDO Section 121-18, Resort Development Overlay District) specifically provides that the off-street parking requirements elsewhere set forth by ordinance shall not apply; this provision recognizes the varying forms and circumstances of development, allowing for considerable discretion in determining the specific parking requirements for projects such as the Silo Ridge Resort Community.

Similarly, there are no specific industry standards, guidelines or recommendations, whether from the National Parking Association or the International Parking Institute and its various state affiliates, or from a wide sampling of references in the field of transportation demand management that will recognize the form and circumstances of a resort-oriented mix of land uses integrated into a single plan of development and taking into account the unique factors pertinent to one such development.

It was even determined that the Professional Golf Association, which does have minimum standards for parking for driving ranges, offers no standards for 18-hole golf courses. A sampling of codes throughout the nation and information obtained from golf courses and golf management professionals supported the need for flexibility in determining the appropriate number of parking spaces for any given golf course, especially one that is the centerpiece of a resort-oriented development including residential land uses. Factors such as exclusivity and wait times, tee time policies and intervals, the pace of play and the availability of amenities all come into consideration.

Approach

The developer's team has worked diligently toward an overall parking requirement that will be appropriate for the nature of the development and all of the conditions that will apply. This, the team observed, was in keeping with the intent of the RDO.

As the project plans have unfolded, the mix of land uses on the Silo Ridge Resort Community campus has presented certain opportunities for shared parking and the application of parking management techniques. The proximity of various land uses, as is explained in the Urban Land Institute's report on "Shared Parking,"

affects the overall supply of parking required by reason of complimentary variations in the demand for parking at different intervals of time, day or season; in this regard, an obvious example would include seasonal differences in the demand for parking to support the golf course and the skating pond. Similarly, the demand for parking to support conference activities will peak at different times than will the demand for parking to support recreational activities.

In addition, the ULI report recognizes the concept of “captive parkers,” or those who participate in multiple land uses while already parked on campus, such as in the case of golfers who also stay in the hotel, shop, dine or visit the spa on a single trip to the campus (without increasing the overall demand for parking). A review of land uses planned for the Silo Ridge Resort Community “campus” as a whole reveals that an appreciable but incalculable portion of patrons will be in this category at any given time. This accounts for an appreciable reduction in the demand for parking compared to unrelated, stand-alone land uses.

The team also reviewed the Transportation Demand Management Encyclopedia, a frequently cited comprehensive reference of research from the Victoria Transport Policy Institute, which provides some applicable information on shared parking to justify parking reductions. This source speaks to some of the shared parking opportunities that arise out of relationships between non-conflicting land uses such as for a church and a theater, or a church and a bank, and provides strong support that “...parking requirements for retail, restaurant, hotel, convention and conference uses may be reduced where it can be determined that some portion of the patronage of these businesses comes from other uses...”

This same source supported the need for formal agreements between property owners to secure shared parking arrangements; however, the project team recognized that such arrangements would not be applicable in this case because the Silo Ridge Resort comes under the control of a single developer. In addition, the major advantage that the Silo Ridge Resort has over more typical shared parking arrangements is that the primary method for sharing is one of managed parking through valet services, rather than the more difficult (and less predictable) arrangement of shared parking in a self-park fashion; the plan is that the valet service will be able to shift among and between available parking supplies to match peak demands of complimentary land uses as/when required.

Accordingly, a wide variety of factors, including but not limited to the following, were also put on the table for evaluation among team members:

- Proximity to rail station, plans for shuttle service (for residents, guests, customers and employees traveling on campus and to/from the Town and train station), and the likelihood of arrivals by means other than single-occupant vehicles.

