Gardiner Hamlet Study

Gardiner, New York

2004

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Hamlet study for Gardiner, New York

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Executive Summary

Gardiner is a town in transition, facing intense development pressure as it shifts from a predominately agrarian community to a commuter town. The Comprehensive Master Plan has determined that commercial development should occur within the existing and proposed hamlets and that the hamlets should be of mixed-use composition. The Gardiner Hamlet Study focuses primarily on the Central Hamlet with a secondary focus on the outlying hamlets of Tuthilltown, Benton's Corners, and the Mountain Hamlet. The goal is to analyze site conditions and make informed design recommendations for the hamlets.

The Gardiner Central Hamlet commercial zone extends along State Highway 44/55, also known as Main Street, from Gardiner Gables on the east side of the hamlet to the Dutch Reform Church on the west, and is approximately one quarter of a mile long. This zone also encompasses the land approximately one block to the north and one block to the south of Main Street. The outlying hamlets are located at major crossroads along State Highway 44/55, west of the Central Hamlet roughly one to two miles apart.

In the Central Hamlet, commercial mixed-use buildings are concentrated on Main Street while the rest of the hamlet is primarily residential. Existing conditions do not encourage development of new businesses in the Central Hamlet. There is considerable vehicular traffic through the hamlet but existing parking is inadequate and reduces the number of potential customers who may use the Main Street businesses. The lack of sidewalks within the hamlet further limits the potential customer base by discouraging safe pedestrian movement. There are few street trees and no benches or lighting for pedestrians. Telephone poles and overhead utility wires on Main Street interrupt the views of the scenic Shawangunk Ridge to the west. The Wallkill Valley Rail Trail, the only public greenspace in the heart of the Central Hamlet, links Gardiner to Shawangunk and New Paltz. Majestic Park, a large municipal park, is located two blocks south of Main Street, but there are no parks or public gathering places within the center. The outlying hamlets have seen only limited development and can only be accessed easily by car. All hamlets occupy soils over rock strata that have severe limitations for on site septic systems. Only the Central Hamlet has a public sewer system, but the treatment plant is currently at capacity.

Executive Summary, Continued

Transforming Gardiner's Central Hamlet into a place where residents want to visit requires the addition of missing elements critical to its vitality. Adding parking that adequately accommodates vehicles and is close to stores; creating a pedestrian network offering clear circulation corridors from parking areas to buildings; and incorporating green space and public gathering places into the design will all encourage residents to come to the Central Hamlet. Greater use of the hamlet will in turn foster the development of a variety of small-scale stores, professional offices, restaurants, residences, and park and recreation areas. If the outlying hamlets develop, the guidelines will encourage each to have its own unique character, and provide uses such as retail stores, office space and affordable housing. Sewer systems are recommended for all.

This proposal offers recommendations for the Central Hamlet based on traditional neighborhood design concepts. Recommendations for the outer hamlets use similar criteria with design concepts that can be used as templates for development.

Acknowledgements

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Statement of Purpose

It is the intention of the student team to prepare a report that can be used by the Town Planning Board in conjunction with the new Comprehensive Master Plan.

The Town of Gardiner has experienced unprecedented population growth in the past ten years. This is a cause for concern for the residents of Gardiner who would like to strike a balance between "smart" growth and property rights. Community surveys indicate that Gardiner residents value the rural character of their town and would like to plan ahead for growth that will strengthen their community, rather than fragment it with inappropriate development. A majority of the residents believe that concentrating new commercial building in the hamlets will serve the town and its citizens by allowing economic growth that benefits the community while protecting the character of the landscape.

In conjunction with the development of a new Comprehensive Master Plan, the Gardiner Planning Board contracted with the Conway School of Landscape Design (CSLD) to prepare a Hamlet Study. The study focuses primarily on the Central Hamlet in Gardiner with a secondary focus just on the potential outlying hamlets of Benton's Corners, Tuthilltown, and the Mountain Hamlet.

For the Central Hamlet the following issues are examined:

Public and Town Spaces

- Where should development occur?
- How should public spaces such as Majestic Park, the Wallkill Valley Rail Trail, and any additional existing or recommended public spaces connect to the Central Hamlet?
- How should the Central Hamlet connect/relate to the outlying hamlets?
- Where are possible locations for a new Town Library and Town Hall?

Traffic Considerations

- How should traffic move through the town to ensure a safe and pedestrian-friendly village center?.
- Where should parking be located?
- Where should sidewalks be placed?

Statement of Purpose

Design Motifs

- What should new construction look like in order to strengthen the character of the town?

For the outlying hamlet, the following concerns are addressed:

- How should the outlying hamlets relate to the Central Hamlet in terms of building design and characteristics?
- How should development occur in the outlying hamlets?

This hamlet study presents design recommendations that can be used by the Town Planning Board to guide future development. To that end it is assumed that concentrating commercial and mixed-use development within the hamlets will encourage the preservation of Gardiner's rural character. To succeed it will be necessary to enhance and encourage community use and enjoyment of the hamlets by providing a safe and comfortable atmosphere for residents and visitors. Beyond good feelings and pleasant experiences, the hamlets must supply goods and services that residents and visitors require.

Planning & Public Participation

The participation of the citizens of Gardiner is essential to the creation of relevant and applicable design recommendations.

An effective development plan involves the residents in the planning process. The participation of the citizens of Gardiner is essential to the creation of relevant and applicable design recommendations. Responses from two public meetings in Gardiner are incorporated in this report. The first meeting took place on February 3, 2004, and used a combination of techniques to gather information. A series of images from other towns were presented and residents recorded their reactions on a survey form. A brainstorming session allowed meeting participants to voice their opinions on what is needed to improve the Central Hamlet. Finally citizens were presented with a series of traditional village design elements and asked to rank them (a graph showing the results of this exercise is located in Appendix G). This input has been processed and used in design recommendations for the hamlets. The second meeting, held on February 24, 2004, offered preliminary design recommendations to the public. Reactions to the preliminary findings and designs was noted and incorporated into the design recommendations.

Site History

Though orchards still comprise a good portion of land along Route 208, Gardiner is quickly evolving into a bedroom community, as many of its residents travel out of town for jobs, schools, basic amenities, and shopping.

Gardiner, New York, is located in Southern Ulster County, approximately seventy-five miles north of New York City. The Town of New Paltz, with a state university and bustling economic center, borders Gardiner to the northeast. The New York Thruway and Hudson River are ten miles to the east, and the Shawangunk Mountain Ridge lines its western border.

First settled in 1687 by the Norwegian widow Gertrude Bruyn, Gardiner developed as an agrarian economy under Dutch, French, and English influence. Grain was the primary crop, exported via the Hudson River. By 1853, the year of its incorporation, Gardiner had 1,900 residents. Ulster County's first railway, the Wallkill Valley Rail Road, was built in 1860. The train brought tourists and allowed farmers to ship produce to market quickly, thus laying the foundation for Gardiner's three main industries: apple production, dairy farming, and tourism. Orchards and dairy farms blanketed the valley and large hotels were built along the Shawangunk Ridge. However, agriculture began to decline as markets in the midwest and west developed. The decline of the agricultural economy resulted in a population decline as people sought jobs elsewhere. In 1925 a fire devastated Gardiner's Central Hamlet, destroying the commercial district running north of Main Street along the rail tracks. During the Great Depression of the 1930's, Gardiner was home to fewer than a thousand residents.

Once the spine of Gardiner's economy, the railroad ceased operation in 1977, symbolizing the significant decline in agricultural production and an increase in automotive transportation. Although many orchards still operate along Route 208, Gardiner is quickly evolving into a bedroom community, as many of its residents travel out of town for jobs, schools, basic amenities, and shopping. A high rate of growth, due to urban flight from metropolitan New York, increased the population to 5,238 in the year 2000. The population continues to grow, with a projection from Gardiner's 1995 Comprehensive Plan of 9,000 residents by the year 2010. Gardiner's central hamlet, as a commercial center, has not mirrored the growth of the community. In the last thirty years, the hamlet has lost two important symbols of vitality: the once thriving Gardiner Hotel was dismantled in 1974 and, more recently, the old rail station was lost to a fire in 2002.
Gardiner has much to offer its residents and visitors. The 1,200-foot-high

Site History, Continued

Shawangunk Ridge is visible from throughout the town, and represents an area of untapped opportunities for economic growth. Though tourists come to Gardiner to visit the Ridge, most travel north to New Paltz for accommodations, dining, and shopping.

The Central Hamlet

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Existing Conditions

The Central Hamlet is a mixed residential and commercial area surrounded by primarily residential neighborhoods.

The Central Hamlet is a mixed residential and commercial area surrounded primarily by residential neighborhoods. Main Street is also State Highway 44/55, and has the heaviest volume of traffic in the town. Dusinberre Road has the second highest traffic volume, and provides access to a commercial light industrial zone two and a half miles north of town. Sandhill Road runs south from the intersection of highway 44/55 and Dusinberre Road, and provides access to the airport and skydiving facilities.

Current businesses in the Central Hamlet include a pizzeria; a delicatessen and convenience store, Gardiner Grocers; a cosmetics company, Kiss My Face, which is one of the largest employers in town; a hair salon; a hardware store; an antique shop; and a number of other small retailers. A lack of parking and restricted water/sewer use have been cited as deterrents to further commercial growth (town meeting, February 24, 2004). Gardiner Gables, located on the eastern side of the Central Hamlet, is the newest commercial building in town, housing a restaurant, salon and bank, and is set back from the road by several rows of parking. There are no sidewalks from Gardiner Gables into the hamlet.

