

ORDINANCE NO. 78

AN ORDINANCE OF BENNER TOWNSHIP, CENTRE COUNTY, AMENDING THE BENNER TOWNSHIP ZONING ORDINANCE BY ESTABLISHING AN I-99 INTERCHANGE OVERLAY ZONING DISTRICT, THE INTENT AND PURPOSE OF WHICH IS TO PROVIDE UNIFORMITY AND STANDARDIZATION FROM INTERCHANGE TO INTERCHANGE BY PROMOTING SAFETY; MINIMIZING THE IMPACT TO THE NATURAL ENVIRONMENT; AND PROMOTING HIGHWAY BEAUTIFICATION IN CENTRE COUNTY BY ESTABLISHING PERFORMANCE STANDARDS FOR HIGHWAY ACCESS AND SAFETY; SETBACKS AND LANDSCAPING; BUILDING AND SITE DESIGN; SIGNS AND LIGHTING; AND ENVIRONMENTALLY SENSITIVE AREAS FOR DESIRABLE DEVELOPMENT AROUND I-99 INTERCHANGES BY AMENDING AND ADDING ARTICLE VII TO THE ZONING ORDINANCE.

Pursuant to the powers vested in the Township of Benner, Centre County, Pennsylvania, under the provisions of the Second Class Township Code 53 P.S. 65101 et. seq. and the Pennsylvania Municipalities Planning Code 53 P.S. 10101 et. seq., Benner Township hereby enacts the following Ordinance.

SECTION 1. The *Benner Township Zoning Ordinance No. 70*, is amended as hereinafter set forth. All other sections of the aforesaid Benner Township Zoning Ordinance are hereby ratified, approved and enacted.

SECTION 2. *Article VII, I-99 Interchange Overlay Zoning District Ordinance*, is added and amended as follows:

I-99 INTERCHANGE OVERLAY ZONING DISTRICT ORDINANCE



**CREATED BY
OVERLAY ZONE COMMITTEE
OF THE
I-99 COMMUNITY PARTNERSHIP
FOR SUSTAINABLE DEVELOPMENT**

The I-99 Community Partnership is a joint initiative of the ClearWater Conservancy, Spring Creek Watershed Commission, and Spring Creek Watershed Community. Staff and support provided by the ClearWater Conservancy

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SECTION 1. FOREWORD

One constant for the municipalities in the Mid-Bald Eagle Watershed is “change.” “Change” is brought about by a complex set of factors related to the continued growth and development of Centre County, and particularly, the Centre Region. One such factor is the continuous improvement of transportation systems. The largest of these improvements, the construction of Interstate 99, will only accentuate the rate and level of growth. Centre County will no longer be isolated or inaccessible from other parts of the state or country. It will be connected by an integrated national system of interstate highways.

Residents of the watershed are concerned their communities could be unprepared to cope with the impacts and magnitude of change the new interstate will bring. Citizens have voiced a need to seek broad-based action that will result in achieving a desired vision of quality growth and development. The ClearWater Conservancy, Spring Creek Watershed Commission, and Spring Creek Watershed Community answered this request by creating the *I-99 Community Partnership for Sustainable Development*. This broad-based stakeholder group includes members from agriculture, business and industry, local government, environmental organizations, private landowners, and others. This Group is instrumental in advancing initiatives to prepare for the immediate and long-term opportunities and challenges facing Centre County communities.

The development of the *I-99 Interchange Overlay Zone Model Ordinance* is an initiative directed at addressing the immediate land development challenges and opportunities surrounding the highway interchanges serving as gateways to the communities

of the Mid-Bald Eagle Watershed. This Model Ordinance, once adopted by effected municipalities, provides an additional measure of protection intended to encourage an enhanced level of new development and land use change while at the same time protecting our environmental surroundings and valued quality of life.

This Model Ordinance provides only a short-term solution for the growth challenges around the interchanges. It is not a long-term substitute for sound land use planning and the eventual development of underlying zoning and land development controls. It is, however, a solid beginning to the stakeholder and multi-municipal collaborative efforts required to foster needed change on land use issues. The model also provides additional key elements to current development standards that protect aspects of community character not regulated to date. For these reasons, the Centre Regional Planning Commission and the Centre Region Council of Governments endorse the Model Ordinance concept.

The Centre County Planning Office and the Centre Regional Planning Agency are pleased to have been involved in the development of this Model Ordinance and support its successful and immediate implementation.

Robert B. Donaldson
Director
Centre County Planning Office

Robert E. Bini
Director
Centre Regional Planning Agency

SECTION 2. BACKGROUND

SECTION 2.

BACKGROUND

Twelve interchanges will be located along a 35-mile stretch of the new Interstate 99 in Centre County, Pennsylvania. These interchanges occur in six different governing municipalities including: Benner, College, Marion, Patton, Spring, and Worth Townships. The interchanges and the areas surrounding them are magnets for development. Traditionally, lands near interchanges on limited access highways generating strong developer interest and demanding high land prices. These lands are absorbed quickly for high revenue producing activities. Sometimes, developers may attempt to maximize their return on investment with little consideration to the long-term impact of their development on the surrounding communities.

Approximately two years ago, ClearWater Conservancy, the Spring Creek Watershed Commission, and the Spring Creek Watershed Community jointly initiated the creation of the "I-99 Community Partnership for Sustainable Development" (I-99 Partnership). The I-99 Partnership consists of a broad range of interests from over 40 stakeholder organizations including: business and industry; agriculture; builders/developers; planning agencies; utilities; non-government organizations (environmental and otherwise); private landowners; US and PA legislators; Penn State; PA Department of Transportation; PA Department of Environmental Protection; and local government. Representatives from these groups gathered to discuss the impacts a new interstate would have on the Mid-

Bald Eagle watershed, which includes the Spring Creek watershed. The I-99 Partnership established a vision "to ensure that the new I-99 that traverses the Spring Creek watershed and Centre County will: enhance the quality of life; improve or maintain the environment; and improve the economy." Their mission is "to bring together as many different viewpoints and interests as possible to consider potential land use around I-99 interchanges in Centre County; meet the vision; and reach consensus about guidelines and principles that should govern land use and other related decisions by individuals, organizations, and appropriate government bodies." The I-99 Partnership outlined several important strategies to support this mission including the creation of a collaborative Interchange Overlay Zone model ordinance.

The I-99 Partnership felt it was crucial to complete the model ordinance for many planning decisions were already in process due to the projected 2003 completion of the highway. An Interchange Overlay Zone is a short-term method to protect the region from haphazard development potentially threatening the high quality of life enjoyed by the watershed's citizens.

The design standards and guidelines recommended in this document are a direct outgrowth of numerous meetings of the I-99 Partnership's Overlay Zone Committee, consisting of elected municipal officials and planning commission representatives from each of the six municipalities having interchanges on the new section of Interstate 99 stretching from Port Matilda (western end) to Interstate 80 (eastern end). Representatives from the Centre Regional Planning Agency and Centre County Planning Office served as advisors to the

SECTION 2. BACKGROUND

Committee. Although this document was created for the I-99 interchange municipalities, it is also available for use by other municipalities feeling similar pressures at other important roadway linkages in the region.

The idea of creating a collaborative, multi-municipal Interchange Overlay Zone model ordinance is an exciting one for the region. It reflects improved municipal cooperation in an area continuing to be under extreme growth pressure. Through cooperative efforts such as these, the overall character of this portion of Centre County can be preserved to the greatest degree possible while maximizing economic benefits associated with such growth on a regional scale.

PURPOSE

The purpose of the Interchange Overlay Zone model ordinance is to encourage controlled, sensible interchange development by providing an additional set of protective measures on top of existing regulations. The model ordinance will:

- ❖ Provide uniformity and standardization from interchange to interchange;
- ❖ Promote safety;
- ❖ Minimize the impact to the natural environment; and
- ❖ Promote highway beautification in Centre County.

DEFINITION OF AN OVERLAY ZONE

"An overlay zone is a mapped zone imposing a set of requirements in addition to those of the underlying zoning

district. In an area where an overlay zone is established, property is placed simultaneously in two zones, and the land may be developed only under the conditions and requirements of both zones. Overlay zones typically are applied when there is special public interest in a geographic area that does not coincide with the underlying zone boundaries."¹

HOW IT WILL BE USED

The model ordinance does not take into consideration the underlying zoning already in place, and it is not meant to recommend specific land use or zoning changes. The intention of the model ordinance is to provide a mechanism to ensure if higher density development does occur around the interchanges, it will meet a minimum set of standards. Therefore, many of the standards included in this document may not be applicable until land use or underlying zoning changes within the designated Interchange Overlay Zone region.

To explain this concept clearly, an area currently zoned "agricultural" which falls in the Interchange Overlay Zone, as long as no changes are made to the current land use, no impact from the Interchange Overlay Zone would occur. If, however, several one-acre lots were to be subdivided from a farm (allowed by many municipalities without rezoning) then some of the regulations of this model ordinance would apply. If an agricultural zone were going to be rezoned for commercial or

¹ Meshenberg, Michael J. 1976. The Administration of Flexible Zoning Techniques. Planning Advisory Service Report No. 318.