- There will be a significant reliance on valet parking at the core of the resort; this will allow for a greater number of vehicles to be stored in a given area (as opposed to self-park arrangements), while also allowing for a sharing of parking resources among a greater number of land uses. Vehicle storage capacities are now accounted for and valet queuing areas have been identified in relation to the land uses that will be supported with this service.
- Overlapping parking allocations arising out of internal relationships (between land uses) invite a number of opportunities for “shared parking,” resulting in an overall parking requirement that is less than would be the total parking requirement for individual land uses under stand-alone circumstances.
- The developer’s hospitality advisor indicates that the hotel plan will focus on an overall occupancy of 70 percent.
- Many of the participants in any given land use are already accommodated in the parking allocation for one or more other land uses; the developer’s resort advisor indicates that, on average, about 80 percent of spa users (not envisioned as a “day spa”) will already be on campus as residents or guests; roughly the same percentage will apply to conference patrons, and about 50 percent of banquet patrons will already be on campus.
- A considerable but as-yet undetermined percentage of golf course patrons will also be parked on campus, either in residential areas or at the hotel. The developer expects that this will account for a majority of golfers, as the golf course is expected to operate primarily as a semi-private facility.
- Retail and office space land uses are accessory and incidental to the primary land uses.

All of this has given the developer confidence that the parking allocations presented in the development plan are reasonable.

Highlights of Parking Provisions in the Plan

Parking allocations for residential land uses have been increased considerably over the original recommended minimum parking requirements, and site plans have been adjusted to maximize opportunities for shared parking and parking management strategies.

Overall, the parking allocations provided by the master development plan are considered appropriate to meet the projected demands for parking that could reasonably be associated with each of the planned land uses.

This is particularly the case because the majority of parking from other than residential land uses will be accommodated with managed parking rather than as self-parking; the latter would require a greater number of parking spaces than would otherwise be the case.

The overall allocation of parking for residential land uses will exceed what is called for by traditional zoning criteria; this will leave a balance of parking that can be made available as and when required for shared parking and parking management strategies such as valet parking. In addition, the plan provides for 113 unassigned on-street parking spaces conveniently located both the residential and common areas.

The key to all of this is that the developer plans to manage the assignment of variable parking demand on an as-needed basis through the provision of valet parking services for the “hospitality” component of the campus. In this regard, the demand for parking – whether it be generated by the golf course, the hotel, the spa or any of the associated activities – is to be met by valet services that the developer plans to staff and manage as required in order that storage of valet vehicles can be managed among and between three separate below grade parking facilities. The developer anticipates that the storage location of any one vehicle compared to another will remain transparent to customers, so that staff can maximize the use of vehicle storage areas while minimizing the turnaround time for retrieval of stored cars.

Status

The developer has asked for continued assistance in that, as the site plan advances, employee parking policies and valet operating plans must be outlined, applicable technologies must be investigated, and staffing requirements must be determined for routines as well as for peak periods and events.

For example, and already under consideration, is the use of a valet handling system that will employ bar-coded tickets by which the customer can alert staff in advance of the time a vehicle is required. This is a very common practice that allows the valet attendants to anticipate customer requirements and retrieve vehicles at the optimal time to reduce queuing problems at the valet station.

In addition, the developer and hospitality advisors have a good understanding of the manpower cost implications involved in obtaining a desired level of service,

indicating that the team is fully prepared to deliver an effective valet parking program.

Submitted by Tom Calu, Parking Consultant

VI. Lighting Narrative

Silo Ridge – Design Intent Statement on Outdoor Lighting

Sustainability of lighting encompasses many issues: energy use because of power generation impacts on air quality and global climate change; use of materials because of their embodied energy; toxic by-products of mining, manufacturing and transportation; and light's unintended negative impact on flora, fauna, and human biology. The unwanted consequences of outdoor lighting include three main issues: Light Pollution (Sky Glow), Light Trespass, and Glare.

Energy Use

Shutting off lights when not needed, reducing usage to only the amount of light needed, and using energy-efficient lighting products are the three principal ways to reduce energy use in the Silo Ridge community. Reduced energy use in turn reduces environmental pollution, resulting damage to the environment and human health, and reduces the need to build costly power plants.

