

# Aesthetic Design Recommendations

## Town of Mercer

December 2002



This publication was produced by Northwest Regional Planning Commission with funding provided by the Wisconsin Department of Natural Resources Lakes Planning, Management, and Protection Grant Programs.

## Aesthetic Design Recommendations

In order to supplement the shoreland development and management guide, the Town of Mercer Planning Commission has developed six suggestions that, if properly addressed, can enhance the aesthetic nature of shoreland homes in the Town. This effort to improve the appearance of homes in Mercer stems from a concern voiced in the Town of Mercer Development Plan from September 1998. According to the development plan, the major land use consumption is in the residential zone and is reflected primarily in lakeshore home development (homes that lie within 1,000 feet of lakes and within 300 feet of rivers). Because 75 percent of new building permits granted by Iron County have been issued to Mercer, citizens have been prompted to call for all future development to maintain a northwoods character, seemingly as an attempt to route the potentially uncontrollable development down a path that is acceptable even to preservationists.

Two specific goals cited in the development guide are: “promote a positive sense of community and community image” and “avoid visual pollution caused by poor design or management of buildings and structures”. The six suggestions stem from these goals and the desire to maintain the northwoods character of the town. The summation of the suggestions helps to create a sense of community by allowing freedom of design while at the same time respecting the existing landscape and architectural traditions that uphold the northwoods feeling of the town. What constitutes a northwoods feeling is a subjective issue. Creating a ‘positive community image’ and ‘avoiding visual pollution’ can also vary from person to person. The Mercer photo interpretation project will be used as a tool to assemble the aesthetic desires of Mercer residents, then to help make recommendations on specific design elements that will hopefully meet the vision of the Town.

The six suggestions are:

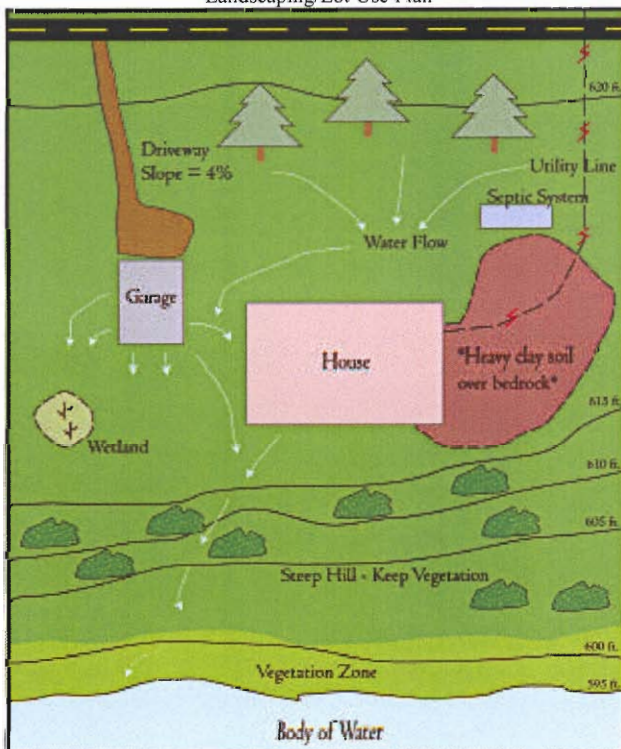
1. Examine the lot’s physical characteristics to determine the most aesthetic building location.
2. Maintain existing vegetative screening.
3. Develop design suggestions for new structures which will address color, exterior materials, roof color, roof slope and material, and size.

4. Use existing ordinances to develop design standards for decks and stairways found on various site and shore slope conditions.
5. Develop design standards and provide examples for various dock and boat storage structures.
6. Provide shoreland restoration design treatment standards.

### Best Building Location

Selecting the best building location means building with respect to the property in question, keeping its natural attributes in tact and taking advantage of them. Each lot has a unique solution to the question “Where should I build?” Examining your lot with professional contractors and landscapers helps to determine numerous possible building locations and land alterations. Having a detailed vision of what you want before the property has been seen can be dangerous. If you have a specific plan or vision, then it is best to seek out a lot that can naturally accommodate your desires. If you are not able to find a lot that naturally fits your vision, it is best to be flexible and willing to adapt. It is important to map the area in detail in the form of a landscape plan, which should at least include: elevation information, location of existing structures, roads & driveways, vegetation, electricity and sewer lines, and water flow direction.