SECTION 2. BACKGROUND

industrial development, then many more of the overlay regulations would apply. In this instance, it may be useful for the Township to create an entirely new zone, such as "Interchange Commercial" to incorporate the principles outlined here directly as the underlying zone. Another option for the Township is to modify the requirements of the underlying zone and apply them uniformly to that zone in their entire municipality. In any case, the overlay standards are documented through the creation of an Interchange Overlay Zone and are available to be easily incorporated into any option the municipality chooses.

Some of the design standards mentioned in this Article are already in place in some of the municipalities. However, some of the standards are completely new to others. The regulations offered here constitute an Interchange Overlay Zone that would apply to all property and uses within a recommended one-mile radius of the center of each interchange (see *Appendix A*).

Within each Interchange Overlay Zone, all existing zoning, land use and building regulations now in place in each municipality would continue to apply except where the regulations contained in the Interchange Overlay Zone are stronger or more restrictive.

The resulting Article will help to ensure that new development will be compatible with existing high-quality development in areas such as signage, lighting, and screening. It will also help to ensure that newly established, quality developments around the interchanges maintain their initial appeal by protecting them from potential adjacent sub-standard development. This uniform approach to regulating development will protect

municipalities that do not currently have protective development standards from being the recipient of sub-standard development. Conversely, this uniform approach will also prevent unhealthy competition among neighboring interchange municipalities, which could include lowering development standards to attract developers.

COMPONENTS

The standards and regulations included in the Interchange Overlay Zone model ordinance are broken down into five major sections as created by the Overlay District Committee of the I-99 Partnership:

- ❖ Highway Access and Safety
- ❖ Setbacks and Landscaping
- ❖ Building and Site Design
- ❖ Signs and Lighting
- ❖ Environmentally Sensitive Areas

These particular standards were chosen, in part, because they reflect the maintenance of the health and safety of the region while promoting highway beautification. Every year millions of visitors are attracted to this part of Centre County whether it is for business, sporting, cultural, recreational or historical events. The high quality of life enjoyed by residents of this region continues to be a major factor in the relocation of business and industry to the area. This quality of life is reflected in the first impression one gets when driving into the area on the new I-99 throughway. Sensible development will show the pride that citizens take in our community.

SECTION 2. BACKGROUND

APPLICATION

Each municipality will refer to its own existing Subdivision and Land Development and/or Zoning Ordinances for the appropriate procedures to administer the standards established for development in the Interchange Overlay Zone.

Most municipalities may adopt this model ordinance by amending their zoning ordinance to create a new zone (the Interchange Overlay Zone). This amendment would refer to mapping and outline the Interchange Overlay Zone for each municipality. Most of the model ordinance standards would most likely fit best in the existing zoning ordinances. In some circumstances, however, where similar topics are already discussed in a Municipality's Subdivision and Land Development Ordinance, the municipality may choose to incorporate these standards there for ease of management. This would require special reference to a Township's Subdivision and Land Development Ordinance in the zoning amendment.

If a municipality is concerned about undue hardship created by implementing certain standards of the model ordinance due to the physical or topographic conditions of a site, the municipality may choose to place the standards in their Subdivision and Land Development Ordinance. This will allow the Township to vary the requirements set forth in the Interchange Overlay Zone as necessary to provide reasonable relief. In no instance, however, shall the hardship be self-created by the applicant.

This model ordinance recommends the Interchange Overlay Zone encompass an area within a one (1) mile radius of the center of each interchange, though each municipality is encouraged to modify the configuration and size to meet its needs. To facilitate application of appropriate regulations within this area, it is recommended that some standards be applied only within a corridor along the Interstate Highway and along the road providing access to the interchange ("Interchange Access Road"). The corridors are formed by a ¼-mile distance from the right-of-way along each side of these two key transportation arteries. (*Figure 1*)

SECTION 2. BACKGROUND

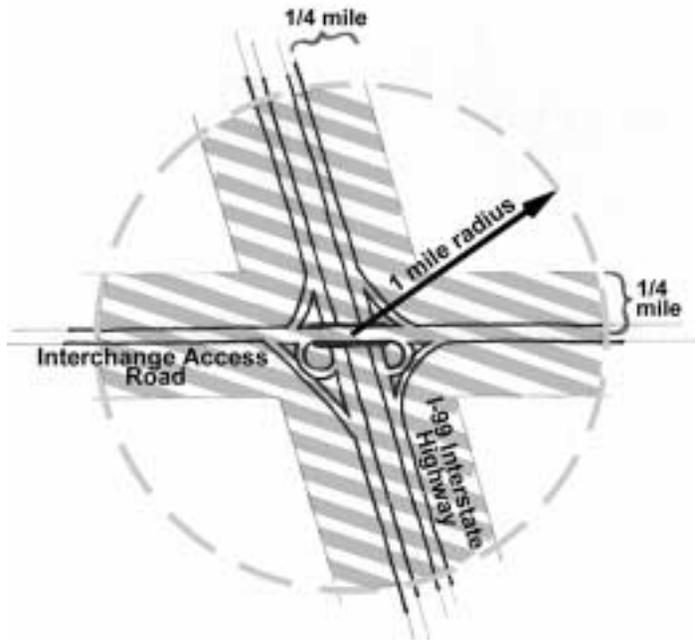


Figure 1. Example Interchange Overlay Zone showing 1 mile radius and 1/4 mile corridors from the rights-of-way along Interchange Access Road and I-99 Interstate Highway

The following table clarifies which standards are applied within the entire Interchange Overlay Zone and which only apply within the corridors.

Table 1
Summary of Article standards

Entire Zone	Corridors Only	Article Standard
		<u>I. Highway Access & Safety</u>
X		3.1 Access from Highways
	X	3.1.1 Traffic studies
X		3.2 Intermodal Transportation
		<u>II. Setbacks and Landscaping</u>
	X	4.1 Setbacks
	X	4.1.1 Setback Landscaping
	X	4.2 Sidewalks
	X	4.3 Parking lot Landscaping
X		4.4 Planting Materials
		<u>III. Building and Site Design</u>
	X	5.1 Building Exteriors
	X	5.2 Building Placement and Site Design
	X	5.3 Underground Infrastructure
		<u>IV. Signs and Lighting</u>
X		6.1 Off-Premises Signs
X		6.2 On-Premises Signs
X		6.3 Exterior Lighting/Illumination
		<u>V. Environmentally Sensitive Areas</u>
X		7.1 Slope Restrictions
X		7.2 Stream and Wetland Buffers
X		7.3 Tree Preservation

FUNDING SOURCES

Funding for the Interchange Overlay Zone model ordinance was provided by: Benner, Marion, Spring, and Worth Townships; the Canaan Valley Institute; Centre County Board of Commissioners; Centre County Community Foundation; Centre Region Council of Governments (for College and Patton Townships); PA Department of Community and Economic Development; and the Spring Creek Chapter of Trout Unlimited.

The ClearWater Conservancy provided project facilitation and coordination. Technical assistance was provided by Land Plan, Inc; McGuire Woods, L.L.P; and Visual Interactive Communications (VIC) Group. VIC provided the graphics contained in this Article.

SECTION 3. HIGHWAY ACCESS AND SAFETY

SECTION 3.

HIGHWAY ACCESS AND SAFETY

Commentary

Over time, if not carefully thought through, numerous access points can contribute to difficult turning situations and often lead to unsafe conditions. This Article’s intent is to improve safety by limiting the number of access points allowed onto the Interchange Access Road. The reduction of paving eliminates the need for numerous accesses and creates more frontage space for landscaping and retention of existing trees, thereby promoting highway beautification and, thus, a more pleasing "gateway" to the community.

Table 2

Applicability of Highway Access & Safety standards

Entire Zone	Corridors Only	Article Standard
		<u>Highway Access & Safety</u>
X		3.1 Access from Highways
	X	3.1.1 Traffic studies
X		3.2 Intermodal Transportation

Section 3.1 Access from Highways

A. All plans for vehicular access from the Interchange Access Road shall be submitted to the Township for

approval. If the Pennsylvania Department of Transportation (Penn DOT) approval is required, plans shall be submitted to the Township and Penn DOT concurrently for review and approval. All access plans are subject to the requirements of *Section 3.1.1* of this Article.

- B. Any right-of-way providing vehicular access within an Interchange Overlay Zone shall be of a type equal to or of a lower order than the highest order road (the Interchange Access Road) serving the Interchange. Except as provided in *Section 3(D)*, no direct vehicular access to any use from the Interchange Access Road shall be permitted.

- C. Any new right-of-way providing vehicular access from the Interchange Access Road shall be located a minimum distance of 300 ft. from the point at which the exit/entrance ramp intersects the Interchange Access Road. This point shall be determined to be the location at which the white travel lane marking begins to parallel the Interchange Access Road centerline in the case of an exit ramp or, in the case of an entrance ramp where the white travel lane marking leaves the parallel course, diverging from the Interchange Access Road centerline. Any new right-of-way providing vehicular access from the Interchange Access Road shall be no closer to any other such right-of-way than 800 ft., measured from centerline to centerline. (*Figure 2*)

SECTION 3. HIGHWAY ACCESS AND SAFETY

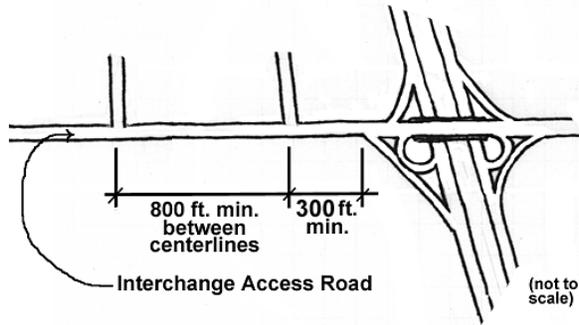


Figure 2. Vehicular access standards for Interchange Access Road

- D. Direct vehicular access to uses fronting on an Interchange Access Road shall be used where direct access currently exists.
- E. Access easements connecting adjoining properties and land developments for vehicular, bicycle and pedestrian access shall be provided, as agreed by the Township and developer.