Public buildings include a small post office, temporary town offices behind the pizza parlor, a historical schoolhouse which has functioned as the town hall but currently needs extensive restoration, a firehouse, and a library that is outgrowing its current location.

Sidewalks line approximately a block and a half of Main Street and Arch Street passing in front of the convenience store and three residences.

Parking is located at a small number of private lots next to businesses, including Kiss My Face, the antique shop, pizzeria, and Gardiner Gables, and at small municipal lots on the north and south ends of Arch Street. Customers to the post office and the convenience store

Existing Conditions, Continued

park on the narrow shoulder in front of these buildings on Main Street.

Public green space in the mixed-use center is limited to a small section of bike trail that runs between the pizzeria and a vacant lot which was the location of the historical train station before it burned down in 2002. A tenth of a mile to the south of the hamlet, and accessible by the bike trail, is Majestic Park, which contains a playground and open fields. On the eastern edge of the hamlet next to the old schoolhouse is a baseball/softball field.

Purpose of Analysis

Site analysis is the process of collecting and analyzing information about the project site. Careful analysis of existing conditions, including soils, vehicle and pedestrian circulation patterns, parking, sidewalks, wetlands, and various regulations, reveals problems, opportunities, and the interconnections between them. Identifying the site's resources and limitations is crucial to determining the feasibility of the project and the success of the design.

Soils

The soils types in the Central Hamlet share many of the same characteristics which include shallow soils, and a seasonal high water table.

The following types of soils are located in the Central Hamlet:

Churchville Silt Loam is indicated on the map by the abbreviations CvA and CvB. CvA has a 0-3% slope while CvB has a 3-8% slope. While the slopes may be different, all other characteristics are the same. This soil is somewhat poorly drained and has slow-to-very slow permeability due to high silt and clay content. A seasonally high water table of 6-8 inches below the surface in the winter and spring can lead to flooded basements. Raised septic fields or a connection to town sewer is necessary. Roads need artificial drainage to prevent flooding. The suitability for urban or recreational development on this soil is limited.

Cambridge Gravelly Silt Loam, indicated on the map by CaB (3-8% slope) and CaC (8-15% slope), is moderately well drained to 2 feet below the surface. Winter and spring precipitation and relative soil impermeability at 2 feet below the surface results in poor drainage during these seasons. The seasonal high water table limits building potential in these areas and foundation walls require waterproof coatings and drains to prevent flooding. Raised septic fields or a connection to town sewer is necessary. The potential for recreational activities on this soil is good during all seasons except spring.

Raynham Silt Loam, indicated by Ra on the map, has a slope of 0-3%. This soil is nearly level and is somewhat poorly drained due to high silt content. The seasonal high water table is 6-18 inches below the surface and some surface areas may be ponded for short periods of time. There is limited potential for urban development; basements in this area are prone to flooding and raised septic fields or a connection to town sewer is necessary.

Volusia Very Stony Soil, indicated on the map by VoB (3-8% slope), is somewhat poorly drained and is seasonally wet. The development potential of these areas is limited because the seasonal water table is within a few inches of the surface. Raised septic fields or connection to town sewer is necessary. Some areas may have recreational potential.

Soils, Continued

Assessment:

Seasonal high water table and density of development within the central hamlet require a town sewer. While it is possible to have septic fields in this area, the risk of contaminating groundwater is great. This risk coupled with the fact that residents draw their water from wells in the hamlet, means that businesses which could potentially contaminate the groundwater should be restricted from the central hamlet. New construction in the area must be connected to town sewer and foundations should be designed for wet conditions. Roads must be designed for seasonal high water and have appropriate drainage.

Wetlands

It is very likely that all of these wetlands are protected under state or federal law.

There are wetlands located at the southeast corner of the central hamlet with a large tract behind the old schoolhouse, and a smaller section behind Gardiner Gables. These are linked by a stream that runs west towards the Wallkill River. Directly south of the commercial center and along the stream are two small wetlands. North of the business center and located just east of the rail trail is a small pond with surrounding wetlands. All of these wetlands are recognized by the state of New York or the federal government; it is very likely that all of these wetlands are protected under state or federal law.

The Freshwater Wetlands Act was passed in the state of New York in 1975. Wetlands of 12.5 acres or larger are automatically protected from development, as is a 100' buffer surrounding the wetlands. Wetlands smaller than 12.5 acres may be protected if they are considered to be of unusual local importance, the 100' buffer applies to these wetlands as well. Wetlands of any size may be protected by the Army Corp of Engineers under the Federal Clean Water Act.

Under the New York State Freshwater Wetlands Act, certain activities are exempt from regulation and do not require a permit, whereas other activities specifically require one:

Exempt Activities

Recreational activities such as fishing, hunting, hiking, swimming, or picnicking

Ordinary, routine maintenance of existing structures, existing lawns, and similar facilities

Selectively cutting trees and harvesting fuel wood

Regulated Activities

Installing utilities to a residence (exempt in an adjacent area)

Drilling an individual water well in an adjacent area

Filling and grading

Erecting buildings, including houses, barns, garages, and commercial facilities

Restoring, modifying, or expanding existing structures

Draining, dredging, or otherwise changing water levels in wetlands

Installing roads

Applying pesticides in wetlands

Clear cutting trees or other vegetation

Wetlands, Continued

Assessment:

Freshwater wetlands provide the following natural functions: flood control, storm water damage prevention, groundwater recharge and supply, prevention of pollution through biofiltration, protection of fisheries, and protection of wildlife habitat. Of special consideration for the Town of Gardiner is that all of the wetlands in the Central Hamlet are likely to be cleaning and recharging groundwater, the groundwater that supplies the hamlets well/drinking water. Additionally the stream that flows into the ponds in Majestic Park is filtered through the wetlands located behind the old schoolhouse and Gardiner Gables. To ensure clean water in the ponds it is important to maintain the integrity of these wetlands.

Public Open Space & Recreation

Public open space and recreation in the heart of the Central Hamlet is limited to a one-block section of the Wallkill Valley Rail Trail. To the southwest is Majestic Park and on the eastern edge of the hamlet there is a baseball field.

The Wallkill Valley Rail Trail, designed for biking and walking, runs north-south for approximately one block through the hamlet, crossing State Highway 44/55 in the process. The unpaved 12.2 mile rail trail was opened in 1991 and has attracted thousands of visitors since its completion. The rail trail covers over four miles in Gardiner and extends south to the border of Shawangunk and north into New Paltz. The rail trail runs alongside the eastern boundary of Majestic Park and offers residents a convenient link between the park and the hamlet. However, a lack of clear signs informing people of the proximity of the park fails to promote this connection along the rail trail.

There are two designated town-owned parks and recreation areas in the Central Hamlet. The main entrance to a municipal recreation area, Majestic Park, is located approximately two blocks southwest of the hamlet's central core. The park encompasses over two hundred acres and offers ball fields and a playground but is visually separated from the hamlet center by a lack of sight lines. Furthermore most activity areas are set far back from Farmers Turnpike, and are therefore a considerable distance from the hamlet. Parking is available in a large unpaved lot on the southeast side of the park. An additional baseball field is located on State Highway 44/55, two blocks east of the central core and next to the old schoolhouse. There are no sidewalks from the hamlet center to the ball field, but parking is available at the adjacent old schoolhouse lot.

Assessment:
Public open space is limited in the heart of the Central Hamlet. What exists is mostly on the fringe of the commercial and residential areas of the hamlet and is disconnected physically, visually, or through a lack of public information. This disconnection separates those who are already pedestrians from easily becoming customers of the hamlets businesses, and without a conducive outdoor environment, walking and gathering in the Central Hamlet for community activities is discouraged as well.

Vehicular & Pedestrian Circulation

Main Street is the setting for a vehicular circulation conflict, as a result of vehicle speed, the S-curve, and pedestrian traffic.

Vehicular Circulation:
Main Street is also State Highway 44/55, which funnels traffic to the only bridge in town across the Wallkill River. A traffic study showed there are approximately 4,300 vehicle trips per day through the Central Hamlet on Main Street. The traffic counts in the study occurred over a 24-hour period on a weekday, with the heaviest volume of traffic occurring during commuter hours. Between 6:00- 8:00 am and 3:00-6: 00 pm the average traffic volume was four cars per minute (Appendix B). The time allowed for pedestrians to cross the street between passing cars averages fifteen seconds. The section of 44/55 that runs through the Central Hamlet is hazardous for pedestrians and drivers, because fast moving vehicles must negotiate the S-curve immediately before entering a commercial street.

Vehicle Speed:
The speed limit on Highway 44/55 within a quarter mile outside the hamlet in either direction is 55 mph. While the speed limit within the Central Hamlet is 35 mph, cars approaching the hamlet often do not slow to the posted speed limit. Enforcement is limited since Gardiner has no police force.

The S-Curve:
A sharp S-curve on Highway 44/55 occurs at the east side of the hamlet where Dusinberre Road and Sand Hill Road intersect the highway. Westbound vehicles are confronted by intersections to the north and to the south as they pass through the S-curve, and then immediately enter the busiest commercial area within the hamlet.

