LANDSCAPE AND BUFFERYARD REQUIREMENTS

The following pages briefly summarize the landscaping point requirements related to new development or the modification of existing development in the City of Sheboygan. The "landscaping point" system is a concept that provides a maximum amount of flexibility in the design of a landscape plan and the selection of appropriate plant material. Points are assigned to a variety of plant species and these numbers are related to the proposed development through a minimum scale for four development criteria. It is important to note that these landscape requirements apply to all land uses with the exception of single and two-family residential development and agricultural land uses.

Table No. 1 indicates the minimum number of landscape points required for each square foot and linear feet of development in each of the zoning districts. Table No. 2 indicates the number of points assigned to each of the types of plant material. In some cases, plant material on the site or street trees in the public right-of-way may be counted in calculating the landscaping point total for a project.

This summary information is meant as an introduction to the landscaping requirements of the City of Sheboygan. For more complete information, see subchapter 15-6 of the City of Sheboygan Zoning Ordinance.

TABLE NO. 1

LANDSCAPING POINT REQUIREMENTS

ZONING DISTRICT	DEVELOPED LOT POINTS/1,000 SQUARE FT. OF FLOOR AREA	FOUNDATION POINTS/100 LINEAR FT. OF BLDG. FOUNDATION	STREET FRONTAGE POINTS/100 LINEAR FT. OF STREET FRONTAGE	PAVED AREAS POINTS/10,000 SQUARE FT. OR 20 PARKING STALLS
Rural/Agricultural-35 (RA-35)	10	20	20	40
Estate Residential-1 (ER-1)	25	45	45	90
Suburban Residential-3 (SR-3)	20	40	40	80
Suburban Residential-5 (SR-5)	20	40	40	80
Neighborhood Residential-6 (NR-6)	20	40	40	80
Mixed Residential-8 (MR-8)	20	45	45	90
Urban Residential-12 (UR-12)	20	50	50	100
Neighborhood Office (NO)	20	45	45	95
Suburban Office (SO)	15	40	40	80
Neighborhood Commercial (NC)	15	40	40	80
Suburban Commercial (SC)	10	40	40	80
Urban Commercial (UC)	5	20	20	40
Central Commercial (CC)	0	0	0	20
Suburban Industrial (SI)	10	40	40	80
Urban Industrial (UI)	5	20	20	40
Heavy Industrial (HI)	5	20	20	40

NOTE: Point requirements apply to all land uses except single and two-family residential and agricultural.

All landscaping requirements are stated in terms of the number of landscaping points required. The required number of landscaping points is dependent upon the type of land use, the zoning district, and the size of the development. A different number of points is awarded for each plant, depending upon its typical growth rate, its mature height, and whether it is a deciduous or evergreen species. A minimum installation size is required for each of these plant categories. The attached table identifies the landscaping points awarded and the minimal permitted installation size of the plant material. See Sub-Chapter 15-6 of the Zoning Ordinance for a complete description of landscaping and bufferyard regulations.

TABLE NO. 2

LANDSCAPING POINTS AND MINIMUM INSTALLATION SIZES

PLANT CATEGORY	LANDSCAPING POINTS PER PLANT	MINIMUM PERMITTED INSTALLATION SIZE
Climax Tree	75	2" Caliper
Tall Deciduous Tree	30	1½" Caliper
Medium Deciduous Tree	15	6' Tall
Low Deciduous Tree	10	4' Tall
Tall Evergreen Tree	40	5' Tall
Medium Evergreen Tree	20	4' Tall
Low Evergreen Tree	12	3' Tall
Tall Deciduous Shrub	5	36" Tall
Medium Deciduous Shrub	3	24" Tall
Low Deciduous Shrub	1	18" Tall
Medium Evergreen Shrub	5	18" Tall/Wide
Low Evergreen Shrub	3	12" Tall/Wide
Non-Contributory Plants	0	N/A

Source: A Guide to Selecting Landscape Plants for Wisconsin, E.R. Hasselkus, U. W. Extension Publication: A2865

SUBCHAPTER 15-6: LANDSCAPING AND BUFFERYARD REGULATIONS

Section 15.601 Purpose

The purpose of this Subchapter is to indicate the minimum requirements for the landscaping of foundations, developed lots, street frontages, paved areas, permanently protected green space areas, reforestation areas, and bufferyards.

Section 15.602 How to Use this Subchapter

(1) This Subchapter contains the standards which govern the amount, size, type, installation and maintenance of required landscaping. This Subchapter recognizes the important and diverse benefits which landscaping provides in terms of protecting the health, safety, and general welfare of the community, and implementing the Comprehensive Master Plan.

(2) Each section of this Subchapter is oriented to a specific category of required landscaping. These include Landscaping Requirements for Foundations (Section 15.604), Landscaping Requirements for Developed Lots (Section 15.605) Landscaping Requirements for Street Frontages (Section 15.606), Landscaping Requirements for Paved Areas (Section 15.607), Landscaping Requirements for Permanently Protected Green Space Areas (Section 15.608), Landscaping Requirements for Reforestation (Section 15.609), and Landscaping Requirements for Bufferyards (Section 15.610).

(3) In each instance, a "landscaping point" concept is used to provide a maximum amount of flexibility in terms of the selection of plant materials. Section 15.603 presents sample landscape point combination alternatives used by this Chapter. At the end of this Subchapter (and in more detail on pages A-3 through A-28 in the Appendix), Section 15.611 provides a listing of plant species fitting into the "climax tree", "tall deciduous tree", "medium deciduous tree", "low deciduous tree", "tall evergreen tree", "medium evergreen tree", "low evergreen tree", "tall deciduous shrub", "medium deciduous shrub", "low deciduous shrub", "medium evergreen shrub", "low evergreen shrub", and "non-contributory plants" used by this Chapter. Section 15.612 provides requirements for the installation and maintenance of required landscaping, and Section 15.613 describes the procedure for calculating landscaping requirements for this Subchapter.

Section 15.603 Landscaping Points, Sample Landscaping Schemes and Measurement for Landscaping Requirements

(1) All landscaping requirements are stated in terms of the number of landscaping points required. The required number of landscaping points is dependent upon the type of land use, the zoning district, and the size of the development. A different number of points is awarded for each plant, depending upon its typical growth rate, its mature height, and whether it is a deciduous or evergreen species. A minimum installation size is required for each of these plant categories. These requirements are outlined in Table 15.603 on the following page.

TABLE 15.603: LANDSCAPING POINTS AND MINIMUM INSTALLATION SIZES		
Plant Category	**Landscaping Points Per Plant**	**Minimum Permitted Installation Size**
Climax Tree	75	2" Caliper
Tall Deciduous Tree	30	1½" Caliper
Medium Deciduous Tree	15	6' Tall
Low Deciduous Tree	10	4' Tall
Tall Evergreen Tree	40	5' Tall
Medium Evergreen Tree	20	4' Tall
Low Evergreen Tree	12	3' Tall
Tall Deciduous Shrub	5	36" Tall
Medium Deciduous Shrub	3	24" Tall
Low Deciduous Shrub	1	18" Tall
Medium Evergreen Shrub	5	18" Tall/Wide
Low Evergreen Shrub	3	12" Tall/Wide
Non-Contributory Plants	0	n/a

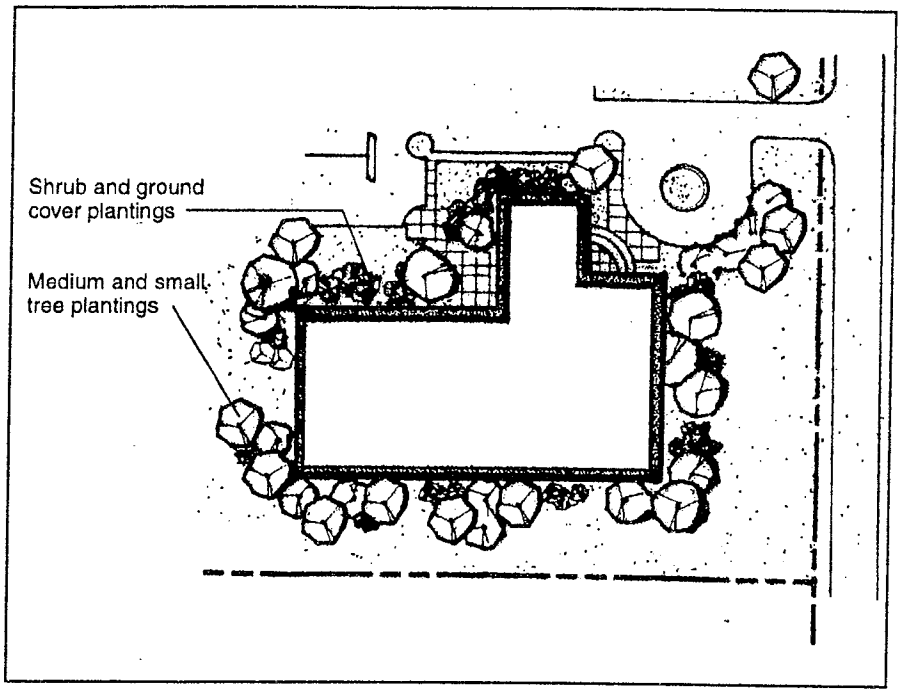
Source: A Guide to Selecting Landscape Plants for Wisconsin, E.R. Hasselkus, UW-Extension Publication: A2865.

(2) **Depiction of Sample Landscaping Schemes:** Illustrations 15.603 A through F, shown below and on the following three pages, depict sample landscaping schemes that may be used for building foundations, developed lots, street frontages, paved areas, reforestation, and bufferyards. In general, landscaping schemes similar to Alternative A are best for building foundations, landscaping schemes similar to Alternative B are best for developed lots, landscaping schemes similar to Alternative C are best for street frontages, landscaping schemes similar to Alternative D are best for paved areas (including parking lots, walkways and plazas), landscaping schemes similar to Alternative E are best for reforestation, and landscaping schemes similar to Alternative F are best for bufferyards. A detailed listing of which plant species fit each plant type is provided in Section 15.611.

Alternative A:
Best Suited for Building Foundations

750 Landscaping Points:

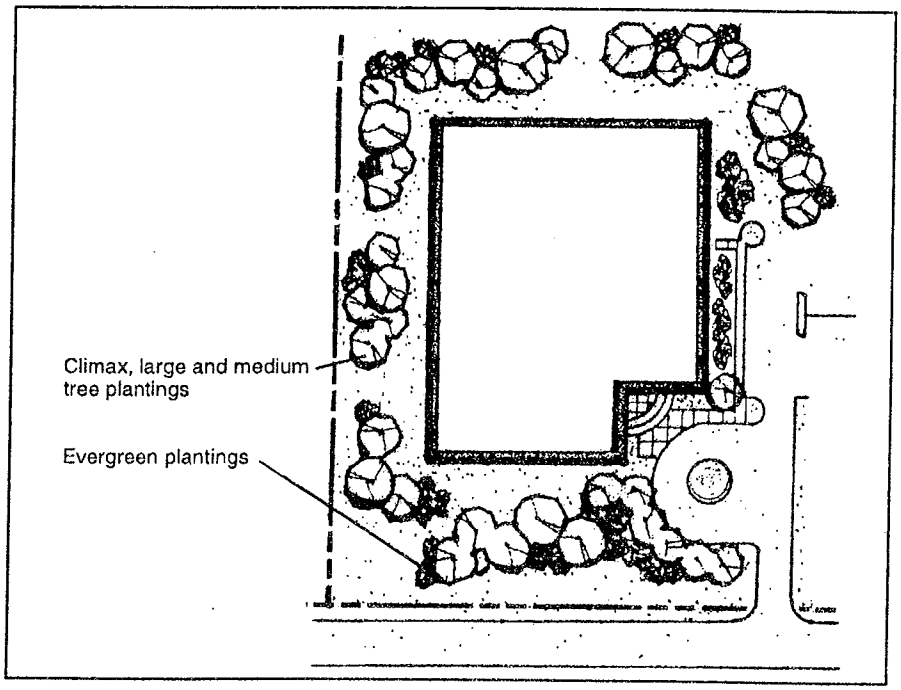
20 medium trees
15 small trees
60 shrubs