Section 3.1.1 Traffic Studies and Transportation Improvements

- A. All proposed non-industrial development with vehicular access from an Interchange Access Road shall be required to provide a Traffic Impact Study to the Township when such:

1. exceeds 25,000 sq. ft. of total gross floor area space; or
2. generates an estimated 100 or more vehicle trips on the Interchange Access Road during such road's peak travel period per day, as defined by current traffic volumes and concurrence of the Township, Penn DOT and the developers traffic engineer.

- B. All proposed industrial development with vehicular access from an Interchange Access Road generating an estimated 100 or more vehicle trips on the Interchange Access Road during the road's peak travel period per day shall be required to provide a Traffic Impact Study to the Township.
- C. The Township shall require a Traffic Impact Study for any proposed development within the Interchange Overlay Zone.
- D. Traffic Impact Studies shall be prepared by a qualified professional and shall meet or exceed the requirements set forth in *Section 11*.
- E. Upon final review of a Traffic Impact Study, the Township shall recommend improvements to the Developer to minimize the development's traffic impact and maximize public safety. All recommended improvements shall be included in zoning, site plan, and/or subdivision review of the proposed development.

SECTION 3. HIGHWAY ACCESS AND SAFETY

Section 3.2 Intermodal Transportation

- A. All commercial and industrial uses in an Interchange Overlay Zone shall provide for on-site bicycle storage for 2.5 % of the total number of required parking spaces.
- B. Any use not fully utilizing its parking area on weekdays is encouraged to provide daytime park & ride opportunities.
- C. All uses shall provide bicycle trails or lanes connecting adjacent properties and neighborhoods as a means of linkage between such areas in the Interchange Overlay Zone. Where a bicycle trail can be combined with a pedestrian sidewalk system, then the combined pedestrian/bicycle trail shall meet American Association of State Highway Transportation Officials (AASHTO) standards, as referenced in *Section 2.2(A)* as determined by the Township.
- D. Public transit amenities shall be provided, where appropriate, as determined by the Township. The amenities shall include transit stop pull-off and pad area, covered shelters, and connecting walkway(s) to the building(s). The appropriateness, design, and location of these facilities shall be based on ADA (Americans with Disabilities Act) standards and the operational requirements of the transit provider.

SECTION 4. SETBACKS AND LANDSCAPING

SECTION 4.

SETBACKS AND LANDSCAPING

Commentary

Under Pennsylvania zoning and planning enabling legislation, local governments have the authority to adopt regulations requiring adequate setbacks and landscaping. The basic approach discussed here establishes a 100 ft. buffer between the Interstate Highway right-of-way and all development, a variable width (50 ft. to 83.5 ft.) setback from the Interchange Access Road and all development, and standards for landscaping along the Interchange Access Road and around parking lots. Steps to protect existing trees and woodlands are outlined in *Section 7* of this Article.

Concern about the development impacts on safety, the future scenic character around the interchanges, and the environment prompted the creation of *Section 4*. *Section 4* anticipates growth and road widening are likely to occur along the Interchange Access Road. The intent of the setback and landscaping requirements is to maintain adequate space between the roadway and required sidewalks and street trees, in case additional right-of-way needs to be acquired. Trees and other landscaping are required within and around parking lots: for highway beautification as seen from the Interstate or Interchange Access Road; to improve safety by reducing diagonal travel across traffic patterns; and to minimize environmental impacts by reducing heat buildup and stormwater runoff volume and velocity. Furthermore, the

planting materials section requires that 50% of the new planting used be native to central Pennsylvania. Native species tend to be more tolerant of local environmental conditions and tend to be healthier, reducing the need for watering, pesticides, and nutrient applications. On the other hand, the standard still provides flexibility for other plant selections. Invasive species are excluded from use because of their nuisance capacity and adverse impact on other valued plants and animals.

Table 3

Applicability of Setbacks and Landscaping standards

Entire Zone	Corridors Only	Article Standard
		Setbacks and Landscaping
	X	4.1 Setbacks
	X	4.1.1 Setback Landscaping
	X	4.2 Sidewalks
	X	4.3 Parking lot Landscaping
X		4.4 Planting Materials

Section 4.1 Setbacks

- A. All proposed development located within the Interstate Highway and Interchange Access Road Corridors shall meet the following setback requirements:
 - 1. A minimum setback from the right-of-way edge of the Interchange Access Road is based on the existing right-of-way width, as determined by

SECTION 4. SETBACKS AND LANDSCAPING

Table 4. Dimensions not shown in *Table 4* are to be determined by the Township. (*Figure 3*)

Table 4
Minimum setback along Interchange Access Road

ROW Width	33 ft.	50 ft.	80 ft.	100 ft.
Setback size	83.5 ft.	75 ft.	60 ft.	50 ft.



Figure 3. *Minimum setback from Interchange Access Road based on existing right-of-way*

2. A minimum setback of 100 ft. from the right-of-way edge of the Interstate Highway.

- A. The setback requirements shall apply to all buildings, parking areas, and service or loading zones.

Section 4.1.1 Setback Landscaping

- A. All setbacks required under *Section 4.* above shall be landscaped in accordance with this subsection.
- B. All lots adjacent to an Interchange Access Road, shall provide a minimum of one (1) tree for each 40 linear feet of road frontage. Lots less than 40 ft. in width shall provide a minimum of one (1) tree.
- C. All trees required in *Section 4.1.1(B)* shall be located within the last 30 ft. of the setback established in *Section 4.1(A)*. *Figure 4* below.

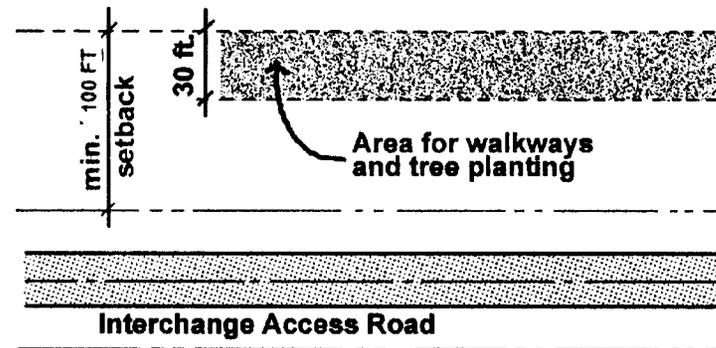


Figure 4. *Area for walkways and tree planting in setback from Interchange Access Road*

SECTION 4. SETBACKS AND LANDSCAPING

- D. All required trees planted within the setback shall be of a shade-type variety with a minimum caliper of 2.5 inches at planting and an expected height at maturity of at least 30 ft.

Section 4.2 Sidewalks and Pedestrian Walkways in Setbacks

- A. Within the setback established under *Section 4.1(A.1)* sidewalks or pedestrian walkways shall be provided within the last 30 ft. of the setback area. [See *Figure 4* in *Section 4.1.1(C.)*]
- B. Developers are encouraged to respond to topography and vegetation in the design of sidewalk or walkway layouts.

Section 4.3 Parking Lot Landscaping

- A. An approved landscape plan shall be required for all proposed parking lots within the Interchange Overlay Zone.
- B. Parking lots and service or loading zones for commercial or industrial uses shall be landscaped along the Interstate or Interchange Access Road frontages. Landscaping methods may include the use of walls, fences, hedges, shrubbery and earth berms that are a minimum of 4 ft. in height measured from finished grade. Existing vegetation may be counted towards

landscaping requirements at the discretion of the Township.

- C. Interiors of parking lots shall contain, at a minimum, the equivalent of one (1) tree for every 10 parking spaces. Instead of a uniform spacing of trees, they may be clustered or grouped with the approval of the Township.
- D. Planting islands within parking areas shall be no less than 160 sq. ft. per tree at a minimum width of 5 ft. (excluding curb) and shall be underlain by a minimum of 2 ft. of suitable planting soil free of construction debris. (*see Figure 5*) Developers are encouraged to reduce curb height, provide breaks in the curb, or eliminate curbs around planting islands so that they may be used as infiltration areas for stormwater reduction. Islands to be used for this purpose would be required to be at a lower grade to allow for the absorption of water.