Landscaping/Lot Use Plan



A plan should be made of your land before building or landscaping. It should at least include elevation, location of structures, location of protected zones, location of future and present vegetation, and water flow.

A landscape plan can be helpful because it allows you to visualize different building locations and analyze some consequences of each location. For example, a structure placed in the path of overland water flow may cause unsightly pools that not only are unattractive to the shoreline view but also can be degrading to the local vegetation growth as well as the integrity of the structure itself. Based on the photo interpretation survey, citizens of Mercer prefer homes that are not visible or barely visible from the shoreline. This means that homes should be built near the middle or back of the lot to assist in maintaining the shoreline aesthetics.

## Existing Vegetation

In preserving the aesthetics of the shoreline, perhaps there is no single element more important than maintaining the existing shoreline vegetation. As viewed from the water, even a populated lake can retain a secluded and pristine feel if the native shoreline vegetation is kept. According to a University of Wisconsin-Extension study, “Lakefront property owners find peace and quiet and natural beauty to be by far the most important reasons to settle on lakeshores” (Korth et.al., 1994). According to the photo interpretation survey, a sample of Mercer residents agree with this statement since the four most positive photos are heavily covered with natural vegetation. As identified in the UW-EX study, a large part of the natural beauty can be found in the buffer zone of lakes. The shoreland buffer zone of a lake is defined by the WDNR as an area of native vegetation along the water’s edge that includes the shore land and the shore area water. “If this area is preserved properly, there can be as much as 500 percent more diversity of plant and animal species” (WDNR “Shoreland Stewardship Series” – publication GWQ027; DNR FH-430-00; RP-03-00-10M-50-S). Such a dramatic increase in plant and wildlife diversity would undoubtedly enhance the shoreline aesthetics of the town.

The buffer zone is crucial to maintaining a northwoods aesthetic because it

- a) provides a visual barrier between the lake and shoreline structures
- b) retains ecological habitats that are reduced or lost by traditional urban lawns.

Here are two examples from outside the Town of Mercer that show the two extremes of shoreline types:



This is a complete buffer zone. The aquatic vegetation shown here promotes the health of the most productive part of a lake, the shoreline area. This photo was identified by Mercer residents as the most positive example of what a shoreline in Mercer should look like.



This photo was recognized by Mercer residents as the most negative example of what a shoreline in Mercer should look like. A large percentage of the vegetation has been removed, virtually prohibiting the presence of wildlife spawning and nesting. A shoreline design such as this is detrimental to the serene northwoods atmosphere desired by the people of Mercer.

### New Structures

The Mercer Development Plan has suggested an architectural style for the commercial development section in the downtown area and the USH 51 commercial corridor. The citizens of Mercer can apply many of the design principals here to residential structures with the goal of the design standards to preserve the northwoods aesthetic as defined. It is important to realize that these standards are not meant to create “cookie-cutter” housing divisions. On the contrary, they are meant to allow freedom of design and individuality among shoreland property owners while offering suggestions that will help preserve the ambience that brings people to Mercer in the first place. The design standards are as follows:



*Color* - Earthtone colors are best, such as muted brown, gray, dark green, and terracotta. These colors are in effect a camouflage that allows the structure to appear secluded and to remain less visible from the water surface.

*Exterior building materials* – Natural materials for the façade and trim are suggested. These materials include natural fieldstone, brick, knotty pine, full or partial log, and wooden clapboard siding.



*Roof color* – The use of darker earthtones such as forest green and dark brown are encouraged.

*Roof slope & materials* [sources: University of Minnesota-Extension, 1996.; “The Canadian Architect”, 1990.] – The biggest issue here, above aesthetic concerns, is falling ice and snow from an angled rooftop which can be perilous to pedestrians. Yet if they remain on the roof, they can compromise the integrity of the structure. A one-inch layer of ice weighs about five pounds per square foot, and one inch of ice weighs the same as about one foot of snow.

