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Article 50-3. Zoning Districts.

50-1.3 Definitions

(these are new definition to be integrated into the existing 50-1.3 Zoning)

Basal Area. A method of determining Woodland density by measuring the cross-sectional area of individual tree stems over a particular unit area.

Best Management Practices (BMP). Commercial or professional procedures that are accepted or prescribed as being correct or most effective.

Canopy, Tree. The upper layer of a Woodland formed by the crowns of mature trees.

Critical Root Zone (CRZ). The zone encompassing the majority of a tree's roots. It is calculated by measuring the diameter of a tree trunk at breast height and measuring outward from the trunk eighteen (18) inches for every inch of trunk diameter. Refer to Figure 1.3-1 Measuring Critical Root Zone.

Develop. The construction, removal, or renovation of a primary or accessory structure or other impervious surfaces on a parcel.

Diameter at Breast Height (DBH). The diameter of a tree trunk measured at 4.5 feet above ground level.

Disturbance. Includes any of the following: 1) placement of impervious surface or structure; 2) exposure or movement of soil, including removal or addition of soil or other natural or manufactured materials; or 3) clearing, cutting, or removing of vegetation.

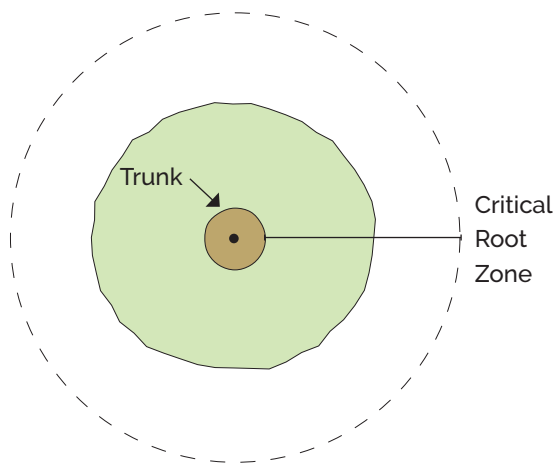


Figure 1.3-1 Measuring Critical Root Zone

Ecosystem. A biological community of interacting organisms and their physical environment.

Ecosystem Assessment, Woodland. A method for quickly gathering information about the plant density, species diversity, and/or condition of a Woodland habitat.

Endangered Species. Any species recognized by the State of Michigan and/or Federal government as being in danger of extinction throughout all or a significant portion of its range.

Forbs. Non-woody plants and wildflowers other than grasses.

Graminoids. Grasses, sedges, and rushes.

Habitat. The natural home or environment of an animal, plant, or any other living organism.

Habitat Corridor. An area of land containing wildlife habitat, generally native vegetation, which joins or provides passage between two or more larger areas containing similar wildlife habitat, and the entire corridor thus formed.

Invasive Species. Any living organism that is not native to an ecosystem and causes the ecosystem harm.

Nativar. A cultivar of a native plant species.

Native Species. A species that normally lives and thrives in a particular place as a result of natural processes, not human introduction, disturbance, or intervention. For the purposes of this Article, a particular place is defined as Kalamazoo County.

Natural Communities. Groups of plants and animals and their physical environment that have experienced minimal human-caused disturbance or recovered from that disturbance.

Natural Features. Features defined in the Natural Feature Protection Overlay, specifically Wetlands, Water Resources, Trees, Woodlands, Floodplains, Slopes, Natural Heritage Areas, and Habitat Corridors.

Natural Vegetation. Plants that grow naturally, especially but not limited to those that provide habitat for wildlife; deep-roots to stabilize banks, shorelines, and slopes; or canopy for shade.

NREPA. Michigan's Natural Resources and Environmental Protection Act, 451 of 1994, as amended, MCL 324.101 - 324.90106.

Ordinary High Water Mark. The upper limit that the water level reaches during regular changes in water level. Refer to Figure 6.2-1 Wetland and Water Resources Setbacks.

Parcel, Parent. The parcel or tract of land lawfully in existence on the effective date of the Natural Features Protection Overlay District.

Preserve. An area of land under common ownership by a tax-exempt nonprofit organization where a management plan for conservation, wildlife, historic resources, or ecological resources or values is actively implemented.

Restoration. The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

Riparian Area. The area adjacent to a Water Resource or Wetland.

Runoff. The portion of precipitation that does not soak into the ground or evaporate.

Semi-pervious Materials. A ground surface covering that allows for at least forty (40) percent absorption of water into the ground or vegetation, such as porous pavement, pavers, crushed stone, or gravel.

Slope. The area of the ground surface where there is a change in elevation over a horizontal distance.

Slope Face. The surface area of the slope from Top to Toe of Slope. Refer to Figure 1.3-2 Parts of a Slope.

Slope Percent Grade. The vertical change in the elevation of the ground surface (rise) divided by the specific horizontal distance (run) multiplied by 100.

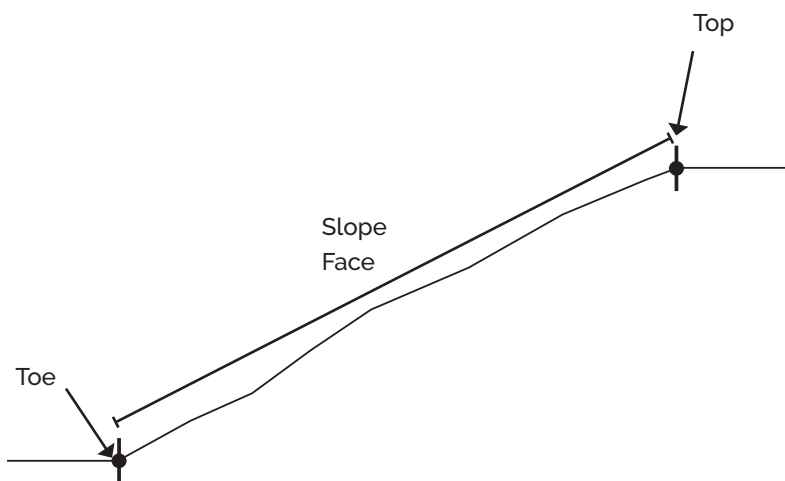


Figure 1.3-2 Parts of a Slope

Slope Analysis. An analysis based upon a topographic survey used to calculate the grade of slopes.

Stormwater Best Management Practices (BMP). Tools used to prevent or reduce stormwater runoff and/or associated pollutants as determined by professional associations, State of Michigan, or Federal government, such as the Michigan Low Impact Development Manual.

Stormwater Runoff. Runoff and any other surface water drainage that flows into natural or man-made drainage ways.

Top of Slope. The highest part of a slope. Refer to Figure 1.3-2 Parts of a Slope.

Toe of Slope. The lowest part of a slope. Refer to Figure 1.3-2 Parts of a Slope.

Threatened Species. Any species recognized by the State of Michigan and/or Federal government which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Turf Grass. Any variety of commercial grasses grown and maintained to form turf.

Understory. The layer or layers of woody vegetation — including understory trees and shrubs — that naturally grow beneath a Tree Canopy.

Vegetated Buffer. A permanent, maintained strip of vegetation designed to help absorb and slow the velocity of surface Stormwater Runoff, and filter out sediment and other pollutants.

Wetland Determination. An on-site investigation to determine whether the presence of water, hydric soils, and wetland vegetation occur in such a manner as to meet the definition of a Wetland.

Wild-type. A straight species native plant that has not been commercially cultivated for a specific characteristic, which provides for natural genetic diversity, disease resistance, climate resiliency, and reliable pollinator habitat.

Zoning District, Base. Also referred to as underlying zoning. The zoning regulations applied to a parcel according to the Zoning Map.

Zoning District, Overlay. A set of standards placed on a parcel in addition to the standards of the Base Zoning District.

Article 50-3. Zoning Districts.

50-3.2 Overlay Zone Districts. Refer to Figure 1.2-2 Zoning Overlay District Map of the following overlay districts.