SECTION 4. SETBACKS AND LANDSCAPING

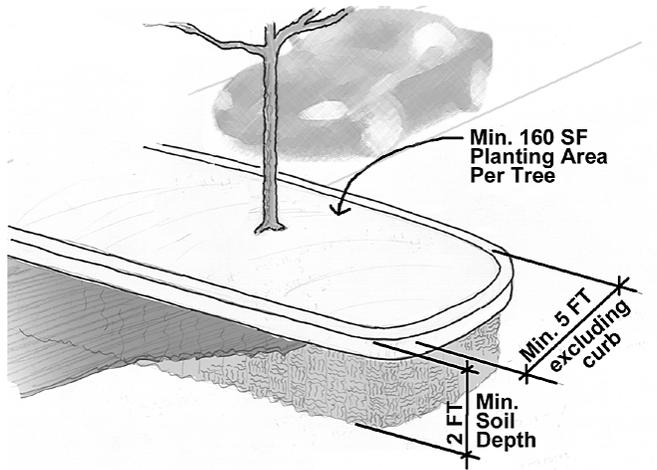


Figure 5. Example planting island requirements within parking areas

- B. At least 50% of the new vegetation on a lot in the Interchange Overlay Zone shall be native to the region. For purposes of this Article, native vegetation shall include, but not be limited to, plant materials set forth in *Section 13*.
- C. New vegetation shall be permanently maintained by the lot owner, and any plant material not living shall be replaced within one year.

- E. Any tree planted within a parking lot shall be of a non-columnar, shade-type variety with a minimum caliper of 2.5 inches at planting and an expected height of 30 ft. at maturity.

Section 4.4 Planting Materials

- A. All new vegetation on a lot in the Interchange Overlay Zone, including street trees, canopy trees, shrubs, bushes, hedges, flowers, plants, and groundcover shall be non-invasive species. For purposes of this Article, invasive species shall be avoided as outlined in *Section 12*.

SECTION 5. BUILDING AND SITE DESIGN

SECTION 5.

BUILDING AND SITE DESIGN

Commentary

How buildings look, their placement on a site, and their relationship to the immediate surroundings provide some of the most significant influences on the character of a community. Community character, especially along well-traveled routes, is an important contributor to property values and strong economic development. As such, *Section 5* aims to reinforce two of the main intentions of the Interchange Overlay Zone -- to provide for uniformity of standards and highway beautification. The standards provided here would be equitable for all who develop, but more importantly, they will provide a consistency to the development character thereby enabling the long-term preservation of property values and the promotion of economic development, both valid legal rationales for regulation by municipalities.

For example, expansive blank walls of retail uses facing a street contribute very little to the life and vitality of that location. Therefore, the standards here for ground-floor display windows and a primary entry facing the Interchange Access Road reflect retail building qualities found in Centre County's originally settled crossroads, villages, and towns (*see Figure 6*). Many zoning codes in other municipalities in Pennsylvania require new structures have features similar to those of existing or historic neighborhood buildings.



Figure 6. *Historic retail buildings in Boalsburg (left) and Lemont (right)*

Table 5

Applicability of Building and Site Design standards

Entire Zone	Corridors Only	Article Standard
		<u>Building and Site Design</u>
	X	5.1 Building Exteriors
	X	5.2 Building Placement and Site Design
	X	5.3 Underground Infrastructure

Section 5.1 Building Exteriors

All proposed development to be located within the Interstate Highway and Interchange Access Road Corridors shall meet

SECTION 5. BUILDING AND SITE DESIGN

the following requirements and shall be noted on development plans.

- A. All portions and sides of buildings shall utilize the same materials that are used on the designated front of the building. Unpainted concrete block, except when textured or tinted, shall not be used on building exteriors.
- B. Facades greater than 45 ft. in length shall employ one or more of the following architectural design strategies:
 1. Use of varying materials, textures or colors.
 2. Use of architectural detailing or elements, such as windows, colonnades, porches, porticos, columns, pilasters, cornices, and canopies.
 3. Varying horizontal elevations, bump-outs, and recesses.
- C. Facades of commercial buildings facing a public right-of-way or parking area shall have a minimum of 30% of the ground floor exterior area devoted to windows or display windows.

Section 5.2 Building Placement and Site Design

All proposed development to be located within the Interstate Highway and Interchange Access Road Corridors shall meet the following requirements.

- A. Developers are encouraged to avoid construction of buildings on high points of hills or ridges. Any building near a hilltop or ridgeline, or on upland flats of hilltops should be constructed so that its highest ground floor is approximately 25 ft. in elevation below the crest to avoid interruption of the natural crest of the hill or ridgeline and any vegetation along such hilltop or ridgeline. (see Figure 7)

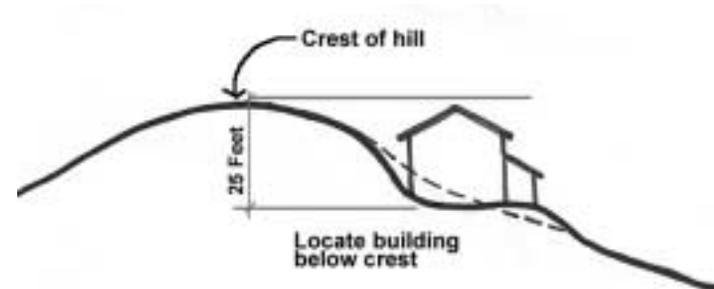


Figure 7. Elevated difference between hilltop and highest ground floor of building

- B. For properties with frontage along the Interchange Access Road, the building's primary facade shall be oriented towards the Interchange Access Road.

SECTION 5. BUILDING AND SITE DESIGN

- C. Bulk trash receptacles, mechanical equipment, outdoor storage, loading docks, and other accessory uses shall be located or screened in such a manner as to be hidden from all off-property views, including the Interstate Highway and Interchange Access Road.
 - 2. Agricultural uses requiring additional utility service provided such use is permitted in this Article.

Section 5.3 Underground Infrastructure

All proposed development located within the Interstate Highway and Interchange Access Road Corridors shall meet the following requirements:

- A. After the effective date of this Article, all utility lines serving uses including electric, telephone, data, and CATV, shall be installed underground, except as provided in *Subsection C* below.
- B. Junction boxes, transformers, and other apparatuses essential to utility service which, due to their function, are required to be located above-ground, shall be screened from view of public rights-of-way, as long as the height of screening will not affect motorists visibility.
- C. The following uses shall be exempt from the requirements of *Subsections A & B* above:
 - 1. Single-family dwellings constructed on lots subdivided prior to the effective date of this Article, and

SECTION 6. SIGNS AND LIGHTING

SECTION 6.

SIGNS AND LIGHTING

Commentary

Signs and lighting, like architecture, play an important role in shaping the image of a community. This Article's intention is to provide thoughtful, yet flexible regulations, to avoid the distracting clutter and glare, relating to safety and highway beautification issues that comes too often with new development.

Signs that are too numerous or too large can overwhelm the viewer and can even create dangerous conditions for motorists. The sign regulations herein provide for well-defined, consistent identification of individual businesses that can create a pleasing environment orienting people and enhancing the image of the community. Local governments in Pennsylvania have clear authority to regulate signs under the Municipalities Planning Code, and both federal and state court decisions have given municipalities ample authority to limit new signs, particularly billboards or off-premises signs, in a special district, such as this Interchange Overlay Zone. Moreover, the Pennsylvania Outdoor Advertising Act makes it clear that local governments have authority to adopt stricter sign control measures than contained in that legislation.

"Dark Sky" lighting regulations, which are growing in popularity, seek to avoid wasteful illumination that causes nighttime light pollution. The standards here will provide

appropriate illumination where needed for business identification and safety while avoiding over-illumination. Visibility of the nighttime sky is considered a special characteristic for this region and one that these regulations seek to preserve.

Table 6

Applicability of Signs and Lighting standards

Entire Zone	Corridors Only	Article Standard
		<u>Signs and Lighting</u>
X		6.1 Off-Premises Signs
X		6.2 On-Premises Signs
X		6.3 Exterior Lighting/Illumination

Section 6.1. Off-Premises Signs

No off-premises signage shall be permitted within an Interchange Overlay Zone, except for Tourist-Oriented Directional Signs and General Motorist Service Signs (*Figure 8*) as authorized by Penn DOT and/or the Federal Highways Administration in accordance with the standards contained in their Traffic Engineering and Operations Manual. Such signs shall comply with the following standards:

- A. Signs may be placed along major streets to direct vehicles or pedestrians for premises locations far removed or not easily seen from major streets.

SECTION 6. SIGNS AND LIGHTING

- B. Sign shall not extend into any street right-of-way, and may be permitted between the property line and building setback line; however, shall be no closer than 10 ft. from the edge of the right-of-way line, and shall not obstruct any clear-site distances.
- C. Signs shall be pole signs with a maximum sign area of 12 sq. ft. for each face, or total of 24 sq. ft. of sign area.
- D. Sign content shall be limited to: name of establishment, direction, and distance information.
- E. Signs shall not be located more than 500 ft. from business entrance or other street leading to the business, and shall be located on the same road site as the business entrance.
- F. No more than two (2) individual signs shall be erected within the 500 ft. area listed above in (E), and these signs shall be attached to a single ground support structure. When more than two (2) off-site directional signs are requested at a single location, all information shall be combined into one sign not exceeding an sign area of 25 sq. ft. for each face, or 50 sq. ft. of total sign area.



Figure 8. General motor service sign examples

Section 6.2 On-Premises Signs

A “Sign Plan” for all on-premises signage shall be submitted to the Township for review and approval in accordance with *Article X, Section 7* of this Ordinance. Such Plan shall include the size, location, material, color, and lighting designs for all permanent signs proposed (i.e., product identification signs, wall, ground and monument signs).

All signs proposed and installed within an Interchange Overlay Zone after the effective date of this Article shall conform to the standards set forth below, in addition to the regulations outlined in the *Benner Township Sign Ordinance No. 74, as amended*.