Light Pollution, Light Trespass, and Glare

Light Pollution (Sky Glow) is unwanted stray light in the atmosphere from light emitted directly upward by luminaires, or reflected from the ground. Particles in the air scatter the light, creating a glowing haze above a city or site. This light pollution is both a waste of energy because it serves no purpose, and it diminishes the ability of people and astronomical instruments to observe the night sky. Furthermore, light pollution and stray light disrupt the migration pattern of birds and can negatively affect the survival of frogs and sea turtles and other creatures.

Light pollution can be minimized by using the lowest wattage lamps that achieve the target light levels, and by selecting luminaires (light fixtures) that emit minimal, if any, light directly upward. Light emitted horizontally from light fixtures (from 90° to 100° as measured from straight downward) contributes most strongly to light pollution, so it is important to use fixtures that direct less light at those angles.

Light Trespass is light emitted toward neighboring properties where it is not wanted. Sometimes this light enters bedroom windows, making it difficult for people to sleep, and sometimes it becomes a distracting or annoying patch of brightness seen from a distance. Street lights that emit light near horizontal angles, and wallpacks (lensed wall fixtures that emit a lot of horizontal light, such as the

fixture shown below) are the biggest culprits for Light Trespass, although pole-mounted parking lot or sportsfield lighting fixtures can cause problems also.



Typical glaring bollard/pathlight, acorn post-top light, and wallpack.



Light trespass can be minimized or eliminated through the careful selection, location, and aiming of luminaires. It is important to choose luminaires that direct their light onto the intended areas, away from neighboring properties.

Glare is created when a light source is very bright relative to its background. It can be distracting or uncomfortable (called “Discomfort Glare”), or can interfere with a driver or pedestrian’s ability to see clearly. The latter is called “Disability Glare” or “Veiling Glare” and is very dangerous.

Glare can be reduced by choosing luminaires that direct light only where it is needed. By shielding the excessive brightness of the lamp or optical system from important viewing angles, we can improve the clarity of seeing for both the driver and pedestrian.

LEED®

Leadership in Energy and Environmental and Design (LEED®) is a program through the United States Green Building Council (USGBC) that has established goals for sustainable projects. This report will outline the goals for the Silo Ridge Hotel and Clubhouse’s site lighting.

Lighting Zones and Responsible Outdoor Lighting

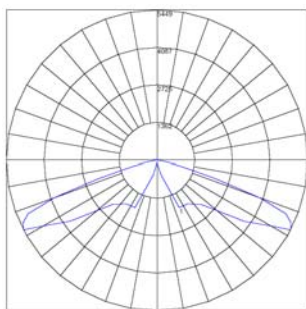
LEED® Sustainable Sites Credit (SS8: Light Pollution Reduction) aims to reduce light pollution and impact on the nocturnal environment. This is accomplished by restricting the light leaving the interiors of buildings on the site, limiting light trespass, and limiting upward light.

The LEED® rating system classifies projects according to the following light zones: LZ1 – Dark (Parks and Rural Settings), LZ2 – Low (Residential), LZ3 – Medium (Commercial/Industrial, High-Density Residential), and LZ4 – High (Major City Centers, Entertainment Districts). Silo Ridge’s main street with clubhouse and retail/restaurant areas qualifies as LZ2 and the following are the LEED® requirements for this zone.

LZ2 — Low

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.10 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

The IESNA Luminaire Cutoff Classifications describe the light distribution of outdoor fixtures as Non Cutoff, Semi-Cutoff, Cutoff, and Full Cutoff. Fixtures with the IESNA classification of Full Cutoff meet the LEED® requirement because no light is emitted at or above 90°. A few fixtures classified as IESNA “Cutoff” can also meet this LEED® requirement. (Note: The IESNA is in transition between using the “Cutoff” classifications and a new system called the Luminaire Classification System (LCS). This report will use the older system until the new system is fully published and in wider use.)



