

**DRAFT** April 2, 2008

**Berea Bypass Overlay District**

## **Design Guidelines**



**B e r e a , K e n t u c k y**



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## **Berea Bypass Overlay District**

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# **Design Guidelines**



**Berea Planning Commission  
City of Berea, Kentucky**

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Landscape Architecture  
Historic Landscape Preservation

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## The Intent of the Overlay District Design Guidelines

The intent of the Berea Bypass Overlay District Design Guidelines is to influence development in the Bypass corridor in ways that will maximize the corridor as an asset to the community. This intent will be met through the following goals:

- To encourage high quality development that is appropriate to a very important transportation corridor in Berea and that is in accordance with Berea's Comprehensive Plan and Berea's Land Management and Development Ordinance.
- To create guidelines that will illustrate and communicate the intent of previously – adopted ordinances, such as the Access Management Ordinance, and the Land Management and Development Ordinance, as they apply to the Bypass Corridor.
- To set and communicate standards for site plans including landscaping, buffering, signs, lighting, circulation, parking, building placement, and building orientation, within the Bypass Corridor.

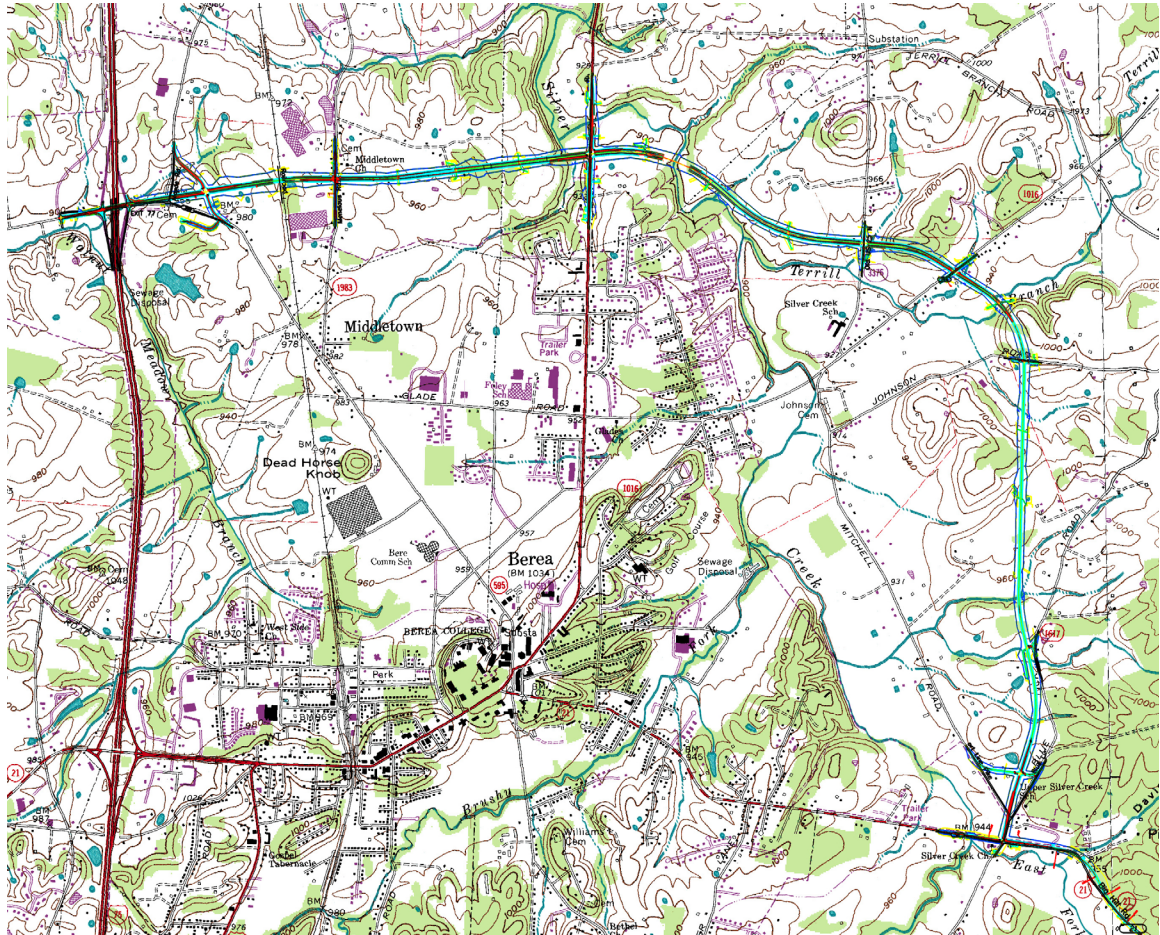
The term Bypass Corridor is used throughout this document to describe the land area through which the Bypass road passes. Description of the corridor does not imply that the all areas shown on maps and in photographs on pages one through 14 in this document are subject to design guidelines. The design guidelines are described beginning on page 15 of this document. They apply to areas defined specifically in the guidelines.