Pedestrian Traffic:
Pedestrians exiting parked cars will often cross the street to reach the post office or the convenience store. The only crosswalk serves the rail trail and not businesses. There are no signs near businesses to alert drivers to pedestrian traffic, and the location currently used by pedestrians to cross Highway 44/55 between the convenience store and post office is within fifty feet of the western end of the S-curve.

Assessment:
The curving alignment of Highway 44/55 may provide for efficient

Vehicular & Pedestrian Circulation, Continued

traffic flow but prohibits visibility between drivers and pedestrians, creating a potentially hazardous situation in the heart of the Central Hamlet. Because Highway 44/55 is under state control, any change to the road within the right-of-way must be approved by the New York Department of Transportation.

Pedestrian Circulation:

Pedestrian circulation in the central hamlet is a major concern. The only sidewalk in the hamlet extends for approximately two hundred feet on the south side of Main Street and twenty feet on the east side of Arch Street. The Wallkill Valley Rail Trail, designed for walkers and bike riders, cuts through the hamlet extending from the hamlet center north through New Paltz and south to the border with Shawangunk. A crosswalk is located at the intersection of the rail trail and Highway 44/55. Access to the trail can be achieved at Majestic Park where a large unpaved lot allows people to park and unload bikes from their vehicles. The Wallkill River can be accessed behind the town transfer station a half mile north of the center and a quarter mile west of the rail trail down Steve's Lane.

Assessment:

There is a critical need to create safe pedestrian movement within the hamlet. The lack of sidewalks does not encourage residents to visit and walk around the hamlet center. There are no clear circulation corridors from parking areas to buildings. The lack of marked crosswalks, traffic lights, caution signs, and other traffic calming devices create an unsafe condition for pedestrians (Appendix C).

Commercial Parking

Parking lots are scattered throughout the Central Hamlet without sidewalk connections to destinations. On-street parking is limited to the road shoulder along a short section of Main Street.

There are significant parking issues on the Main Street portion of State Highway 44/55 particularly between Gardiner Grocers and the post office. The existing parallel parking arrangement on the road shoulders in front of these buildings is not delineated and infringes on or obscures the sidewalk, causing safety issues for pedestrians. Snow piled on the sides of the road compounds this problem during the winter months by narrowing the width of the street. Traffic travels at 35 miles per hour on State Highway 44/55 through the hamlet center, creating a potential safety issue for people entering and exiting parked vehicles as well as vehicles backing in and out of parking spaces. Delivery vehicles compound the problem by parking on the shoulder or in narrow driveways at the post office and grocery store.

There is almost a sufficient total number of parking spaces for the hamlet's commercial businesses (128 total) but their current locations do not conveniently serve each business. Current zoning law requires a specific number of parking spaces by business type and building square footage (132 total). For example, the post office requires fourteen parking spaces and Gardiner Grocers requires seven spaces. There are only ten spaces available on Main Street for both businesses to share. There is limited off-street parking for both businesses but it is used for employees and deliveries. There are two private parking lots serving the hair salon and parachute rigger on Main Street. These lots are adequate but both have their entrances on the busiest portion of Main Street. There is adequate parking for the antique shop, Kiss My Face, and Gardiner Gables, but the parking lot in front of the Town Offices and pizzeria falls short of its required number of spaces.

A municipal parking lot one block south on Farmers Turnpike is capable of holding overflow parking but is not well-marked or connected via sidewalks to Main Street. There is a large unpaved lot at Majestic Park located two blocks from the hamlet center but is too far away to efficiently serve businesses in the commercial center.

Commercial Parking, Continued

Assessment:

Unmarked shoulder parking is inefficient and limits the number of customers able to use businesses at the same time. Shoulder parking also creates safety issues for people exiting and entering parked cars. Excessive curb cuts on Main Street increase potential traffic conflicts and reduce the number of possible shoulder parking spaces. Many of the existing businesses do not have the required number of spaces they need. The existing parking lots are highly visible for drivers, yet they are disconnected from the rest of the hamlet. These scattered lots result in people driving short distances to multiple destinations in the Central Hamlet, where if there were adequate pedestrian connections they could walk. Future commercial growth in the hamlet may be limited by this disconnection and the lack of sufficient parking and walkways.

Design Guidelines

Maintaining and strengthening the small town character of the Central Hamlet has been identified as a priority by the residents of Gardiner. To that end a list of design guidelines was established to steer this development toward a small-scale, pedestrian-friendly hamlet.

This set of guidelines was developed from a combination of traditional neighborhood development standards, environmentally sensitive design principles, a town-wide survey conducted in 2003, suggestions gathered from the first Hamlet Study public meeting on February 3, 2004, and New York Department of Transportation Design Guidelines (Appendices D, E, F, G, H, and I).

Natural Systems

- Prohibit development on wetlands and floodplains. Maintaining the integrity of these areas is critical to the health of Gardiner's water bodies and drinking water.

- Maintain protective buffers along waterways. Buffers prevent erosion and filter pollutants before they enter waterways, again protecting the health of waterways and water-recreation areas. They also enhance the natural beauty of waterways.

- Carefully fit new development into the existing landscape. Done properly this lessens the visual effect of new development and maintains the integrity of natural systems.

Environmentally Friendly Design

- Ecologically sensitive design uses fewer resources and preserves the natural beauty of the area while limiting deterioration of natural systems.

- Design with native vegetation. Vegetation adds natural beauty, cools stormwater running off paved surfaces, and filters pollutants. Native vegetation is suited to local conditions and requires less maintenance while promoting wildlife habitat.

- Treat stormwater runoff on-site. It is universally accepted that uncontrolled stormwater runoff can pose dangerous threats to waterways and water quality. Treating stormwater on-site with rain gardens, vegetated swales, or other best management

Design Guidelines, Continued

practices allows the natural filtering of pollutants and settling of sediments that would otherwise pollute water bodies. It also recharges groundwater and reduces or slows the volume of stormwater entering waterways.

Buildings

- Encourage front porches. Front porches develop community living through the semi-public spaces they create, increasing interaction with neighbors and passers-by.

- Maintain build-to lines close to streets. Build-to lines create an enclosed streetscape that frames the public street space. Buildings that are set towards the front of a lot encourage interaction with neighbors and passers-by.

- Design roof ridges parallel or perpendicular to streets. Roof ridges that relate directly to the street alignment enclose the street. When possible locate ridge direction for maximum solar gain and to take advantage of potential photovoltaic installation opportunities.

- Design new buildings similar to existing patterns. Base new buildings on attractive historical design to define character and bring aesthetic coherence to the hamlet.

- Encourage architectural details. Buildings that are well-crafted, with attention paid to detail, contribute to a sense of pride in a neighborhood.

- Design for climate. Encourage the design of south-facing structures and the use of solar energy.

Signs

- Keep signs at a small scale within the hamlet, and at first-floor level. Signs in the hamlets are for viewing by pedestrians and slow-moving traffic; they should not tower above pedestrians.

- Keep suspended signs out of the public right-of-way. This area is designated for ease of movement.

- Restrict the use of neon signs. Glaring neon signs distract from the intimate nature of the hamlet setting.

Garages and Driveways

- Design garages with build-to lines that do not project beyond the build-to line of the house. The dominant scene of the streetscape should be houses, not garages. Locate garages at the rear of the property when possible to give the house greater importance. This configuration also makes narrower lots possible and allows for denser development.

- Locate garages so that cars parked outside do not project beyond front build-to lines. Allow the space between buildings and sidewalks to remain a pleasant, walkable area, keeping the house more visible than the cars.

- Limit curb cuts to no wider than twelve feet. No more space is necessary. This standard emphasizes the importance of safe sidewalks.

- Provide alleyway access to parking lots and garages behind buildings. Alleys allow more on-street parking by eliminating curb cuts and allow access to garages located at the rear of the property.

Street Trees

- Preserve existing trees; protect from root compaction during construction or constant foot-traffic. Measures to safeguard these trees should be foremost in maintaining the streetscape.

- Line streets with trees. Tree-lined streets provide definition to a hamlet or village as well as natural beauty and shade during summer months. Trees planted along streets slow traffic by reducing the perceived width of the space. Deciduous trees will also let light in for solar gain during the winter months.

- Choose native species for street trees. Native species are adapted to the local environment. Not only are they more apt to survive but they provide wildlife habitat.

Design Guidelines, Continued

- Encourage lawn trees where there is not room for street trees. Trees planted within the first ten feet of a lawn are a good substitute for street trees, providing the same design elements.

Utility Lines

- Utility lines clutter the environment of the streetscape. An essential step in providing an aesthetically pleasing, walkable environment is to place utility lines underground.

Pedestrians/Walkability

- Design sidewalk widths based on use. Residential sidewalks should be five feet wide; commercial sidewalks eight feet wide. These widths will provide adequate room for comfortable walking or while pushing a baby carriage. Sidewalk widths are based on the level of use.

- Place sidewalks on the parking side when streets have only one lane of parking. Parked cars provide a buffer between pedestrians and moving vehicular traffic.

- Incorporate a vegetated buffer three to four feet wide between sidewalks and traffic lanes when there is no on-street parking or street trees. Shrubs, herbaceous plants, or plant boxes will then act as the buffer between pedestrians and moving vehicles.

- Incorporate green public space connections. Public and open spaces are an important element to any hamlet. They provide spaces for gathering, resting, or recreation. Connections to these areas should be provided from the hamlet center.