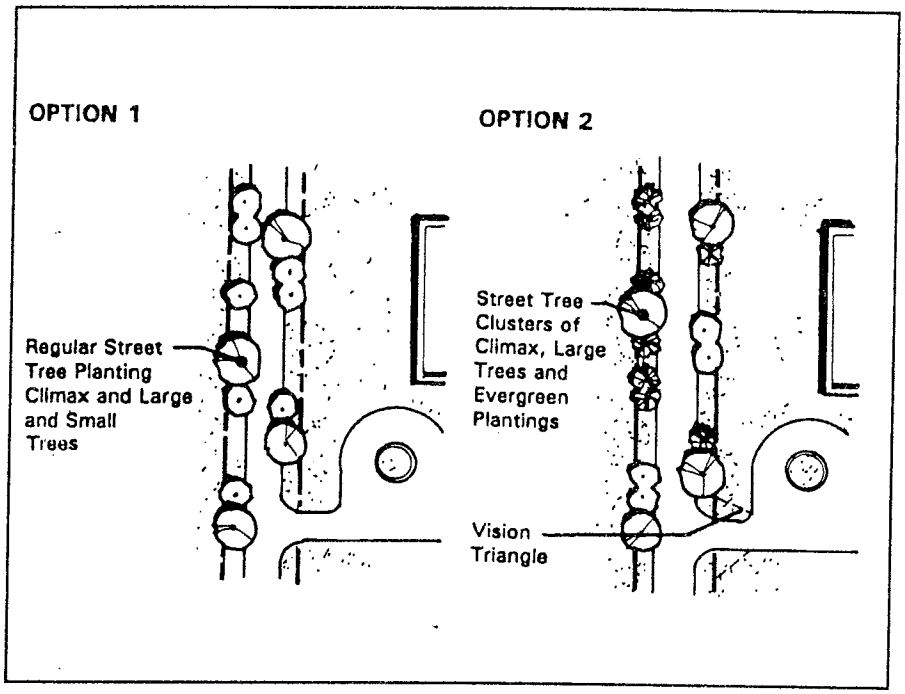
Alternative B:
Best Suited for Developed Lots

1250 Landscaping Points:

6 climax trees
8 tall trees
20 medium trees
41 evergreen plantings



Alternative C:
Best Suited for Street Frontages



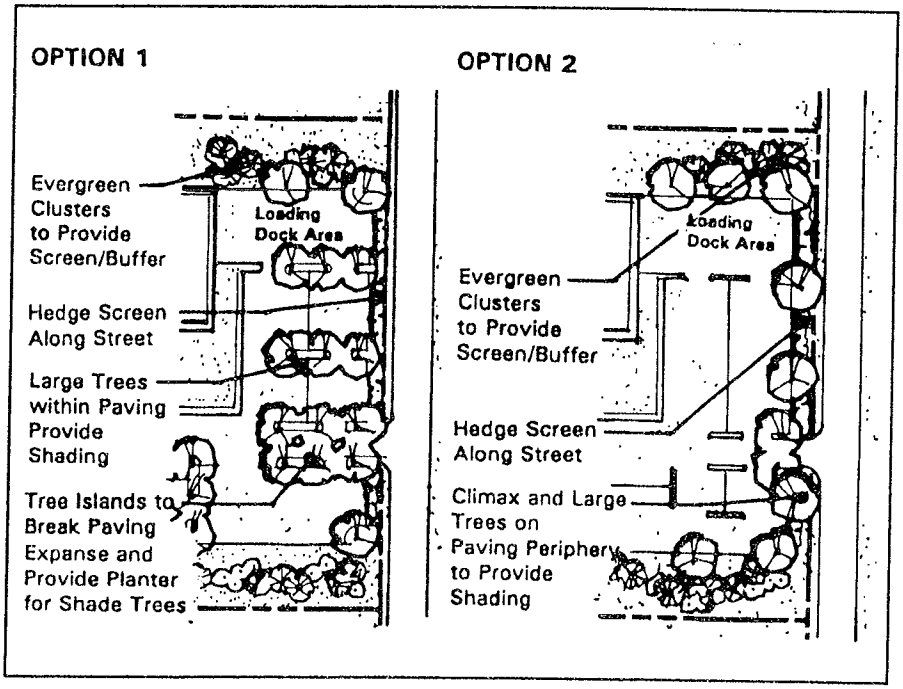
Option 1

280 Landscaping Points:
2 climax trees
2 tall trees
8 small trees

Option 2

280 Landscaping Points:
2 climax trees
2 tall trees
4 small trees
8 evergreen shrubs

Alternative D:
Best Suited for Paved Areas



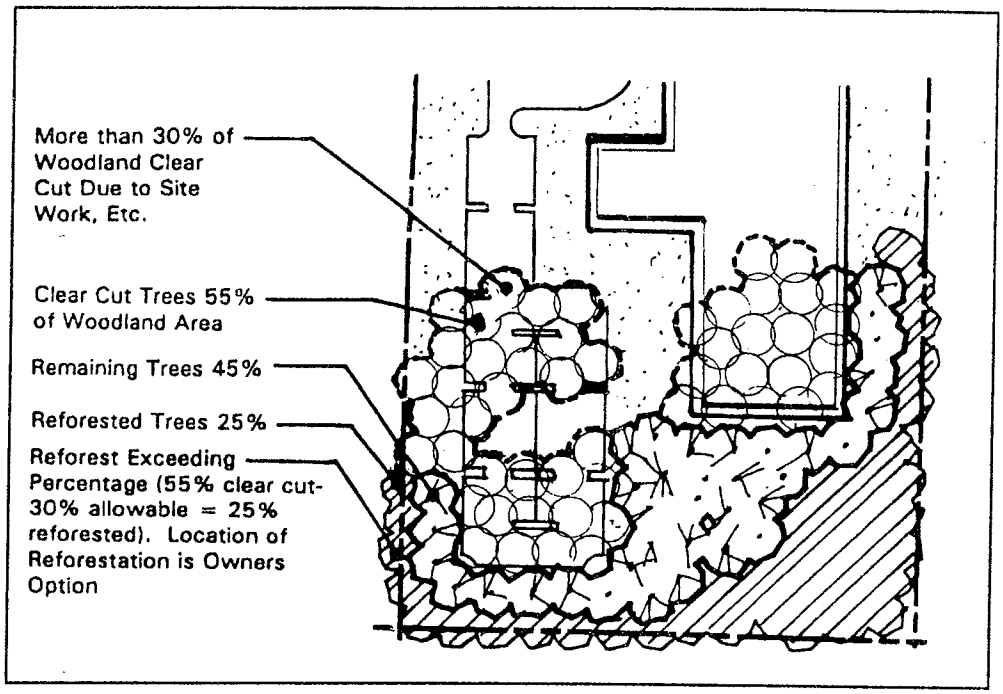
Option 1

880 Landscaping Points:
2 climax trees
13 tall trees
68 evergreen shrubs

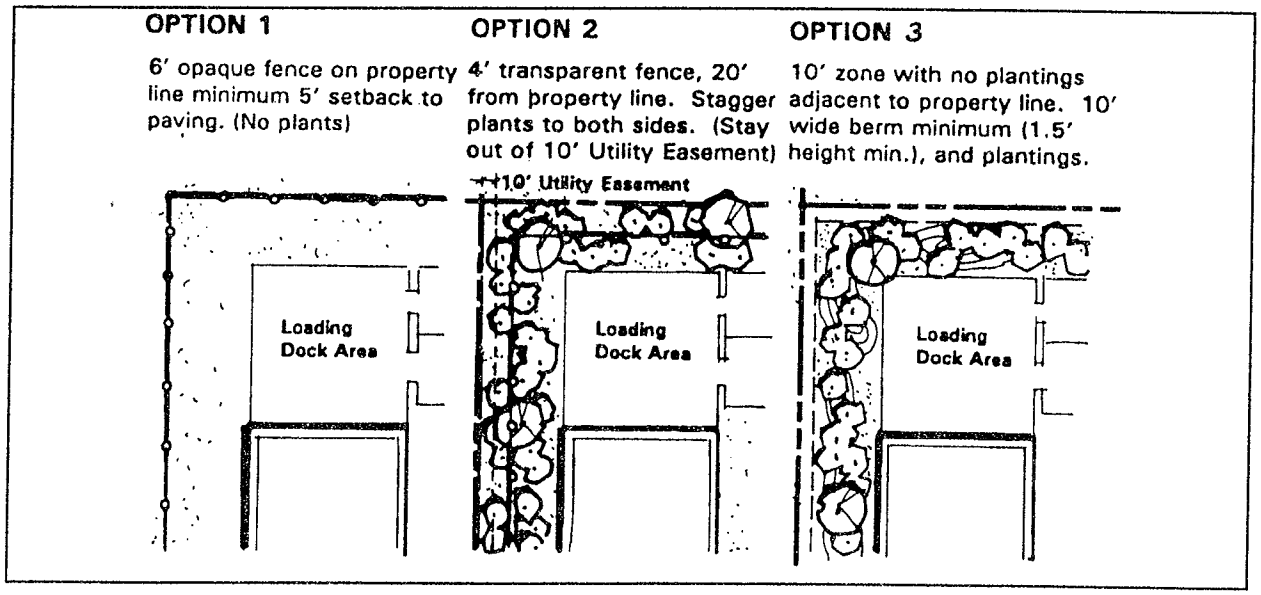
Option 2

880 Landscaping Points:
5 climax trees
6 tall trees
68 evergreen shrubs

Alternative E:
Best Suited for Reforestation

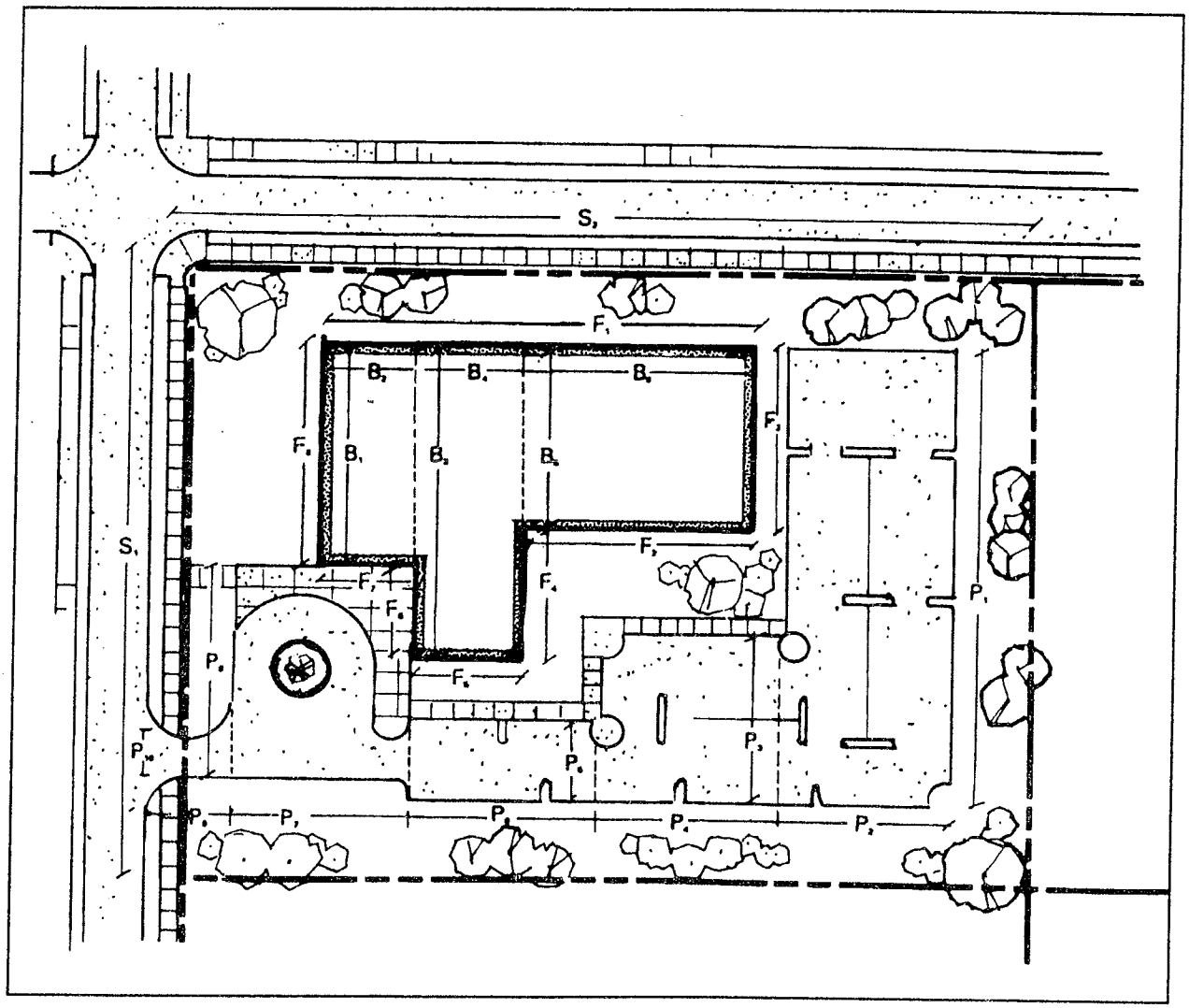


Alternative F:
Best Suited for Bufferyards



(3) **Measurement for Landscaping Requirements:**

A minimum amount of landscaping points, based upon the zoning district, is required for the linear feet Building Foundations, the gross floor area of buildings on Developed Lots, the linear feet of Street Frontage, and the total combined area of Paved Areas. The following diagram illustrates the measurement techniques used to determine these requirements:



Landscaping Calculation Equations:

Paved Area = $(P_1 \times P_2) + (P_3 \times P_4) + (P_5 \times P_6) + (P_7 \times P_8) + (P_9 \times P_{10})$
Street Frontage = $S_1 + S_2$
Building Perimeter = $F_1 + F_2 + F_3 + F_4 + F_5 + F_6 + F_7 + F_8$
Building Floor Area = $(B_1 \times B_2) + (B_3 \times B_4) + (B_5 \times B_6)$

Section 15.604 Landscaping Requirements for Building Foundations

(1) This Section requires that certain buildings constructed after the effective date of this Chapter (See Section 15.011.) be accented by a minimum amount of landscaping placed near the building foundation.