SECTION 6. SIGNS AND LIGHTING

A. General Regulations

In addition to the regulations outlined in the *Benner Township Sign Ordinance No. 74, as amended*, the following regulations shall also apply to all permitted sign uses:

1. No signs shall be placed within the clear sight triangle of any intersection; at any other location obstructing or impairing a motorist's clear vision; nor where it could be an impediment to pedestrian traffic.
2. No sign shall be painted, affixed, erected, or maintained on a tree, stone or other natural object.
3. No roof signs shall be permitted within the Interchange Overlay Zone. No sign shall be erected or maintained which prevents free ingress or egress from any door, fire escape, or roof.
4. "Sign area" shall be determined as the smallest triangle, rectangle or circle completely enclosing the surface area of a sign. All visible faces of a multi-faced sign shall be counted separately and totaled in calculating sign area. Three-dimensional signs shall be treated as double-faced signs. The total area shall be twice the area of the smallest triangle, rectangle

or circle totally circumscribing the sign in the plane of its largest dimension. (See definition located in the *Sign Ordinance No. 74, as amended*.)

5. The main supporting structure of all signs shall be a minimum of 15 ft. from the right-of-way edge the Interchange Access Road, or a distance equal to the height of the sign, whichever is greater, and at least 75 ft. from the right-of-way edge of the Interstate Highway.

B. Business Identification Signs

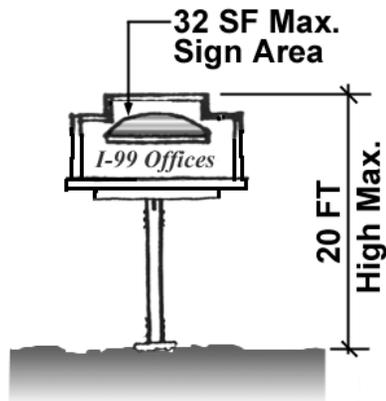
Where proposed in conjunction with a permissible use, business identification signs may be permitted within the Interchange Overlay Zone subject to the following requirements. Such signs shall be designed as freestanding/pole, ground/monument, wall sign, or canopy and may only be illuminated as provided in *Section 6.1(D)* of this Ordinance.

1. No more than one (1) freestanding/pole or ground/monument sign AND one (1) wall sign or up to two (2) canopy signs may be permitted on any lot. (One (1) wall sign may be permitted per business in a multi-tenant complex with public exterior access.)

SECTION 6. SIGNS AND LIGHTING

2. Freestanding/Pole Signs:

- a. Area: Maximum area is 32 sq. ft. or total of 64 sq. ft. for double-faced sign. No sign shall exceed 10 ft. in any dimension. (see Figure 9)
- b. Height: Maximum height is 20 ft. above the average finished grade of the proposed sign site.



GROUND POLE SIGN

Figure 9. Maximum ground pole sign standards

3. Monolith/Ground Signs:

- a. Area: Maximum area is 32 sq. ft. or total of 64 sq. ft. for double-faced sign. (see Figure 10) No sign shall exceed 10 ft. in any dimension.
- b. Height: Maximum height is 10 ft. above the average finished grade of the proposed sign site.



Figure 10. Maximum monolith sign standards

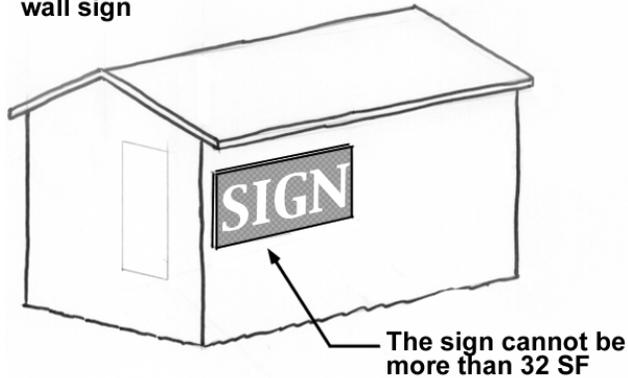
2. Wall Signs:

- a. Area: Maximum area is 32 sq. ft.
- b. Projection: Signs shall not project more than one (1) foot from the wall to which

SECTION 6. SIGNS AND LIGHTING

it is attached, nor extend above the top of that wall. (see Figure 11)

Each business is allowed one wall sign



WALL SIGN

Figure 11. Maximum wall sign standards

3. Canopy Signs:
 - a. Area: Each canopy sign shall not exceed 16 sq. ft. per premises.
 - b. Number: Up to two (2) canopy signs may also be used as business identification signs, but may only be used in lieu of wall signs.
 4. Arcade Signs: Arcade signs designed for pedestrian viewing may also be used to identify businesses in a multi-tenant complex. Such signs shall not exceed 2 sq. ft. in area and shall be limited to one (1) sign per business.
- C. Product identification signs may be permitted within the Interchange Overlay Zone subject to the following limitations:
1. Such signs shall be part of an approved “Sign Plan” for the site and/or use. Total area for all such signs is 32 sq. ft. per business
 1. No portable product identification signs shall be permitted.
 2. No product identification signs or devices shall be permitted to be placed outside of a business or facility, either on the building itself or on the same lot as the building advertising the variety, type, or pricing of available products or services, with the exception of the following:
 - a. Automobile service station signs advertising the price of different grades of gasoline or other fuels. Such signs shall be separate from other business identification signs and shall be limited to one (1) such sign per lot. No

SECTION 6. SIGNS AND LIGHTING

automobile station sign shall be greater than 5 ft. in height and 16 sq. ft. in area.

D. Sign Illumination

All illuminated signs, whether internally or externally lit, shall meet the following requirements:

1. Light sources for all externally illuminated signs shall be white light, be mounted from above to down-light the sign, and shall otherwise conform to the lighting standards of *Section 4.2* of this Article.
2. Internal illumination of signs shall be limited to the letters and logos of the sign face. All other portions of such signs shall have opaque surfaces.
3. All illumination shall be steady in nature. No flashing, blinking, fluctuating, or otherwise changing light source may be permitted, with the exception of approved time and temperature signs.

Section 6.3 Exterior Lighting/Illumination

A "Lighting Plan" for all exterior illumination shall be submitted to the Township for review and approval. Such plans shall include the type, size, and location of all lighting and lighting fixtures proposed for the site. Such plan shall

meet the plan specifications outlined in *Article X, Section* of this Ordinance.

All exterior lighting proposed, installed or replaced within an Interchange Overlay Zone, after the effective date of this Article, shall conform to the standards set forth below.

- A. All outdoor lighting fixtures, including without limitation, ground, pole, and building mounted fixtures and canopy lighting shall be of a design and type containing shields, reflectors, fracture panels or recessed light sources such that the cutoff angle is less than 90 degrees. For purposes herein, the cutoff angle is that angle formed by a line drawn from the direction of light rays at the light source and a line perpendicular to the ground from the light source above which no light is permitted. (*see Figure 12*)

SECTION 6. SIGNS AND LIGHTING

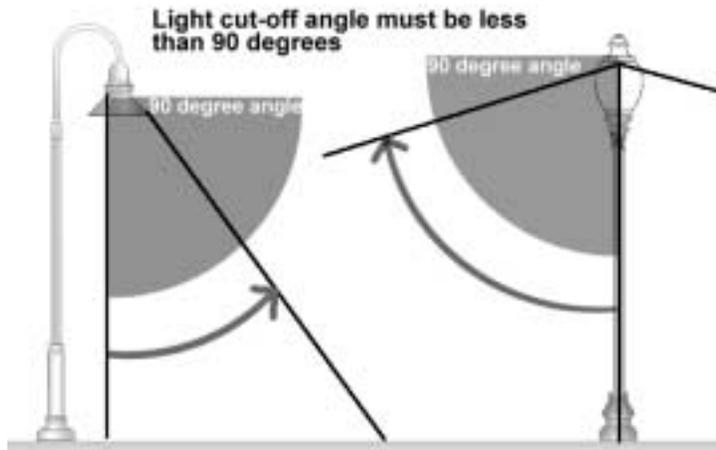


Figure 12. Outdoor fixtures showing cutoff angle of less than 90 degrees

- B. Notwithstanding *Subsection A* above, decorative fixtures producing a cutoff angle of greater than 90 degrees may be permitted upon approval by the Township. Decorative fixtures shall minimize glare through the use of either:
- 1) light dispersing globes and decorative shields; or
 - 2) a maximum of 2,700 lumens (equivalent to 150 watts incandescent).
- C. All light rays emitted from fixtures shall be directed toward the ground and shielded from shining toward the sky; provided, however, lighting used to directly

illuminate building facades, landscape features or site features may use lighting of up to a maximum 2,700 lumens (150 watt maximum incandescent) restricting illumination to the area or surface intended to be illuminated.