The image at left is a polar graph representing the photometric distribution from a sample Full Cutoff luminaire. The center of the graph represents the lighting fixture and the curved outline shows the relative intensity of the light emanating from it. 0° is the bottom center of the graph (and towards the ground in application), while 180° is a line straight upward from the light fixture. The horizontal line radiating from the center is 90°. Light emitted in the 75°-90° range is often perceived as glaring. Light emitted above 90° contributes the most to light pollution, particularly the zone from 90° to 100°.

In addition to the exterior requirements, the LEED® credit limits the amount of light leaving the interior of the building at night. While daylighting a building reduces energy use during the day, after dark the glazing allows light to pass through it in to the surrounding site or into the night sky. The credit requires the lighting to be automatically shut off during non-business hours, or requires that the

interior luminaires not direct their maximum luminous intensity (candlepower) through any of the glazing.

Other Sustainability Goals and Standards

Dark Skies

The International Dark-Sky Association (IDA) strives to preserve the beauty, wonder, and scientific resource of the night sky. It offers a voluntary rating system for outdoor luminaires. Manufacturers can submit their product performance data to the IDA for an evaluation of light pollution potential. Approved products receive a Fixture Seal of Approval (FSA), allowing the product to be advertised as IDA-Approved™ dark sky friendly product. Since this program is relatively new and voluntary, not all outdoor lighting manufacturers seek the FSA. However, all fixtures using lamps higher than 150W recommended for use at the Silo Ridge Golf Village will strive to meet the IDA's FSA.

Controls to reduce lighting

Another good idea for reducing light pollution and unnecessary energy use is turning off outdoor lighting after a business has closed, or reducing lighting levels late at night when there is less traffic in roadways and parking lots. A community such as Silo Ridge is likely to have many fewer residents and staff using walkways and parking lots late at night, so some of the lighting can be shut off completely, and other areas shut down to half level late at night. For example, the employee parking lot can have all but the closest parking area lighting shut off at a curfew hour. Street lighting could be shut down to half level at night, with every other post-top fixture extinguished.

Green Principles, including toxicity and component materials

Silo Ridge is setting an example of responsibility in sustainability. It follows that the luminaires installed on the site should follow "green" principles. As an example, Silo Ridge will avoid products that use polycarbonate, PVC, and ABS materials because they can have toxic implications in manufacturing or in use. Although LEED® certification standards do not ban these materials, it discourages their use.

Mercury is a heavy metal that can be toxic to humans and animals. Almost all conventional light sources except for incandescent lamps use tiny amounts of mercury as an integral part of the light production. While this sounds frightening, the alternative is worse. Fluorescent and metal halide lamps are far more efficient than incandescent or even LED light sources at this point in time, so they use much less power. If we were to revert to incandescent lamps and LED light sources for all light production, we would be doubling to quadrupling our energy use, which would

result in far greater production of hazardous mercury through fossil fuel power plant emissions. At this point in time it is impractical to completely eliminate mercury from lamps, so we recommend using lamps that exhibit long life, low mercury content, and excellent energy efficiency. We also recommend recycling spent lamps, so that mercury can be recycled and kept out of waste streams where they could cause environmental damage. LED light sources can be specified now for low-level path lighting, some soft building accent lighting, and step lighting. In the near future, LEDs may be appropriate for street lighting as well.

Green principles encourage the use of reducing material use, reusing materials, and recycling materials at the end of their useful life. The intent of LEED® credits 4.1 and 4.2 (Recycled Content) is to increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Outdoor light fixtures and poles, as well as interior lighting fixtures, principally use steel and aluminum for their durability. Steel and aluminum can be recycled at the end of their useful life. At this point in time, few lighting products on the market promote their recycled content. As specifiers for LEED® projects, we are encouraging manufacturers to consider:

- Increasing recycled content of their products
- Designing products for disassembly (i.e. when product reaches end of life, the various parts can be easily separated for recycling or reuse)
- Recyclable or biodegradable packaging, and
- Responsible production processes.