(2) Landscaping required by this Section shall be placed so that at maturity, the plant's drip line is located within 10 feet of the building foundation. Such landscaping shall not be located in those areas required for landscaping as street frontages, paved areas, protected green space areas, reforestation areas, or bufferyards, under Sections 15.605-15.609, of this Subchapter. See 15.603(2)(A) for a suggested scheme.

(3) For each 100 feet of building foundation perimeter, the following number of landscaping points (per Section 15.603) shall be provided on a prorated basis, and installed and permanently maintained per the requirements of Section 15.612.

(4) Climax trees and tall trees shall not be used to meet this requirement. The intent of this section is to require a visual break in the mass of buildings and to require a visual screen of a minimum of 6 feet in height for all exterior perimeter appurtenances (such as HVAC/utility boxes, standpipes, stormwater discharge pipes and other pipes.)

(5) Where the officially approved site plan depicts a future building extension, the foundation landscaping requirement shall be calculated by measuring the length of the total perimeter. However, foundation plantings need only be installed based on the landscape points calculated from the portions of the building perimeter that will not be affected by building extension. If this results in point requirements which are not met through the initial planting, then said requirement shall be met within five years of building permit issuance, or as extended in writing by the Plan Commission.

TABLE 15.604: BUILDING FOUNDATION LANDSCAPING REQUIREMENTS
Minimum Required Landscaping Points per 100 linear feet of Building Foundation

Zoning District ↓	Land Use (see Section 15.206)		
	Other Land Uses	Single- & Two-Family Residential	Agricultural
Rural/Agricultural-35ac (RA-35ac)	20	0	0
Estate Residential-1 (ER-1)	45	0	0
Suburban Residential-3 (SR-3)	40	0	0
Suburban Residential-5 (SR-5)	40	0	0
Neighborhood Residential-6 (NR-6)	40	0	0
Mixed Residential-8 (MR-8)	45	0	0
Urban Residential-12 (UR-12)	50	0	0
Neighborhood Office (NO)	45	0	0
Suburban Office (SO)	40	0	0
Neighborhood Commercial (NC)	40	0	0
Suburban Commercial (SC)	40	0	0
Urban Commercial (UC)	20	0	0
Central Commercial (CC)	0	0	0
Suburban Industrial (SI)	40	0	0
Urban Industrial (UI)	20	0	0
Heavy Industrial (HI)	20	0	0

Section 15.605 Landscaping Requirements for Developed Lots

(1) This Section requires that certain lots developed after the effective date of this Chapter (See Section 15.011.) contain a minimum amount of landscaping.

(2) Landscaping required by this Section is most effective if located away from those areas required for landscaping as building foundations, street frontages, paved areas, protected green space areas, reforestation areas, or bufferyards, under Sections 15.605 through 15.610, of this Subchapter. See Section 15.603(2)(B) for a suggest landscaping scheme.

(3) The following number of landscaping points (as described in Section 15.603) shall be provided on a prorated basis for every 1,000 square feet of gross floor area, and installed and maintained per the requirements of Section 15.612.

(4) The intent of this Section is to provide yard shade and to require a visual screen of a minimum of 6 feet in height for all detached exterior appurtances (such as HVAC, utility boxes, standpipes, stormwater discharge pipes and other pipes.)

TABLE 15.605: DEVELOPED LOT LANDSCAPING REQUIREMENTS
Minimum Required Landscaping Points per 1,000 Square Feet of Gross Floor Area

Zoning District ↓	Land Use (see Section 15.206)		
	Other Land Uses	Single- & Two-Family Residential	Agricultural
Rural/Agricultural-35ac (RA-35ac)	10	0	0
Estate Residential-1 (ER-1)	25	0	0
Suburban Residential-3 (SR-3)	20	0	0
Suburban Residential-5 (SR-5)	20	0	0
Neighborhood Residential-6 (NR-6)	20	0	0
Mixed Residential-8 (MR-8)	20	0	0
Urban Residential-12 (UR-12)	20	0	0
Neighborhood Office (NO)	20	0	0
Suburban Office (SO)	15	0	0
Neighborhood Commercial (NC)	15	0	0
Suburban Commercial (SC)	10	0	0
Urban Commercial (UC)	5	0	0
Central Commercial (CC)	0	0	0
Suburban Industrial (SI)	10	0	0
Urban Industrial (UI)	5	0	0
Heavy Industrial (HI)	5	0	0

Section 15.606 Landscaping Requirements for Street Frontages

(1) This Section requires that street frontages on certain lots developed after the effective date of this Chapter (See Section 15.011.) contain a minimum amount of landscaping in those areas which abut the right-of-way of a public street.

(2) All landscaping used to meet this requirement shall be located within 10 feet of the public right-of-way. In no instance shall such landscaping be located within a public right-of-way. See Section 15.603(2)(C) for a suggested landscaping scheme. Landscaping shall not impede vehicle or pedestrian visibility.

(3) For every 100 linear feet of street frontage where a developed lot abuts a public street right-of-way, the following number of landscaping points (as described in Section 15.603) shall be provided on a prorated basis, and installed and maintained per the requirements of Section 15.612.

(4) Shrubs shall not be used to meet this requirement. A minimum of 50% of all points shall be devoted to climax and/or tall trees and a minimum of 30% of all points shall be devoted to small trees.

TABLE 15.606: STREET FRONTAGE LANDSCAPING REQUIREMENTS
Minimum Required Landscaping Points per 100 linear feet of Street Frontage

Zoning District ↓	Land Use (see Section 15.206)		
	Other Land Uses	Single- & Two-Family Residential	Agricultural
Rural/Agricultural-35ac (RA-35ac)	20	0	0
Estate Residential-1 ER-1)	45	0	0
Suburban Residential-3 (SR-3)	40	0	0
Suburban Residential-5 (SR-5)	40	0	0
Neighborhood Residential-6 (NR-6)	40	0	0
Mixed Residential-8 (MR-8)	45	0	0
Urban Residential-12 (UR-12)	50	0	0
Neighborhood Office (NO)	45	0	0
Suburban Office (SO)	40	0	0
Neighborhood Commercial (NC)	40	0	0
Suburban Commercial (SC)	40	0	0
Urban Commercial (UC)	20	0	0
Central Commercial (CC)	0	0	0
Suburban Industrial (SI)	40	0	0
Urban Industrial (UI)	20	0	0
Heavy Industrial (HI)	20	0	0

Section 15.607 Landscaping Requirements for Paved Areas

(1) This Section requires that paved areas on certain lots developed after the effective date of this Chapter contain a minimum amount of landscaping within, or within 10 feet of, the paved area. The intent is to require a continuous visual screen of parking areas from public rights-of-way at a minimum height of 40 inches.

(2) A minimum of 360 square feet of landscaped area, which shall be located within 10 feet of the paved area, is required for the placement of every 100 landscaping points. Said area does not have to be provided in one contiguous area--sample configurations are depicted in Section 15.603, above. Plants used to fulfill this requirement shall visually screen parking, loading and circulation areas from view from public streets.

(3) All landscaping areas located adjacent to paved areas shall be separated from the paved area by a continuous minimum 4 inch tall curb which is constructed of concrete, asphalt, timber or like material approved by the Director of Public Works.

(4) For every 20 off-street parking stalls or 10,000 square feet of pavement (whichever yields the greater landscaping requirement) located in a development, the following number of landscaping points (as described in Section 15.603) shall be provided on a prorated basis, and installed and maintained per the requirements of Section 15.612. A minimum of 30% of all points shall be devoted to climax and/or tall trees and a minimum of 40% of all points shall be devoted to shrubs.

TABLE 15.607: PAVED AREA LANDSCAPING REQUIREMENTS
Minimum Required Landscaping Points per 10,000 square feet of Paved Area or 20 Parking Stalls

Zoning District ↓	Land Use (see Section 15.206)		
	Other Land Uses	Single- & Two-Family Residential	Agricultural
Rural\Agricultural-35ac (RA-35ac)	40	0	0
Estate Residential-1 (ER-1)	90	0	0
Suburban Residential-3 (SR-3)	80	0	0
Suburban Residential-5 (SR-5)	80	0	0
Neighborhood Residential-6 (NR-6)	80	0	0
Mixed Residential-8 (MR-8)	90	0	0
Urban Residential-12 (UR-12)	100	0	0
Neighborhood Office (NO)	95	0	0
Suburban Office (SO)	80	0	0
Neighborhood Commercial (NC)	80	0	0
Suburban Commercial (SC)	80	0	0
Urban Commercial (UC)	40	0	0
Central Commercial (CC)	20	0	0
Suburban Industrial (SI)	80	0	0
Urban Industrial (UI)	40	0	0
Heavy Industrial (HI)	40	0	0

Section 15.608 Landscaping Requirements for Other Permanently Protected Green Spaces

(1) This Section requires that each acre of other permanently protected green space (See Section 15.204) approved after the effective date of this Chapter (See Section 15.011) be planted with a minimum amount of landscaping.

(2) For every one acre of other permanently protected green space in a development, two hundred landscaping points (as described in Section 15.603) shall be provided. In addition, adequate ground cover shall be provided to stabilize the soil.

Section 15.609 Landscaping Requirements for Required Reforestation

(1) This Section requires that each area required to be reforested, be reforested and maintained in a manner appropriate to site conditions.

(2) A detailed reforestation plan shall be submitted by the property owner and approved by the Zoning Administrator prior to clear cutting. This plan shall be reviewed by a reforestation consultant chosen by the City, with funding for consulting services provided by the Petitioner to the City.
Rationale: The provisions of this Section are designed to ensure that reforestation efforts required as part of woodland disruption mitigation standards result in the thorough and reasonably rapid replacement of the important and varied environmental functions which woodlands provide. (See Section 15.507.)

Section 15.610 Landscaping Requirements for Bufferyards

(1) **Purpose**
This Section provides the landscaping and width requirements for bufferyards on lots developed after the effective date of this Chapter. (See Section 15.011.) A bufferyard is a combination of distance and a visual buffer or barrier. It includes an area, together with the combination of plantings, berms and fencing, that are required to eliminate or reduce existing or potential nuisances. These nuisances can often occur between adjacent zoning districts. Such nuisances are dirt, litter, noise, glare of lights, signs, and incompatible land uses, buildings or parking areas.
Rationale: One of zoning's most important functions is the separation of land uses into districts which have similar character and contain compatible uses. The location of districts is supposed to provide protection, but in the City of Sheboygan, this is not the case since zoning districts permitting uses as diverse as single-family residential and industrial uses were located next to one another long before the effective date of this Chapter. Bufferyards will operate to minimize the negative impact of any future use on neighboring uses.

(2) **Required Locations for Bufferyards**
Bufferyards shall be located along (and within) the outer perimeter of a lot wherever two different zoning districts abut one another. Bufferyards may be located in required setback areas. In such instances, the one-half of the bufferyard requirements of this Section shall be used instead of the street frontage landscaping required in Section 15.606, if such requirements of this Section are greater. (In such instances, the width

of the right-of-way may be counted as contributing to the width requirements for a bufferyard, however, the minimum width required along the street frontage by Section 15.606 shall be provided in all cases.) Bufferyard plantings or structures shall not be located on any portion of any existing, dedicated, or officially mapped right-of-way.

(3) **Determination of Required Bufferyard**
The determination of bufferyard requirements is a two-staged process. First, the required level of bufferyard opacity is determined using Table 15.610(4)(a). Opacity is a quantitatively-derived measure which indicates the degree to which a particular bufferyard screens the adjoining property. The required level of opacity indicated by Table 15.610(4)(a) is directly related to the degree to which the potential character of development differs between different zoning districts. The provisions of this Subsection indicate the minimum requirements for bufferyards located along zoning district boundaries.