Parking

- Satisfy non-residential parking requirements with a combination of on-street parking and parking lots. Hamlet visitors need a place to park their cars. In order to encourage their visits, sufficient parking for non-hamlet residents should be available.

- Provide parallel parking on all major streets. On-street parking allows easy access to buildings for short visits. It also functions as a buffer between pedestrians and vehicular traffic.

- Keep curb cuts and interruptions of pedestrian space to a minimum. In order to maintain a safe walking space, potential vehicle/pedestrian conflicts should be reduced as much as possible.

- Provide parking spaces to meet no more than 85% of anticipated peak demand. Peak demand only occurs periodically. Meeting 85% of this demand would be adequate and reduce the need for additional parking lots and impermeable surfaces.

- Locate parking lots to the rear of properties, or to the side and screened from the street. In a streetscape, buildings have priority. Parking lots next to the street would detract from the visual environment.

- Discourage corner parking lots. If necessary, partially screen them from streets with buildings or vegetation. Corner lots should be used for prominent civic or commercial buildings.

- Create parking lots to be simple and avoid conflict zones. Complex parking lots only produce confusion and increase the potential for accidents.

- Use vegetation to treat stormwater. Manage stormwater using vegetative best management practices (BMPs), which treat stormwater on-site while providing natural beauty.

Street Pattern and Width

- Design interconnected streets. More than one entrance and exit allows multiple routes, provides drivers with more options, and reduces traffic congestion. (Continuous pathways, with or without streets, allows pedestrians more options.)

- Develop clear, direct and understandable patterns. Streets should be easy to navigate.

- Allow dead-end and curved streets only when in response to topography. Simple, straight streets use space more efficiently in densely populated areas.

Design Guidelines, Continued

- Design nine-to-eleven-foot-wide travel lanes with eight-foot shoulders for parking (nine-foot lanes for side streets, eleven-foot lanes for main streets). Vehicular travel lanes should be comfortable, but narrow enough to prevent vehicles from speeding through. Parking along shoulders will further reduce traffic speed, as cars constantly enter, exit, and slow down looking for parking spots. New York State Department of Transportation guidelines must be followed on State Highways.

- Provide sidewalks on at least one side of the street. In order to promote walking and provide safe venues for walking, walkways should be made available throughout the hamlet center.

Universal Accessibility

- Provide universal accessibility. All public spaces, walkways, and businesses should be universal accessible. Designing these elements from the beginning will yield better designs, and reduce costs of future retrofitting.

Central Hamlet Design Schemes

These schematic diagrams explore traffic patterns, commercial, parking, & residential areas, civic building placement, and open space & recreation connections.

This section of the report explores the following schemes: two schemes for traffic patterns and schemes for commercial, parking, and residential areas; civic building placement; and open space and recreation. The one-way traffic loop scheme and the two-way traffic scheme (two-way is based on existing traffic circulation) represent two different approaches to solving circulation issues within the Central Hamlet. Each traffic scheme is illustrated with a map and sections to demonstrate a selection of possibilities. The schemes for commercial, parking, and residential areas; civic building placement; and open space and recreation are all meant to be interchangeable with the traffic schemes, and can be thought of as separate layers which will be revised and combined for the final design.

Two-Way Traffic Scheme

Concept: the existing two-way traffic pattern allows room for several combinations of on-street parking, sidewalks, and on-street vegetation.

This scheme keeps traffic patterns as they are. Maintaining the existing two-way vehicular traffic pattern and the existing fifty-foot right-of-way, a number of possibilities are explored to incorporate parking, sidewalks, and vegetation into the streetscape. The section drawings illustrate some of these options and show stall width, travel width, sidewalks, pedestrians, and cars.

Parallel Parking – Both Sides of the Street:

This scenario maximizes on-street parking.

- Stalls are eight feet wide.
- Travel lanes are ten feet wide.
- Sidewalks are provided on both sides of the street: six feet wide on the north side and eight feet wide on the south side.
- Parked cars act as buffers between pedestrians and vehicular traffic.

Parallel Parking – One Side of the Street:

This scenario provides one lane of on-street parking on the south side.

- Stalls are eight feet wide.
- Travel lanes are ten feet wide.
- Sidewalks are eight feet wide on both sides of the street.
- Parked cars separate pedestrians from traffic to the south; a three-foot buffer with plant boxes forms a barrier between traffic and pedestrians to the north.

No On-Street Parking:

This scenario eliminates on-street parking to allow maximum room for sidewalks and street vegetation.

- Sidewalks on the south meet the eight-foot width standard set forth in the design guidelines. The sidewalk on the north are seven feet wide.
- Pedestrians are separated from moving traffic to the north by a seven-foot tree belt and to the south by a four-foot buffer with plant boxes.

The above examples illustrate that there are a number of options available for creating a hamlet that accommodates pedestrians and is at a human scale using the existing traffic pattern. Changing existing patterns

Two-Way Traffic Scheme, Continued

can initially be confusing and must be approved by the town and New York State Highway Department before implementation is possible. Working with existing patterns may expedite implementation.

There are several disadvantages to this scheme:

- Main Street is a state highway and according to the 1995 Gardiner Comprehensive Plan, if traffic volume through the hamlet on the state highway increases above a certain threshold, the state has the right to claim a seventy-foot right-of-way.
- The highway could be widened, effectively eliminating the comfortable pedestrian space that could be created.
- A bypass may need to be considered that would direct the highway north of the hamlet, connecting back with Highway 44/55 either to the east or, by building another bridge, to the west of the Wallkill River. This would prevent the State from expanding their Right of Way along Main Street at a future date.

Developing a network of sidewalks to accommodate safe pedestrian circulation, as well as on-street parking facilities within the fifty-foot right-of-way, would improve the quality of life in Gardiner's Central Hamlet and provide the backdrop for a healthy community and economic center.

One-Way Traffic Scheme

Concept: a one-way traffic loop through downtown divides traffic into two one-way streets allowing more room for on-street parking, sidewalks, and street trees.

The one-way loop would be limited to the core of the Central Hamlet. West-bound traffic would travel on Main Street; eastbound traffic would be diverted to Farmers Turnpike, one block to the south of Main Street. Traffic would be one-way, and would return to two-way travel at the intersection of Highway 44/55 and Fifth Street, and at the junction of Farmers Turnpike, Sandhill Road, and Highway 44/55.

Existing cross-streets between Main Street and Farmers Turnpike would be two-way to increase circulation and accessibility within the central hamlet. This would include Arch Street, Station Road, Third Street, and the addition of a new street between Main Street and Farmers Turnpike approximately three hundred feet to the west of Third Street.

The primary advantage of this traffic scheme is the additional space gained for sidewalks, on-street parking, street trees, and other enhancements. The sections below illustrate some of the possibilities on Main Street.

Parallel Parking – Both Sides of the Street:
This scenario makes use of maximum on-street parking, while also accommodating a tree belt and sidewalks.

- Stalls are eight feet wide.
- The travel lane is fourteen feet wide, allowing enough room to pass cars pulling into parking spaces.
- Sidewalks are located on both sides of the street, six feet wide on the north side and eight feet wide on the south side.
- Parked cars separate pedestrians from traffic.
- The sunny north side of the street has a seven-foot-wide tree belt.

Parallel parking - One Side of the Street:
This scenario provides one lane of on-street parking, sidewalks at the full width, street trees and street vegetation.

- Stalls are eight feet wide.
- The travel lane is fourteen feet wide.
- Parking on the north side of the road is eight feet wide.
- Sidewalks are on both sides of the street, at the desired eight-foot width.
- Parked cars to the north separate pedestrians from moving

One-Way Traffic Scheme, Continued

vehicles. To the south, pedestrians are separated from traffic by a four-foot buffer with plant boxes.
- The sunny north side of the street has a desired eight-foot tree belt.

These examples illustrate that with a significant increase in the amount of space along Main Street, it is possible to follow more of the preferred design guidelines. This scheme would create a spacious and attractive pedestrian area along Main Street. It would also serve to reduce the volume of traffic along Main Street and the likelihood that the state highway department would exercise their right to increase the right-of-way.

There are also several disadvantages to this scheme:

- Traffic would increase on Farmers Turnpike, currently a quiet residential street.

- Large commercial semi-trailer-trucks would have to negotiate several turns at both ends of the hamlet, at Fifth Street and at Sandhill Road. The noise of shifting gears and air brakes could disturb residents.

- The intersection of Farmers Turnpike, Sandhill Road, and Highway 44/55 is currently located at the S-curve. Additional traffic at this intersection could complicate the already undesirable traffic situation at the S-curve.

- The stream that runs under Sandhill Road is eroding the bank at the edge of Farmers Turnpike. Seasonal flooding is also an issue at this location. For this scheme to be implemented the roadbed would have to be raised and flooding addressed.

- Visibility to commercial businesses would be reduced. With only one direction of traffic, half as many vehicles would pass through Main Street where most businesses are currently located, potentially reducing customer visits to these stores.

Exploring the possibility of a one-way-loop brings to light many of the challenges to implementing such a plan. These challenges may outweigh the benefits gained from implementation.

Walkability Scheme

Concept: a network of sidewalks throughout the hamlet promote walking over driving.

Walkability refers to the degree to which a neighborhood promotes safe pedestrian usage. There are two walkability zones encircling the commercial core of the hamlet.