- D. Lighting fixtures for commercial or industrial uses shall have a maximum height of 25 ft.
- E. Lighting fixtures for residential use shall have a maximum height of 16 ft.
- F. All lighting fixtures not described in *Subsections D and E* above shall have a maximum height of 20 ft.
- G. The permitted illumination average shall be calculated in foot-candles and measured for the development area only, which shall include all paved and landscaped areas of the site.
- H. The maximum maintained illumination average shall not exceed 5.0 foot-candles for nonresidential sites and 2.0 foot-candles for residential sites. The minimum maintained illumination average shall not be less than 2.0 foot-candles for nonresidential sites and 0.5 foot-candles for residential sites.
- I. The maximum permitted illumination at the property line for nonresidential uses that are located adjacent to other nonresidential uses shall not exceed 0.5 foot-candles. All other uses including nonresidential uses

SECTION 6. SIGNS AND LIGHTING

adjacent to residential shall not exceed 0.2 foot-candles as measured at ground level.

- J. Lighting from all fixtures, including internally illuminated signs, which are to remain illuminated during non-operating hours shall be reduced by at least 75% of the lighting level used during hours of operation; provided, however, such reduction shall not apply to residential uses.
- K. Lighting fixtures used to illuminate flags, statues or any other objects mounted on poles, pedestals or platforms shall project a narrow cone of light for the purpose of focusing the light on the intended object and minimizing spill-light and glare.
- L. The following fixtures shall be excluded from the standards set forth in *Subsections A through I* above:
 - 1. Light fixtures producing light directly by the combustion of fossil fuels, such as kerosene lanterns and natural gas lamps.
 - 2. Temporary lights used for holiday decorations.
 - 3. Construction or emergency lighting, provided such lighting is temporary and is removed immediately upon completion of the construction work or abatement of the emergency.

- 4. PennDOT lighting in public rights-of-way may utilize a maximum height of 40 ft. and shall utilize full cut-off luminaries. External light shields shall be required if residential dwellings are adversely impacted by this height exception.
- 5. Lighting used for outdoor recreational areas such as playing fields and tennis courts as long as such lights are used during reasonable hours of operation. Such lights shall not exceed 80 ft. in height and shall be shielded so as to produce a maximum cut-off angle of less than 90 degrees and reduce off-site spillage to an absolute minimum, without reducing required lumens on the playing surface.

SECTION 7. ENVIRONMENTALLY SENSITIVE AREAS

SECTION 7.

ENVIRONMENTALLY SENSITIVE AREAS

Commentary

This region is fortunate to be blessed with high quality natural resources; however, as with any natural systems, they are vulnerable to degradation if altered too much. Three categories of environmentally sensitive areas are discussed in *Section 7* due not only to their contribution to our unique natural heritage, but also because of their relationship with public health and safety: steep slopes, streams and wetlands, and trees. For example, it is well recognized that trees have very important positive environmental aspects, such as controlling site runoff and erosion (and thus protecting surface water quality), assisting with infiltration for ground water recharge, improving air quality, and providing wildlife habitat. Requiring a Soils Report for steeper slopes ensures that no buildings will be erected on unstable soils.

The standards here provide straightforward explanations (versus complicated calculations) and flexibility in their implementation. For example, the slope percentage designations are derived directly from the Soil Survey of Centre County² and can be easily discerned on the soil survey map. Tree preservation standards vary the percent of woodland to be preserved based on the stand's maturity and size -- a

² Soil Conservation Service, United States Department of Agriculture. 1981. Soil Survey of Centre County.

greater percentage of larger, older woodland stands must be preserved.

The Municipalities Planning Code provides local jurisdictions in Pennsylvania with ample authority to protect trees and vegetation. The state's Stormwater Management Act also provides authority as well as allowing limits on earthmoving activities to "minimize the extent of disturbed lands." While the Municipalities Planning Code restricts Pennsylvania's local governments from imposing unreasonable restraints on logging practices, prohibiting development for a limited number of years after logging would be reasonable and is what is recommended here to prevent development from circumventing tree protection goals.

Table 7

Applicability of Environmentally Sensitive Areas standards

Entire Zone	Corridors Only	Article Standard
		Environmentally Sensitive Areas
X		7.1 Slope Restrictions
X		7.2 Stream and Wetland Buffers
X		7.3 Tree Preservation

Section 7.1 Slope Restrictions

- A. For the purposes of this Section, the slope(s) of a site shall be determined by utilizing the Soil Survey of Centre County.

SECTION 7. ENVIRONMENTALLY SENSITIVE AREAS

- B. In areas of steep slopes within an Interchange Overlay Zone, the following standards shall apply to all grading and development.
1. For slopes averaging 15% to 25% (a "D" slope as shown in the Soil Survey of Centre County), no more than 40% of such naturally occurring slopes shall be developed, graded, deforested, and/or stripped of vegetation.
 2. For slopes averaging greater than 25% (an "F" slope as shown in the Soil Survey of Centre County), no development shall be permitted, except upon submission of a report by a Professional Engineer certifying the steep slope may be safely developed. Furthermore, the owner and/or developer shall agree, as a condition of approval of the development plan, to hold the Township harmless from and against all claims or damages due to approval of such plan. If development is allowed to occur under this subsection, no more than 15% of such naturally occurring slopes shall be developed, graded, deforested, and/or stripped of vegetation.

Section 7.2 Stream and Wetland Buffers

- A. All improvements or land disturbances within an Interchange Overlay Zone shall be set back at least 100 ft. from the top of any stream bank or edge of any

wetland. Where application of this setback would render the site undevelopable, up to 35% of the setback may be used for conditional pervious surface uses, as approved by the Township. (*Figure 13*)

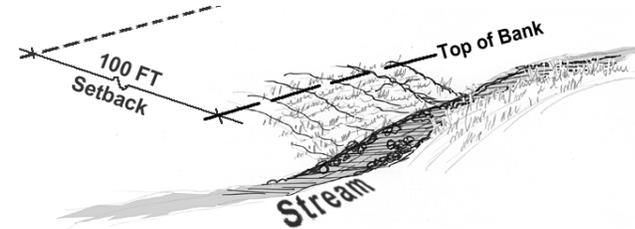


Figure 13. 100 ft. Setback from Streams or Wetlands

- B. All existing vegetation within the setback established in *Subsection A* above shall be preserved.
- C. Where stream crossings are approved pursuant to applicable federal and state stream encroachment regulations, the setback established in *Subsection A* above shall be waived as to the approved crossing; provided, however, the natural channel shall be preserved to the maximum extent possible.

SECTION 7. ENVIRONMENTALLY SENSITIVE AREAS

Section 7.3 Tree Preservation Standards

All plans for subdivision or development approval shall be accompanied by an accurate delineation of all woodland masses as defined below along with any calculations or mapping showing disturbed areas or areas of replacement plantings.

- A. No clearing or timbering of any wooded cover within an Interchange Overlay Zone shall occur unless approved by the Township pursuant to an approved plan.
- B. Where clear-cutting, timbering or logging on a site occurs, such site shall not be used for any other commercial purpose for a period of 7 years from the date such operations are completed, unless the regulations specified within this Article are followed.
- C. Existing wooded areas shall be defined as follows:
 1. A Mature Forest is an area of total tree canopy cover of 10,000 sq. ft. or greater and consisting of 50% or more canopy trees having a 10 inch or greater diameter breast height.
 2. A Young Woodland is an area of total tree canopy cover of 10,000 sq. ft. or greater and consisting of 70% or more canopy trees having 2.5 inch or greater diameter breast height.
 3. A Grove is an area of planted material consisting of 8 or more trees having a 10-inch or greater diameter breast height.
- D. Existing wooded areas may be cleared or developed in accordance with the following standards:
 1. No more than 40% of the portion of any Mature Forest shall be cleared or developed.
 2. No more than 60% of the portion of any Young Woodland shall be cleared or developed.
 3. No more than 50% of the portion of any Grove shall be cleared or developed.
- E. Notwithstanding *Subsection D* above, approved tree clearing percentages may be increased subject to the following reforestation standards:
 1. An additional 10% of the total Mature Forest may be cleared provided trees are replaced elsewhere on the same site at the rate of 1.2 times the additional disturbed acreage. [For example, up to 4 acres, or 40% of a ten-acre Mature Forest, may be cleared under an approved development plan. An additional one-acre, or 10% of the original 10 acres, could be cleared if the developer reforested 1.2 acres (1.2 times 1 additional disturbed acre) elsewhere on the site.] (*Figure 14*)

SECTION 7. ENVIRONMENTALLY SENSITIVE AREAS

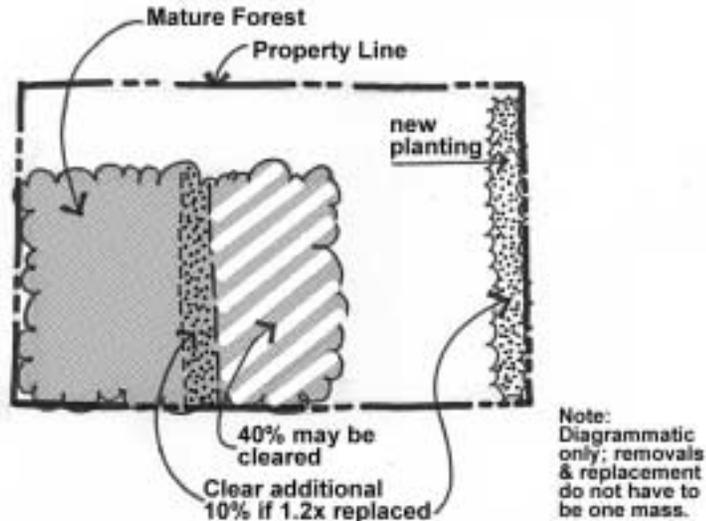


Figure 14. Example tree clearing and replacement scenario with mature forest and 50% removal

2. An additional 10% of the total Young Woodland may be cleared provided trees are replaced elsewhere on the same site at the rate of one (1) times the additional disturbed acreage. [For example, up to six acres, or 60% of a ten-acre Young Woodland, may be cleared under an approved development plan. An additional one-acre, or 10% of the original 10 acres, could be cleared if the developer reforested one acre (1 times 1 additional disturbed acre) elsewhere on the site.]
3. An additional 10% of the total Grove area may be cleared provided trees are replaced elsewhere on the same site at the rate of one (1) times the additional disturbed acreage. [For example, up to 1/4 acre, or 50% of 1/2 acre Grove, may be cleared under an approved development plan. An additional 2,178 sq. ft. or 10% of the original 1/2 acre could be cleared if the developer replants 2,178 sq. ft. (1 times the additional disturbed area) elsewhere on the site.]
- E. The developer shall be required to submit a plan for reforestation to the Township for review and approval. A Professional Landscape Architect, forester, or other individual of demonstrated qualifications shall prepare such plan. The reforestation proposed shall emulate conditions of native forests and shall address soil type, solar orientation, slope, and other applicable conditions.