## Corridor Description

### Corridor Location and Extent

The Berea Bypass Corridor extends from Interstate 75 to Kentucky 21 in an arc around the northeastern part of Berea. The corridor area is shown in **Figure 1**.



**Figure 1. The Bypass corridor extends from Interstate 75 to Highway 21.**

### The Existing Landscape of the Corridor

The corridor includes a variety of existing land use conditions. The description that follows gives a brief summary of the types of landscapes that are experienced in the corridor.

Beginning at Interstate 75, the corridor includes the Kentucky Artisans Center property on the inside and the Berea Industrial Park on the outside. The Artisans Center property is buffered by a wooded area, and existing development in the Industrial Park is buffered by a partially-wooded valley that is approximately one-quarter mile wide. **Figures 2 and 3.**



**Figures 2 and 3.**

The corridor will cross the newly-configured intersection of the Bypass with Mayde Road and Walnut Meadow Pike. The undeveloped section of the Industrial Park continues on the outside, with Berea College property on the inside. The Berea College property includes several unused former residential lots that have been zoned for commercial use. **Figures 4 and 5.**



**Figures 4 and 5.**

The corridor crosses the CSX railroad and the Bypass road will travel between the NAACO and PPG properties, which are both within the corridor area. **Figures 6 and 7.**



**Figures 6 and 7.**

The corridor then crosses Menelaus Road and passes through farmland for nearly a mile before crossing Richmond Road just south of Silver Creek. **Figures 8 and 9.**



**Figures 8 and 9.**

The corridor continues through farmland for another mile between Richmond Road and Old Kingston Road. One-quarter mile into this stretch, the corridor crosses Silver Creek, which then parallels the Bypass on the inside of the corridor. Existing residential developments are within the inside edge of the corridor for the last half of the this segment and are within the outside edge of the corridor for the last quarter of the segment. **Figures 10, 11, and 12.**



**Figures 10.**



**Figures 11 and 12.**



A corridor segment less than one-half mile long extends between Old Kingston Road and Highway 1016. This stretch includes residential development on both sides of the Bypass and continues to include Silver Creek within the inside edge of the corridor. **Figure 13.**



**Figure 13.**

The Bypass and the corridor surrounding it are aligned in a mainly east-west direction from Interstate 75 to Highway 1016. From Highway 1016 the corridor turns south until it reaches Highway 21.

South of Highway 1016, the corridor includes farmland with a few rural residential properties. About on-quarter mile beyond 1016, the corridor crosses Terrill Branch of Silver Creek. As it passes through rolling farmland, the corridor then crosses Johnson Road.

**Figures 14, 15, and 16.**



**Figure 14.**



**Figures 15 and 16.**

The corridor passes through farmland for one mile before it converges with Blue Lick Road. This section of the corridor includes clear views of Indian Fort Mountain and the knobs to its north.

**Figures 17 and 18.**



**Figure 17.**



**Figure 18.**

The last three-quarter mile segment of the corridor continues with mostly wooded land at the base of the knobs on the outer part of the corridor and farmland on the inner side of the corridor. The corridor ends at Highway 21.

**Figure 19, 20, 21, and 22.**



Figure 19.



Figures 20 and 21.



Figure 22.

The landscape of farmland with views of the knobs to the east are the predominant positive landscape characteristics of the corridor. This landscape character should be preserved as future development occurs. Where commercial, industrial, or residential uses occur, those land uses should be buffered from the Bypass by a green corridor that brings visual continuity to the entire length of the corridor. New development within the corridor area should exemplify high standards of site and building design.

## Berea Ordinances and Planning Documents that Relate to Land Development in the Bypass Corridor

Three existing planning documents have provisions that specifically guide aspects of land use and land development in the Bypass Corridor. The **Comprehensive Plan** expresses the general intent for development in the Bypass Corridor and other future transportation corridors. The **Land Management and Development Ordinance** prescribes the locations in which different land uses are permitted, general site development guidelines for each land use, landscaping standards, sign standards, and environmental protection standards. The **Access Management Ordinance** guides the development of streets and property access so that safe and orderly circulation patterns result.

### Berea Comprehensive Plan

Berea's Comprehensive Plan expresses the community's intent for the Bypass Corridor. This intent is described in the following excerpt from page 87 of the Comprehensive Plan.

"...the Berea Bypass will be designated as an Overlay Transportation Corridor that will provide an additional layer of protection beyond that provided by normal land use regulations. This designation will require revisions to the Development Ordinance regarding building setbacks, landscape requirements, hike/bike paths, access management, etc."