A. Natural Feature Protection (NFP) Overlay District. Natural Features Protection (NFP) Overlay District is an overlay district providing additional development standards for parcels containing or adjacent to Natural Features.

Article 6. Zoning Standards: Overlay District Standards

50-6.1 Overlay District Requirements.

A. Applicability. Overlay Districts are applied to parcels in addition to the base or underlying Zoning District as mapped in the Zoning Map. Unless otherwise provided, an overlay zoning district shall include and be applicable to whole parcels and any parcels subsequently joined or combined with a parcel subject to any overlay zone regulations.

B. Intent. Overlay Districts provide an additional set of requirements for the development and use of parcels with the Overlay

C. Conflict. If a conflict arises between the Overlay District regulations and those of the Base Zoning District, the Overlay District regulations control.

50-6.2 Natural Features Protection Overlay Standards

A. Intent. The NFP Overlay District is intended to protect Natural Features in the City of Kalamazoo, specifically Wetlands, Water Resources, Trees, Woodlands, Floodplains, Slopes, Natural Heritage Areas, and Habitat Corridors.

B. Applicability. The NFP Overlay District standards apply as follows.

- (1) The Natural Features Standards are divided by defined Natural Feature. When a parcel is developed, redeveloped, or the Natural Feature is impacted due to any site alterations, the standards for all applicable Natural Features are applied.
- (2) The Site Development Standards shall be applied to all parcels in the NFP Overlay District.
- (3) Overlay standards shall not eliminate the need to obtain a permit from the Michigan Department of Environmental Quality (MDEQ) or any other State, Federal, or regional permitting agency, if required.
- (4) Structures existing on the effective date of the ordinance creating the NFP Overlay District that do not meet the setbacks required in this Article are permitted and may be altered or expanded provided that they do not increase the amount of their non-conformance with the standards in this Article.

C. Natural Feature Standards: Wetlands. A Wetland is any area, regardless of parcel boundaries, that is characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation or aquatic life, or otherwise defined in Part 303 of the NREPA.

(1) Wetland Determination. If any area on a parcel appears to be supporting wetland vegetation or is identified on the National Wetlands Inventory (NWI) map, one of the following is required.

- (a) The area in question shall be treated as a Wetland and the standards of this Section apply.

(b) A Wetland Determination shall be completed by a qualified professional, such as a Professional Wetland Scientist to confirm whether the area in question is a Wetland.

(2) Altering a Wetland. Alteration to a Wetland is prohibited except as allowed by the NREPA. A copy of any required permits obtained from the State to alter a Wetland must be submitted to the City.

(3) Wetland Setbacks. Setback distance is measured from the outer edge of wetland vegetation. Refer to Figure 6.2-1 Measuring Wetland and Water Resource Setbacks and Figure 6.2-2 Setbacks Across Parcel Boundaries.

(a) The size of the Wetland setback is based on the size of the parent parcel following the distances in Table 6.2-1 Wetland and Water Resources Setbacks.

(b) Prohibited Activities. The following activities are prohibited in the setback.

- [1] Development activities, such as structures, impervious surfaces, parking, driveways, etc.
- [2] New Stormwater BMPs.

(c) Permitted Activities. The follow activities are permitted in the setback.

- [1] Water and sewer lines, utility lines, bridge abutments or approaches, or semi-pervious, non-motorized trailways, may be developed and maintained within a Wetland setback with approval from all applicable local, State, and/or Federal agencies.
- [2] Restoration activities, such as planting with native vegetation with approval from all applicable local, State, and/or Federal agencies.
- [3] Mitigation activities required under the NREPA.

(4) Protection During Construction. Appropriate erosion control measures must be used according to Chapter 30 of the Kalamazoo City Code.

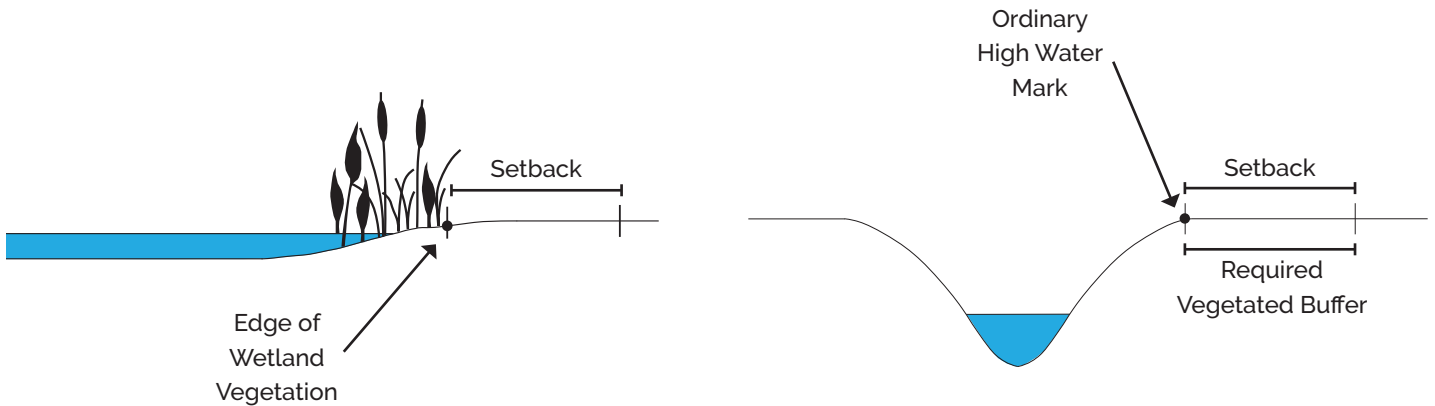


Figure 6.2-1 Measuring Wetland and Water Resource Setbacks

D. Natural Feature Standards: Water Resources. A Water Resource is any lake, pond, or impoundment; a river, stream, or creek which may or may not be serving as a drain; or any other body of water that has defined banks, a bed, and visible evidence of a continued flow or continued occurrence of water, or as otherwise defined in Part 301 of the NREPA.

(1) Altering a Water Resource. Alteration to a Water Resource is prohibited except as allowed by the NREPA. A copy of any required permits obtained from the State to alter a Water Resource must be submitted to the City.

(2) Water Resource Setbacks. Setback distance is measured from the Ordinary High Water Mark of all Water Resources, including when the Water Resource is located off the parcel but within the setback distance. Refer to Figure 6.2-1 Measuring Wetland and Water Resource Setbacks and Figure 6.2-2 Setbacks Across Parcel Boundaries.

(a) The size of the Water Resource setback is based on the size of the parent parcel following the distances in Table 6.2-1 Wetland and Water Resources Setbacks.

(b) Prohibited Activities. The following activities are prohibited in the setback.

- [1] Development activities, such as structures, impervious surfaces, parking, driveways, etc.
- [2] New Stormwater BMPs.

(c) Permitted Activities. The following activities are permitted in the setback.

- [1] Up to twenty (20) percent of the setback area may be developed with semi-pervious materials, such as paths or mowed Turf Grass.