The first zone extends out in a one-thousand-foot radius from the Central Hamlet's commercial core. The area within this zone represents a five-minute walk in any direction from a car parked in the commercial core. This is a comfortable distance for people to walk and discourages short vehicle trips. Within this zone, sidewalks are provided on both sides of main streets and on one side of secondary roads.

The second zone expands out in a three-thousand-foot radius from the hamlet center. The boundary of this zone depicts a fifteen-minute walk to or from the hamlet along sidewalks at a comfortable pace, and offers an alternative to driving for people who live in residential neighborhoods surrounding the hamlet. Sidewalks are provided on at least one side of main streets and secondary roads.

Crosswalks and warning signs or lights are located throughout these zones, allowing pedestrians to safely reach the hamlet center.

Walkability is a critical factor in the overall health of a community. A pedestrian-friendly atmosphere allows neighbors to have more contact with each other, instills a greater sense of community and place, reduces automobile traffic, and supports the local economy by encouraging people to walk to local businesses, (Appendix J).
Commercial buildings are concentrated in the core of the hamlet. Sidewalks connect to these buildings from parking and the surrounding dense residential neighborhoods.

In this concept the commercial core of the Central Hamlet is identified as Main Street/Highway 44/55 from Gardiner Gables to Fifth Street. New businesses within the commercial core increase density and encourage walkability by reducing the distance between destinations, with sidewalks linking the commercial area to parking and the immediate hamlet residential neighborhoods. Mixed-use development in the commercial core, such as businesses on the ground floor with apartments upstairs, promote "walking-to-work," provide close-by customers, and contribute to a healthy and vibrant hamlet (Burden).

Mixed-Use Commercial, Parking, & Residential Scheme

Concept: mixed-use commercial/residential buildings maintain vitality in the hamlet; parking serves commercial and residential demand.

Parking located throughout the Central Hamlet encourages commercial development. Parallel parking along Main Street serves businesses, residences, and public buildings. New and expanded off-street parking located next to the rail trail, on the north side of Main Street, provides parking for customers doing business in the Central Hamlet as well as visitors to the rail trail. Alley parking between Main Street and Farmers Turnpike, to the East of Arch Street, serves residents and businesses, while parking at the new post office location serves as overflow for special events, and supplementary rail trail parking.

The residential area is identified just outside of the commercial core. Vacant lots are developed in patterns guided by hamlet design standards to increase density and offer a mix of housing options that include single-family, multi-family, affordable, and senior housing. Increased density within the immediate residential areas supports walkability and provides an economic base for businesses in the commercial core.

New structures in the commercial and residential areas of the hamlet have build-to lines and building heights that harmonize with existing buildings, have hipped or gabled roofs, front porches, and inviting windows. New structures increase density while maintaining the character and sense of place within the Central Hamlet.

Civic Building Scheme

Concept: civic buildings are centrally located to promote walkability and to define the heart of the Central Hamlet.

Civic buildings in this concept are concentrated within the commercial core of the Central Hamlet. The proximity of these buildings encourages walkability and helps to define the community importance of the Central Hamlet. A new town hall and library are grouped as a "civic cluster" located next to a proposed town green. The placement of the civic cluster in this location meets the criteria that public buildings should be placed at street corners or other prominent locations.

A new location for the post office is identified next to the bike trail where there is currently a town municipal lot. The Post Office encourages local traffic and plays an important role in the vitality of the Central Hamlet. While the new site is not on a street corner, it is in a prominent location. The property extends back 640 feet and is accessible from both Farmers Turnpike and Sandhill Road.

The old schoolhouse, formerly used as the town hall, is just at the edge of the five-minute walkability zone. It is turned into a community center and public meeting hall. It is not suitable to become the town hall because it is not appropriately located within the hamlet center. Group meetings, after school programs, and cultural events such as plays and concerts could take place at the old schoolhouse. The adjacent ballfield adds to the flexibility of use allowing for a multitude of outdoor events to take place.

Open Space & Recreation Scheme

Concept: a network of paths and sidewalks connects a central green with outlying conservation and recreation areas.

A new central green located at the site of the historical railway station is the focal point of the hamlet, providing a place for socializing, activities, events, and quiet contemplation. The green accommodates a number of activities: children can play Frisbee or other games; bicyclists can rest and enjoy the services the hamlet provides; and workers at Kiss My Face or other businesses in the hamlet can eat their lunch outside. The town can show movies in the park on summer nights, and host small outdoor concerts or crafts fairs. Activities associated with a central green benefit the town either socially, economically, or both. Centrally located, the green is easily accessible from anywhere in the hamlet either by sidewalk or via the rail trail. The connection from the central green to other green spaces is facilitated by these pathways as well, with the rail trail acting as a main thoroughfare.

The rail trail continues to be a valuable asset to the residents of Gardiner. Acting as a spine of alternative transportation, recreation, and connection, the trail expands the area of walkability to the outer reaches of town, bringing residents into the hamlet via foot or bike. It provides an easy recreational opportunity for in-hamlet residents, or a way for cyclists to travel safely to the Towns of Shawangunk or New Paltz. The concept capitalizes on the existing functions of the rail trail by linking the central green with Majestic Park and a new wetlands conservation area on the north side of the hamlet (Appendix A). Improvements such as signs that inform users of destinations and parking areas along access points promote use of the trail and its destinations.

The rail trail connection from the Central Hamlet to Majestic Park is clearly identified with signs at the central green. Additional pedestrian connections in the form of sidewalks along Farmers Turnpike offer additional pedestrian connections to the park. Universal access to the park is provided at existing vehicle entrances.

North along the rail trail is the new wetlands conservation area. Easily accessible by the rail trail, this wetland is protected as a nature preserve or duck pond.

Just south of Gardiner Gables and connected by the rail trail by

Open Space & Recreation Scheme, Continued

sidewalks is an existing protected wetland corridor. A new narrow footpath of permeable material or boardwalk runs along the north edge of the wetland and provides pedestrian access to the ballfield next to the old schoolhouse. Signs along the trail serve to inform the public of the natural functions that wetlands provide, promoting future protection for this and other wetlands.

The ballfield is accessible from the hamlet center by sidewalks as well. This connection accommodates larger groups and children on bikes. Street trees along the road provide a shaded walk in the summer heat, and separate walkers from vehicular traffic.

Central Hamlet
Design Recommendations

The design recommendation draws from the Central Hamlet's strengths, creating a unified, attractive framework on which new commercial ventures can build, while preserving the traditional aesthetic of the hamlet.

The design proposal maintains the existing circulation pattern of two-way traffic on Main Street with Farmer's Turnpike as a secondary road. This design would cause the least amount of disturbance to the hamlet while still adhering to the established criteria.

The main commercial block on Main Street is fully equipped with parallel parking on both sides of the street where feasible. Where the width is too narrow for parking, street trees are planted (e.g. in front of the antique shop). Elsewhere, residents are encouraged to plant trees in their front yards. Both parked cars and trees act as buffers between moving vehicles and pedestrians. Where neither exists, wider sidewalks or a four-foot buffer with plant boxes are provided.

Crosswalks on Main Street are located half-way down the main commercial block, where current pedestrian traffic is highest, leaving enough room between the crosswalk and the S-curve for drivers to easily see pedestrians crossing. The other crosswalk is located where the rail trail crosses the street, just east of the Kiss My Face building. Crosswalks on Farmers Turnpike provide access to prominent buildings and Majestic Park.

The increase in parking on the first block of Main Street is achieved by a reduction in the number of curb cuts along the street. Alleys provide access to the rear of buildings and to additional parking for businesses and residents. Cars are located at the rear, further allowing the street to be a pedestrian space. The need for curb cuts is reduced, resulting in a simpler traffic pattern on primary streets and improving safety for pedestrians and drivers alike. This type of community parking area uses space more efficiently than would many separate small lots. Separate lots require additional driveways, with more impervious surfaces, and additional curb cuts. The community parking lots are easily accessed but screened from view by vegetation and trees.

The north alley provides parking and delivery access for the current post office and access for residences. The parking lot at the western corner is screened by street trees and other vegetation.

The alley and parking entrance to the south (formerly Arch Street)

Central Hamlet Design Recommendations, Continued

provides access from Main Street and Farmers Turnpike and parking for the pizzeria and other commercial buildings. Turning east into a one-way alley, designated parking is provided for residents with limited parking for businesses. These small areas of parking are separated by vegetation and trees, providing shade in the summer months and screening cars from residential back yards.

Public parking also extends along the east side of the rail trail to accommodate more cars for businesses or users of the trail. This row is interspersed with trees and vegetation, making the parking lot a more visually pleasing area. Furthermore, vegetation islands provide opportunities to incorporate biofiltration swales or rain gardens for filtering stormwater on-site. Benches are installed near the rail.

Streets located within the five-minute walking zone are equipped with sidewalks on at least one side. Major roads (Dusinberre Road to the north, Sand Hill Road to the south, and Route 44/55 to the east and west) extend sidewalks into the fifteen-minute walking zone to offer walking or biking alternatives to those living on outlying roads.

The rail trail connects to a town green in the center of the hamlet. The green can be used for picnics, reading groups from the library, small games of Frisbee or soccer, or even ice skating in the winter. Walkers or bikers along the rail trail are drawn to the green. An adjacent eatery can pull tables outside next to the green, providing patrons with outdoor dining. The town can host arts and crafts fairs, auctions, or outdoor movie events on the green. In a hamlet center dense with buildings, the green is a place to rest, play, gather, or simply pause to enjoy the day.