SECTION 8.

ADMINISTRATION

Section 8.1 Applicability of Commentary

"Commentary" provided for in each Section of this Article is included for general guidance purposes for the application and use of the standards set forth in this Article. Commentary discussions shall not be interpreted or construed in any way to be the basis of any standard.

Section 8.2 Severability

If any Section of this Article or the application thereof to any person or circumstance shall be deemed invalid or unenforceable, the remainder of this Article and its application to other persons or circumstances shall not be affected by such partial invalidity, but shall be enforced to the fullest extent permitted by law as though such invalid or unenforceable section was never a part of this Article.

SECTION 9.

DEFINITIONS

Section 9.1 Interpretations

Unless otherwise specified or defined herein, all definitions shall have the meanings outlined and contained in *Article XII* of this *Benner Township Zoning Ordinance*.

FOOTCANDLE – A unit of illumination produced on a surface, all points of which are one (1) foot from a uniform point source of one (1) candle.

INTERCHANGE ACCESS ROAD – The highest order road serving an interchange and providing access to the Interstate Highway (i.e., Shiloh Road, State Route 150).

INTERCHANGE OVERLAY ZONE – The area located within a one (1) mile radius of an Interstate interchange measured from the geographical center of such interchange.

INTERSTATE CORRIDOR – The area located within one-quarter (1/4) mile along each side of the Interstate Highway and the Interchange Access Road.

INTERSTATE HIGHWAY – Interstate 99

LUMEN – A unit of luminous flux. One (1) footcandle is one (1) lumen per square foot. The lumen output values shall be the initial lumen output ratings of a lamp.

LUMINAIRE – A complete lighting unit consisting of a light source and all necessary mechanical, electrical, and decorative parts.

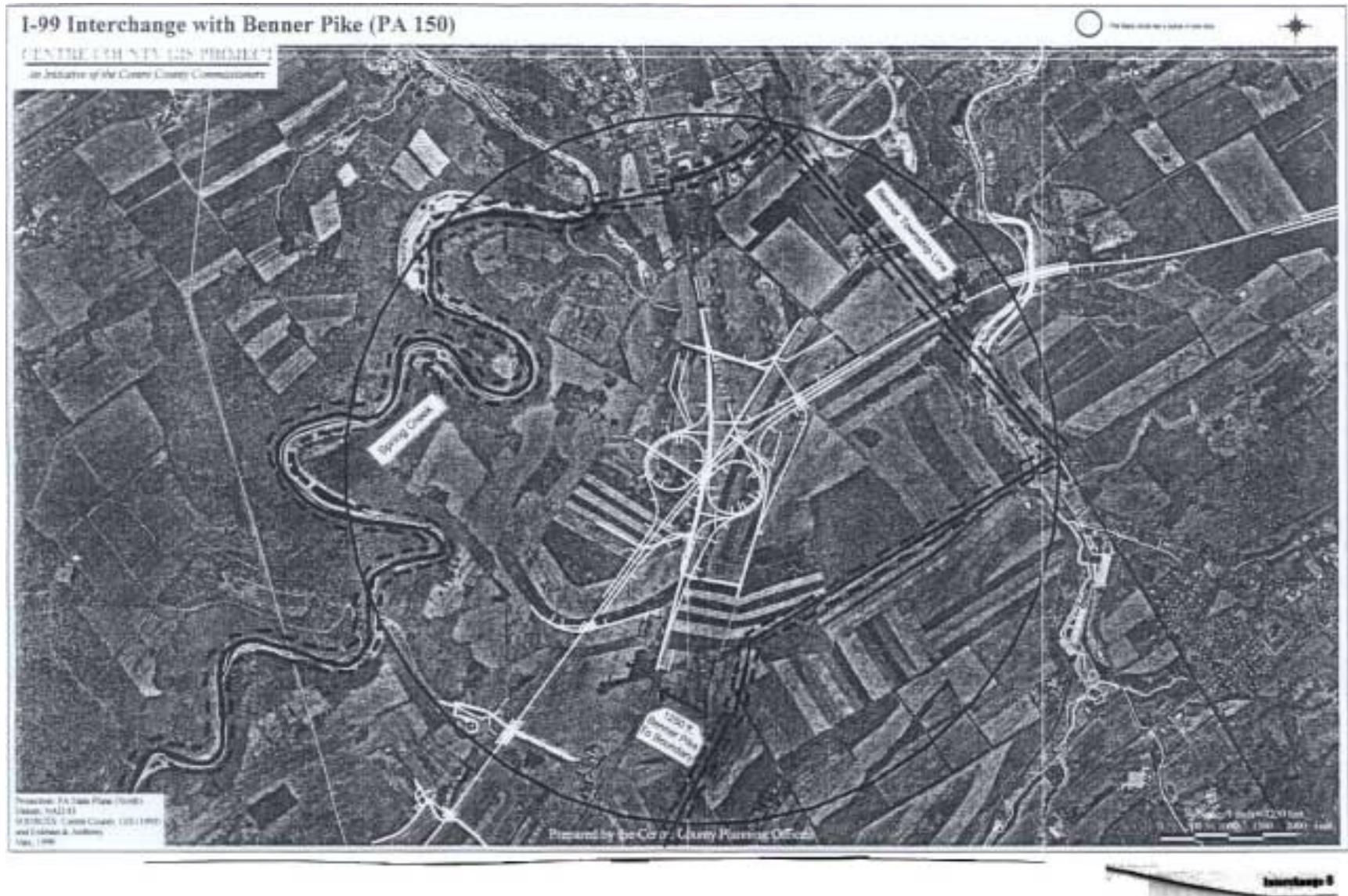
VEHICULAR ACCESS POINT: A vehicular access point approved either the state or local government with a permit.

SECTION 10. INTERCHANGE MAPPING

SECTION 10. INTERCHANGE MAPPING



SECTION 10. INTERCHANGE MAPPING



SECTION 11. TRAFFIC IMPACT STUDY REQUIREMENTS

SECTION 11.

TRAFFIC IMPACT STUDY REQUIREMENTS

Where required under the terms of this Article, a Traffic Impact Study shall be prepared and submitted to the Township for review prior to the approval of development within the Interchange Overlay Zone. Studies shall meet the following requirements:

11.1 Impact Study Contents and Scope

Prior to collection of any data and preparation of any analyses for the Traffic Impact Study, a meeting shall be convened with the Township, the developer, the developer's transportation consultant/specialist, and Penn DOT, where applicable, to identify the specific project area and discuss the Study scope of work, including all assumptions to be used in the study, (i.e. build-out year, phases of development, background traffic growth rate, etc.) At a minimum, the Study shall include the following items.

- A. A description of the proposed development in terms of land use type and size.
- B. An inventory and analysis of existing transportation and traffic conditions within the identified study area, including:
 - 1. Roadway network and traffic control;

- 2. Existing traffic volumes during peak hours and average daily traffic volumes;
 - 3. Planned transportation improvements by other parties;
 - 4. Intersection levels of service;
 - 5. Roadway levels of service;
 - 6. Other measures of roadway adequacy, (i.e. lane widths, traffic signal/ traffic control warrants, vehicle delay studies, length queues, etc;) and
 - 7. Pedestrian/bicycle and public transit facilities
- C. An assessment of projected site-generated traffic volumes throughout the study area in terms of:
- 1. Peak hours and average daily traffic;
 - 2. Approach/departure distribution, including method of determination; and
 - 3. Site traffic volumes on the Interchange Access Road

SECTION 11. TRAFFIC IMPACT STUDY REQUIREMENTS

- D. An analysis of future traffic conditions in the study area, with and without the proposed development, including:
1. Future design year(s), including phases of development;
 2. Intersection levels of service;
 3. Roadway levels of service;
 4. A pavement analysis of roadways projected to experience significant increases in peak hour and/or average daily traffic volumes; and
 5. Other measures of roadway adequacy, (i.e. lane widths, traffic signal/traffic control warrants, vehicle delay studies, and length of queues, etc.).
- E. A description of projected levels of service and their compliance with standards for traffic capacity of roadways and intersections as outlined in *Section II* below.
- F. A description of the proposed site plan, including an assessment of the:
1. On-site circulation plan showing parking locations and dimensions, access to loading areas, and proposed interior circulation routes and traffic control; and
 2. Driveway access plans showing the location of all existing driveways and new access intersections including geometric conditions and proposed methods of traffic control.
- G. A qualitative analysis of transportation demand management measures to be implemented for the purpose of facilitating alternate modes of travel. Analysis shall address public transit, pedestrian and bicycle traffic, and other modes of transportation to be provided in the development as per the requirements in *Section 3.2*.