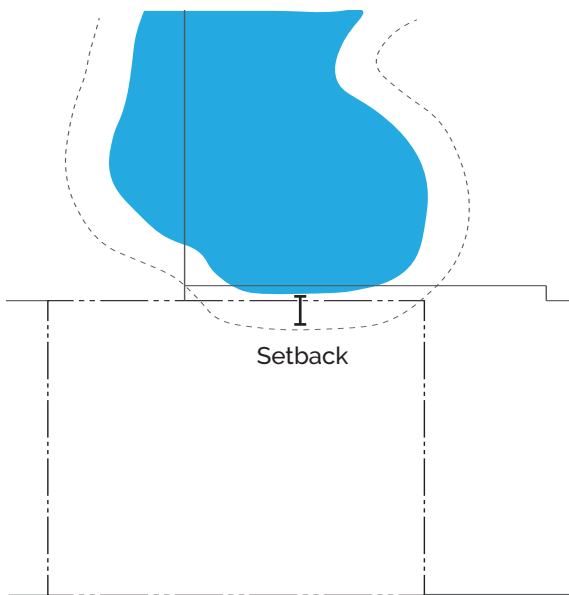


Table 6.2-1 Wetland and Water Resources Setbacks

Size of Parent Parcel	Minimum Required Setback
Greater than 1 acre	25 feet
1/2 acre - 1 acre	20 feet
Less than 1/2 acre	15 feet

Figure 6.2-2 Setbacks Across Parcel Boundaries

Table 6.2-2 Example Plants for Vegetated Buffers

Common Name	Scientific Name	Type
Silky Dogwood	<i>Cornus amomum</i>	Shrub
Red Osier, Red Twig Dogwood	<i>Cornus stolonifera, sericea</i>	Shrub
Common Elderberry	<i>Sambucus canadensis</i>	Shrub
Atlantic Ninebark	<i>Physocarpus opulifolius</i>	Shrub
Common Winterberry	<i>Ilex verticillata</i>	Shrub
Northern Spicebush	<i>Lindera benzoin</i>	Shrub
Highbush Blueberry	<i>Vaccinium corymbosum</i>	Shrub
Lake Sedge	<i>Carex lacustris</i>	Graminoid
Tussock Sedge	<i>Carex stricta</i>	Graminoid
Bottlebrush Sedge	<i>Carex hystericina</i>	Graminoid
Bebb's Sedge	<i>Carex bebbii</i>	Graminoid
Common Fox Sedge	<i>Carex vulpinoidea</i>	Graminoid
Prairie Cordgrass	<i>Spartina pectinata</i>	Graminoid
Dark-Green Bulrush	<i>Scirpus atrovirens</i>	Graminoid
Cottongrass Bulrush	<i>Scirpus cyperinus</i>	Graminoid
Bluejoint Grass	<i>Calamagrostis canadensis</i>	Graminoid
Common Rush	<i>Juncus effusus</i>	Graminoid
Spotted Joe-Pye-Weed	<i>Eutrochium maculatum</i>	Forb
White Turtlehead	<i>Chelone glabra</i>	Forb
New England American Aster	<i>Symphyotrichum novae-angliae</i>	Forb
Purple-Stem American Aster	<i>Symphyotrichum puniceum</i>	Forb
Flat-Topped White Aster	<i>Doellingeria umbellata</i>	Forb
Common Boneset	<i>Eupatorium perfoliatum</i>	Forb
Swamp Milkweed	<i>Asclepias incarnata</i>	Forb
Cutleaf Coneflower	<i>Rudbeckia laciniata</i>	Forb
Pin Oak	<i>Quercus palustris</i>	Tree
Swamp White Oak	<i>Quercus bicolor</i>	Tree
Black Tupelo, Black Gum	<i>Nyssa sylvatica</i>	Tree
Tamarack, American Larch	<i>Larix laricina</i>	Tree

[2] Water and sewer lines, utility lines, bridge abutments or approaches, or semi-pervious, non-motorized trailways, may be developed and maintained within a Water Resource setback with approval from all applicable local, State, and/or Federal agencies.

[3] Disturbance to the bank or shoreline, as expressly allowed under State law, is permitted when a restoration plan is prepared by a qualified professional, such as a Michigan Certified Natural Shoreline Professional or Professional Engineer.

[4] Operation and maintenance of existing flood control facilities or Stormwater BMPs.

(3) Required Planting. The setback must contain Natural Vegetation, including a combination of trees, shrubs, grasses, and Forbs to form a Vegetated Buffer in a Riparian area. The Vegetated Buffer must meet one (1) of the following.

(a) Where the bank or shoreline contains Natural Vegetation.

[1] Existing vegetation must remain undisturbed during and after construction activities.

[2] Supplemental planting or seeding is allowed when Native Species are used. Mowed turf grass does not qualify as Natural Vegetation.

[3] Removal of invasive species and/or dead or diseased woody species are allowed, if they are replaced according to the parameters in 50-6.2D(3)(b)[3].

(b) Where the bank or shoreline is not covered in Natural Vegetation.

[1] A Vegetated Buffer must be planted and maintained in the setback.

[2] Soil preparation for planting is allowed with proper soil erosion controls.

[3] A diverse mix of appropriate native species is required, as follows.

[a] At least twelve (12) different species must be planted.

[b] At least two (2) species from each of the following plant types must be planted: shrubs, Graminoids, and Forbs. Refer to Table 6.2-2 Example Plants for Vegetated Buffers.

[c] Trees may be planted if appropriate to the site. Refer to Table 6.2-5 Replacement Tree List.

[4] Any combination of native seed mix, plant plugs, bare root trees or shrubs, and/or container plants, trees, or shrubs are permitted.

(c) Exceptions. The Vegetated Buffer is not required when a structure or parcel is being redeveloped unless the project increases the site's impervious coverage on the parcel by more than ten (10) percent or if the project is being conducted within twenty (20) feet of the Water Resource setback.

(4) Protection During Construction. Appropriate erosion control measures must be used according to Chapter 30 of the Kalamazoo City Code.

(5) Operation and Maintenance Agreement. The Vegetated Buffer must be included in the Stormwater Operation and Maintenance Agreement, if an Agreement is required for the project.

E. Natural Feature Standards: Floodplains. Reserved.

F. Natural Feature Standards: Trees. Trees that provide special value to the community or ecosystem are protected through the NFP Overlay District.

(1) Tree Criteria. When Trees meet any of the following criteria and are not counted as part of a Woodland, the standards of this Overlay apply.

(a) Trees on the Special Status Tree List in Table 6.2-4.

(b) Any Tree larger than twenty-four (24) inches DBH.

(2) Tree Protection. Trees and their CRZ shall be protected during site development and construction.

(a) Disturbance. No disturbance is allowed within a CRZ, except as follows.

[1] Fences are permitted when they meet all other applicable zoning standards.

[2] Management of other Trees or Woodlands with a plan by a qualified professional, such as an International Society of Arboriculture (ISA) Certified Arborist.

(b) Protection During Construction. The CRZ of Trees shall be protected following the standards of 50-6.2K(8) Protection During Construction.

(3) Tree Removal. Trees may be removed in the following circumstances.

(a) Tree is located such that it impedes access to the site or prevents utility connections.

(b) A qualified professional has determined the tree is diseased, dying, or has sustained substantial damage prior to site work.

(c) Location of the Tree presents a threat to the structural integrity of an existing structure or infrastructure.

(4) Replacement. Any Tree meeting the criteria which is removed from the parcel must be replaced as follows.

(a) Except as otherwise permitted by this subsection, the replacement ratio is 1:1, where for every inch of Tree removed in total from the parcel, an equivalent number of inches must be replaced by newly planted Trees as follows.

[1] Inches of Tree removed shall be measured at DBH.

[2] Replacement Trees shall be selected from the Replacement Tree List in Table 6.2-5. Site context should be taken into consideration when selecting a replacement Tree.

[3] Replacement Trees must be two (2) inch caliper or greater, unless otherwise stated in Table 6.2-5.

(b) A replacement ratio of 3:1 is applicable in the following circumstances (where for every three (3) inches of Tree

DBH removed, one (1) inch of new replacement Tree DBH must be planted).

[1] Replacement Tree is four (4) inch caliper or greater.

[2] Replacement Tree has a special value in terms of long-term survival rate, habitat quality, or climate resiliency, as indicated by the ratios in Table 6.2-5 Replacement Tree List.

(c) Location. Replacement Trees shall be located as follows.

[1] Replacement Trees shall be located on the site from which they are removed.

[2] The NFP Review Board can approve alternative locations, if on-site replacement is not possible provided that the alternative is within the City of Kalamazoo.