Additional developments are located along Farmer's Turnpike. Two small buildings on the north side can serve mixed-use, commercial or residential functions. Another building on the south side is added to the existing municipal storage building. This unit can function well as a group of municipal buildings, a library and town offices, for example. Ample parking is located in the rear to serve these buildings, and can easily be expanded to provide more parking for businesses within the hamlet.

Immediately outside the hamlet's commercial core are a variety of areas for residential or civic buildings. A cluster development or senior

housing to the northeast would provide residents with quick access into the Central Hamlet and maintain high residential density. Another space located to the west on Main Street could be an alternative to the current post office location, with more room for parking and access, and still be close to the hamlet center.

Approaching the Central Hamlet traveling east on Highway 44/55, the S-curve is maintained but the intersection is realigned, creating a T-like intersection. The main block of developed land is extended to the east, narrowing the area where Sand Hill Road intersects with Highway 44/55 and clearly defining the travel lanes. Travel lanes maintain a comfortable width of twelve feet each way. The extension of the main block provides room for sidewalks, trees, and vegetation. Sidewalks provide safe access from Main Street to Highway 44/55 and Gardiner Gables. The added vegetation provides the opportunity for a welcoming entrance to the hamlet's commercial center, and effectively blocks headlights from shining directly into the residences located on the east side of this block.

Street trees, extending from the old schoolhouse into the Central Hamlet and again west on Highway 44/55 to Fifth Street, provide further definition of the hamlet center. They also serve to slow traffic entering the center.

Wherever possible, this design develops connections to open space. These connections allow residents within the hamlet to walk to parks and draws park-goers into the hamlet by foot or bike. The rail trail is a wonderful asset to the community and the hamlet. It connects outer residents to the hamlet, the town green, and Majestic Park. To the east, pedestrians have access to the ball fields via sidewalks along Route 44/55. Protecting the wetland located south of Gardiner Gables is imperative to allow its proper functioning. A path is located by the wetland's edge, offering a nature walk and connections to the ballfields to the east without disturbing this environmentally sensitive area. The stream the flows through a culvert under Sand Hill Road and travels parallel to Farmer's Turnpike is protected with a vegetated buffer. Its currently eroding banks are stabilized with herbaceous plants, shrubs, and trees. Stabilizing the banks of the stream will improve the quality of water running through the hamlet, Majestic Park, and toward the Wallkill River. The health of its waterways reflects the health of a town.

The Outer Hamlets

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The Outer Hamlets

The potential outlying hamlets of Tuthilltown, Benton's Corners, and the intersection of Highway 44/55 and Route 299 (referred to in this report as the Mountain Hamlet), were a secondary focus of this report.

Each outer hamlet will relate to the Central Hamlet in two ways. Physically, they are all connected via Highway 44/55. They also share a number of the design guidelines set forth for the Central Hamlet, which will create a unified streetscape focused on a pedestrian scale.

Developing each of these hamlets has a number of benefits. It creates commercial space to serve residents within an approximate two-mile radius. It also provides opportunities for dense residential developments surrounding the new commercial cores, which will support those commercial ventures on a daily basis and reduce the amount of sprawl.

This study analyzed ways to encourage visitors to travel into the Central Hamlet without overwhelming the hamlet with excessive traffic. The majority of seasonal tourism occurs near the Mountain Hamlet, where approximately ½ million visitors come each year to access the Shawangunk Ridge, the Mohunk Preserve, and Minnewaska State Park. Signs indicating gasoline and services east on Highway 44/55 or a kiosk located in the Mountain Hamlet with a map of Gardiner's hamlets would be helpful in directing traffic toward the Central Hamlet, thereby keeping tourist dollars in Gardiner.

This route would bring tourists through the Mountain Hamlet, Benton's Corners, and Tuthilltown before reaching the Central Hamlet. If all these hamlets are advertised as destination points offering services, each hamlet should receive a portion of the tourist business, but none should be overwhelmed with traffic. Rather, the combination of all four hamlet destinations should prove beneficial to residents and tourists alike.

Outer Hamlet Design Guidelines

The following list of guidelines differs from the Central Hamlet Guidelines only in relation to specific architectural styles.

These design guidelines were established to steer development toward a small-scale, pedestrian-friendly hamlet. This set of guidelines was developed from a combination of traditional neighborhood development standards, environmentally sensitive design principles, a town-wide survey conducted in 2003, suggestions gathered from the first Hamlet Study public meeting on February 3, 2004, and New York Department of Transportation Design Guidelines (Appendices D, E, F, G, H, and I).

Natural Systems

- Prohibit development on wetlands and floodplains. Maintaining the integrity of these areas is critical to the health of Gardiner's water bodies and drinking water.

- Maintain protective buffers along waterways. Buffers prevent erosion and filter pollutants before they enter waterways, again protecting the health of waterways and water-recreation areas. They also enhance the natural beauty of waterways.

- Carefully fit new development into the existing landscape. Done properly this lessens the visual effect of new development and maintains the integrity of natural systems.

Environmentally Friendly Design

- Ecologically sensitive design uses fewer resources and preserves the natural beauty of the area while limiting deterioration of natural systems.

- Design with native vegetation. Vegetation adds natural beauty, cools stormwater running off paved surfaces, and filters pollutants. Native vegetation is suited to local conditions and requires less maintenance while promoting wildlife habitat.

- Treat stormwater runoff on site. It is universally accepted that uncontrolled stormwater runoff can pose dangerous threats to waterways and water quality. Treating stormwater on-site with

Outer Hamlet Design Guidelines, Continued

rain gardens, vegetated swales, or other best management practices allows the natural filtering of pollutants and settling of sediments that would otherwise pollute water bodies. It also recharges groundwater, and reduces or slows the volume of stormwater entering waterways

Buildings

- Encourage front porches. Front porches develop community living through the semi-public spaces they create, increasing interaction with neighbors and passers-by.

- Maintain build-to lines close to streets. Build-to lines create an enclosed streetscape that frames the public street space. Buildings that are set towards the front of a lot encourage interaction with neighbors and passers-by.

- Design roof ridges parallel or perpendicular to streets. Roof ridges that relate directly to the street alignment enclose the street. When possible locate ridge direction for maximum solar gain and to take advantage of potential photovoltaic installation opportunities.

- Design new buildings similar to existing patterns. Base new buildings on attractive historical design to define character and bring aesthetic coherence to the hamlet.

- Encourage architectural details. Buildings that are well-crafted, with attention paid to detail, contribute to a sense of pride in a neighborhood.

- Design for climate. Encourage the design of south-facing structures and the use of solar energy.

- Architecture of the historical Grist Mill in Tuthilltown and the Lodge in the Mountain Hamlet are used as inspiration for new building design without direct mimicry. Similar scale, shapes and colors are used.

Signs

- Keep signs at a small scale within the hamlet, and at first-floor level. Signs in the hamlets are for viewing by pedestrians and slow-moving traffic; they should not tower above pedestrians.

- Keep suspended signs out of the public right-of-way. This area is designated for ease of movement.

- Restrict the use of neon signs. Glaring neon signs distract from the intimate nature of the hamlet setting.

Garages and Driveways

- Design garages with build-to lines that do not project beyond the build-to line of the house. The dominant scene of the streetscape should be houses, not garages. Locate garages at the rear of the property when possible to give the house greater importance. This configuration also makes narrower lots possible and allows for denser development.

- Locate garages so that cars parked outside do not project beyond front build to lines. Allow the space between buildings and sidewalks to remain a pleasant, walkable area, keeping the house more visible than the cars.

- Limit curb cuts to no wider than twelve feet. No more space is necessary. This standard emphasizes the importance of safe sidewalks.

- Provide alleyway access to parking lots and garages behind buildings. Alleys allow more on-street parking by eliminating curb cuts and allow access to garages located at the rear of the property.

Street Trees

- Preserve existing trees; protect from root compaction during construction or constant foot-traffic. Measures to safeguard

Outer Hamlet Design Guidelines, Continued

these trees should be foremost in maintaining the streetscape.

- Line streets with trees. Tree-lined streets provide definition to a hamlet or village as well as natural beauty and shade during summer months. Trees planted along streets slow traffic by reducing the perceived width of the space. Deciduous trees will also let light in for solar gain during the winter months.

- Choose native species for street trees. Native species are adapted to the local environment. Not only are they more apt to survive but they provide wildlife habitat.

- Encourage lawn trees where there is not room for street trees. Trees planted within the first ten feet of a lawn are a good substitute for street trees, providing the same design elements.

Utility Lines

- Utility lines clutter the environment of the streetscape. An essential step in providing an aesthetically pleasing, walkable environment is to place utility lines underground.

Pedestrians/Walkability

- Design sidewalk widths based on use. Residential sidewalks should be five feet wide; commercial sidewalks eight feet wide. These widths will provide adequate room for comfortable walking or while pushing a baby carriage. Sidewalk widths are based on the level of use.

- Place sidewalks on the parking side when streets have only one lane of parking. Parked cars provide a buffer between pedestrians and moving vehicular traffic.

- Incorporate a vegetated buffer three to four feet wide between sidewalks and traffic lanes when there is no on-street parking or street trees. Shrubs, herbaceous plants, or plant boxes will then act as the buffer between pedestrians and moving vehicles.