Specific description of the intent for the Bypass Corridor in the Comprehensive Plan include the following points:

- Designation of a corridor in which additional development requirements will be detailed.
- The provision of access roads that will serve several properties, connect to future development, and funnel traffic onto a limited number of access points on existing roads.
- Construction of a hike/bike path that will be part of the pathway system for the entire city that is described elsewhere in the Comprehensive Plan.
- Guidelines for landscape buffers and landscaping requirements on properties developed within the corridor.
- Provision for commercial clusters at the intersections of Richmond Road, Highway 1016, and Highway 21.
- Other land uses are to include residential, agricultural, conservation, or public use.

The Future Land Use Map in the Comprehensive Plan locates six different types of land use that are recommended along the corridor. These include commercial, industrial, institutional, medium-density residential, low-density residential and agricultural uses. In general, land uses are intended to be more intensive in the east-west part of the corridor, and less intensive in the north-south part of the corridor. **Figure 23.**

Bikeways are shown on the Park, Trail, Conservation, and Greenspace Plan in the Comprehensive Plan. A bikeway is proposed on this plan for the entire length of the Bypass. Other proposed bicycle paths would link with the path on the Bypass at Menelaus Road, Richmond Road, Silver Creek, and Highway 21. In addition, there is a city park adjacent to the Bypass and a loop of Silver Creek in the corridor between Richmond Road and Old Kingston Road. **Figure 24.**

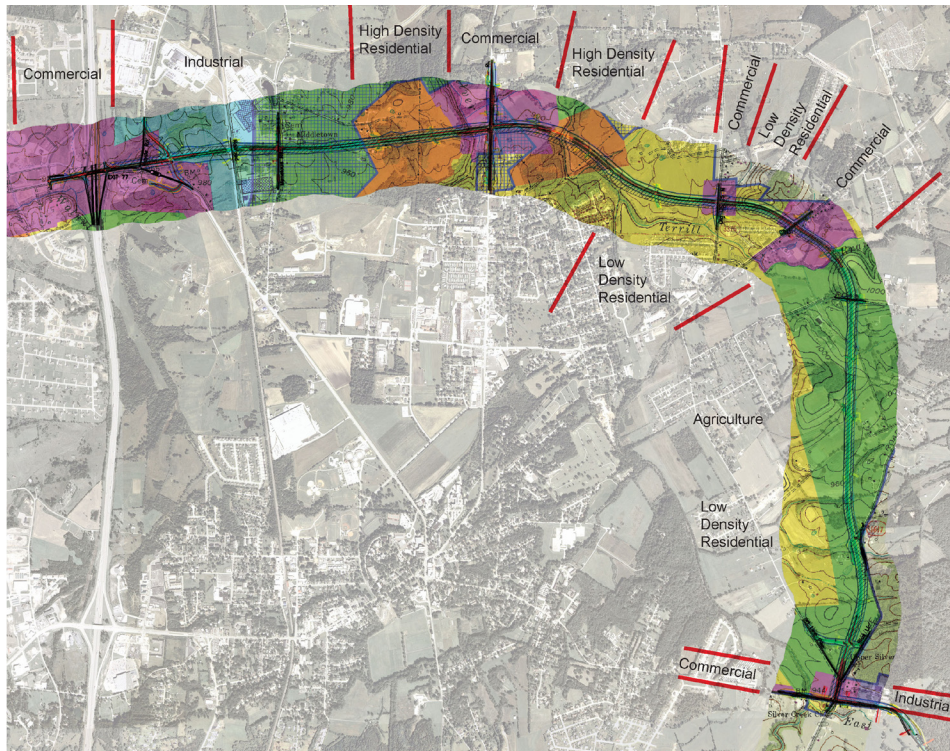


Figure 23. Future land use in the corridor.