[3] Replacement Trees cannot be located within a parking lot.

G. Natural Feature Standards: Woodlands. Woodlands provide important ecosystem services and habitat corridors and are protected by the NFP Overlay District.

(1) Woodland Criteria. When trees located on a parcel meet the following criteria, the area shall be considered a Woodland and the standards of this Overlay apply.

(a) Minimum Area. Trees cover a minimum area of 21,780 square feet or a half (1/2) acre, regardless of parcel boundaries. Refer to Figure 6.2-3 Defining and Delineating a Woodland.

(b) Tree Count. The area contains the equivalent of at least forty (40) trees per acre of at least two (2) inches DBH and reach or at maturity will reach at least fifty (50) feet in height.

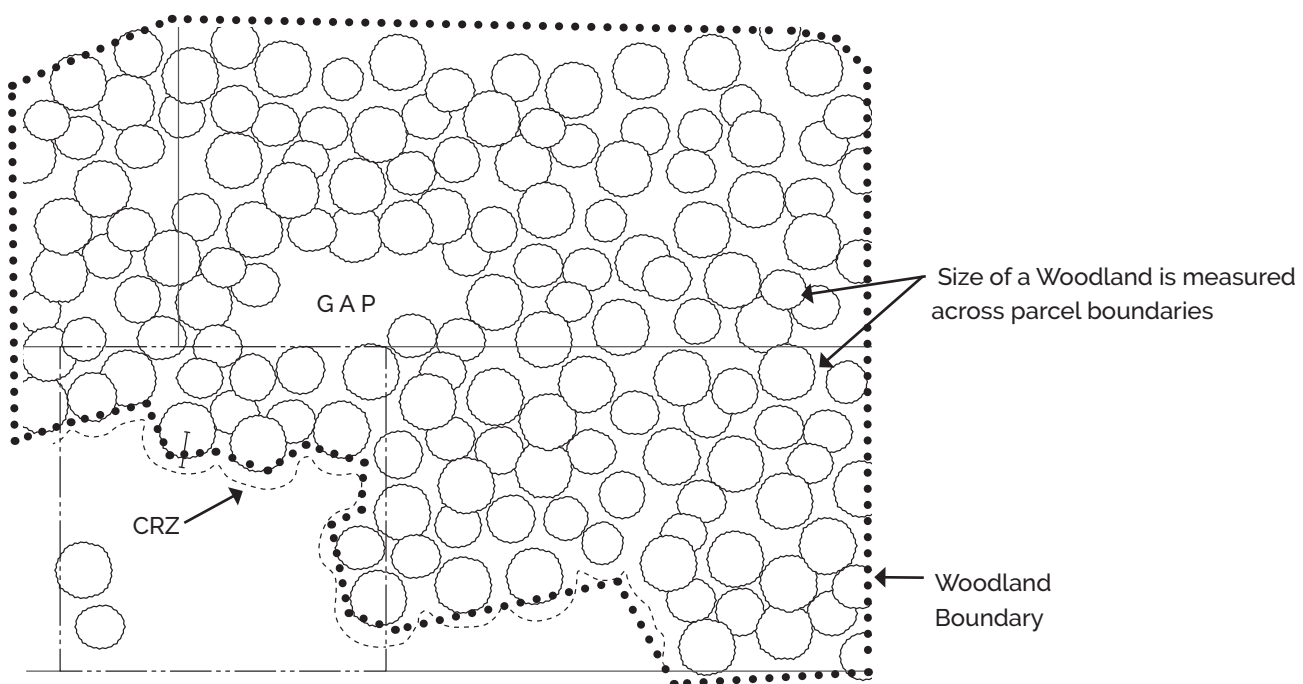


Figure 6.2-3 Defining and Delineating a Woodland

Table 6.2-4 Special Status Tree List

Common Name	Scientific Name	DBH (inches)*
Ash	<i>Fraxinus spp. (not cultivars)</i>	18"
Basswood, Linden	<i>Tilia americana</i>	18"
Beech	<i>Fagus spp.</i>	18"
Buckeye (Horsechestnut)	<i>Aesculus spp.</i>	18"
Cherry, Black	<i>Prunus serotina</i>	18"
Elm, American	<i>Ulmus americana</i>	18"
Elm, Slippery	<i>Ulmus rubra</i>	18"
Elm, Winged	<i>Ulmus alata</i>	18"
Fir	<i>Abies spp.</i>	18"
Fir, Douglas	<i>Pseudotsuga menziesii</i>	18"
Kentucky Coffeetree	<i>Gymnocladus dioicus</i>	18"
Maple, Red	<i>Acer rubrum</i>	18"
Maple, Silver	<i>Acer saccharinum</i>	18"
Maple, Sugar	<i>Acer saccharum</i>	18"
Pine, Red	<i>Pinus resinosa</i>	18"
Pine, White	<i>Pinus strobus</i>	18"
Spruce	<i>Picea spp.</i>	18"
Sycamore, American	<i>Plantanus occidentalis</i>	18"
Tuliptree	<i>Liriodendron tuliperifera</i>	18"
Walnut, Black	<i>Juglans nigra</i>	18"
Honey Locust	<i>Gleditsia triacanthos</i>	16"
Oak, Black	<i>Quercus velutina</i>	16"
Oak, Bur	<i>Quercus macrocarpa</i>	16"
Oak, Northern Red	<i>Quercus rubra</i>	16"
Oak, White	<i>Quercus alba</i>	16"
Arbor-vitae, Eastern White Cedar	<i>Thuja occidentalis</i>	12"
Birch	<i>Betula spp.</i>	12"
Birch, River	<i>Betula nigra</i>	12"
Cherry, Flowering	<i>Prunus spp.</i>	12"
Crabapple	<i>Malus spp.</i>	12"
Dawn Redwood	<i>Metasequoia glyptostroboides</i>	12"
Eastern Hemlock	<i>Tsuga canadensis</i>	12"
Ginkgo	<i>Ginkgo biloba</i>	12"

Table 6.2-4 (Continued) Special Status Tree List

Common Name	Scientific Name	DBH (inches)*
Hickory, Bitternut	<i>Carya cordiformis</i>	12"
Hickory, Pignut	<i>Carya glabra</i>	12"
Hickory, Shagbark	<i>Carya ovata</i>	12"
Hickory, Shellbark	<i>Carya laciniosa</i>	12"
Oak, Chinkapin	<i>Quercus muehlenbergii</i>	12"
Oak, Northern Pin	<i>Quercus ellipsoidalis</i>	12"
Oak, Swamp White	<i>Quercus bicolor</i>	12"
Pear	<i>Pyrus spp.</i>	12"
Persimmon	<i>Diospyros virginiana</i>	12"
Poplar	<i>Populus spp.</i>	12"
Sassafras	<i>Sassafras albidum</i>	12"
Sweet Gum	<i>Liquidambar styraciflua</i>	12"
Willow, Black	<i>Salix nigra</i>	12"
Yellowwood	<i>Cladrastis lutea</i>	12"
American Chestnut	<i>Castanea dentata</i>	8"
Black Tupelo, Black Gum	<i>Nyssa sylvatica</i>	8"
Butternut	<i>Juglans cinerea</i>	8"
Cedar, Eastern Red	<i>Juniperus virginiana</i>	8"
Hackberry	<i>Celtis occidentalis</i>	8"
Hawthorn	<i>Crataegus crus-galli and other spp.</i>	8"
Larch/Tamarack	<i>Larix laricina</i>	8"
Maple, Mountain/Striped	<i>Acer spicatum/pensylvanicum</i>	8"
American Hophornbeam	<i>Ostrya virginiana</i>	4"
American Hornbeam, Blue Beech	<i>Carpinus caroliniana</i>	4"
Dogwood, Flowering	<i>Cornus florida (native only)</i>	4"
Dwarf Hackberry	<i>Celtis tenuifolia</i>	4"
Eastern Redbud	<i>Cercis canadensis</i>	4"
Pawpaw	<i>Asimina triloba</i>	4"
Serviceberry	<i>Amelanchier spp.</i>	4"

*Tree species with DBH greater than or equal to the values in this column of the table require replacement with any species on the Replacement Tree List if removed for construction/development.