Local manufacturing

The LEED® rating systems offers points for using a specific portion of materials that were manufactured (defined as manufacturing completed) within a 500 mile radius of the project site. This reduces the greenhouse gases generated through transporting goods long distances, and works to strengthen local economies. Credits MR 5.1 and 5.2 of the LEED® Materials and Resources section explicitly exempt mechanical, electrical, and plumbing (MEP) equipment from this requirement. In the spirit of this credit, however, manufacturers within a 500-mile radius of Amenia NY will be in the first tier of considerations for Silo Ridge.

On-site renewable energy and photovoltaic-powered lighting

LEED® Credit EA2 encourages the development and use of products that have integral power supplies, reducing the burden on the electrical grid. There are some outdoor lighting products with integral photovoltaic panels on the market. Unfortunately these products are very expensive and have exhibited significant

field problems, so the technology is not sufficiently mature or reliable for use at Silo Ridge except for demonstration purposes. Fortunately, nighttime lighting is seldom a significant load on the electrical grid when the grid is strained, perhaps with the exception of very cold winter days between 4:30 and 5:30 pm. Photovoltaic panels that feed back to the electrical grid are more effective than photovoltaic systems tied to outdoor lighting at this point in time.

Lighting Performance - Outdoor

When lighting is designed for a community, we want it to bring out the beauty of the architecture and landscape, but it also must perform well functionally. This means it must provide the lighting levels and quality of light that helps residents, guests, and staff to perform the visual work that helps them gather information about their environment or task. This translates to seeing moving and parked cars, faces and gestures of people around them, signage, edges of sidewalks and stairs and roadways, pedestrians in a crosswalk, ice on pavement, etc. Because there are so many different types of visual tasks and spaces, the criteria for good quality lighting will vary. Target illuminances (footcandles), uniformity ratios, energy limits, and other criteria are derived from Illuminating Engineering Society of North America (IESNA) standards and the New York Energy Conservation Code (NYECC).

It is important that new or replacement fixtures be durable, easy to maintain, and energy-efficient, because an installation that lasts a long time and is inexpensive to operate is also more economical and more sustainable in the long run.

Good lighting practice for outdoor nighttime visibility includes:

- providing enough light to help users see important details in an area
- providing sufficient lighting uniformity that important details in the darker areas can still be seen
- minimizing disabling glare for pedestrians and drivers, and
- avoiding excessive brightness that can temporarily blind users as they move from brighter areas to darker areas.

It is important to understand that the human visual system can see in bright sunshine and also in moonlight, but not at the same time. It takes time for the visual system to adapt to brighter or lower light levels. In general, it can only see details within a range of 100 to 1 in luminance (measurable brightness), and without careful design, nighttime environments can easily exceed this range by 10 or 100 times. The result is that excessively bright luminaires, walls, or signs can make it difficult or impossible for users to see a patch of ice on the sidewalk or a deer darting out across the roadway.

Design Principles for Silo Ridge

Balancing the need for nighttime lighting with the goal of reducing energy use and light pollution is challenging. The best practice is to put light on roadways in places that have the highest potential for vehicle/vehicle conflict or vehicle/pedestrian conflict. At Silo Ridge, continuous pole-mounted roadway lighting will be limited to conflict areas (crosswalks and intersections). Vehicle headlights will supply needed illumination between light poles. This meets the LEED® goals for reducing energy consumption and material consumption (SS8, Energy Performance Credit EA1).

Parking lots pose greater potential for pedestrian/vehicle conflict and vehicle/vehicle conflict, so these are traditionally lighted more uniformly, although the number of fixtures illuminated after business hours will be reduced. Heavily used pathways may have pole-mounted lighting in order to improve the perception of safety for pedestrians, but this lighting also will be reduced or eliminated at night through controls.

Building facades and signage may be considered for lighting also, but they will be lighted from the top downward wherever possible, and “floodlighting” or “façade washing” from the ground will be avoided since stray light could annoy neighbors. Instead, nighttime visibility can be achieved with lighting techniques that provide lines or dots of light (for example) to highlight key architectural details, instead of washes of light on large surfaces. This reduces energy use as well as light pollution.