Most roofs are designed to withstand the weight of about four feet of snow. Often times ice and snow will fall by its own weight before it becomes a threat to the structure. Unfortunately, it then becomes a safety threat to people. The snow is less likely to fall on its own accord if there is an ice buildup underlying the snow. In this case, the ice grips the snow and allows it to accumulate, threatening the structure. Shingled roofs are also more apt to hold snow on the roof and not allow it to fall off. So how can excess ice and snow be removed? If snow accumulation becomes too great, the simplest and best way to remove it is by a long shovel or roof rake.

*Size* – The size of the home should be proportionate to surrounding homes in the neighborhood. The dimensions of the home must be able to fit within the town lot size ordinances (Table 1).

The most realistic size restriction from the ordinances is the “side yard setback” category. For example, in the case of a 200-foot-wide lot, the structure can not be more than 160 feet wide. Although a 160-foot wide house would be enormous, this example shows the type of considerations that must be taken into account when determining the size of the structure.



This photo is an example of side yard setback used to the extreme. Having a small buffer zone between houses clearly reduces privacy, although the builders are completely within the law.

**Table 1 – Iron County Shoreline Housing Ordinances**

	Lot Size	Lot Width	Shoreline Setback	Lot Depth	Vegetation Removal	Side Yard Setback for all Structures
Class 1	40,000 sq. ft. *80,000	200 ft. *300 ft.	75 ft.	200 ft.	30' corridor within 35' of shore	10' min. 40' min. total
Class 2	90,000 sq. ft. *180,000	300 ft. *600 ft.	75 ft.	300 ft.	30' corridor within 35' of shore	20' min. 40' min. total
Rivers & Streams	90,000 sq. ft. *180,000	300 ft. *600 ft.	75 ft.	300 ft.	30' corridor within 50' of shore	10' min. 40' min. total

\* Two family dwelling units per lot

In a 1996 Town of Mercer survey, the majority of respondents were in favor of keeping the quiet, rural feel of the town. Numerous large structures which are built close to one another can lead to the deterioration of the northwoods feeling by eliminating the valuable vegetation buffer and, thereby, eliminating seclusion and privacy.

### Stairways & Decks

Stairways are extremely advantageous for preserving the vegetation on a shoreland slope. They isolate pedestrian traffic so that only one fraction of the slope has to be de-vegetated and covered instead of the widespread destruction that unconcentrated pedestrian traffic would encourage. In Iron County stairways can be no more than 4 feet wide with optional railings. Their implementation is a choice made by the property owner mostly based on safety considerations. At both the top and bottom of a stairway, a pedestrian landing can be built with

an area of no more than 40 square feet. This means that there can be two landings with an area of 40 square feet each for each stairway. The location of the landings is again a choice of the property owner (Iron County Zoning Administrator).



The photos above show a recently constructed stairway with a wood frame and vinyl composite steps. This material provides numerous advantages. It is virtually resistant to decomposition, has a non-slip surface, and does not require staining.

Because stairways are important in maintaining shoreline vegetation, they are a direct benefit to the preservation of northwoods character, since riparian zone vegetation and thick, vegetative slope cover have been identified by a sample of Mercer citizens as major positive contributors to northwoods character. The appearance of stairways, then, is also an issue pertaining to northwoods character. Wood stairways, railings, and pedestrian landings are preferable over metal ones. Vinyl, an option described above, is usually not as attractive as wood, but is often more practical. Contractors often use treated pine timbers for the wood stairways and landings that they construct. These normally last 15-20 years depending on the soil quality of the slope. Sandy soils with good drainage prevent the timbers from sitting in soaked soil for extended periods of time, increasing their lifespan by 5-10 years. Clay soils, on the other hand, retain moisture thereby hastening the rotting process.