Gray Highlight = Tree species must be replaced with a different species from the Replacement Tree List.

Table 6.2-5 Replacement Tree List

Common Name	Scientific Name	Replacement Ratio	Condition Code
Basswood, Linden*	<i>Tilia americana</i>	1:1	Cs
American Chestnut	<i>Castanea dentata</i>	3:1, (hybrid)	Cr, F, Cul
American Hophornbeam*	<i>Ostrya virginiana</i>	1:1	P, Cr
American Hornbeam, Blue Beech*	<i>Carpinus caroliniana</i>	3:1	Cr, P
Arborvitae, Eastern White Cedar	<i>Thuja occidentalis</i>	1:1	Cv, Cs
Birch	<i>Betula spp.</i>	1:1	Cv
Birch, River	<i>Betula nigra</i>	1:1	P, Ri
Black Tupelo, Black Gum*	<i>Nyssa sylvatica</i>	3:1	Cr, Ri
Cedar, Eastern Red*	<i>Juniperus virginiana</i>	3:1	Cr, P
Cherry, Wild Black*	<i>Prunus serotina</i>	1:1	
Cherry, Flowering	<i>Prunus spp.</i>	1:1	
Crabapple	<i>Malus spp.</i>	1:1	P
Dawn Redwood	<i>Metasequoia glyptostroboides</i>	1:1	
Dogwood, Flowering*	<i>Cornus florida (native only)</i>	2:1	Cr
Eastern Redbud	<i>Cercis canadensis</i>	3:1	Cr, P
Elm, American	<i>Ulmus americana</i>	3:1	Cul, Cs
Elm, Slippery	<i>Ulmus rubra</i>	1:1	
Hackberry*	<i>Celtis occidentalis</i>	3:1	Cr
Hawthorn*	<i>Crataegus crus-galli and other spp.</i>	3:1	Cr, P
Hickory, Bitternut*	<i>Carya cordiformis</i>	3:1	Cr, F, Ri, Cs
Hickory, Pignut*	<i>Carya glabra</i>	3:1	Cr, F, Cs
Hickory, Shagbark*	<i>Carya ovata</i>	3:1	Cr, F, Cs
Hickory, Shellbark*	<i>Carya laciniosa</i>	3:1	F, Ri, Sc
Honey Locust	<i>Gleditsia triacanthos</i>	3:1	Cr
Kentucky Coffeetree*	<i>Gymnocladus dioicus</i>	3:1	Cr
Larch/Tamarack*	<i>Larix laricina</i>	3:1	Ri, Cs
Maple, Red	<i>Acer rubrum</i>	1:1	Cv, Cs
Maple, Silver*	<i>Acer saccharinum</i>	3:1	Cr, Ri, Cs
Maple, Sugar	<i>Acer saccharum</i>	1:1	Cv, Cul
Oak, Black*	<i>Quercus velutina</i>	3:1	Cr, Cs
Oak, Bur*	<i>Quercus macrocarpa</i>	3:1	Cr, Cul, Cs
Oak, Chinquapin*	<i>Quercus muehlenbergii</i>	3:1	Cr, Cs
Oak, Pin*	<i>Quercus palustris</i>	3:1	Cr, Ri, Cs

Table 6.2-5 (Continued) Replacement Tree List

Common Name	Scientific Name	Replacement Ratio	Condition Code
Oak, Northern Red*	<i>Quercus rubra</i>	3:1	Cr, Sc
Oak, Swamp White*	<i>Quercus bicolor</i>	3:1	Cr, Ri, Cs
Oak, White*	<i>Quercus alba</i>	3:1	Cr, Cul, Cs
Pawpaw	<i>Asimina triloba</i>	3:1	Cr, F
Persimmon	<i>Diospyros virginiana</i>	3:1	Cr, F
Pine, Red	<i>Pinus resinosa</i>	1:1	
Pine, White	<i>Pinus strobus</i>	1:1	
Populus	<i>Populus spp. (except deltoides, alba)</i>	1:1	Cv
Sassafras	<i>Sassafras albidum</i>	1:1	
Serviceberry*	<i>Amelanchier spp.</i>	1:1	P, F
Spruce	<i>Picea spp.</i>	1:1	
Sycamore, American*	<i>Plantanus occidentalis</i>	3:1	Cr
Tuliptree*	<i>Liriodendron tuliperifera</i>	1:1	Cr, Cs
Walnut, Black	<i>Juglans nigra</i>	3:1	F, Cs
Willow, Black	<i>Salix nigra</i>	1:1	Ri
Ash	<i>Fraxinus spp.</i>		PROHIBITED
Beech	<i>Fagus spp.</i>		PROHIBITED
Fir	<i>Abies spp.</i>		PROHIBITED
Fir, Douglas	<i>Pseudotsuga menziesii</i>		PROHIBITED
Ginkgo	<i>Ginkgo biloba</i>		PROHIBITED
Pear	<i>Pyrus spp.</i>		PROHIBITED
Maple, Mountain/Striped	<i>Acer spicatum/pensylvanicum</i>		PROHIBITED
Yellowwood	<i>Cladrastis lutea</i>		PROHIBITED

Condition Codes:

PROHIBITED = Species not to be used as replacement tree

*denotes species where 1" caliper tree may be substituted when Wild-Type is planted (full credit for 2" caliper applies)

Cr = Climate Resilient

Cs = Carbon sequestration

Cul = Culturally significant

F = Food source

P = Suitable for parking lots and roadways

Ri = Suitable for riparian/wet plantings

Cv = Climate vulnerable

(c) Natural Ground Cover. No more than twenty-five (25) percent of the ground area is mowed.

(d) Understory. The area contains a layering of shorter understory trees and/or shrubs and Forbs.

(2) Woodland Delineation and Assessment. Refer to Figure 6.2-3 Defining and Delineating a Woodland. Existing Woodland coverage on the parcel shall be delineated and assessed as follows.

(a) Gaps. Areas without trees or that have sparse trees are common within a Woodland and should be included in area and density measurements except when the gap is larger than 8,000 square feet.

(b) Woodland Assessment Tools. A Woodland must be assessed using a Basal Area, Woodland Ecosystem Assessment, or tree survey conducted by a qualified professional, such as an ISA Certified Arborist.

(3) Woodland Protection. For areas meeting the definition of a Woodland, a portion of the Woodland on the parcel must be preserved as follows.

(a) Woodland Preservation Minimums. Woodlands shall be preserved following the coverage requirements in Table 6.2-3 Woodland Preservation.

(b) Criteria for Woodland Preservation. In determining which areas of a Woodland are to be preserved, the following priorities shall be applied.

[1] Woodlands contiguous to Woodlands on adjacent parcels or areas serving as Habitat Corridors.

[2] Woodlands on or adjacent to another Natural Feature(s), floodplain, or a publicly accessible open space.

[3] Woodlands in the best condition as determined by a qualified professional, such as an ISA Certified Arborist, and based upon the Basal Area score or another Woodland Ecosystem Assessment.

[4] Woodlands with older growth, higher DBH trees, or trees noted in 6.2-4 Special Status Tree List and 6.2-5 Replacement Trees List.

(4) Prohibited Activities.

(a) Disturbance. No disturbance is allowed within a Woodland preserved area, the boundary of which is defined by the CRZ of trees along its edges, except for the following activities.

Table 6.2-3 Woodland Preservation

Woodland Coverage of Parent Parcel	Minimum Required Woodland Coverage to be Preserved
75% to 100%	25%
50% up to 75%	50%
25% up to 50%	75%
Less than 25%	90%

[1] Fences are permitted when they meet all other applicable zoning standards.