(a) **Identification of Required Level of Opacity**
Table 15.610(4)(a) shall be used to determine the minimum level of opacity for the required bufferyard. The required level of opacity is determined by the value given in the cell of the table at which the column heading along the top row of the table (representing the subject property's zoning district) intersects with the row heading along the left hand side of the table (representing the adjacent property's zoning district). The value listed is the required level of opacity for the bufferyard on the subject property.

(b) **Identification of Detailed Bufferyard Requirements**
1. If a proposed use adjoins a parcel for which a bufferyard is required by the presence of a zoning district boundary, that use shall provide a bufferyard with the level of the opacity indicated in Table 15.610(4)(a).
2. For each level of opacity listed in Table 15.610(4)(a), a wide variety of width, landscaping point, berm, and structure combinations are possible. These are listed in Table 15.610(4)(b). The requirements listed in Table 13- 8-9(d)(2) pertain to the number of landscaping points, the minimum bufferyard width, and the type of berm or fencing required within every 100 feet of required bufferyard. A variety of landscaping point options are available and may be mixed within distinct portions of the same bufferyard. Section 15.603 describes the various available landscaping point alternatives. Section 15.611 provides a listing of tree and shrub species which correspond to the landscaping point descriptions.

(4) **Tables for Required Bufferyards** See following pages for Tables 15.609(4)(a) and (b).

Notes for Table 15.610(4)(a): For properties zoned in the Rural Agricultural District (RA-35ac), refer to the Comprehensive Master Plan's Future Land Use Map to determine the proposed zoning district for said property. Bufferyard requirements shall be taken from this proposal.
Caution: The required opacity levels listed in Table 15.609(3)(a) are generally different on either side of any given zoning district boundary. Care should be taken to properly use this Table (per Subsection 15.610(3)(a), above) to determine the subject property's requirement.

TABLE 15.610(4)(a): REQUIRED BUFFERYARD OPACITY VALUES

↓ Adjacent Property's Zoning District	Subject Property's Zoning District														
↓	RA-35ac	ER-1	SR-3	SR-5	NR-6	MR-8	UR-12	NO	SO	SC	NC	UC	CC	SI	UI	HI
RA-35ac	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]
ER-1			.1[1]	.1[1]	.1[1]	.2[1]	.3[1]	.3	.4	.4	.4	.5	.6	.4	.5	1.0
SR-3						.2[1]	.3[1]	.3	.4	.4	.4	.5	.6	.4	.5	1.0
SR-5						.2[1]	.3[1]	.3	.4	.4	.4	.5	.6	.4	.5	1.0
NR-6						.2[1]	.3[1]	.3	.4	.4	.4	.5	.6	.4	.5	1.0
MR-8							.2[1]	.2	.3	.3	.3	.4	.5	.3	.4	1.0
UR-12								.1	.2	.2	.2	.3	.4	.2	.3	1.0
NO									.1	.2	.2	.3	.4	.2	.3	.6
SO										.1	.1	.2	.3	.1	.2	.6
SC											.1	.2	.3	.1	.2	.6
NC												.1	.2	.1	.1	.6
UC													.1		.1	.6
CC															.1	.6
SI															.2	.6
UI																.5
HI																

[1] For any non-residential use (such as a church or a school) within this Zoning District, provide an additional 0.1 level of opacity to the minimum required opacity level listed below for any and all borders shared with a residential land use.

[2] For properties zoned in the Rural Agriculture District (RA-35ac), refer to the Comprehensive Master Plan's Future Land Use Map to determine the proposed zoning district for said property. Bufferyard requirements shall be taken from this proposal.

TABLE 15.610(4)(b) DETAILED BUFFERYARD REQUIREMENTS			
Opacity	**# Landscaping Points/100 feet**	**Width**	**Required Structure**
0.05	00	10' +	min. 44" picket fence*
	00	10' +	min. 4' wood rail fence*
	40	10'	-
	36	15'	-
	33	20'	-
	31	25'	-
	29	30' +	-
0.10	00	10' +	min. 44" picket fence*
	38	10' +	min. 4' wood rail fence*
	91	10'	-
	80	15'	-
	73	20'	-
	68	25'	-
	65	30'	-
	62	35' +	-
	00	35' +	min. 4' berm
0.20	00	10' +	min. 6' solid fence*
	84	10' +	min. 44" picket fence*
	133	15' +	min. 4' wood rail fence*
	198	15'	-
	173	20'	-
	158	25'	-
	149	30'	-
	140	35'	-
	10	35' +	min. 4' berm
	135	40' +	-
	00	40' +	min. 5' berm

*Fences contributing to landscaping requirements are not permitted along street frontages for nonresidential uses. Where used in combination with plant materials to meet bufferyard requirements, a minimum of 50% of all plant materials shall be located on the exterior side (the side away from the center of the subject property) of the fence. A building wall which does not contain doors (except those used for emergency exit) may be used to satisfy the required fence portions of the bufferyard requirements.
NOTE: Opacity standards provided courtesy of Lane Kendig, Inc.

TABLE 15.610(4)(b) DETAILED BUFFERYARD REQUIREMENTS

Opacity	# Landscaping Points/100 feet	Width	Required Structure
0.30	00	10' +	min. 6' solid fence*
	198	15' +	min. 44" picket fence*
	320	20'	-
	240	20' +	min. 4' wood rail fence*
	276	25'	-
	252	30'	-
	235	35'	-
	104	35' +	min. 4' berm
	223	40'	-
	44	40' +	min. 5' berm
	215	45'	-
	209	50' +	-
	00	50' +	min. 6' berm
0.40	53	10' +	min. 6' solid fence*
	330	20' +	min. 44" picket fence*
	440	25'	-
	362	25' +	min. 4' wood rail fence*
	385	30'	-
	349	35'	-
	208	35' +	min. 4' berm
	327	40'	-
	148	40' +	min 5' berm
	310	45'	-
	299	50' +	-
	56	50' +	min. 6' berm

Continued on the next page.

* Fences contributing to landscaping requirements are not permitted along street frontages for nonresidential uses. Where used in combination with plant materials to meet bufferyard requirements, a minimum of 50% of all plant materials shall be located on the exterior side (the side away from the center of the subject property) of the fence. A building wall which does not contain doors (except those used for emergency exit) may be used to satisfy the required fence portions of the bufferyard requirements.

NOTE: Opacity standards provided courtesy of Lane Kendig, Inc.

TABLE 15.610(4)(b) DETAILED BUFFERYARD REQUIREMENTS

Opacity	# Landscaping Points/100 feet	Width	Required Structure
0.50	135	15' +	min. 6' solid fence*
	564	30'	-
	405	30' +	min. 44" picket fence*
	492	30' +	min. 4' wood rail fence*
	499	35'	-
	319	35' +	min. 4' berm
	454	40'	-
	261	40' +	min. 5' berm
	422	45'	-
	405	50'	-
	160	50' +	min. 6' berm
	388	55'	-
	374	60' +	-
0.60	221	20' +	min. 6' solid fence*
	433	35' +	min. 4' berm
	541	35' +	min. 44" picket fence*
	630	35' +	min. 4' wood rail fence*
	626	40'	-
	379	40' +	min. 5' berm
	570	45'	-
	525	50'	-
	270	50' +	min. 6' berm
	500	55'	-
	480	60' +	-

Continued on the next page.

* Fences contributing to landscaping requirements are not permitted along street frontages for nonresidential uses. Where used in combination with plant materials to meet bufferyard requirements, a minimum of 50% of all plant materials shall be located on the exterior side (the side away from the center of the subject property) of the fence. A building wall which does not contain doors (except those used for emergency exit) may be used to satisfy the required fence portions of the bufferyard requirements.

NOTE: Opacity standards provided courtesy of Lane Kendig, Inc.

TABLE 15.610(4)(b) DETAILED BUFFERYARD REQUIREMENTS

Opacity	# Landscaping Points/100 feet	Width	Required Structure
0.80	415	30'+	min. 6' solid fence*
	655	40'+	min. 4' berm
	627	45'+	min. 5' berm
	873	45'+	min. 44" picket fence*
	910	50'	-
	505	50'+	min. 6' berm
	809	50'+	min. 4' wood rail fence*
	804	55'	-
	744	60'	-
	710	65'	-
	677	70'+	-
1.00	636	40'+	min. 6' solid fence*
	732	50'+	min. 6' berm
	751	50'+	min. 5' berm
	867	55'+	min. 4' berm
	1091	60'+	min. 44" picket fence*
	1136	60'+	min. 4' wood rail fence*
	1083	65'	-
	994	70'	-
	934	75'	-
	892	80'+	-

* Fences contributing to landscaping requirements are not permitted along street frontages for nonresidential uses. Where used in combination with plant materials to meet bufferyard requirements, a minimum of 50% of all plant materials shall be located on the exterior side (the side away from the center of the subject property) of the fence. A building wall which does not contain doors (except those used for emergency exit) may be used to satisfy the required fence portions of the bufferyard requirements.

NOTE: Opacity standards provided courtesy of Lane Kendig, Inc.

DETAILED CLASSIFICATION OF PLANT SPECIES -- Non-Contributing Species (0 Points)				
Botanical Name	**Common Name**	**Height**	**Height**	**Adaptation and Remarks**
Acer negundo	Boxelder			Weed tree.
	Buckthorn			Invasive
	Crown Vetch			Invasive ground cover; aggressive.
**Crataegus crus-galli*	Cockspur Hawthorn	S	Spreading	Urban; sun; persistent, brick red fruits; orange to red fall color; evil thorns.
**Gleditsia triacanthos*[RF]	Common Honeylocust	F	Vase	Urban; tolerates poor drainage; salt tolerant; dioecious, females produce pods; fine-textured foliage; wicked thorns; yellow fall color; pest or disease problems may limit use.
Lonicera x bella	Belle Honeysuckle			Dry soil, white flowers; red fruits; may become weedy, pest problem.
Lonicera tatarica	Tatarian Honeysuckle			Dry soil; urban, pink to white flowers; dense, red fruits; may become weedy, pest or disease problem.
Lonicera morrowi	Morrow Honeysuckle			Urban, dense, white flowers, pest and disease problem, weedy.
	Purple Loosestrife			Perennial, common marsh plant, may choke out native plants.
Rhamnus cathartica	Common Buckthorn			Becomes weak.
Rhamnus frangula	Glossy Buckthorn			Becomes weak.
* Wisconsin native				

[RF] refers to reforestation. Marked species are native to Wisconsin, and recommended for reforestation efforts by the Wisconsin DNR. (See Section 15.609.)

The following sources were used in compiling the preceding lists of plant species:

Department of Natural Resources. Forest Trees of Wisconsin: How to Know Them. Madison, Wisconsin: Department of Natural Resources, 1987.

Hasselkus, E.R. A Guide to Selecting Landscape Plants for Wisconsin. Madison, Wisconsin: College of Agricultural and Life Sciences University of Wisconsin - Extension, Cooperative Extension Programs, 1982.

Hightshoe, Gary L. Native Trees, Shrubs, and Vines for Urban and Rural America: A Planting Design Manual for Environmental Designers. New York: Van Nostrand Reinhold, 1988.

Iowa State University. Landscape Plants for Iowa. Ames, Iowa: Iowa State University Cooperative Extension Service, May 1984.

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Evergreen Shrubs
(3 Landscaping Points)

Botanical Name	Common Name	Height	Form	Adaptation and Remarks
Juniperus chinensis procumbens	Japanese Garden Juniper	2'	Creeping	Sun; blue-green, year-round foliage.
Juniperus chinensis sargentii	Sargent Juniper	1'	Creeping	Sun; green; or blue-green in cv. 'Glauca'
**Juniperus horizontalis*	Creeping Juniper	1'	Creeping	Dry soil; sun; variable color-brown in winter.
'Bar Harbor'	Bar Harbor Juniper	8"	Creeping	Dry soil; sun; bluish green foliage; slaty in winter.
'Douglasii'	Waukegan Juniper	18"	Creeping	Dry soil; sun; steel blue; purplish in winter.
'Plumosa'	Andorra Juniper	18"	Radial-creeping	Dry soil; sun; gray-green; purplish in winter.
'Prince of Wales'	Prince of Wales Juniper	4-6"	Prostrate	Dry soil; sun; bright green; bronzed in winter.
'Wiltonii'	Blue Rug Juniper	4-6"	Flat-trailing	Dry soil; sun; silvery blue.
'Youngstown'	Youngstown Juniper	18"	Radial-creeping	Dry soil; sun; gray-green; purplish in winter.
Juniperus sabina 'Arcadia'	Arcadia Savin Juniper	18"	Low-spreading	Sun; green.
'Broadmoor'	Broadmoor Savin Juniper	2'	Mounded	Sun; soft grayish green; fine textured.
'Skandia'	Skandia Savin Juniper	12"	Low-spreading	Sun; grayish blue.
'Tamariscifolia'	Tamarix Savin Juniper	2'	Dense, spreading	Sun; bluish green; pest or disease problem.