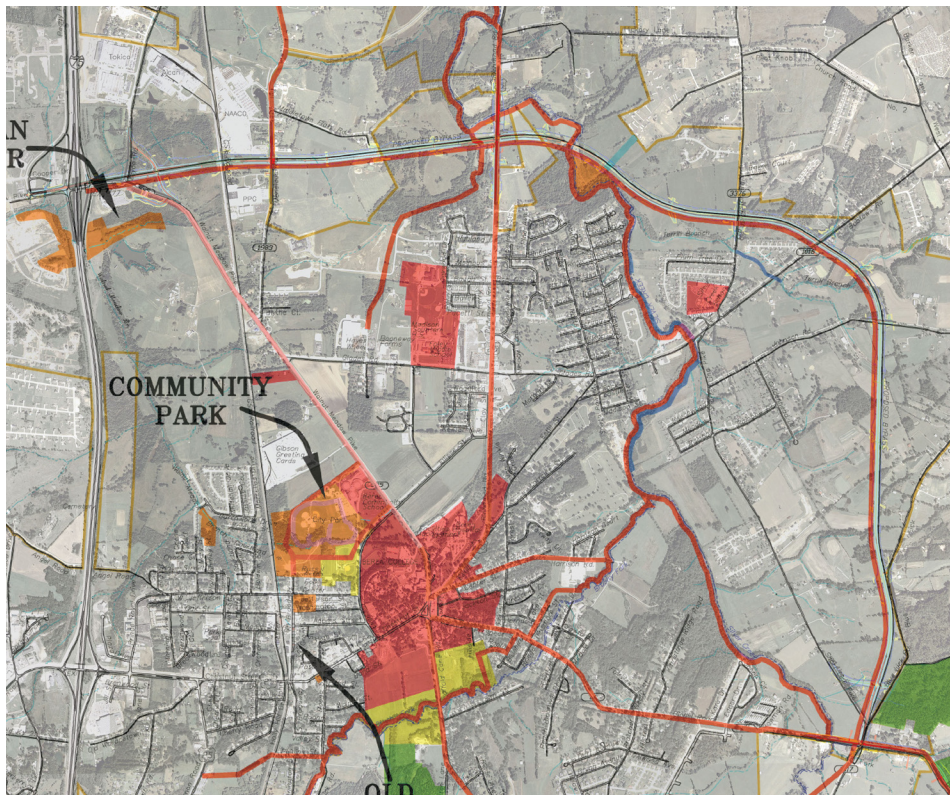


Figure 24. Bikeways proposed in the Berea Comprehensive Plan.

### Berea Land Management and Development Ordinance

The Land Management and Development Ordinance (LMDO) is the document with the most wide-ranging effect on development in the Corridor. The LMDO specifies land use zones; conservation measures, including protection of stream corridors; and site development regulations, including setbacks, parking and circulation requirements, signs, and lighting.

Zoning and land use will not be specifically addressed in the Corridor Management Plan, although specific setback and buffering requirements will be specified for different land uses.

Site development regulations in the LMDO are the part of the ordinance that will be most modified by the Corridor Management Plan, particularly in regard to access, parking, landscaping, signs, and building placement.

Blue line stream corridors according to the LMDO are to be buffered from development for 100 feet on each side of the stream centerline. Blue line streams in the Bypass Corridor are shown in **Figure 25**.

### Berea Access Management Ordinance

The intent of the Berea Access Management Ordinance (BAMO) is to "...provide and manage access to land development, while preserving the regional flow of traffic in terms of safety, capacity, and speed." The BAMO classifies roads in Berea and then sets different levels of intersection spacing and other road design parameters for each class of road. Roads in the Bypass corridor are classified as follows and are shown in **Figure 26**:

- Class 1A: Berea Bypass
- Class 1: Walnut Meadow Pike, Richmond Road, Highway 1016, and Highway 21
- Class 2: Menelaus Road
- Class 3: Mayde Road
- Class 4: Old Kingston Road, Johnson Road, Blue Lick Road, and Davis Hollow Road

Major provisions of the BAMO that affect land development in the Bypass Corridor include access spacing, corner clearance, provision of joint or cross access for adjacent parcels, and building and parking setbacks from rights-of-way.

**Minimum spacing for intersections** is 600 feet on Class 1 roads with a speed limit of 45 miles per hour or less, 450 feet on Class 2 roads, 300 feet on Class 3 roads, and 150 feet on Class 4 roads. Minimum spacing is measured from the closest edge of pavement to the next closest edge of pavement on intersecting streets or drives.

**Joint use and cross access drives**, and pedestrian access between properties are to be provided to allow circulation between sites along roads of Class 1 or 2, or on properties that are classified as major traffic generators, such as shopping centers or office parks, on any road class. Previously-existing driveways are to be abandoned after constructing joint access to properties.

The **minimum frontage** for any parcel on roads of Class 1 or 2 must be equal to or greater than the minimum connection spacing standards for the access class. For example, a parcel on a Class 1 road with a speed limit of 45 miles per hour or less must have a frontage of at least 600 feet. Individual properties with a single tax code number at the time of adoption of the BAMO will be allowed one access point on adjacent Class 1 or 2 roads if they meet the minimum frontage requirements. Parcels with large frontages may be allowed additional access points if they meet the minimum spacing requirements. Parcels with frontage smaller than the minimum connection spacing may not be permitted a direct connection where the Planning Commission determines that alternative reasonable access is available. Properties created by the subsequent subdivision of a parcel must be accessed by the access point for the original lot.