[2] Management of the Woodland vegetation with a plan by a qualified professional, such as an ISA Certified Arborist.

(b) Stormwater. No new Stormwater BMPs within the CRZ.

(5) Permitted Activities. Operation and maintenance of public utilities is permitted within the CRZ. Directional boring shall be used whenever possible.

(6) Construction Protection. Woodlands trees and their CRZ shall be protected during site construction following the standards of 50-6.2K(8) Protection During Construction.

H. Natural Feature Standards: Slopes. Slopes associated with Water Resources and other Natural Features are protected by the NFP Overlay District.

(1) Slope Criteria. Slopes protected by the NFP Overlay District are those with a grade of twenty (20) percent or greater and meet at least one (1) of the following.

(a) Slope Face contains a Woodland, refer to 50-6.2G.

(b) Slope Face contains Natural Heritage Area, refer to 50-6.2I.

(c) Any portion of the Slope Face is within five-hundred (500) feet of a Wetland or Water Resource, refer to 50-6.2C and 50-6.2D.

(d) Any portion of the Slope Face extends onto adjacent parcels.

(2) Slope Determination. If any area on a parcel appears to meet the Slope Criteria, one (1) of the following is required.

(a) A Slope Analysis by a professional is not completed and the area is assumed to meet the slope criteria; the standards of this Overlay are applied.

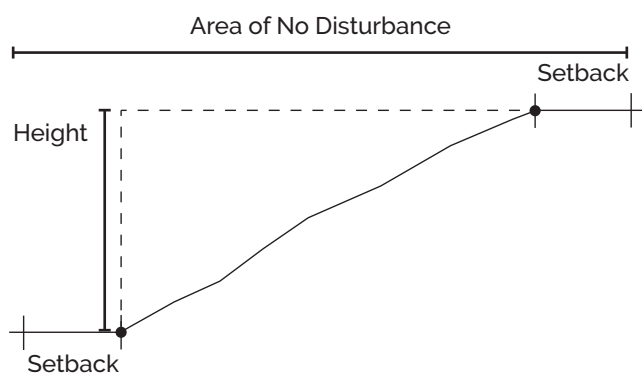


Figure 6.2-4 Protected Slope Setbacks

(b) A Slope Analysis shall be completed by a licensed surveyor, licensed professional engineer, or a geologist certified by the American Institute of Professional Geoscientists (AIPG) following all acceptable practices to determine whether any part of the Slope Face meets the Slope Criteria.

(3) Slope Protection. Slopes shall be maintained and protected as follows.

(a) Setbacks. A setback is required from the Top of Slope and the Toe of Slope equal to half (1/2) the height of the Slope, regardless of whether or not the entire Slope is contained within the parcel, or ten (10) feet, whichever is greater. Refer to Figure 6.2-4 Slope Setbacks.

(b) Permitted Activities in the Setbacks. Setback areas from the Top or Toe of Slope shall remain undisturbed except as follows.

[1] Any work necessary to maintain the stability of the Slope.

[2] Restoration and management of other Natural Features provided that they meet the requirements of this Overlay.

[3] Fences are permitted when they meet all other applicable zoning standards.

[4] Normal maintenance that does not disturb existing terrain.

[5] Maintenance of existing impervious surfaces and structures.

[6] In addition to the requirements in 50-6.2B(4), existing structures located in the setback may be expanded up to twenty-five (25) percent of the existing building footprint as follows.

[a] The expansion does not disturb the Slope Face.

[b] Ground disturbance is the minimum needed for the expansion.

(c) Permitted Activities in the Slope Face. The Slope Face shall remain undisturbed except as follows.

[1] Any work necessary to maintain the stability of the Slope Face, including the Top and Toe of Slope.

[2] Restoration and management of other Natural Features provided that they meet the requirements of this Overlay.

[3] Normal maintenance that does not disturb existing terrain.

[4] Maintenance of existing impervious surfaces and structures.

[5] In addition to the requirements in 50-6.2B(4), existing structures where a portion of the structure is in the Slope Face may be expanded up to twenty-five (25) percent of the existing building footprint as follows.

[a] The expansion can only occur on Slopes with a grade of thirty (30) percent or less.

[b] Expansion in the Slope Face is limited to no more than fifteen (15) percent of the existing building footprint.

[c] Ground disturbance is the minimum needed for expansion.

(d) Prohibited Activities. The following activities are prohibited.

[1] Surface water shall not be directed toward any Slope regulated by this Overlay.

[2] Stormwater BMPs are not permitted within the Slope Face or the setbacks, including storm sewer outlets.

[3] No new underground utilities may be placed within the Slope Face or setbacks.

(e) Construction Protection. The Slope Face and setbacks shall be protected during site development and construction following the standards of 50-6.2K(8) Protection During Construction.

I. Natural Feature Standards: Natural Heritage Areas. Rare species and remnants of historically and culturally significant ecosystems are protected by the NFP Overlay District.

(1) Natural Heritage Area Criteria. A Natural Heritage Area is defined by the presence of either of the following.

(a) Any species considered to be rare, threatened, or endangered by the State of Michigan, Federal government, or listed on the Michigan Natural Features Inventory (MNFI) Database.

(b) Any remnant of a Natural Community listed on the MNFI Michigan's Natural Communities List.

(2) Determination of Natural Heritage Area. The MNFI Natural Heritage Database shall be used to determine if any rare species have been located within a two (2) mile radius of the parcel.

(3) On-Site Survey. When a database search indicates a rare species has been identified within two (2) miles of the parcel, an on-site survey shall be conducted. The survey must be conducted by a consultant with a Michigan Endangered Species Permit or another qualified professional approved by the City Planner.

(4) Natural Heritage Area Protection. If the on-site survey confirms that a Natural Heritage Area exists on the parcel, all State and Federal protections and/or mitigation activities must be followed. A copy of any required permit obtained from a State or Federal agency must be submitted to the City.

J. Natural Feature Standards: Habitat Corridors. Reserved.

K. Site Development Standards. The following standards apply to all properties within the NFP Overlay District.

(1) Building Setbacks. When a conflict exists between meeting the 50-6.2C-J NFP Standards and the required placement of structures, the setbacks or built-to zones or lines may be adjusted to eliminate or reduce the conflict provided that the adjustment is the minimum required to meet the NFP standards.

(2) Use. In addition to the uses permitted in the Base Zoning District, the following apply.

(a) Appendix A 3.5 Wellhead Protection Overlay 10-year use restrictions.

(b) Outdoor storage of loose materials is prohibited within five hundred (500) feet of a Water Resource or Wetland.

(c) Appendix A 3.5 Wellhead Protection Overlay 1-year use restrictions apply within five hundred (500) feet of a Water Resource or Wetland.

(3) Lot Coverage. Areas designated to meet the pervious surface requirement of a the Base Zoning District shall meet the following requirements.

(a) Natural Features. Areas left undisturbed per the standards in 50-6.2C-J can be applied to a parcel's pervious

lot coverage requirement, except that Stormwater BMPs shall count at a ratio of two (2) square feet of BMP to one (1) square foot of pervious coverage ratio or at a rate of fifty (50) percent.

(b) Undisturbed Areas. All areas designated to meet a parcel's overall pervious lot coverage requirement must remain undisturbed except in the following circumstances.

[1] Restoration or maintenance of the pervious area when guided by a plan developed by a qualified professional.

[2] Planting or restoration of plants or trees per 50-6.2 Natural Features Standards.

[3] Installation of stormwater BMPs from the Michigan Low Impact Development (LID) Manual BMP Matrix Table in the Runoff Volumes and Infiltration categories.

(c) Location. Areas designated to meet a parcel's overall pervious lot coverage requirement shall be located as follows.

[1] Contiguous. Pervious areas shall be located in one (1) contiguous area or clustered into areas that each equal at least twenty (20) percent of the total pervious area.