* Wisconsin native

Section 15.611 Classification of Plant Species

For the purpose of this Chapter, plant materials are classified into thirteen groupings: "climax tree", "tall deciduous tree", "medium deciduous tree", "low deciduous tree", "tall evergreen tree", "medium evergreen tree", "low evergreen tree", "tall deciduous shrub", "medium deciduous shrub", "low deciduous shrub", "medium evergreen shrub", "low evergreen shrub", and non-contributory plants. Species suitable for landscaping use and compatible with Sheboygan County climate and soil factors are listed in Table 15.611, below. The Zoning Administrator (see Section 15.932) shall review proposals for, and the applicability of, species not contained in this list and is authorized to approve appropriate similar species.

See Appendix 1 for a detailed listing of plant species and characteristics.

TABLE 15.611: CLASSIFICATION OF PLANTS

Climax Trees (75 Landscaping Points)

Botanical Name	Common Name
Acer saccharum	Sugar Maple
Ginkgo biloba	Ginko
Quercus sp.	Oak: Red, White, Pin

Tall Deciduous Trees (30 Landscaping Points)

Botanical Name	Common Name
Acer sp.	Maple: Red, Silver, Norway
Fraxinus sp.	Ash: White, Green
Gleditsia triancanthos	Honeylocust
Populus grandidentata	Bigtooth Aspen
Tilia sp.	Linden: Basswood, Littleleaf, Redmond

Medium Deciduous Trees (15 Landscaping Points)

Botanical Name	Common Name
Betula sp.	Birch: River, Paper
Prunus sp.	Cherry: Choke, Pin
Salix sp.	Willow

Low Deciduous Trees (10 Landscaping Points)

Botanical Name	Common Name
Amelanchier sp.	Serviceberry
Crataegus sp.	Hawthorn: Cockspur, Downy, Washington
Malus sp.	Crabapple sp.

Tall Evergreen Trees (40 Landscaping Points)

Botanical Name	Common Name
Abies concolor	White Fir
Pinus sp.	Pine: Red, White, Scots
Tsuga Canadensis	Canada Hemlock

Medium Evergreen Trees (20 Landscaping Points)

Botanical Name	Common Name
Thuja occidentalis	American Arborvitae

Low Evergreen Trees (12 Landscaping Points)

Botanical Name	Common Name
Juniperus sp.	Juniper: Mountbatten, Redcedar
Thuja sp.	Arborvitae: Pyramidal, Techny

Tall Deciduous Shrubs (5 Landscaping Points)

Botanical Name	Common Name
Cornus sp.	Dogwood: Grey, Pagoda
Syringa sp.	Lilac: Chinese, Hyacinth
Viburnum sp.	Viburnum: Arrowwood, Wayfaringtree, Nannyberry

Medium Deciduous Shrubs (3 Landscaping Points)

Botanical Name	Common Name
Corylus americana	American Filbert, Hazelnut
Cotoneaster sp.	Cotoneaster
Forsynthia sp.	Forsythia: Border, Early, Weeping
Rosa sp.	Rose: Virgina, Rugosa

Low Deciduous Shrubs (1 Landscaping Point)

Botanical Name	Common Name
Berberis thunbergii	Japanese Barberry
Spiraea sp.	Spirea: Froebel, Snowmound

Tall - Medium Evergreen Shrubs (5 Landscaping Pts.)

Botanical Name	Common Name
Juniperus chinensis	Juniper: Pfitzer,
Taxus sp.	Yew: Japanese

Low Evergreen Shrubs (3 Landscaping Points)

Botanical Name	Common Name
Juniperus sp.	Juniper: Sargent, Creeping, Andorra

Section 15.612 Requirements for the Installation, Maintenance and Use of Landscaped and Bufferyard Areas

(1) **Installation**

(a) Any and all landscaping and bufferyard material required by the provisions of this Chapter shall be installed on the subject property, in accordance with the approved site plan (see Section 15.908) by the next landscaping season following the issuance of a temporary occupancy permit for any building on the subject property.

(b) Existing plant material which meets the requirements of Section 15.603 and which will be preserved on the subject property and adjacent street right-of-ways following the completion of development, may be counted as contributing to the landscaping requirements.

(c) All landscaping and bufferyard areas shall be seeded with lawn or native ground cover unless such vegetation is already fully established.

(d) The exact placement of required plants and structures shall be depicted on the required detailed landscaping plan per 15.908(3)(c) shall be the decision of each property owner within the requirements of this Subchapter, except that the following requirements shall be met:

1. Evergreen shrubs shall be planted in clusters in order to maximize their chance for survival.
2. Where a combination of plant materials, and/or berming and/or fencing is used in a bufferyard, the fence and/or berm shall be located toward the interior of the subject property and the plant material shall be located toward the exterior of the subject property.
3. A property owner may establish through a written agreement, recorded with the Register of Deeds Office, that an adjacent property owner shall agree to provide a partial or full portion of the required bufferyard on an immediately adjacent portion of their land, thereby exempting the developer from providing all or a portion of the required bufferyard on his property.
4. In no manner shall landscaping or bufferyard materials be selected and/or located in a manner which results in the creation of a safety or visibility hazard. (See Section 15.703.)
5. The restrictions on types of plants listed in Sections 15.604-15.607 shall apply.

(2) **Maintenance**

The continued and continual maintenance of all required landscaping and bufferyard materials shall be a requirement of this Chapter and shall be the responsibility of the owner of the property on which said materials are required. This requirement shall run with the property and is binding upon all future property owners. Development of any and all property following the effective date of this Chapter shall constitute an agreement by the property owner to comply with the provisions of this Section. Upon failure to comply with these provisions, the Zoning Administrator may enter upon the property for the purpose of evaluating and maintaining all required landscaping and bufferyard materials, and may specially assess the costs thereof against the property. Failure to comply with this requirement shall be considered a violation of this Chapter, and shall be subject to any and all applicable enforcement procedures and penalties. (See Section 15.937.)

(3) **Use of Required Bufferyard and Landscaped Areas**

Any and all required bufferyards or landscaped areas may be used for passive recreation activities. Said areas may contain pedestrian, bike or equestrian trails provided that: no required material is eliminated; the total width of the required bufferyard, or the total area of required landscaping, is maintained; and all other regulations of this Chapter are met. In no event, however, shall swimming pools, tennis courts, sports fields, golf courses, or other such active recreation used be permitted in such areas. Furthermore, in no instance shall any parking be permitted in such areas, nor shall any outdoor display of storage of materials be permitted in such areas. Paving in such areas shall be limited to that required for necessary access to, through, or across the subject property.

(4) **Utility Easements**
Landscaping materials, fences and berms which are located within a duly recorded utility easement and/or a pedestrian easement shall not count toward meeting a landscaping requirement. However, the width of such areas may be counted as part of a landscaping requirement.

Section 15.613 Calculating Landscaping and Bufferyard Requirements
In calculating the number of required landscaping points under the provisions of this Subchapter, all areas and distances on which required calculations are based shall be rounded up to the nearest whole number of square feet or linear feet. Any partial plant derived from the required calculations of this Subchapter (for example 23.3 canopy trees) shall be rounded up to the nearest whole plant (24 canopy trees).

Section 15.614 Depiction on Required Site Plan
Any and all proposed landscaping on the subject property, required to meet the standards of this Chapter, shall be clearly depicted and labeled as to its location and make-up on the site plan required for the development of the subject property. Refer to Section 15.908(3)(c).

APPENDIX B

DETAILED CLASSIFICATION OF PLANT SPECIES

DETAILED CLASSIFICATION OF PLANT SPECIES -- Climax Trees (75 Landscaping Points)				
Botanical Name	**Common Name**	**Growth Rate**	**Form**	**Adaptation and Remarks**
**Acer saccharum*[RF]	Sugar Maple	S	Round	Rich soil; salt sensitive; oval when young; yellow, orange, or scarlet fall color.
'Green Mountain'			Round	Scorch resistant; leathery leaves.
**Carya ovata*[RF]	Shagbark Hickory			Native and very adaptable, salt sensitive, fruit-nut, lawn tree.
Ginkgo biloba	Ginkgo	S	Pyramidal	Very urban; dioecious, females produce smelly fruits; golden yellow fall color.
'Fastigiata'	Sentry Ginkgo		Columnar	Seedless.
Juglans nigra[RF]	Walnut Eastern Walnut Black Walnut	F		Best in public open spaces or lawns; not to be used as a street tree; poisonous to other plants within the drip zone; susceptible to caterpillars and leaf spot disease.
**Quercus alba*[RF]	White Oak	S	Round	Extremely sensitive to soil compaction; tolerant of urban conditions; dry soil; subject to iron chlorosis; red fall color; very difficult to transplant; excellent lawn or shade tree.
Continued on the next page.				
KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast				

DETAILED CLASSIFICATION OF PLANT SPECIES -- Climax Trees (Cont.) (75 Landscaping Points)				
Botanical Name	**Common Name**	**Growth Rate**	**Form**	**Adaptation and Remarks**
**Quercus bicolor*[RF]	Swamp White Oak	S	Round	Very tolerant of urban conditions; moist to wet, intolerant of alkaline soil; tolerates poor drainage; difficult to transplant; yellow fall color.
**Quercus macrocarpa*[RF]	Bur Oak Mossycup Oak	S	Round	Sensitive to soil compaction; tolerant of urban conditions; dry to wet soil; no fall color; very difficult to transplant.
**Quercus palustris*	Pin Oak	M	Pyramidal	Sensitive to soil compaction; tolerant of urban conditions; moist, acid soil; pendulous lower branches; red fall color; iron chlorosis on alkaline soil; lawn tree; cultivar 'Sovereign' best for streets.
**Quercus rubra*[RF] (also known as *Quercus Borealis*)	Northern Red Oak Red Oak	M	Round	Sensitive to soil compaction; tolerant of urban conditions; pyramidal when young; red fall color; well-drained soil; fast growing for oaks, excellent lawn, shade, and street tree.
KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast				