- Incorporate green public space connections. Public and open spaces are an important element to any hamlet. They provide spaces for gathering, resting, or recreation. Connections to these areas should be provided from the hamlet center.

Parking

- Satisfy non-residential parking requirements with a combination of on-street parking and parking lots. Hamlet visitors need a place to park their cars. In order to encourage their visits, sufficient parking for non-hamlet residents should be available.

- Provide parallel parking on all major streets. On-street parking allows easy access to buildings for short visits. It also functions as a buffer between pedestrians and vehicular traffic.

- Keep curb cuts and interruptions of pedestrian space to a minimum. In order to maintain a safe walking space, potential vehicle/pedestrian conflicts should be reduced as much as possible.

- Provide parking spaces to meet no more than 85% of anticipated peak demand. Peak demand only occurs periodically. Meeting 85% of this demand would be adequate and reduce the need for additional parking lots and impermeable surfaces.

- Locate parking lots to the rear of properties, or to the side and screened from the street. In a streetscape, buildings have priority. Parking lots next to the street would detract from the visual environment.

- Discourage corner parking lots. If necessary, partially screen them from streets with buildings or vegetation. Corner lots should be used for prominent civic or commercial buildings.

- Create parking lots to be simple and avoid conflict zones. Complex parking lots only produce confusion and increase the potential for accidents.

- Use vegetation to treat stormwater. Manage stormwater using vegetative best management practices (BMPs), which treat stormwater on-site while providing natural beauty.

Outer Hamlet Design Guidelines, Continued

Street Pattern and Width

- Design interconnected streets. More than one entrance and exit allows multiple routes, provides drivers with more options, and reduces traffic congestion. (continuous pathways, with or without streets, allows pedestrians more options)

- Develop clear, direct and understandable patterns. Streets should be easy to navigate.

- Allow dead-end and curved streets only when in response to topography. Simple, straight streets use space more efficiently in densely populated areas.

- Design nine-to-eleven-foot-wide travel lanes with eight-foot shoulders for parking (nine-foot lanes for side streets, eleven-foot lanes for main streets). Vehicular travel lanes should be comfortable, but narrow enough to prevent vehicles from speeding through. Parking along shoulders will further reduce traffic speed, as cars constantly enter, exit, and slow down looking for parking spots. New York State Department of Transportation guidelines must be followed on State Highways.

- Provide sidewalks on at least one side of the street. In order to promote walking and provide safe venues for walking, walkways should be made available throughout the hamlet center.

Universal Accessibility

- Provide universal accessibility. All public spaces, walkways, and businesses should be universal accessible. Designing these elements from the beginning will yield better designs, and reduce costs of future retrofitting.

Tuthilltown
Existing Conditions & Site Analysis

Existing Conditions

Located at the intersection of Highway 44/55 and Route 9 the Tuthilltown hamlet commercial zone currently consists of an empty crossroads; there are no buildings or apparent activities located here. Less than one thousand feet to the south lies the Shawangunk Kill River protected as a Recreational River under the New York State Wild Scenic and Recreational Rivers Act (Appendix J). Along the river and just south of the crossroads is the historical location of Tuthilltown, where the Tuthilltown Gristmill (now a café, store, and museum) and a few residences are located. Historical Tuthilltown is no longer in a commercial zoning district because of its proximity to the river. Within two miles east and west of the crossroads, a number of suburban-style residential neighborhoods are scattered.

Site Analysis

Shawangunk Kill River Assessment

The Shawangunk Kill River and its flood plain are located to the south side of the hamlet commercial zone. Under the Wild, Scenic and Recreational Rivers Act, development that occurs within a river buffer zone, depending on the activity anywhere from 150 to 250 feet from the river bank, will likely require a permit from the N.Y.S. Department of Environmental Conservation. Private septic systems are allowed, but waste water treatment facilities are not. A list of regulations is provided in Appendix K.

Soil Assessment

A high seasonal water table, shallow depth to bedrock, and poorly drained soils require specially designed septic systems for single buildings, or a small-scale treatment plant away from the river for several buildings, if development were to occur in this location. There is currently no public sewer in Tuthilltown (Appendix K).

Traffic Circulation Assessment

Heaviest traffic volume occurs on Highway 44/55 and includes local traffic, through traffic, and occasional large trucks. Route 9 serves local traffic from residential neighborhoods within two miles in

Tuthilltown
Existing Conditions & Site Analysis, Continued

either direction and commuter traffic for residents heading to New Paltz or the New York State Throughway. Traffic speed discourages pedestrian use. On-street parking along Highway 44/55 is inappropriate due to vehicle speed. Current development patterns in the area do not promote pedestrian accessibility. Visitors to any businesses that locate to the Tuthilltown Hamlet will be served primarily by vehicular traffic.

Tuthilltown Design Scheme

Concept: small-scale historical architecture with mixed uses

The first development suggested within the Tuthilltown hamlet commercial zone will occur in the southeast quadrant of the intersection of State Highway 44/55 and Route 9 to promote connection with historical Tuthilltown. The concept for this hamlet is for mixed-use development consisting of small commercial businesses and professional offices. Apartments located on the upper floors of the commercial buildings will help to address the concerns raised at the public meeting about the town's lack of affordable housing. Architecture of the historical Tuthilltown Grist Mill is used as inspiration for new building design without direct mimicry. Historical scale, shapes, and color are applied while incorporating modern building technologies. This concept plan could be used as a template with some minor variations for the other quadrants as more development is needed.

Natural Systems

The southeast quadrant was chosen because there is no exposed bedrock and the ground is flat to slightly sloping. Construction on the southwest and northwest quadrants is less desirable as the shale outcroppings may require blasting for foundations and septic. The relatively flat and grassy site in the southeast quadrant allows development to occur within the existing landscape and minimizes disturbance to the site. Development is carefully fit into the forest edge so that few existing trees have to be removed. The soils within the commercial zone are well drained but are prone to seasonal wetness. Appropriate site design and construction will address these issues. A specially designed septic system or a connection to town sewer is necessary. The only sewage treatment plant in Gardiner is located east of the Wallkill River in the Central Hamlet. The plant is currently designed to serve only the needs of the Central Hamlet.

Buildings

The type of development envisioned for the hamlet consists of small buildings. The scale of the buildings is similar to those in the Central Hamlet with heights limited to thirty-five feet. Setting the development back from the road allows for vegetation to be planted in front to help partially screen and subdue the presence of the buildings. Business signs are small, in scale with the buildings and yet still visible to passing vehicles. Buildings are oriented to the south as much as possible to take advantage of passive solar energy.

Tuthilltown
Design Scheme, Continued

Vehicles/Parking
Access for vehicles is limited to one curb cut on Highway 44/55, approximately one thousand feet east from the crossroads, and another on Tuthilltown Road. Limited access helps to reduce traffic congestion on the main roads. An access road winds between these points and to the parking lots to help reduce vehicle speed. Parking is provided behind the buildings and is screened from the road. Trees and other vegetation are used within the parking areas to minimize the appearance of vehicles. Clustered development allows for shared parking lots which reduces walking distances between destinations and promotes safer pedestrian movement.

Pedestrians/Sidewalks
Sidewalks are provided within the new development and are designed to reduce the number of vehicle/pedestrian conflicts as well as to provide links between buildings. Sidewalks are placed along Route 9, extending to the Old Grist Mill and residential neighborhood to provide safe pedestrian connections.

Environmentally Friendly Design
Best management practices for treating stormwater run-off on site are incorporated into the parking lot design. The use of biofiltration swales and other "green" techniques are used to accomplish this goal. Green space is preserved at the corner of the crossroads allowing a place for vegetation and a sign announcing the entrance to the hamlet. Clustered buildings reduce impermeable surface area and require less infrastructure, reducing overall construction costs. Development is kept away from the floodplain. This not only keeps open green space near the hamlet but provides a visual link to the Grist Mill just south of the commercial zone. Trees are planted on both sides of Highway 44/55 and Route 9 within the hamlet commercial zone. The trees define the entrance to the hamlet and work passively to slow vehicles while providing a separation between the road and sidewalk.

Benton's Corners
Existing Conditions & Site Analysis

Existing Conditions

Benton's Corners occupies the land surrounding the intersection of Highway 44/55 and Route 7. A restaurant occupies the southwest corner and a residence the northwest; the opposing corners have an abandoned service station and a vacant lot. There are no sidewalks and parking is located in a lot at the restaurant. Suburban-type neighborhoods are scattered within two miles to the east and west of Benton's Corners.

Site Analysis

Wetlands Assessment

Wetlands provide valuable natural functions such as flood control, groundwater recharge, and water purification as well as providing wildlife habitat. There are wetlands located in Benton's Corners on the eastern edge of the hamlet commercial zone. The wetlands and a one-hundred foot buffer are protected under state law (Appendix A).

Soils Assessment

A high seasonal water table, shallow depth to bedrock, and poorly-drained soils require a specially designed septic system for a single building or a small-scale treatment plant for several buildings if development were to occur in this location (Appendix L). There is currently no public sewer in or near Benton's Corners.

Traffic Circulation

Heaviest traffic volume is located on Highway 44/55 and includes local traffic, through traffic, and occasional large trucks. Route 7 serves primarily local traffic from residential neighborhoods within two miles in either direction and provides access to areas within the town. It also serves as an access road to New Paltz to the north and Shawangunk to the south. Traffic speed discourages pedestrian use along highway 44/55. On-street parking along Highway 44/55 is inappropriate due to vehicle speed. Current development patterns in the area do not promote pedestrian accessibility. Visitors to any businesses that locate to Benton's Corners will be served primarily by vehicular traffic.