[2] Adjacent to Natural Features. Pervious areas shall be located adjacent to defined Natural Features.

(d) Construction. Pervious areas shall be protected during construction and site development through barrier fencing as described in 50-6.2K(8).

(e) Semi-Pervious Allowance. A semi-pervious allowance of up to fifteen (15) percent may be utilized to meet the lot coverage requirement.

(4) Landscape and Screening. Additional landscape and screening activities apply within the NFP Overlay District.

(a) Relief. A reduction in a parcel's required building perimeter, parking lot, loading zone, perimeter screening, or interior landscaping requirements (refer to Appendix A. 6.2 Landscaping and Open Space) may be permitted to eliminate conflicts with meeting the requirements of 50.6-2 Natural Features Standards.

[1] Relief shall be the minimum required to meet the NFP standards.

[2] Landscaping serving as a buffer between residential and non-residential uses and between a vehicular parking lot and a street shall not be reduced.

(b) Plant Selection. Native species must be used for all site landscaping, which includes the use of both Wild-type and Nativar plants. Plants in Table 6.2-6 Prohibited Planting List shall not be planted on any portion of a parcel.

(c) Existing Vegetation. When a parcel's existing vegetation is being preserved and utilized to meet landscaping requirements in Appendix A 6.2 Landscaping and Open Space the following applies.

[1] Existing nonnative plants must be contained within the planting areas.

[2] Existing invasive plants must be removed. Refer to *Meeting the Challenge of Invasive Plants* by MNFI or Table 6.2-6 Prohibited Planting List.

Table 6.2-6 Prohibited Planting List

Common Name	Scientific Name
Trees	
Norway Maple	<i>Acer platanoides</i>
Tree-of-Heaven	<i>Ailanthus altissima</i>
Silktree	<i>Albizia julibrissin</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Black Locust	<i>Robinia pseudoacacia</i>
Siberian Elm	<i>Ulmus pumila</i>
Callery Pear	<i>Pyrus calleryana</i>
Shrubs	
Japanese Barberry	<i>Berberis thunbergii</i>
Common Barberry	<i>Berberis vulgaris</i>
Autumn Olive	<i>Elaeagnus umbellata</i>
Glossy Buckthorn	<i>Frangula alnus</i>
Common or European Privet	<i>Ligustrum vulgare</i>
Showy Fly Honeysuckle (or hybrid)	<i>Lonicera x.bella</i>
Amur Honeysuckle	<i>Lonicera maackii</i>
Morrow Honeysuckle	<i>Lonicera morrowii</i>
Tatarian Honeysuckle	<i>Lonicera tatarica</i>
Common Buckthorn	<i>Rhamnus cathartica</i>
Multiflora Rose	<i>Rosa multiflora</i>
Japanese Meadowsweet	<i>Spiraea japonica</i>
European Cranberrybush	<i>Viburnum opulus</i>
Vines	
Asian Bittersweet	<i>Celastrus orbiculatus</i>
Black Swallow-wort	<i>Cynanchum louiseae</i>
European Swallow-wort	<i>Cynanchum rossicum</i>
English Ivy	<i>Hedera helix</i>
Japanese Honeysuckle	<i>Lonicera japonica</i>
Grasses	
Reed Canary Grass	<i>Phalaris arundinacea</i>
Common Reed	<i>Phragmites australis</i>

Common Name	Scientific Name
Herbs	
Garlic Mustard	<i>Alliaria petiolata</i>
Spotted Knotweed	<i>Centaurea biebersteinii</i> or <i>C. maculata</i>
Canada Thistle	<i>Cirsium arvense</i>
Bull Thistle	<i>Cirsium vulgare</i>
Leafy Spurge	<i>Euphorbia esula</i>
Dame's Rocket	<i>Hesperis matronalis</i>
Creeping Jenny or Moneywort	<i>Lysimachia nummularia</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
Japanese Knotweed	<i>Polygonum cuspidatum</i>
Giant Knotweed	<i>Polygonum sachalinense</i>
Crown Vetch	<i>Securigera varia</i>

(5) Lighted Signs. Internally illuminated, automatic changeable copy, and blinking and/or flashing lighted signs are not permitted within three hundred (300) feet of a Preserve.

(6) Stormwater Management Criteria. Refer to the City of Kalamazoo Performance Standards for Groundwater Protection within Wellhead Protection Capture Zones for additional information and definitions.

(a) Channel Protection Performance Standard. Parcels half (1/2) acre or greater shall maintain the post-development project site runoff volume and peak flow rate at or below pre-development levels for all storms up to the ten (10) year, twenty-four (24) hour event.

(b) Water Quality Treatment Runoff Volume Standard. The first one (1) inch of runoff generated from the entire parcel must be treated using one of the following.

[1] Multiple Methods. Two or more BMPs shall be utilized with at least twenty-five (25) percent of the required runoff volume treated by BMPs from the Low Impact Development Manual for Michigan, Table 7.1 BMP Matrix Table from "Runoff Volume/Infiltration" and "Runoff Volume/Non-infiltration" categories.

[2] Underground Methods. All required runoff shall be treated by underground detention or infiltration BMPs.

[3] Non-Infiltration Methods. Sites requiring non-infiltration BMPs, such as those with contamination or within A3.5 Wellhead Protection Overlay, use BMPs from Low Impact Development Manual for Michigan, Table 7.1 BMP Matrix Table, "Runoff Quality/Non-infiltration" category.

(c) Maintenance Agreement. A Stormwater Operation and Maintenance Agreement is required by and between

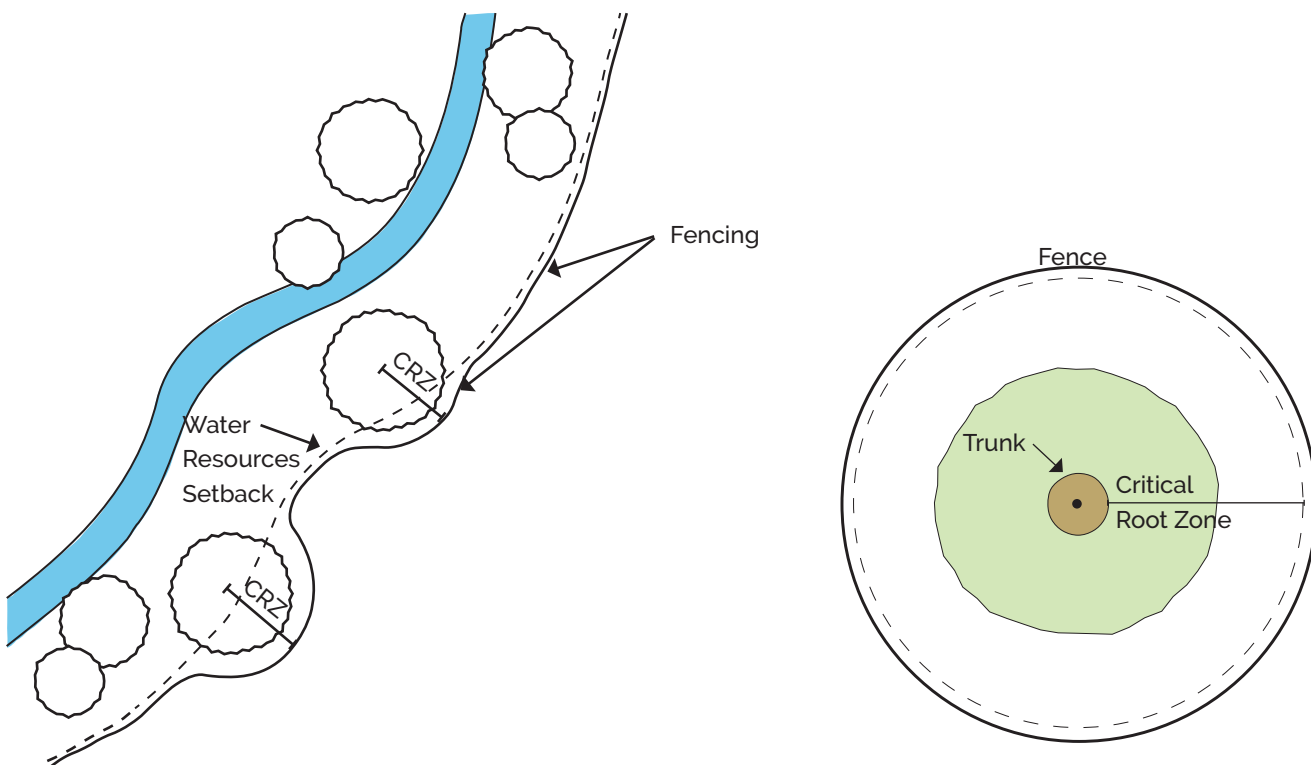


Figure 6.2-5 Placement of Construction Fencing

the City of Kalamazoo and the owner of the property when Stormwater BMPs are used.