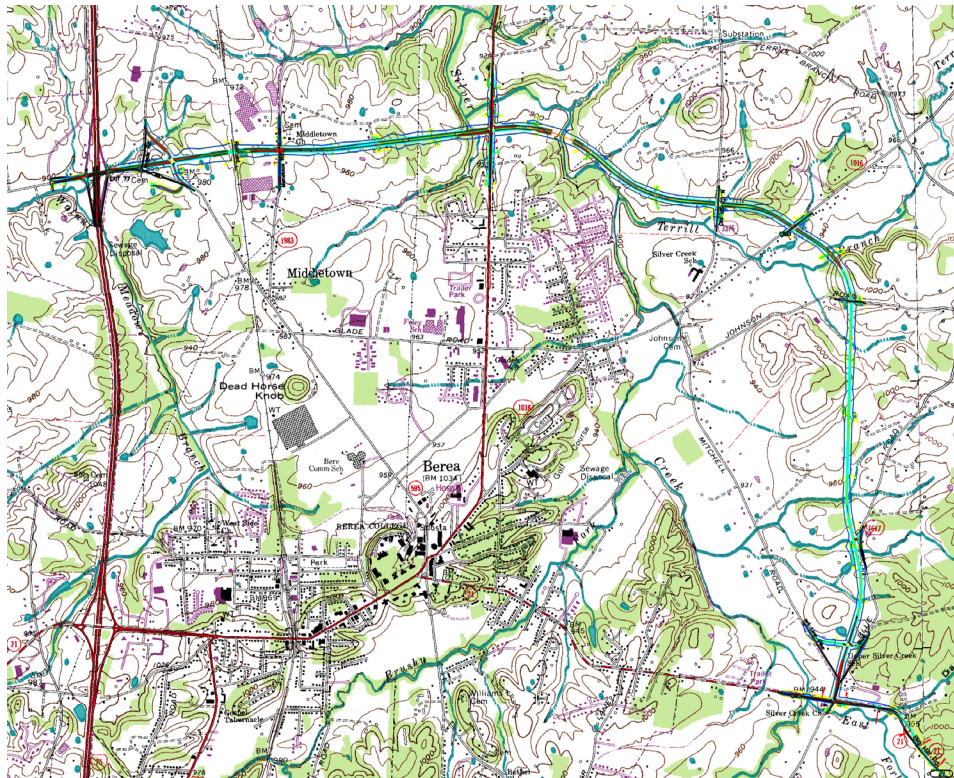


Figure 25. USGS blueline streams.



Figure 26. Intersections between the Bypass and other roads with the class of road noted.

**No parking or structures** other than signs are permitted within 50 feet of the right-of-way of a Class 1 or 2 road. The buffer shall be landscaped with plants and the right-of-way may also be landscaped with an approved landscaping plan.

Access to **double frontage lots** shall be on the street with the lower classification.

A **residential subdivision** that abuts an arterial street will have access from an interior local road. A buffer yard may be required at the rear of lots to buffer residences from traffic on the arterial. The buffer may not be in the road right-of-way.

The **depth of any lot** or parcel may not exceed three times its width or four times its width in rural areas.

Subdivisions will have a shared access point on state numbered roads. Subdivisions will also be designed to coordinate with existing, proposed, and planned streets in the surrounding area. Pedestrian connections, in addition to roadway connections, should be provided between adjacent parcels or subdivisions.

## Design of the Bypass

The Bypass Road will be the dominant feature in the Bypass Corridor and its various cross-sections, intersection designs, and elevation relative to the surrounding landscape will all have an effect on surrounding properties and the design guidelines in the Corridor Management Plan.

There are three typical cross-section used along the length of the Bypass, with transitions between each cross-section segment:

### Figure 27.

- From Interstate 75 to just east of the new intersection with Mayde Road and Walnut Meadow Pike (station 11+20 to station 58+00), there are four lanes plus turning lanes separated by a raised concrete median with a width that varies from eight to 20 feet.

### Figure 28.

- From the Mayde Road and Walnut Meadow Pike intersection to approximately one-quarter mile past Highway 1016 (station 58+00 to station 181+00), there are four lanes plus turning lanes separated by a 40 foot depressed median.

### Figure 29.

- From just past the new bridge over Terrel Branch to Highway 21 (station 189+00 to project end), there are two lanes with paved shoulders.