An important aesthetic consideration when installing a wood stairway is the use of treatment and/or stain. A full gamut of natural stains is available to match nearly any wood color. These stains are often used to match the house color or trim or may be used as a contrast

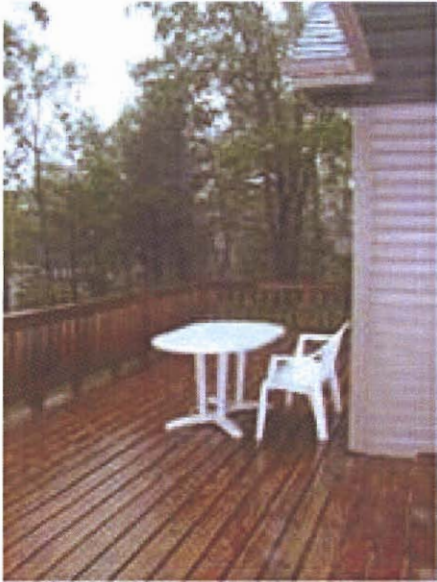


to the color of the structure. For example, a light-colored house may benefit from dark stairway and trim. The color decision rests on the shoulders of the homeowner and should match his or her desires as well as the environment created by surrounding structures. Extra attention should be given when applying treatment or stain. Both of these substances can be extremely detrimental to lake habitats if they are introduced into the water system. When treating or staining stairways or piers, be sure to be far away from any water body and make sure to properly dispose of excess or spilled stain.

The same basic principals of aesthetically positive stairways apply to decks. Wood is again the preferred material. Staining the deck will increase its life span and can enhance its aesthetic value by assimilating the appearance of the deck with the natural surroundings and the house. Remember that the edge of a deck overlooking a lake is considered the measuring point for the 75-foot setback ordinance.



Notice that the metal support beams are covered by wood planks to enhance the visual effect.



Staining helps to repel water, protecting the wood from water damage.

Docks and Boat Storage Structures

All four of the aesthetically positive photos identified by a sample of Mercer citizens in the photo analysis survey are devoid of docks and boat storage structures. On the other hand, all four of the aesthetically negative photos show at least one undesirable dock or boat storage structure. Based on these results, a sample of Mercer citizens are in favor of none, or if

necessary, modest docks and boat storage structures. Of all the photos included in the survey with a dock, the most popular (highest differential score) was #5:



This photo represents the most popular dock and boat storage structure from the photo interpretation survey. It is modest and simple.



These two photos were not included in the photo interpretation survey because there are no homes shown. However, they are good examples of modest docks.

#### Shoreland Restoration (Source: UWEX, Tamara Dudiak, Lake Specialist, 1999)

Shoreland restoration can maintain or return many desirable features to the shoreline zone, both on and off the water. The aesthetic benefits of a natural, healthy shoreline are immense. “At a minimum, shoreland buffers will present you with a seasonal array of colors, textures, aromas, and continual wildlife activity. They can maintain or restore the natural

qualities that keep us so strongly attracted to our living shores” (WDNR “Shoreland Stewardship Series” – publication GWQ027; DNR FH-430-00; RP-03-00-10M-50-S). All of the above-mentioned attributes are certainly a part of what Mercer citizens would define as northwoods character and are worth preserving.

Often times the solution to shoreland restoration could not be more simple: leave it alone. By not mowing and not removing what may be considered worthless dead wood, numerous native grasses, including Big Bluestem, Indian Grass, and Blue Gamma, will have the chance to flourish on their own.

There are times, however, when it is necessary to take action to restore a shoreline. If critical components of a natural shoreline (such as downed trees, standing dead trees, stones and brush, and a mix of vegetation) are absent, then it may be best to interfere with the natural recovery process in order to accelerate it. When deciding what and where to plant, the landscape plan may be a useful tool. A professional landscaper can offer advice on the plants most suitable to a specific lot. Remember wildlife can thrive with the addition of native vegetation:

- Blackberry and elderberry provide food and cover for many songbirds including chickadees and nuthatches.
- Bulrush, wild rice, and cattail provide habitat for waterfowl (ducks, loons), marsh birds (bittern, coot, and marsh wren), and aquatic animals (pike, muskellunge, frogs, and turtles).
- A mix of native trees (e.g. maple, pine), grasses, and shrubs along the shoreline are a visual benefit as well as a habitat for coyote, hawk, eagles, and pheasant.



Wild Rice. Notice that it thrives in standing water and littoral zones.

Once new vegetation has taken root, there is a balance of intervention that must be reached. On one hand, plants should be allowed to run wildly and naturally across the property while at the same time, they should be monitored to ensure their health and locational advantage.