DETAILED CLASSIFICATION OF PLANT SPECIES -- **Tall Deciduous Trees** (30 Landscaping Points)				
Botanical Name	**Common Name**	**Growth Rate**	**Form**	**Adaptation and Remarks**
Acer nigrum	Black Maple	M	Oval	Does well in poor, dry soils; red to bright gold fall color; excellent for lawn, shade, or street.
Acer platanoides	Norway Maple	M	Round	Shallow root system, not to be used along streets.
'Cleveland'		F	Oval-upright	Uniform, dense foliage.
'Columnare'			Columnar	Indistinct central leader.
'Crimson King'				Keeps deep purple leaf color through out summer; susceptible to sun scald, bark splitting, and transplant shock.
'Drummondii'	Harlequin N.M.	S	Round	Variegated, cream-edged leaves.
'Emerald Queen'		F	Oval	Vigorous; crisp foliage.
'Globosum'	Globe N.M.	S	Globe	Useful on a standard under utility wires, 20' height.
'Greenlace'			Round	Deeply divided, fine textured leaves.
'Royal Red'		S	Round	Best for purple summer foliage.
'Schwedleri'			Round	New foliage reddish; bronze by summer.
'Summershade'		F		Rapidly growing cultivar; deep green, large, leathery leaves.
Acer rubrum[RF]	Red Maple Scarlet Maple Swamp Maple	F	Round	Moist, acid soil; tolerates poor drainage; smooth gray bark; yellow, orange, or red fall color; salt sensitive.
'Armstrong'			Fastigiate	No fall color, light gray bark.
'Autumn Flame'				Early scarlet fall color.
'Bowhall'			Oval	Orange fall color.
'Red Sunset'				Late, scarlet fall color.
'Schlesingeri'				Red-orange fall color.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Trees (Cont.)
(30 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
**Acer saccharinum*[RF]	Silver Maple Soft Maple White Maple River Maple	F	Vase	Hearty and fast growing; moist soil; tolerates poor drainage; fine-textured; weak-wooded (develops heart rots after 50 years, limbs may fall); yellowish or no fall color.
'Blair'		VF		Strong branch structure; storm resistant.
'Pyramidale'	Upright S.M.		Pyramidal	Improved branch structure.
'Silver Queen'	Seedless S.M.		Round	Seedless.
'Wieri'	Cutleaf S.M.			Shredded leaves, pendulous branches.
Aesculus hippocastanum	Horsechestnut	M	Round	Urban; coarse; showy, white, May flowers; litter problem; no fall color; difficult to transplant; pest or disease problems may limit use.
Alnus glutinosa	European Alder Black Alder	F	Oval	Rich or wet soils; produces catkins; possible winterkill.
Betula lutea[RF]	Yellow Birch	M	Round	Drooping branches; moist well drained soils; yellow-orange bark; rusty yellow fall color.
Catalpa speciosa	Northern Catalpa	F	Oval	Poor, dry soil; showy, white, June flowers; coarse; litter problem; no fall color.
**Celtis occidentalis*[RF]	Common Hackberry	M	Vase	Tolerates alkaline soils; "pebbled" bark; yellowish fall color; pest or disease problem may limit use.
**Fagus grandifolia*[RF]	American Beech	S	Oval	Moist, rich soil; smooth, gray bark; yellow-bronze fall color; difficult to transplant; salt sensitive; sensitive to soil compaction.
Fagus sylvatica	European Beech	S	Round	Moist, rich soil; less difficult to transplant than above; several cultivars available; excellent lawn tree.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Trees (Cont.)
(30 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
**Fraxinus americana*[RF]	White Ash	M	Round	Moist soil; tolerates poor drainage; dioecious; orange to purple fall color; tolerates urban conditions.
'Autumn Purple'			Round	Seedless, superior fall color.
'Rosehill'			Oval	Seedless, superior fall color.
Fraxinus excelsior	European Ash	F	Round	Jet black buds; no fall color.
'Aurea'	Golden E.A.	M	Round	Golden, young foliage, twigs and fall color; green summer foliage.
'Hessei'	Hesse E.A.		Round	Simple leaves.
Fraxinus nigra[RF]	Black Ash	M	Irregular	Deep, rich, moist soils; tolerates wet soils; yellow fall color, scaly bark.
Fraxinus pennsylvanica[RF]	Green Ash Red Ash	F	Oval; irregular	Dry to wet soils; tolerates poor drainage; slat tolerant; twiggy and weak-wooded; yellow fall color; pest or disease problem may limit use; tolerates urban conditions.
'Marshall's Seedless'			Oval	Seedless; glossy, dark green foliage; improved habit of growth.
'Summit'			Upright	Finer textured foliage.
**Gleditsia triancanthos inermis*	Thornless honeylocust	F	Vase	Tolerates poor drainage; thornless, as are all the following; pest or disease problem may limit use; salt tolerant; yellow fall color.
'Imperial'			Round	Podless; low-growing; flat-topped; pest or disease problem may limit use.
'Shademaster'			Irregular	Podless; vase shape in age; pest or disease problem may limit use.
'Skyline'			Upright	Podless; tends to form central leader; good golden fall color; pest or disease problem may limit use.
'Sunburst'			Irregular	Podless; yellow new foliage; poor branch structure; pest or disease problem may limit use.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Trees (Cont.)
(30 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
**Gymnocladus dioica*	Kentucky Coffeetree	M	Upright	Moist, rich soil; coarse and rugged; dioecious; yellowish fall color.
Juglans cinerea[RF]	Butternut	S		Needs good soil and consistent moisture; fairly good shade tree; susceptible to butternut decline.
Larix decidua	European Larch	F	Pyramidal	Full sun; graceful, fine-textured; transplant in spring before buds open; yellow fall color.
'Pendula'		F		Interesting weeping branches.
Larix kaempferi	Japanese Larch	F	Wide-Pyramidal	Similar to above, more picturesque.
Larix laricina[RF]	American Larch Tamarack	M	Narrow-Pyramidal	Hardy; drought tolerant; used in shelterbelts.
Liriodendron tulipifera	Tuliptree	F	Upright	Rich, moist soil; unique leaves and interesting June flowers; yellow fall color; purchase from northern source.
**Platanus occidentalis*	Sycamore American Planetree	F	Pyramidal	Moist soil; tolerates poor drainage; mottled bark; coarse, maple-like leaves; no fall color; pest or disease problem may limit use.
Populus alba 'Pyramidalis'	White Poplar	F	Fastigiate	Moist soil; tolerates poor drainage; mottled bark; coarse, maple-like leaves; no fall color; pest or disease problem may limit use.
Populus deltoides[RF]	Eastern Poplar	VF	Fastigiate	Hardy, fast growing; golden yellow fall color; tolerates drought; brittle; may produce "cotton"; too large for homes.
'Robusta'		VF	Upright	Seedless.
'Siouxland'		VF		Larger greener leaves; seedless; uniform in shape; hardy.
'Cottonless'		VF		Seedless; many similar species available.
Populus grandidentata[RF]	Bigtooth Aspen	F	Narrow	Moist, sandy, gravelly soils; not shade tolerant; yellow fall color.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Trees (Cont.)
(30 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
**Prunus serotina*[RF]	Black Cherry	M	Oval	Dry soil; white flowers and black fruits in drooping racemes; orange fall color; pest or disease problem may limit use.
Taxodium distichum	Baldcypress	F	Pyramidal	Moist, intolerant of alkaline soil; tolerates poor drainage; sun; bronze fall color; fine texture; purchase from northern source.
**Tilia americana*[RF]	American Linden Basswood Linden Tree Linn Tree	M	Round	Sensitive to soil compaction; salt-sensitive; coarse; rich soils.
Tilia cordata 'Chancellor' 'Greenspire'	Littleleaf Linden	S	Pyramidal	Urban; moist soil; fragrant flowers; poor branch structure, needs training while young; yellow fall color. Uniform, upright habit. Improved branching habit.
Tilia x euchlora 'Redmond'	Redmond Linden	M	Pyramidal	Urban; dark green foliage.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Medium Deciduous Trees
(15 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
Aesculus x carnea 'Briotii'	Ruby Horsechestnut	S	Round	Rich, moist soil; red flowers.
Aesculus glabra	Ohio Buckeye	S	Round	Rich, moist soil; yellow-green flowers; orange fall color.
Alnus glutinosa	European Alder	F	Oval	Wet; tolerates poor drainage; catkins; cone fruits; no fall color.
**Betula nigra*[RF]	River Birch	M	Vase	Wet to dry, intolerant of alkaline soils; tolerates poor drainage; pinkish, peeling bark.
**Betula papyifera*[RF]	Paper Birch	M	Oval	Cool, moist soil; white, peeling bark; golden yellow fall color; pest or disease problem.
Betula pendula 'Gracilis'	Cutleaf European Birch	M	Weeping	Cool, moist soil; dissected leaves; yellow fall color; pests & disease.
Betula platyphylla japonica	Japanese White Birch	M	Pyramidal	White bark; some resistance to bronze birch borer.
Cercidiphyllum japonicum	Katsuratree	M	Columnar	Moist soil; dioecious; form controlled by pruning, wide spreading if multi-trunked; yellow to red fall color.
Cladrastis lutea	American Yellowwood	S	Round	Moist, rich soil; smooth, light gray bark; fragrant, white June flowers in large clusters; yellow fall color.
Magnolia acuminata	Cucumbertree	F	Pyramidal	Inconspicuous, greenish flowers; pink to red fruits; coarse foliage; no fall color.
**Nyssa sylvatica*	Black Gum	S	Pyramidal	Moist soil; tolerates poor drainage; dense habit; dioecious; orange to scarlet fall color; difficult to transplant.
Phellodendron amurense	Amur Corktree	M	Round	Urban; dry soil; dioecious; compound leaves; corky bark; yellow fall color.
Prunus maackii	Amur Chokecherry	M	Round	Amber exfoliating bark; does well in containers.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Medium Deciduous Trees (Cont.)
(15 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
Prunus padus commutata	Harbinger European Bird Cherry	S	Round	Sun; early to leaf out in spring; pest or disease problem.
**Prunus pennsylvanica*[RF]	Pin Cherry	M	Upright	Poor, dry soil; sun; graceful; shortlived; suckering; red fruits; orange to red fall color.
Prunus sargentii	Sargent Cherry	M	Upright	Sun, well-drained soil; early, pink flowers; red fall color.
Salix alba tristis	Golden Weeping Willow	F	Weeping	Wet soil; tolerates poor drainage; bright yellow twigs; fine-textured; litter problem.
Ulmus parvifolia	Chinese Elm	M	Vase	Disease resistant; exfoliating bark.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Trees
(10 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
Acer ginnala	Amur Maple	M	Round	Sun, shade; red fruit; red fall color.
**Alnus rugosa*	Speckled Alder	F	Round	Wet soil; tolerates poor soil; lenticeled bark.
**Amelanchier arborea*[RF]	Downy Serviceberry	S	Upright	Dry soil; shade; gray bark; white flowers; yellow to red fall color; edible fruits.
Amelanchier x grandiflora	Apple Serviceberry	S	Spreading	Semi-shade; large, white flowers, edible fruits.
**Amelanchier laevis*	Allegany Serviceberry	S	Upright	Moist soil; shade; white flowers; orange to red fall color, edible fruits.
**Carpinus caroliniana*[RF]	American Hornbeam	S	Spreading	Moist soil; shade; smooth, gray muscle-like trunks; orange fall color.
Cercis canadensis	Eastern Redbud	M	Spreading	Sun or shade; purplish-pink flowers; yellow fall color; purchase form northern source.
**Cornus alternifolia*	Pagoda Dogwood	M	Spreading	Cool, moist soil; shade; blue-black berries on red stalks; early, maroon fall color.
**Crataegus crus-galli* 'Inermis'	Thornless Cockspur Hawthorn		Spreading	Urban; sun; persistent, brick red fruits; orange to red fall color; no thorns.
Crataegus laevigata 'Paulii'	Paul's Scarlet Hawthorn	S	Upright	Heavy soil; sun; double, scarlet flowers in late May; no fall color; pest or disease problem.
'Superba'	Crimson Cloud Hawthorn			Single, scarlet flowers; resistant to leaf spot.
Crataegus x lavallei	Lavalle Hawthorn	S	Upright	Urban; sun; glossy foliage; bronzy-red fall color.
**Crataegus mollis*	Downy Hawthorn	S	Upright	Sun; large, red, early-ripening fruit; yellow fall color; pest or disease problem.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Trees (Cont.)
(10 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
Crataegus phaenopyrum	Washington Hawthorn	M	Upright	Urban; sun; latest blooming; small, persistent, orange-red fruits in clusters; orange fall color.
**Crataegus punctata*	Dotted Hawthorn	S	Spreading	Moist, heavy soil; sun; picturesque; pest or disease problem may limit use.
Crataegus x 'Toba'	Toba Hawthorn	S		Sun; double, pink, fragrant flowers; glossy leaves; red fruits; dwarf-15.
Elaeagnus angustifolia	Russianolive	F	Round	Dry, alkaline soil; sun; fragrant,inconspicuous flowers; silver-gray foliage; no fall color; pest or disease problem may limit use.
Magnolia x loebneri 'Merrill'	Dr. Merrill Magnolia	M	Pyramidal	Rich soil; sun; white, many-petaled flowers; difficult to transplant.
Magnolia x soulangiana	Saucer Magnolia	S	Round	Rich soil; sun; large pink flowers; difficult to transplant.
Malus species & cultivars	Flowering Crabapples			All require sun and well drained soil. They all possess a high degree of resistance to the apple scab disease.
M. 'Adams'	Adams F.C.	M	Spreading	Slightly susceptible to fire blight; rose-red flowers; 5/8" diam., persistent, deep red fruits.
M. baccata jackii	Jack F.C.	M	Upright spreading	Slightly susceptible to fire blight; white flowers; tiny 1/3-1/2"diam., dark red fruits.
M. 'Bob White'	Bob White F.C.	M	Rounded	Moderately susceptible to fire blight; white flowers; 5/8" diam., persistent, yellow fruits.
M. 'Candied Apple'	Weeping Candied Apple F.C.		Weeping	Slightly susceptible to scab; pink flowers; 5/8" diam., persistent cherry-red fruits; foliage tinged with red.
M. 'Centurian'	Centurian F.C.		Narrow-Upright	Disease resistant; rose-red flowers; 5/8" diam., persistent, cherry-red fruits.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Trees (Cont.)
(10 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
M. 'David'	David Flowering Crabapple	M	Rounded	Slightly susceptible to fire blight and scab; white glowers; 1 1/4-1 1/2" diam., reddish fruits for in alternate years.
M. 'Dolgo'	Dolgo F.C.	M	Upright-Spreading	Slightly susceptible to fire blight and scab; white flowers; 1 1/4-1 1/2" diam., persistent red fruits.
M. 'Donald Wyman'	Donald Wyman F.C.	M	Rounded	Disease resistant; white flowers; 3/8" diam., persistent red fruits.
M. 'Dorothea'	Dorothea F.C.	S	Horizontal	Moderately susceptible to scab; clear pink semi-double flowers; 1/2" diam., yellow fruits.
M. 'Gibb's Golden Gage'	Gibb's Golden Gage F.C.		Rounded	Disease resistant; white flowers; 1" diam., persistent, yellow fruits.
M. 'Indian Summer'	Indian Summer F.C.		Rounded	Disease resistent; rose-red flowers; 5/8-3/4" diam., red fruits.
M. 'Mary Potter'	Mary Potter F.C.	S	Horizontal	Moderately susceptible to fire blight and scab; white flowers; 1/2" diam., red fruits; 10' height.
M. 'Ormiston Roy'	Ormiston Roy F.C.	M	Rounded	Slightly susceptible to fire blight; white flowers, 3/8" diam., persistent, yellow fruits.
M. 'Profusion'	Profusion F.C.	M	Rounded-Spreading	Slightly susceptible to fire blight; rose-red flowers; 1/2" diam., deep red fruits; bronze-green foliage.
M. 'Red Jewel'	Red Jewel F.C.		Horizontal	Moderately susceptible to scab; white flowers; 1/2" diam., persistent, bright red fruits.
M. 'Robinson'	Robinson F.C.		Upright-Spreading	Disease resistant; rose-red flowers; 3/8" diam, persistent, bright red fruits, bronze-green foliage.
M. 'Sentinel'	Sentinel F.C.		Narrow-upright	Slightly susceptible to fire blight and scab; pale pink flowers; 1/2" diam., persistent, bright red fruits.
M. 'White Cascade'	White Cascade F.C.	S	Weeping	Disease resistant; white flowers, 1/2" diam., yellowish fruits.