Building entrances need to be illuminated for safety, and this is enforced by code. Public entrances may have small amounts of low-output decorative lighting (750 lumens per fixture, maximum). Additional lighting may be used as long as it is fully shielded so that it emits no light above horizontal. Service entrances will use fully-shielded lighting only, so that all light is emitted downward. Any non-shielded lighting that is needed for deliveries, for example, will be switched on temporarily only.

Landscape lighting can accentuate exterior plantings while providing wayfinding and a psychological sense of brightness. Too often, landscape lighting equipment uses high wattage sources, but it takes very little wattage (and lumens) to get a dramatic effect, if the landscape lighting is carefully done. Landscape lighting that relies primarily on downward lighting from trees or building eaves can be combined with small amounts of uplight to achieve this effect. Lamp wattages will be limited to 20W maximum light sources (1200 lumens per fixture, maximum), and specified fixtures will be carefully located, aimed, and louvered to maximize enjoyment, while reducing glare and distraction. Landscape lighting will be extinguished at the curfew hour.

Silo Ridge proposes using warm-color sources (3000K) that are close to incandescent in appearance. These include warm-color ceramic metal halide lamps, pin-based compact fluorescent lamps, small numbers of halogen lamps, and a few warm-color LED products. This will support the traditional look of flame and early incandescent lights. (Blue-white light from metal halide or mercury lamps, or orange light from High Pressure Sodium lamps will not be used.)

Smaller-scale lighting fixtures and poles will be specified to reinforce the residential scale of the community. Pole-mounted street lights will range between 12 and 15' in height on streets, and will be spaced 50 to 65 feet apart on the few streets that are continuously lighted. Parking lots will use poles up to 20' in height in order to reduce the total number of fixtures required.

Lighting will be designed in accordance with Town of Amenia Zoning Law §121-40C(4).

Lighting uniformity and Target Light Levels (Illuminance)

The following tables list target light levels. In general, Silo Ridge designers and engineers will design for the lowest light levels in these standards, knowing that the community desires low light levels, and knowing that with lower ambient light levels and less fixture glare, the eye's dark adaptation allows it to see well at low light levels.

Illuminance is the amount of light (lumens) falling on a given area and is measured in footcandles (SI Units: Lux). The Illuminating Engineering Society of North America (IESNA) and related subcommittees publish Recommended Practices (RP) and a Lighting Handbook that contains illuminance guidelines. The tables below list the recommended illuminance and uniformity ratios recommended by the IESNA (E_{avg} = avg. illuminance; E_{min} = min. illuminance).¹

¹ Note: Instead of illuminance, the IESNA recommends using roadway "luminance" as a metric for roadway lighting, as well as a metric for veiling luminance. For simplicity, the illuminance standard is shown, but IESNA light distribution principles need to be followed for reducing veiling luminance and reflected glare from the roadway to ensure quality lighting for the driver.

Table 1 – Lighting Recommendations for Roadways with Low Pedestrian Conflict

Roadway	Horizontal Illuminance (footcandles)	Uniformity E_{avg} / E_{min}	Reference
Collector	0.4 - 0.6	4.0	IESNA RP-8-00
Local	0.3 - 0.4	6.0	IESNA RP-8-00

The values listed above are for low pedestrian conflict area. Collector roads are the main roads around the site and local roads feed off the collector to the individual parking lots. The horizontal illuminance values are listed as a range because the value varies according to the type/reflectance of the pavement.

Table 2 – Lighting Recommendations for Intersections

Type of Intersection	Average Illumination (fc) at roadway according to Pedestrian Area Classification		Uniformity E_{avg} / E_{min}
	Medium	Low	
Major/Collector	2.2	1.5	3.0
Collector/Local	1.6	1.0	4.0
Local/Local	1.4	0.8	6.0

These values are based on continuously lighted roadways. For non-continuously lighted roadways, the illuminance targets are for the conflict area of the intersection, and the uniformity values are not applicable outside the intersection area.