# APPENDIX

## 2002 Mercer Photo Interpretation

### Methodology and Results

In September 2002, residents of the Town of Mercer completed a photograph interpretation survey. The purpose of the survey was to aid in the process of creating an aesthetic design standard for the town's shoreline homes. Respondents were shown 19 photographs of shoreline homes from outside the Town of Mercer. They were then asked to rate each photograph either 'positive' or 'negative' for each of nine different factors:

Naturalness	Landscaping
Improvements	Seclusion
Hidden Structures	Screening
Uniqueness	Water Protection
Appropriateness	

There were 39 total respondents, giving a total of 351 responses for each photo (9 factors x 39 respondents).

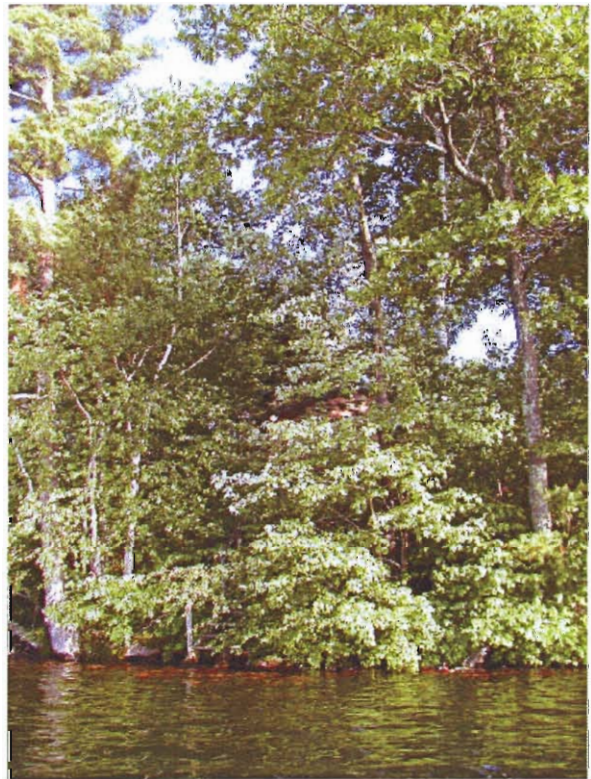
A ranking system based on survey responses was created to determine the best and worst examples of desired lake home aesthetics. A plus-minus differential score was given to each photo. This score was calculated by subtracting the total number of "negative" responses from the total number of "positive" responses for each photo. This way, good examples end up with a positive score and bad examples end up with a negative score. Scores with high absolute values represent certainty among the survey respondents. Conversely, scores with low absolute values represent indecisiveness among the respondents as a whole. The "no response" score for each photo was not used in determining the positive or negative value of the photo because the number of "no response" responses for each photo was similar.

The photos with the highest and lowest differential scores are shown on the following pages. Common characteristics are listed under each group of photos. It is these characteristics that have helped determine the design aesthetics as prescribed by Town of Mercer residents.

#### 4 Most Positive



Score: +241



Score: +220



Score: +206



Score: +202

The four photos represent the most positive features of an aesthetically pleasing home as defined by survey respondents in the Town of Mercer. Characteristics shared by all four photos are

- Appears secluded
- Improvements are hidden from view on lake
- Shoreline vegetation is natural, thick, and covers entire length of shoreline

#### 4 Most Negative



Score: -184



Score: -160



Score: -121



Score: -114

The four photos above represent the most negative features of an aesthetically pleasing home as defined by survey respondents in the Town of Mercer. Characteristics shared by all four photos are

- Homes are not private
- Improvements are easily visible from the lake
- Shoreline vegetation is removed, thin, or unnatural (e.g. mowed grass)

Two photos (#6 and #19) from the photo interpretation board were omitted from the top four and bottom four ranking because they are deemed as too misleading. They are not helpful in determining the wishes of Town of Mercer residents because they do not show homes or shorelines. These pictures are not taken from the water, and are both pictures of gas tanks. The two photos were only omitted after the top four and bottom four were chosen, so their responses are included in statistics related to this study.