Continued on the next page.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Trees (Cont.)
(10 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Form	Adaptation and Remarks
**Ostrya virginiana*[RF]	Hophornbeam	S	Pyramidal	Dry soil; shade; catkins; elm-like leaves; yellow fall color.
**Prunus americana*[RF]	American Plum	F	Horizontal	Dry soil; sun; suckering habit; white flowers; yellow to orange fall color.
Prunus cerasifera 'Newportii'	Newport Plum	M	Round	Sun; reddish-purple summer foliage.
**Prunus virginiana*[RF]	Chokecherry	M	Upright	Dry, infertile soil; suckering habit; white flowers; yellow to orange fall color.
'Canada Red' or 'Shubert'	Shubert Chokecherry			Sun; foliage changes from green to purple in early summer.
Pyrus calleryana and cultivars	Callery Pear	M	Oval	Sun; early, white flowers; late red fall color.
Saliz matsudana 'Tortuosa'	Corkscrew or Contorted Willow	F	Upright	Wet soil; tolerates poor drainage; sun; twisted branches; pest or disease problem may limit use.
Saliz pentandra	Laurel Willow	M	Round	Wet soil; sun; foliage glossy, dark green; dense habit.
Sorbus alnifolia	Korean Mountainash	S	Oval	Cool soil; simple leaves; small flowers and fruits; orange to red fall color; pest or disease problem.
Sorbus aucuparia and cultivars	European Mountainash	M	Oval	Cool soil; orange fruits; pest or disease problem
**Sorbus decora*	Showy Mountainash	S	Upright	Cool Soil; large, reddish fruits; pest or disease problem.
Syringa reticulata	Japanese Tree Lilac	S	Horizontal	Sun; large, pyramidal, cream-white flower clusters in June; tan fruits.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Evergreen Trees
(40 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Height	Adaptation and Remarks
Abies concolor	White Fur	M	70'	Dry soil; heat; gray-green foliage.
Picea abies	Norway Spruce	F	75'	Deep soil; dark green foliage; long cones; pendulous branchlets
**Picea glauca*[RF]	White Spruce	M	50'	Moist soil; sun; light green needles.
Picea omorika	Serbian Spruce	S	50'	Sun; narrow habit; pendulous branchlets.
Picea pungens glauca	Blue Colorado Spruce	S	60'	Sun; urban; blue needles; stiff, formal habit.
Pinus cembra	Swiss Stone Pine	S	50'	Sun; narrow habit.
Pinus nigra	Austrian pine	M	50'	Sun; urban; stout, dark green needles, pest or disease problem.
**Pinus resinosa*[RF]	Red Pine	F	50'	Dry soil; sun; reddish bark; yellow-green winter color.
**Pinus strobus*[RF]	Eastern White Pine	M	75'	Moist soil; sun; picturesque; soft, green foliage, pest or disease problem.
Pinus sylvestris	Scots Pine	F	50'	Dry soil; sun; orange bark; bluish needles.
Pseudotsuga menziesii	Douglasfir	M	70'	Half-shade; flat, dark green needles.
**Tsuga Canadensis*[RF]	Canada Hemlock	M	75'	Moist soil; soft, feathery foliage.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Medium Evergreen Trees
(20 Landscaping Points)

Botanical Name	Common Name	Growth Rate	Height	Adaptation and Remarks
**Thuja occidentalis*[RF]	American Arborvitae	M	40'	Wet soil; half-shade; light green, soft, scale-like foliage.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Evergreen Trees (12 Landscaping Points)				
Botanical Name	**Common Name**	**Growth Rate**	**Height**	**Adaptation and Remarks**
Juniperus chinnensis 'Keteleeri'	Keteleer Juniper	S	20'	Dry soil; sun; green foliage; large fruits.
'Mountbatten'	Mountbatten Juniper	S	20'	Dry soil; sun; narrow, columnar form; large fruits.
**Juniperus virginiana*[RF]	Eastern Redcedar	S	20'	Dry soil; sun; brownish winter color.
'Burkii'	Burke E.R.			Fine-textured, gray-green foliage.
'Canaertii'	Canaert E.R.			Dark green, tufted foliage.
'Glauca'	Silver E.R.			Silver-gray foliage; informal habit.
'Hillii'	Hill Dundee E.R.			Gray-green foliage turns purple in winter, no fruits.
**Picea glauca*[RF] Densata	Black Hills Spruce	S	20'	Dry soil; sun; narrow, dense habit.
Taxus cuspidata	Japanese Yew	S	20'	Shade; urban, deep green needles; often sold a *T. cuspidata* 'Capitata'
**Thuja occidentalis*[RF] 'Fastigiata'	Pyramidal Arborvitae	M	25'	Narrow columnar form.
'Techny'	Techny Arborvitae	S	20'	Deep green foliage, year round.

KEY: * Wisconsin native; S = Slow; M = Medium; F = Fast

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Shrubs
(5 Landscaping Points)

Botanical Name	Common Name	Form	Adaptation and Remarks
**Amelanchier sp.* (see low trees)	Serviceberry	Upright	Shade; alkaline soil; white flowers; edible purple fruits; smooth, gray bark; yellow to orange fall color; fireblight a problem.
Caragana arborescens	Siberian Peashrub	Erect, Oval	Dry, alkaline soils; yellow flowers; green twig.
Chionanthus virginicus	Fringetree	Spreading	Moist soil; shade; white flowers; blue fruits; coarse.
**Cornus alternifolia*	Pagoda Dogwood	Spreading	Moist soil; shade; white flowers; blue fruits; horizontal branches; early, maroon fall color.
Cornus mas	Corneliancherry Dogwood	Oval	Shade; urban; yellow flowers in April; flower buds may be injured or killed during some winters; edible red fruits.
**Cornus racemosa*	Gray Dogwood	Erect	Dry or wet soils; shade; white flowers; white fruits; purple fall color.
**Cornus sericea*	Redosier Dogwood	Spreading	Wet, moist soils; tolerates poor drainage; white flowers; white fruits; red twigs; often sold a *C. stolonifera*.
baileyi	Bailey R.D.	Erect	
Cotoneaster multiflora	Manyflowered Cotoneaster	Mounded	Sun; well-drained soil; white flowers; red fruits; very wide-spreading; pests/diseases.
Elaeagnus umbellata	Autumnolive	Spreading	Poor, dry soil; sun; fragrant flowers; edible, red fruits; twiggy.
Euonymus alata	Winged Euonymus	Spreading	Sun or shade; well-drained soil; corky, winged twigs; pink to rose fall color.
**Euonymus atropurpurea*	Eastern Wahoo	Tree-like	Moist soil; shade; tiny, purplish flowers; orange to purple fall color.
Euonymus europaea	Spindletree of European Euonymus	Tree-like	Dry-soil; urban; striped bark; persistent pink fruit; orange to purple fall color.
'Aldenhamensis'	Aldenham E.E.		Bright pink fruit; shrubby form.
'Redcap'	Redcap E.E.		Bright red fruit.
Exochorda racemosa	Pearlbush	Leggy	Sun; pearl-like flower buds; tan fruit capsules.
**Hamamelis virginiana*	Common Witchhazel	Spreading	Shade; yellow October flowers.

Continued on next page.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Shrubs (Cont.)
(5 Landscaping Points)

Botanical Name	Common Name	Form	Adaptation and Remarks
Hydrangea paniculata 'Grandiflora'	Peegee Hydrangea	Upright	Moist soil; white to pink flowers in August; persistent, tan flower clusters.
Kolkwitzia amabilis	Beautybush	Upright	Alkaline soil; sun; pink flowers in June; shredded bark; leggy.
Ligustrum amurense	Amur Privet	Erect	Dry soil; white flowers; black fruits; hedge plant.
Ligustrum vulgare 'Cheyenne'	Cheyenne Privet	Erect	Dry soil; urban; white flowers; black fruits; hedge plant.
Lonicera x bella 'Candida'	White Belle Honeysuckle	Upright-mounded	Dry soil; white flowers; red fruits; may become weedy, pest problem.
Lonicera tatarica zabelii	Zabel Honeysuckle	Rounded	Dry soil; urban; red flowers; dense, red fruits; may become weedy, pest or disease problem, may be sold as *L. korolkowii zabelii*.
Magnolia stellata	Star Magnolia	Rounded	Rich soil; white flowers; orange fruits; finest textured magnolia.
**Physocarpus opulifolius*	Eastern Ninebark	Vase	Dry soil; semi-shade; white flowers; red, capsular fruit; shredded bark; course.
Prunus tomentosa	Manchu Cherry	Rounded	Dry soil; sun; white flowers; edible, red fruits.
Prunus triloba	Double Flowering Plum	Rounded	Sun; double, pink flowers; no fruit.
Rhamnus frangula 'Columnaris'	Tallhedge Glossy Buckthorn	Columnar	Moist soil; shade; red to black fruits; holds leaves late.
**Rhus glabra*	Smooth Sumac	Suckering	Dry soil; sun; persistent red fruits; smooth stems; scarlet fall color.
Rhus typhina	Staghorn Sumac	Suckering	Dry soil; sun; persistent red fruits; felty stems; orange to red fall color.
'Dissecta'	Shredleaf S.S.	Picturesque	Dry soil; sun; red fruits; dissected leaves, orange to red in fall.
Salix caprea	Goat Willow or French Pussy Willow	Oval	Wet or dry soil; sun; large silver catkins in early spring.
Shepherdia argentea	Buffaloberry	Irregular	Dry soil; sun; yellowish flowers; dioecious; edible red fruits; silvery foliage.

Continued on the next page.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall Deciduous Shrubs (Cont.)
(5 Landscaping Points)

Botanical Name	Common Name	Form	Adaptation and Remarks
**Staphylea trifolia*	American Bladdernut	Upright	Moist soil; shade; whitish flowers; green to brown, bladder-like fruits; white-striped bark.
Syringa x chinensis	Chinese Lilac	Vase	Dry, alkaline soil; purple-lilac flowers; fine texture.
Syringa x hyacinthiflora cvs.	Hyacinth Lilacs	Upright	Sun; white, pink, lilac, purple flowers; early blooming.
Syringa x prestoniae cvs.	Preston Lilacs	Rounded	Sun; pink to purple flowers; late-blooming; coarse textured.
Syringa reticulata	Japanese Tree Lilac	Tree-like	Sun; white flowers in June; tan fruits; cherry-like bark; often sold as *S. amurensis japonica*.
Syringa vulgaris cvs.	Common Lilac	Upright	Well-drained soil; sun; white, pink, lilac, purple, fragrant flowers; pest or disease problem may limit use.
Tamarix ramosissima	Tamarisk	Irregular	Dry soil; sun; tiny, pink flowers; very fine texture; often sold as *T. pentandra*.
Viburnum dentatum	Arrowwood Viburnum	Vase	Moist soil; shade; white flowers in June; blue fruits; maroon fall color.
Viburnum lantana	Wayfaringtree V.	Upright	Dry soil; shade; white flowers; red to black fruits; late maroon fall color.
'Viburnum lentago	Nannyberry V.	Upright	Moist or dry soil; sun or shade; white flowers; black fruits; leggy; maroon fall color; pest or disease problem.
'Viburnum prunifolium	Blackhaw Viburnum	Spreading	Dry soil; shade; white flowers; black fruits; single or multi-trunked; maroon fall color.
Viburnum sieboldii	Siebold Vibernum	Tree-like	Rich soil; white flowers; red to black fruits; large, coarse leaves.
'Vibernum trilobum	American Cranberrybush Vibernum	Upright	Moist soil; shade; lacy, white flowers; persistent, edible fruits.

' Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Medium Deciduous Shrubs
(3 Landscaping Points)

Botanical Name	Common Name	Form	Adaptation and Remarks
Aronia arbutifolia	Red Chokeberry	Erect	Wet soil; shade; tolerates poor drainage; white flowers; red fruits; red fall color.
Cornus alba 'Argenteomarginata'	Creamedge Dogwood	Mounded	Moist soil; white flowers; white fruit; variegated foliage.
**Corylus americana*	American Filbert or Hazelnut	Rounded	Dry soil; shade; catkins in March; orange fall color.
Cotoneaster divaricatus	Spreading Cotoneaster	Mounded	Dry alkaline soil; red fruits; fine texture; late maroon fall color; not fully hardy in zone indicated -- needs a special site or ideal conditions.
Cotoneaster lucidus	Hedge Cotoneaster	Upright	Dry soil; shade; black fruits; orange to maroon fall color; good hedge plant; *C. acutifolius* is similar.
Euonymus alatus 'Compacta'	Dwarf Winged Euonymus	Spreading	Sun or shade; pink and orange fruits; red fall color.
Forsynthia x intermedia cvs.	Border Forsythia	Vase	Sun; urban; large, pale to yellow flowers; flower buds may be injured or killed at termperatures lower than -14°F
Forsythia ovata	Early Forsythia	Mounded	Sun; urban; smaller, earlier, yellow flowers; flower buds may be injured or killed at temperatures lower than -25°F.
Forsythia suspensa	Weeping Forsythia	Mounded	Sun; urban; yellow flowers; slender, drooping twigs; flower buds may be injured or killed at temperatures lower than -15°F.
**Ilex verticillata*	Winterberry	Upright	Wet, acid soil; tolerates poor drainage; dioecious; red fruits.
Ligustrum obtusifolium regelianum	Regel's Border Privet	Spreading	Dry soil; shade; white flowers; blue-black fruits; late, purple fall color.
Malus sargentii 'Tina'	Sargent Crabapple	Spreading	Disease resistant; 5' mature height.
Myrica pensylvanica	Bayberry	Upright	Dry soil; sun; gray, fragrant fruits; dioecious; semi-evergreen; suckering.
Philadelphus x virginalis 'Glacier'	Glacier Mockorange	Rounded	Sun; double, white, fragrant flowers.

Continued on the next page.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Medium Deciduous Shrubs (3 Landscaping Points)			
Botanical Name	**Common Name**	**Form**	**Adaptation and Remarks**
Prunus x cistena	Purple-leaved Sand Cherry	Rounded	Dry soil; sun; white flowers; purple foliage all season.
Rhodotypos scandens	Jetbead	Spreading	Dry soil; shade; white flowers; sparse red fruits; fine texture.
Rosa hugonis	Father Hugo Rose	Vase	Poor soil; sun; yellow flowers; sparse red fruits; fine texture.
Rosa rugosa cvs.	Rugosa Rose	Rounded	Dry soil; sun; white, yellow, pink, or red flowers; large edible red fruits; fall color; wrinkled leaves; tolerant of salt.
**Rosa setigera*	Prairie Rose	Sprawling-mounded	Sun; pink flowers in July; red fruits; orange fall color; can be used as a climber.
Spiraea prunifolia	Bridalwreath Spirea	Upright	Sun; double, white flowers; orange to red fall color.
Spiraea thunbergii	Thunberg Spirea	Vase	Sun; white flowers; yellow to orange fall color; fine-textured.
Spiraea x vanhouttei	Vanhoutte Spirea	Vase	Sun; white flowers; arching branches.
Syringa meyeri 'Palibin'	Palibin Lilac	Rounded	Sun; purple flowers; dense; fine-textured; good informal hedge plant often sold as *S. palibiniana*.
Viburnum carlesii	Koreanspice Viburnum	Rounded	Shade; urban; pink to white, fragrant flowers; blue-black fruits; red fall color.
**Viburnum cassinoides*	Witherod Viburnum	Rounded	Wet, acid soil; tolerates poor drainage; white flowers; pink to red to blue fruits; red fall color.
Weigela florida	Old-fashioned Weigela	Spreading	Well-drained soil; pink, funnel-shaped flowers.
Weigela x 'Vanicekii'	Vanicek Weigela	Spreading	Well-drained soil; red flowers.
* Wisconsin native			

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Shrubs
(1 Landscaping Point)

Botanical Name	Common Name	Form	Adaptation and Remarks
Acanthopanax sieboldianus	Fiveleaf Aralia	Upright	Dry soil; shade; urban; leaves palmately compound; thorny.
**Amelanchier stolonifera*	Running Serviceberry	Suckering	Dry soil; shade; white flowers; edible fruits; orange fall color.
**Aronia melanocarpa*	Black Chokeberry	Suckering	Wet soil; shade; white flowers; black fruits; red fall color.
Berberis thunbergii	Japanese Barberry	Mounded	Dry soil; shade; red fruits; orange fall color; thorns; good hedge plant.
'Atropurpurea'	Redleaf J.B.		Sun; red summer foliage.
'Crimson Pygmy'	Crimson Pygmy J.B.	Low-mound	Sun; red summer foliage; 2' tall.
Buxus microphylla koreana	Korean Littleaf Box	Rounded	Shade; broadleaf evergreen; good hedge plant.
Chaenomeles japonica alpina	Dwarf Japanese Floweringquince	Spreading	Dry soil; urban; orange flowers; yellow, edible fruits; dense; 1' tall; flower buds may be injured or killed during some winters.
Cotoneaster apiculatus	Cranberry Cotoneaster	Mounded	Dry soil; red fruits; red fall color.
Deutzia x lemoinei 'Compacta'	Compact Lemoine *Deutzia*	Rounded	Well-drained soil; white flowers.
**Diervilla lonicera*	Dwarf Bushhoneysuckle	Mounded	Dry soil; shade; yellow flowers; good bank cover.
Forsythia viridissima 'Bronxensis'	Bronx Forsythia	Low-mound	Sun; small yellow flowers; fine texture; purple fall color.
Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	Mounded	Moist soil; shade; white, clustered flowers; dense; blooms on new wood.
'Grandiflora'	Snowhill Hydrangea	Mounded	Smaller flower clusters and less dense than above.
**Hypericum kalmianum*	Kalm's St. Johnswort	Rounded	Dry soil; sun; yellow flowers; shiny brown twigs.

Continued on next page.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Shrubs (Cont.)
(1 Landscaping Point)

Botanical Name	Common Name	Form	Adaptation and Remarks
Lonicera x xylosteoides 'Clavey's Dwarf'	Clavey's Dwarf Honeysuckle	Rounded	Dense growth; good hedge or screening plant.
Lonicera xylosteum 'Nanum'	Emerald Mound Honeysuckle	Mounded	Lower growing than preceding; 2'-3'.
Mahonia aquifolium 'Mayhan'	Mayhan Oregongrape	Suckering	Shade; urban; yellow flowers; blue fruits; holly-like evergreen foliage; not fully hardy in zone - need special site or ideal conditions.
Philadelphus coronarius 'Aureus'	Golden Mockorange	Rounded	Sun; white flowers; yellow summer foliage.
Philadelphus x lemoinei 'Mont Blanc'	Mont Blanc Mockorange	Mounded	Sun; single; white, fragrant flowers; dense.
Physocarpus opulifolius 'Nanus'	Dwarf Common Ninebark	Rounded	Dry soil; shade; creamy-white flowers; red capsular fruits; shredded bark.
**Potentilla fruticosa cvs.*	Bush Cinquefoil	Mounded	Dry soil; sun; yellow and white flowers; blooms all summer.
Prunus glandulosa 'Sinensis'	Pink Dwarf Floweringalmond	Rounded	Sun; light soil; double, pink flowers; no fruits; narrow leaves.
Rhododendron x kosteranum	Mollis Hybrid Azaleas	Spreading	Moist, acid soil; pink flowers; red fall color.
Rhododendron x 'PJM Hybrid'	PJM Hybrid Rhododendron	Rounded	Moist, acid soil; shade; lavender flowers; evergreen leaves turn purple in autumn.
**Rhus aromatica* 'Gro-Low'	Fragrant Sumac Gro-low Fragrant Sumac	Mounded	Dry soil; sun; red fruits; fragrant foliage; turns orange-maroon in fall. Uniform 2 1/2' height; glossy leaves.
Ribes alpinum	Alpine Currant	Rounded	Shade; urban; good hedge plant.
Rosa virginiana	Virginia Rose	Suckering	Dry soil; pink flowers; red fruits; red stems; good bank cover.
Salix repens argentea	Silver Creeping Willow	Spreading	Moist soil; sun; silvery foliage.
Spiraea x arguta 'Compacta'	Compact Garland Spirea	Mounded	Sun; white flowers; fine texture.

Continued on next page.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Low Deciduous Shrubs (Cont.)
(1 Landscaping Point)

Botanical Name	Common Name	Form	Adaptation and Remarks
Spiraea x billiardii	Billiard Spirea	Upright	Sun; pink flowers, in July and August.
Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spirea	Rounded	Dry soil; sun; raspberry red flowers; unattractive fruits.
'Froebelii'	Froebel Spirea	Rounded	Dry soil; sun; raspberry red flowers; orange to maroon fall color.
Spiraea japonica alpina	Daphne Spirea	Low-mound	Sun; pale pink flowers in July; 10" height.
Spiraea nipponica 'Snowmound'	Snowmound Spirea	Mounded	Sun; white flowers; blue-green foliage; possible disease problem.
Symphoricarpos rivularis	Snowberry	Vase	Dry soil; shade; tiny pink flowers; showy white fruits; often sold as *S. albus laevigatus*.
Symphoricarpos orbiculatus	Indiancurrant Coralberry	Suckering	Dry soil; shade; pink fruits; good bank cover.
Viburnum opulus 'Compactum'	Compact European Cranberrybush V.	Rounded	Shade; white flowers; persistent, red fruit; dense habit.
Viburnum opulus 'Nanum'	Dwarf European Cranberrybush V.	Globe	Shade; no flowers or fruits; twiggy.

* Wisconsin native

DETAILED CLASSIFICATION OF PLANT SPECIES -- Tall to Medium Evergreen Shrubs
(5 Landscaping Points)

Botanical Name	Common Name	Height	Form	Adaptation and Remarks
Juniperus chinensis 'Ames'	Ames Juniper	9'	Broad pyramid	Sun; bluish green foliage.
'Blaauw'	Blaauw Juniper	4'	Upright-vase	Sun; grayish blue foliage.
'Herzii'	Herz Blue Juniper	15'	Ascending-Spreading	Sun; silvery blue foliage.
'Maney'	Maney Juniper	6'	Upright, bushy	Sun; bluish green foliage.
'Old Gold'	Old Gold Juniper	4'	Spreading	Sun; green with gold tips.
'Pfitzerana'	Pfitzer Juniper	6'	Wide-spreading	Sun; green foliage; no fruits.
'Pfitzerana Glauca'	Blue Pfitzer J.	5'	Spreading	Sun; blue-gray foliage.
**Juniperus communis depressa*	Oldfield Common Juniper	4'	Spreading	Dry soil; sun; light green; brownish in winter.
Juniperus sabina 'Von Ehren'	Von Ehren Savin Juniper	4'	Spreading	Dry soil; sun; light green; brownish in winter.
Juniperus squamata 'Meyeri'	Meyer Singleseed Juniper	5'	Picturesque	Sun; blue foliage.
Picea glauca[RF] 'Conica'	Dwarf Alberta Spruce	7'	Pyramidal	Shelter from winter sun; light green foliage.
Pinus mugo mugo	Mugo Pine	4'	Mounded	Dry soil; sun; green foliage.
Taxus cuspidata 'Expansa'	Spreading Japanese Yew	6'	Spreading	Shade; urban; dark green foliage; needs ideal conditions.
'Nana'	Dwarf Japanese Yew	4'	Mounded	Shade; urban very dark green foliage; needs ideal conditions.
Taxus x hunnewelliana	Hunnewell Yew	6'	Spreading	Shade; green.
Taxus x media cvs.	Anglojapanese Yew	1-10'	Round or upright	Shade; very dark green; needs ideal conditions.
Thuja occidentalis[RF] 'Robusta'	Ware American Arborvitae	8'	Broad Pyramid	Wet soil; half-shade; dark green foliage. Often sold as *T.o. 'Wareana'*.
'Woodwardii'	Woodward Globe American Arborvitae	6'	Globe	Wet soil; half-shade; bright green.

* Wisconsin native