11.2 Standards for Traffic Capacity and Level of Service

Roadways and intersections shall be designed for traffic capacity as specified below, unless approved otherwise by the Township. All references to level of service shall be as defined by the most recent addition of the *Highway Capacity Manual, Special Report 209*, published by the *Transportation Research Board*.

- A. Level of service shall be determined for a future design year(s) coinciding with completion of the development and all applicable PennDOT requirements.

SECTION 11. TRAFFIC IMPACT STUDY REQUIREMENTS

- B. New unsignalized intersections or driveways shall be designed for level of service "C" or better for each traffic movement.
- C. New signalized intersections shall be designed for level of service "C" or better.
- D. Existing intersections impacted by development traffic shall maintain a minimum level of service "D."
- E. Roadway sections shall be designed for a minimum level of service "C."
- F. Sight distance at driveways and new intersections shall meet standards specified by PennDOT regulations.

SECTION 12. INVASIVE PLANTS

SECTION 12.

INVASIVE PLANTS

Invasive plants displace naturally occurring vegetation and, in the process, upset nature's balance and diversity. Invasive plants share the following characteristics:

- ❖ Rapid growth and prolific reproductive capabilities.
- ❖ Highly successful seed dispersal, germination, and colonization processes.
- ❖ Rampant spreading that takes over native species
- ❖ Very costly to control.

In general, aggressive, non-native plants have no enemies or controls to limit their spread. Those listed below are not to be planted in the Interchange Overlay Zone:

Trees

<u>Botanic Name</u>	<u>Common Name</u>
<i>Acer platanoides</i>	Norway Maple
<i>Acer pseudoplatanus</i>	Sycamore Maple
<i>Ailanthus altissima</i>	Tree-of-Heaven
<i>Elaeagnus angustifolia</i>	Russian Olive
<i>Populus alba</i>	White Poplar
<i>Ulmus pumila</i>	Siberian Elm
<i>Viburnum lantana</i>	Wayfaring Tree

Shrubs and Vines

<u>Botanic Name</u>	<u>Common Name</u>
<i>Berberis thunbergii</i>	Japanese Barberry

<i>Elaeagnus umbellata</i>	Autumn Olive
<i>Euonymus alatus</i>	Winged Euonymus
<i>Ligustrum vulgare</i>	European Privet
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera maackii</i>	Amur Honeysuckle
<i>Lonicera morrowii</i>	Morrow's Honeysuckle
<i>Lonicera tatarica</i>	Tartarian Honeysuckle
<i>Lonicera x-bella</i>	Hybrid Honeysuckle
<i>Lythrum salicaria</i>	Purple Loosestrife (herbaceous)
<i>Morus alba</i>	White Mulberry
<i>Morus rubra</i>	Red Mulberry
<i>Phylostachys aubea</i>	Bamboo
<i>Rhamnus cathartica</i>	Common Buckthorn
<i>Rhamnus frangula</i>	Glossy Buckthorn
<i>Rosa multiflora</i>	Multiflora Rose
<i>Viburnum opulus</i>	European Highbush Cranberry

SECTION 13. PLANTS NATIVE TO CENTRAL PENNSYLVANIA

APPENDIX 13.

PLANTS NATIVE TO CENTRAL PENNSYLVANIA

Native plants appropriately selected for the site conditions provide a beautiful, hardy, low maintenance landscape while benefiting the environment. Once established, native plants save time and money by eliminating or significantly reducing the need for fertilizers, pesticides, water, and maintenance equipment.

The plants listed below are suited for USDA Hardiness Zone 6 (or colder zone) and/or are shown in plant book maps as native to central PA:

Trees

<u>Botanic Name</u>	<u>Common Name</u>
<i>Acer spp.</i>	Maple species
<i>Amelanchier spp.</i>	Serviceberry species
<i>Alnus rugosa</i>	Hazel Alder
<i>Carpinus caroliniana</i>	American Hornbeam
<i>Carya spp.</i>	Hickory species
<i>Celtis occidentalis</i>	Common Hackberry
<i>Cercis canadensis</i>	Eastern Redbud
<i>Cornus alternifolia</i>	Pagoda Dogwood
<i>Cornus florida</i>	Flowering Dogwood
<i>Fagus grandifolia</i>	American Beech
<i>Fraxinus spp.</i>	White, Black & Green Ash
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Liriodendron tulipifera</i>	Tuliptree
<i>Nyssa sylvatica</i>	Black Tupelo

<i>Ostrya virginiana</i>	American Hophornbeam
<i>Pinus strobus</i>	Eastern White Pine
<i>Pinus resinosa</i>	Red Pine
<i>Platanus occidentalis</i>	American Planetree
<i>Populus spp.</i>	Aspen species
<i>Prunus spp.</i>	Pin and Black Cherry; Chokeberry
<i>Quercus spp.</i>	Black, White, Northern Red, Scarlet, Pin & Chestnut Oak
<i>Rhus spp.</i>	Sumac species
<i>Salix discolor; nigra</i>	Pussy and Black Willow
<i>Sassafras albidum</i>	Common Sassafras
<i>Tilia americana</i>	American Basswood (Linden)
<i>Tsuga canadensis</i>	Canada Hemlock

Shrubs

<u>Botanic Name</u>	<u>Common Name</u>
<i>Alnus serrulata</i>	Common alder
<i>Aronia spp.</i>	Red, Black and Purplefruit Chokeberry
<i>Comptonia peregrina</i>	Sweetfern
<i>Cornus spp.</i>	Dogwood species
<i>Corylus spp.</i>	Filbert species
<i>Hydrangea arborescens</i>	Smooth Hydrangea
<i>Hypericum prolificum</i>	Shrubby St. Johnswort
<i>Ilex verticillata</i>	Common Winterberry Holly
<i>Kalmia latifolia</i>	Mountain Laurel
<i>Lindera benzoin</i>	Common Spicebush
<i>Rhododendron arborescens</i>	Sweet Azalea
<i>Rhododendron nudiflorum</i>	Pinxterbloom Azalea
<i>Rhododendron roseum</i>	Roseshell Azalea

SECTION 13. PLANTS NATIVE TO CENTRAL PENNSYLVANIA

Rubus spp. Blackberry, Raspberry, &
Thimbleberry
Sambucus spp. Elder species
Vaccinium spp. Lowbush & Highbush
Blueberry; Deerberry
Viburnum spp. Mapleleaf, Hobblebush, &
Cranberrybush Viburnum

Or other plant materials native to Central Pennsylvania as listed in reference books, such as:

Native Plant References (or newer editions):

Hightshoe, Gary L. 1988. Native Trees, Shrubs, and Vines for Urban and Rural America. New York: Van Nostrand Reinhold.

Little, Elbert L. 1993. The Audubon Society Field Guide to North American Trees. New York: Alfred A. Knopf.

Otteson, Carole. 1995. The Native Plant Primer. New York: Harmony Books.

Petrides, George A. 1998. Peterson Field Guide to Eastern Trees. New York: Houghton Mifflin.

Taylor, Patricia. 1996. Easy Care Native Plants: a guide to selecting and using beautiful American flowers, shrubs, and trees in gardens and landscapes. New York: Henry Holt and Company.

Sternberg, Guy and Jim Wilson. 1995. Landscaping with Native Trees. Shelburne, VT: Chapters Publishing, Ltd.

Further information about the use of native plants can be found on these Web Sites:

From the U.S. E.P.A:
A Source Book on Natural Landscaping for Public Officials
<http://www.epa.gov/glnpo/greenacres/toolkit/index.html>

From the Alliance for the Chesapeake Bay:
Using Beneficial Plants
<http://www.acb-online.org/beneplant.htm>

SECTION 3. Repealer. Any ordinance or part of any ordinances with the terms of this ordinance are hereby specifically repealed.

SECTION 4. Severability. The provisions of this ordinance shall be severable and if any of its provisions shall be held to be unconstitutional, illegal, invalid or otherwise unenforceable by a court of competent jurisdiction, the remaining portions hereof shall not be affected thereby.

SECTION 5. Effective date. This ordinance shall become effective five days after its enactment and adoption.

ENACTED AND ORDAINED, this 6th day of May 2002.

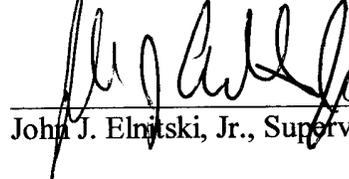
TOWNSHIP OF BENNER



Richard C. Lahr, Chairman

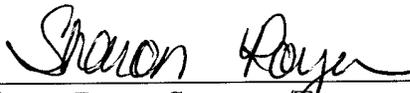


David C. Breon, Vice Chairman



John J. Elmiski, Jr., Supervisor

ATTEST:



Sharon Royer, Secretary/Treasurer

(SEAL)