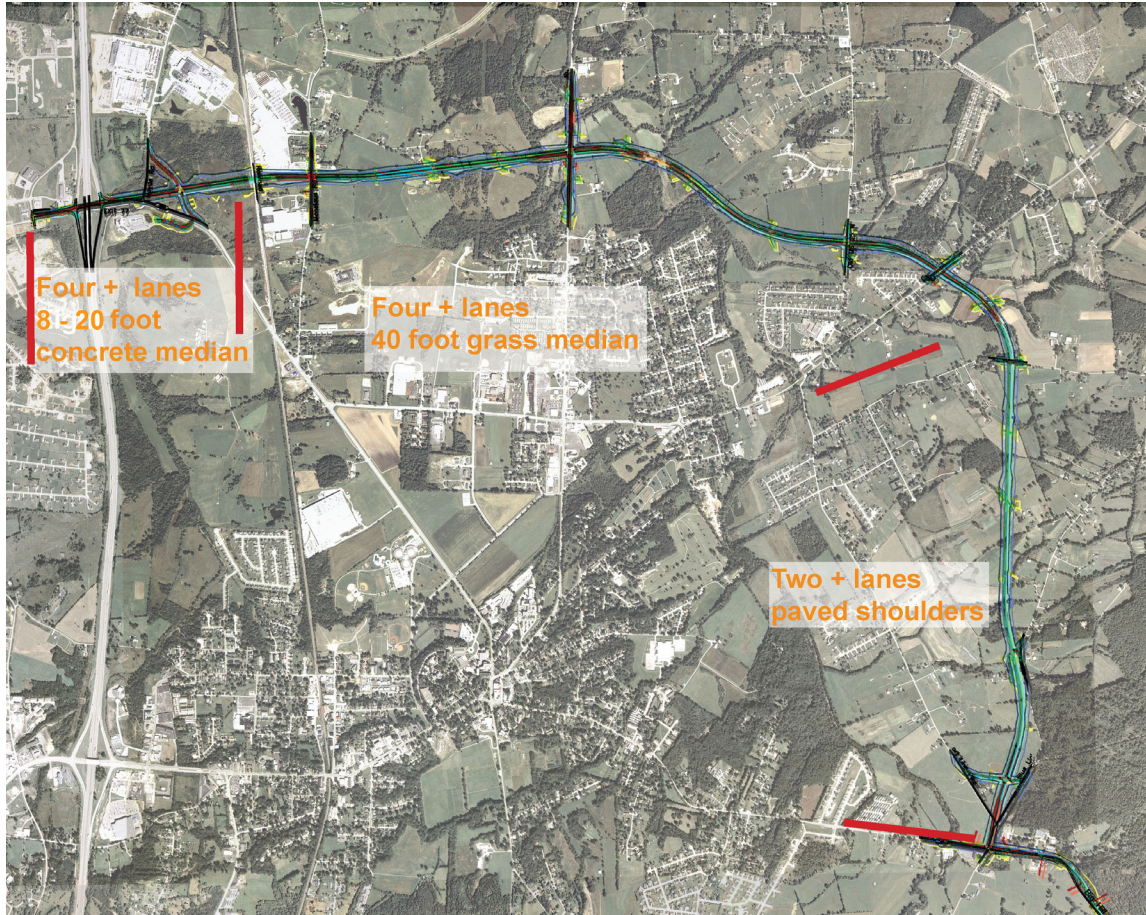
### Figure 30.

There is an alternate to the cross-section that has a curb and gutter section without shoulders and with a ten foot bike path on the inside of the bypass that extends from east of Richmond Road near the proposed park to a tributary to Silver Creek that crosses the Bypass about 2000 feet north of Highway 21 (station 103+00 to station 264+00).

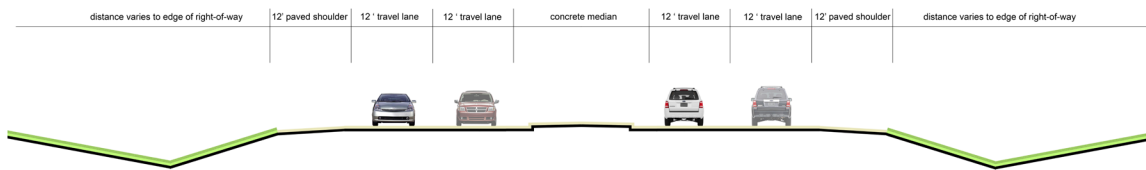
The elevation of the Bypass relative to the surrounding landscape varies with terrain from as much as 30 feet below the surrounding elevation to as much as 25 feet above the surrounding elevation.

### Figure 31.

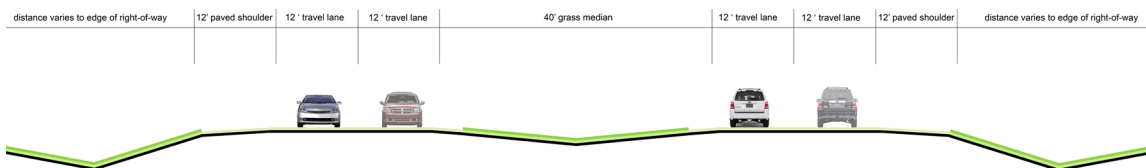




**Figure 27. Lane configurations for the Bypass road.**



**Figure 28. Four lanes and concrete median.**



**Figure 29. Four lanes and depressed grass median.**

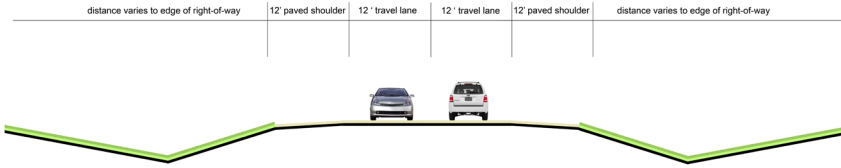


Figure 30. Two lanes with paved shoulders.