Table 3 – Lighting Recommendations for Pedestrian Ways and Class 1 Bikeways

Sidewalks (Roadside) and Type A Bikeways			
	Avg. Horiz. Illum. on Pavement (fc)	Uniformity E_{max} / E_{min}	Reference
Commercial Areas	1.0	$\leq 10:1$	RP-33-99
Intermediate Areas	0.5	$\leq 10:1$	RP-33-99
Residential Areas	0.2	$\leq 10:1$	RP-33-99
Sidewalks (Roadside) and Type B Bikeways			
Walkways & Bikeways	0.5	$\leq 10:1$	RP-33-99
Pedestrian Stairways	0.5	$\leq 10:1$	RP-33-99

Table 4 – Lighting Recommendations for Additional Exterior Areas

Space Type	Horiz. fc	Vertical fc	Illuminance ratios	Notes
Exterior building entries	5 avg.	3 avg.		1
Exterior doors, inactive	3 avg.	3 avg.		1
Parking lots – commercial/residential	0.2 min.	0.1 min.	20:1 (max:min)	2,3
Loading docks, active	10 avg.	3 avg.		1
Loading docks, inactive	1 avg.	0.3 avg.		1
1. From The IESNA Lighting Handbook 9 th Edition, Chapter 10. 2. From The IESNA Lighting Handbook, 9 th Edition Chapter 22. 3. Vertical illuminance is measure at 5' above grade.				

Non-lighting strategies for improving safety

Lighting is one method for improving safety; but non-visual strategies also work well. The intersections might have the recommended illuminance, but rumble strips could be more effective in slowing drivers as they enter the intersection, thereby making the intersection safer.

Contrast is the single most important aspect of nighttime visibility. Without sufficient contrast, the amount of lighting must be increased to make the object more visible. Objects, words, people...everything is more visible as its contrast against the background increases. White painted crosswalk stripes against black pavement are highly visible, for example. High-contrast markings, possibly using retro-reflective paints or similar materials can make the edges of roadways more visible than overhead lighting can.

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VII. Homeowners' Association Management Structure

Silo Ridge Resort Community Home Owners Association -- the HOA -- will be a master home owners association responsible for managing and governing the Project on an overall basis. The master association will work with a Property Manager to maintain the common areas and facilities.

This master association will have responsibility for maintaining the common areas and facilities of the Silo Ridge Resort Community. These common areas include roads, infrastructure, landscaping, irrigation, signage, wetlands, watercourses, trails, open space and other common facilities of the Property. The individual component associations or boards (see attached chart) will be responsible for building and common elements within that particular board or association.

The HOA will collect assessments from owners, pay bills, regulate the use and enjoyment of the Property in accordance with all governmental approvals, address infra-structure repairs, maintain the Property and establish a governing entity (i.e. HOA Board of Directors) to accomplish these tasks. The HOA's Board of Directors will be elected by the HOA's Members (all Owners and future Owners comprise the Members of the HOA) after an initial control period during which the Sponsor will have the right to designate a majority of the HOA Board. At least one member of each component of the Property will be a member of the HOA Board.

The Project Sponsor will retain a majority ownership of the Project but will be engaged in selling houses and condominium interests. Following the Initial Control Period (as such term will be defined in the respective governing documents), control will then be in the hands of the respective home owners/condominium unit owners. It is anticipated that the homeowner association documents will provide that control is retained by the Project Sponsor until 95% of all homes and condominium interests of the Project have been conveyed to purchasers.

The Project will include different components that will all be part of the HOA. Different components will be governed by the owners thereof following the expiration of the respective Initial Control Periods. Each such component will be governed by representatives of the respective owners thereof who will, subject to the provisions of the master homeowners association, make decisions solely affecting that particular component. All components will have to be maintained and operated pursuant to a general standard to be set forth in the master home owners association documents and otherwise in accordance with all governmental approvals.

It is anticipated that each component will include its own Common Elements. These Common Elements would include areas such as common entrances and

hallways in a building for example. The club will maintain the golf course and golf club.

VIII. Homeowners' Association Management Structure Chart