Benton's Corners Design Scheme

Concept: small- and medium-scale mixed-use development

The first development suggested for the hamlet is in the northeast and southeast quadrants of the intersection. The concept for this hamlet is for mixed-use, small-to-medium commercial development and affordable housing with some larger development such as a grocery store. The concept plan could be used as a template with some minor variations for the other quadrants as more development is needed.

Natural Systems

The ground in Benton's Corners is flat to slightly sloping. A large cleared grassy area extends for several hundred feet in the southeast quadrant of the intersection along Highway 44/55. The northeast quadrant has a smaller cleared area with some new tree growth occurring on the perimeter. Using these cleared areas for new development minimizes disturbance to the site. Development in the northeast and southeast quadrants must not encroach on the wetlands. A shared wastewater treatment plant is recommended, as soil types don't support dense development with individual septic systems.

Buildings

The type of commercial development proposed for this area consists of restaurants, grocery and convenience stores, specialty stores, clothing stores, offices and other small- to-medium scale businesses. Of all the outer hamlets, a gas station is most appropriate here based on soil characteristics, although special measures would need to be taken to prevent groundwater contamination. Residential apartments to accommodate the need for affordable housing would be located on the second floors of the buildings. Incubator companies looking for future expansion are another suggested use. Small, mixed-use buildings are clustered, set back from the road, and partially screened with a vegetated buffer. Clustered development reduces the amount of land that needs to be built on and lessens the area of impermeable surfaces. Setting the development back from the road allows for vegetation to be planted to help partially screen and reduce the scale of the buildings. Business signs are small and in scale with the buildings yet visible to passing vehicles. Buildings are oriented to the south as much as possible to take advantage of solar energy opportunities. Development within the southeast quadrant

Benton's Corners
Design Scheme, Continued

accommodates medium-sized commercial buildings. Smaller businesses are located within the northeast quadrant, and affordable residences on the northwest quadrant.

Vehicles/Parking
Vehicle access is limited to one curb cut on each side of Highway 44/55, approximately 250 feet from the intersection. Limited access helps to reduce traffic congestion and reduces the area of impervious surfaces. Parking is provided behind the buildings and screened from the road. Dead-end parking is avoided, to allow for more efficient traffic circulation. Trees and other vegetation are used within the parking areas, to visually subdue the presence of vehicles. Clustered development allows for shared parking lots which reduce walking distances between destinations and promote more pedestrian connections.

Pedestrians/Sidewalks
Crosswalks at the intersection and sidewalks connecting the two areas of mixed-use development as well as sidewalks connecting the surrounding residential neighborhoods create a pedestrian-friendly environment. Sidewalks are provided within the new development and are designed to reduce the number of vehicle/pedestrian conflicts as well as to provide links between buildings.

Environmentally Friendly Design
Best management practices for treating stormwater run-off on site are incorporated into the parking lot design. The use of biofiltration swales and other "green" techniques are used to accomplish this goal. Trees are planted on both sides of Highway 44/55 and Route 9 within the hamlet commercial zone. The trees define the entrance to the hamlet and work passively to slow vehicles while providing a separation between the road and sidewalk. Clustered buildings reduce impermeable surface area and require less infrastructure, reducing overall construction costs.

Mountain Hamlet
Existing Conditions & Site Analysis

Existing Conditions

The Mountain Hamlet, located at the junction of Highways 44/55 and 299, is dominated by massive rock cliffs of the Shawangunk Ridge and the forest at its base. This hamlet serves as a recreational gateway to the Shawangunk Ridge, the setting for rock climbing, hiking, bicycling, and other outdoor activities. A restaurant occupies one corner of the hamlet, a deli and small climbing supply store are located across the street, and a large service garage dominates the northwest side of the hamlet. A small hotel that caters to guests visiting the Shawangunk Ridge is tucked into the woods and screened from the street. The ridge and forest are a scenic asset which draw tourists into the area, who in turn support this hamlet economically.

Site Analysis

Traffic Circulation

Heaviest traffic volume is located at Highways 44/55 and 299. This includes local traffic, through traffic, tourist traffic for visitors to the ridge, and occasional large trucks. Highway 299 provides access from New Paltz and the New York State Thruway to Minnewaska State Park and the Mohunk Preserve, both located on the Shawangunk Ridge. Traffic to the Mountain Hamlet is largely destination traffic. Once in the hamlet, pedestrian movement is concentrated in the parking lots of the existing businesses between buildings and parked cars. People may walk along the shoulders of the road in the summer between overflow parking and entrances to the Ridge. Hotel guests currently walk along the road to get to the commercial area. Pedestrian traffic along the road is a cause for conflict between pedestrians and vehicles. As more businesses locate to the Mountain Hamlet a lack of safe pedestrian connections is a potential barrier to developing a comfortable and inviting atmosphere.

Mountain Hamlet
Existing Conditions & Site Analysis, Continued

Soil Summary

A high seasonal water table, shallow depth to bedrock, and poorly drained and excessively drained soils require specially designed septic systems for single buildings, or a small scale treatment plant for several buildings if development were to continue in this location (Appendix L). There is currently no public sewer in the Mountain Hamlet; all residents and businesses are on private septic systems. Because there is a danger of groundwater contamination in areas with excessively drained soils, businesses that could contaminate the groundwater should be prohibited from these areas.

Mountain Hamlet Design Scheme

Concept: "Gateway to the Gunks": mixed-use serving tourists and residents

The first development suggested within the hamlet is in the southeast quadrant of the intersection which is already developed. The concept for this hamlet is to provide mixed-use commercial development that serves residents and tourists. This concept could be used as a template with some minor variations for the other quadrants as more development is needed.

Natural Systems

The ground in the southeast quadrant of the mountain hamlet commercial zone is flat to slightly sloping, making it preferable for construction. The area is already cleared of trees which minimizes the disturbance of new development. A shared wastewater treatment plant is recommended, as soil types do not support dense development with private septic systems. The only sewage treatment plant in Gardiner is located east of the Wallkill River in the Central Hamlet. The plant is designed to serve only the needs of the Central Hamlet.

Buildings

The type of commercial development in this area consists of restaurants, convenience stores, specialty stores, clothing stores, overnight accommodations and other small scale businesses geared towards serving the needs of the half million tourists who visit the Shawangunk Ridge every year. Development is clustered around a central courtyard and encourages socializing and easy access to the commercial businesses surrounding the courtyard. Clustered development reduces the amount of land that needs to be built on and lessens the amount of impermeable surfaces. Setting the development back from the road allows for vegetation to be planted to help partially screen and reduce the scale of the buildings. Business signs are small and in scale with the buildings and yet are visible to passing vehicles. Buildings and their central courtyard are oriented to take advantage of the views of the ridge to the west and oriented for southern exposure.

Vehicles/Parking

Vehicle access is limited to reduce traffic congestion and lessen the required amount of impervious surfaces. Short-term parking is provided behind the building cluster and within easy walking distance. Long-term parking for day-hikers is provided farther to the east and screened by vegetation. Dead-end parking is avoided to allow for more efficient traffic circulation.

Mountain Hamlet
Design Scheme, Continued

Environmentally Friendly Design
Trees and other vegetation are used within the parking areas to visually subdue the presence of vehicles. Best management practices for treating stormwater run-off on-site are incorporated into the parking lot design. The use of biofiltration swales and other "green" techniques are used to accomplish this goal. Trees are planted on both sides of Highway 44/55 and Route 299 within the hamlet commercial zone. The trees define the entrance to the hamlet and work passively to slow vehicles while providing a separation between the road and sidewalk. A vegetated buffer is planted in front of the existing automotive garage to help maintain a naturalized view towards the ridge. Clustered buildings reduce impermeable surface area and require less infrastructure, reducing overall construction costs.

Pedestrians/Sidewalks
Crosswalks at the intersection and sidewalks connecting the existing lodge and convenience store with the new development as well as sidewalks connecting the residential neighborhood to the south create a more pedestrian-friendly environment. Sidewalks are provided within the new development and are designed to reduce the number of vehicle/pedestrian conflicts as well as to provide links between buildings.

End Notes

In order to achieve the goals set forth in the hamlet design schemes and recommendations, infrastructure improvements must be addressed. The problem of expanding sewer service to new development requires new or expanded treatment plants. An attractive alternative type of sewage treatment system using living machines offers an environmentally friendly option (Appendix M).

Federal funding is available for transportation enhancements for bike and pedestrian oriented projects. The types of projects eligible for funds include construction of sidewalks, shoulder paving, parking, bike and pedestrian trails, pedestrian traffic signals, cross walks, street lights, street furniture, public parks, and other accommodations associated with alternative transportation projects (Appendix N).

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Appendix

A. Wetlands
B. Traffic Counts
C. Traffic Calming
D. Stormwater Management
E. Illustrated Design Principles
F. Hamlet Design Guidelines
G. Public Meeting Survey Results
H. Traditional Neighborhood Design Elements
I. Department of Transportation Guidelines
J. Walkability
K. Wild, Scenic, and Recreational Rivers
L. Outer Hamlet Soil Maps
M. Transportation Enhancements
N. Living Machines