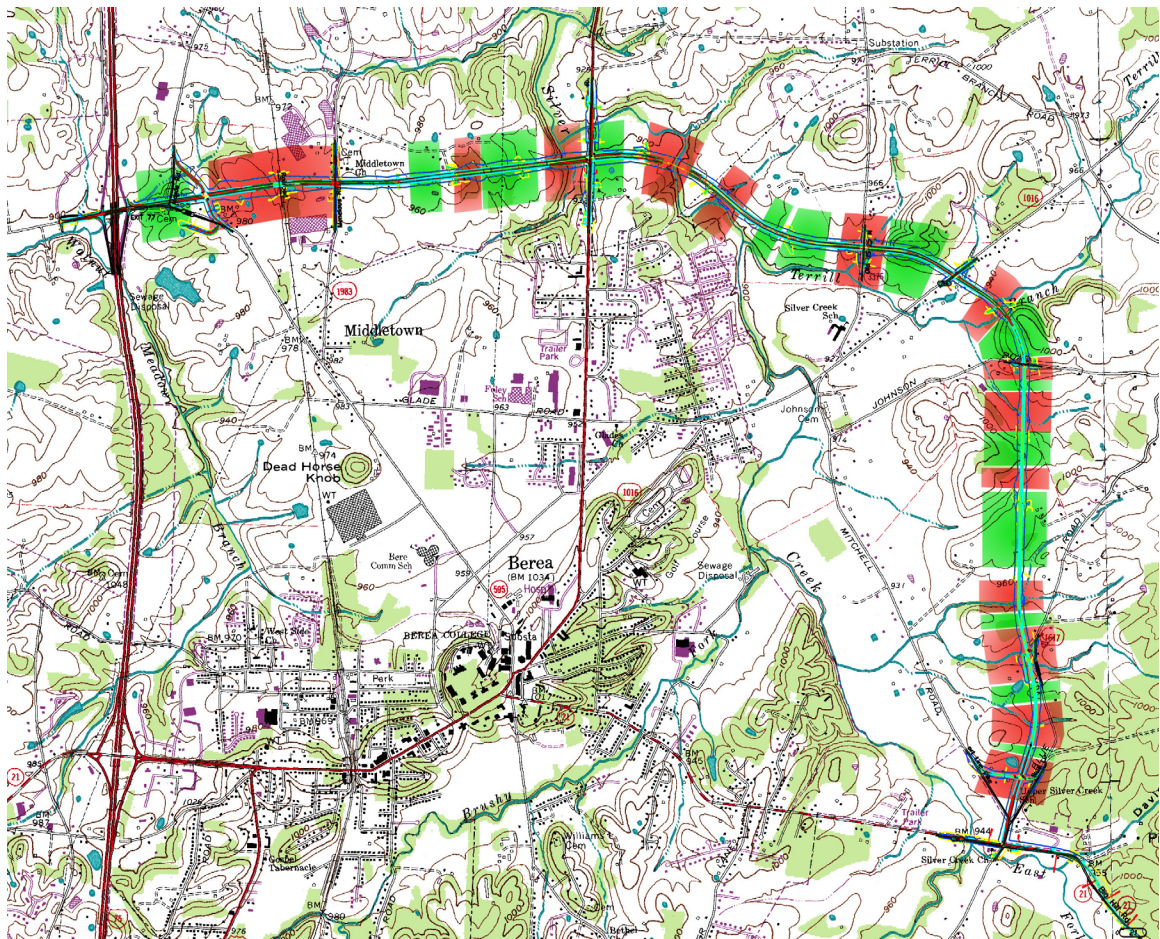


Figure 31. Elevation of the Bypass road relative to surrounding land. Segments in red are elevated, and segments in green are depressed below surrounding grade.

## Corridor Design Guidelines

### Goals for Development in the Bypass Corridor

- To develop vehicular circulation that conforms to the Berea Access Management Ordinance.
- To provide a balance of pedestrian, bicycle, and vehicular circulation.
- To develop individual sites and buildings in ways that exemplify quality design and that enhance the visual and environmental quality of the Bypass Corridor.
- To allow a vegetated landscape buffer bordering the edges of the Bypass right-of-way and separating it from adjacent commercial, residential, and industrial development.

The design guidelines described in this document do not apply to existing development. There are no guidelines for agricultural land or for buildings, structures, or landscape material on agricultural land.

Reasonable application of the guidelines will recognize the constraints presented by the configuration of individual properties.

The landscape setbacks described on pages 21 - 25 apply only to the Bypass and to intersecting roads from the edge of the Bypass to the first allowed intersection on each of those roads.

### Guidelines for Residential Subdivisions

New residential development in the corridor should be planned so that all street frontage, driveways, and other property access are on new roads that are interior to the development. Existing Class 3 and 4 roads may also be used for frontage and driveway access. **Figure 32.**

Rear yards should not face onto a public street or road of any classification unless a buffer is provided as described in the section of these guidelines entitled "buffer areas". **Figure 32.**

New streets developed as part of a residential subdivision should be planned to connect with the existing street pattern. Streets should also be planned so that connections are possible with potential future streets on neighboring properties.