(d) Exceptions. Development or redevelopment of a single family home or duplex is exempt from these Stormwater standards.

(7) Fill Materials. Use of fill material containing regulated substances above any State and/or Federal cleanup criteria for soils is prohibited. Fill material shall be sourced as follows.

(a) Fill material shall not be sourced from industrial or commercial sites where hazardous materials were used, handled, or stored or from unpaved parking areas.

(b) Fill material shall not be sourced from sites that contain species that are legally designated by the State of Michigan as prohibited or restricted.

(8) Protection During Construction. A temporary construction fence is required to protect Natural Features and not-to-be disturbed areas, such as those designated to meet pervious lot coverage requirements, during the duration of any site work or construction,

(a) Fence Construction. Construction fences shall be erected as follows.

[1] Fencing must be built using posts six (6) feet in height, spaced no more than eight (8) feet apart on center and buried at least two (2) feet below grade.

[2] Fence must have two (2) cross beams placed approximately at two (2) and six (6) feet above grade.

[3] Plastic mesh barrier fence shall be affixed to the front of the posts.

(b) Fence Placement. Refer to Figure 6.2-5 Placement of Construction Fencing. Fencing shall be located no closer than the required setback or edge of a not-to-be disturbed area.

[1] Where a tree is located in the setback or not-to-be disturbed area, the fencing shall be placed to protect the CRZ. Refer to Figure 6.2-5 Placement of Construction Fencing.

[2] Trees and Woodlands protected through 50-6.2F and 50-6.2G shall have construction fencing placed outside of the CRZ.

(c) Prohibited Activities. The following activities are prohibited within the construction fencing.

[1] Spreading of soil spoils.

[2] Heavy equipment and vehicle traffic.

[3] Storage of construction materials and debris.

[4] Site grading changes that increase or decrease the moisture conditions within a CRZ on a temporary or permanent basis.

L. NFP Review Bodies and Processes. Projects located in the NFP Overlay District require special review.

(1) Project Review. Review of projects in the NFP Overlay District shall occur as follows.

(a) Where Site Plan is not required. Administrative review of the site development or construction permit request

shall be completed by the City Planner or designee.

(b) Where Site Plan is required. The NFP Review Board shall review the NFP Plan in conjunction with the Site Plan Review process. NFP Review Board approval is required for a project to achieve Site Plan approval.

(c) Where Site Plan is required and a zoning review from the Planning Commission is requested and/or Zoning Board of Appeals is requested or the site is located within one hundred (100) feet of a Wetland or Water Resource or adjacent to land publicly used for open space or recreation, the following shall occur prior to review by the NFP Review Board.

[1] Owner or developer shall send notice by first class postage paid of a project in the NFP Overlay District to all property owners and occupants within three hundred (300) feet of the parcel and the neighborhood association or contact.

[2] Notice shall at a minimum include information on the proposed project, a location (physical or digital) where plans can be reviewed, instructions on how to provide comments, and a timeline for project review and construction.

[3] Notice shall be postmarked a minimum of fourteen (14) days before application is made for review by the NFP Review Board.

(2) NFP Review Board. A board will be formed to review projects in the NFP Overlay District.

(a) Intent. The NFP Review Board will review projects to ensure the standards of the NFP Overlay District are met and assist the City with regular review of the NFP standards, map, outreach, and City-wide education.

(b) NFP Review Board Members.

[1] Board will be comprised of seven (7) members.

[2] Members will be those who live or work in the greater Kalamazoo community.

[3] At a minimum, the Board must have at least one (1) member with education or experience in each of the following features in this Chapter: 1) water resources/wetlands, 2) plants/trees, 3) slopes, and 4) site development/building construction.

[4] Board members are to be appointed by the Mayor and approved by the City Commission.

[5] A City staff will be appointed by the City Planner to be the Board's liaison.

(c) The NFP Review Board is subject to the Open Meetings Act, MCL 15.261 et seq. and shall establish its own by-laws and meeting procedures.

(3) Relief from NFP Overlay District Standards. Relief from the NFP Overlay District Standards may be sought from the Zoning Board of Appeals.

(a) Criteria. Relief from the NFP Overlay District Standards in 50-6.2 may be granted when all the following conditions are met.

[1] The parcel cannot be reasonably utilized for its zoned use without the requested relief.

[2] The extent of relief requested is the minimum needed to permit reasonable utilization of the site.

[3] It is demonstrated that the relief can be granted without substantial detriment to the public good and will not substantially impair the intent and the purpose of the NFP Overlay District.

[4] The requested relief is balanced by the use of conservation and/or green development tools and actions, such as utilizing Stormwater BMPs from the Michigan Low Impact Development Manual that promote infiltration, restoration or expansion of a Natural Feature on the site, or use of Wild-type native plants or desired trees as detailed in Table 6.2-5 Replacement Trees.

(b) Process. The following process shall be followed when relief is sought from 50.6-2 NFP Overlay District.

[1] NFP Review Board shall review the request using the NFP Site Plan documentation and make a recommendation on the requested relief to the Zoning Board of Appeals.

[2] Application for relief from the Zoning Board of Appeals must include the NFP Review Board's recommendation.

M. Bonding of Projects.

(1) Intent. To ensure the protection of Natural Features, a financial assurance will be required when seeking site development permits for a lot or structure from the City of Kalamazoo.

(2) Applicability. The following financial assurances shall be required for NFP projects that require Site Plan approval.

(a) A bond is required for projects in the NFP Overlay District valued at \$100,000 or more.

(b) A lien shall be applied to parcels for projects in the NFP Overlay District valued under \$100,000.

(3) Financial Assurance Amount. The amount of the assurance shall be in an amount satisfactory to the City to restore and/or stabilize a Natural Features that has been disturbed, not properly managed during site work or construction, or has been abandoned for more than six (6) months.

(4) Release of Financial Assurance. The assurance shall be released when a Certificate of Occupancy is granted. Except when a project includes a vegetated buffer or required tree planting where the assurance may be reduced by sixty (60) percent at the time of the Certificate of Occupancy is granted with the remaining percentage released no sooner than three (3) years after the granting of the Certificate of Occupancy.

N. Penalty. A violation of the provisions of this Chapter is a municipal civil infraction punishable as follows.

(1) Any person, firm, or corporation violating any provision of this Chapter is responsible for a municipal civil infraction and shall be fined up to \$2,500 for each violation. A civil infraction citation for a violation of this Chapter may be issued by the Building Official, or by such person as the City Commission or City Manager may designate.

(2) Each day a violation exists or continues shall be deemed as a separate offense.

(3) Any person, firm, or corporation found responsible for a subsequent violation of this Chapter within two years of having been found or admitted responsible for a violation of this Chapter shall be responsible for a civil fine of up to \$5,000.

(4) Imposition of court-imposed costs.

(5) Issuance of an order by the court to replace, mitigate, or restore a Natural Feature damaged or destroyed by a violation.