- Streets should intersect with existing streets directly opposite existing intersections where possible.
- Existing local or collector streets should be used where possible to access properties so that fewer intersections are created on arterial streets.

Sidewalks, which the Land Management and Development Ordinance requires on both sides of streets, should be planned to connect to other sidewalks on nearby properties and streets. A buffer or tree lawn seven feet minimum in width should be placed between the street edge and the sidewalk. Tree lawns should be planted with deciduous canopy trees at a minimum spacing of 40 feet on center.

**Figure 33.**

Overhead utilities shall not be placed within the street rights-of-way of new streets.



**Figure 32.** This hypothetical plan extending across pages 16 and 17 illustrates many of the design concepts for residential and commercial development.





**Figure 33. Sidewalks should be separated from streets by a seven foot wide tree lawn planted with canopy trees 40 feet on center.**

Access should be provided to bikeways or future bikeways shown in the Park, Trail, Conservation, and Greenspace Plan. Access may be provided through a right-of-way between properties or at an intersection with a subdivision's street network. **Figure 32.**

All provisions of the Berea Access Management Ordinance not specifically mentioned in these guidelines should be followed.

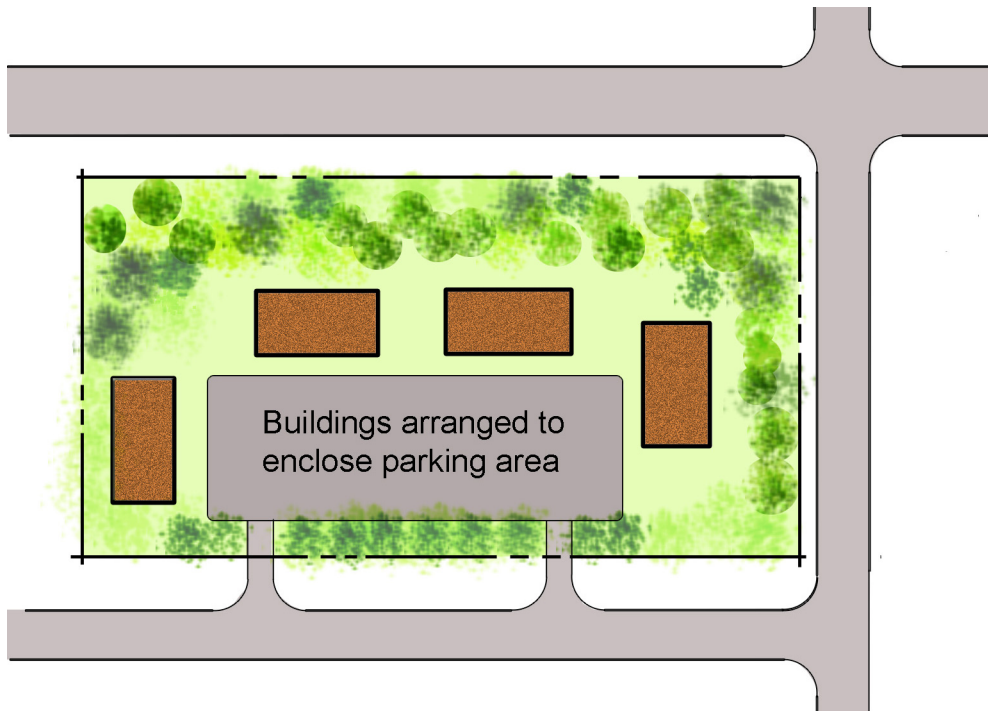
### **Guidelines for Commercial Development**

Commercial development in the corridor should be designed so that multiple properties or businesses can be served by a single access road and the fewest possible number of intersections with existing streets.

- Locations of new intersections with existing roads must follow the spacing requirements of the Berea Access Management Ordinance. **Figure 32.**
- Where possible, multiple existing drives serving individual properties should be closed with access reorganized onto a single access road.

Pedestrian access to properties should be continuous across adjacent properties and should extend to neighboring developments or residential neighborhoods unless unfeasible.

Where a commercial property includes or is adjacent to a bicycle path or bicycle lane, bicycle access shall



**Figure 34. Commercial buildings arranged in a campus pattern can provide partial screening for parking areas .**

be provided into the property.

Campus arrangements of buildings are encouraged in the corridor so that buildings partially screen parking areas. **Figure 34.**

Parking lots should be well-screened and include interior landscape islands.

- Perimeter screening of parking lots should not be a single continuous row of shrubs. A mixture of shrub and tree species in masses, clumps, irregular or undulating lines should be planted around parking areas.
- Berms that effectively screen parking areas in combination with tree planting may be used in lieu of shrubs and trees on parking lot perimeters.
- Point values for screening parking areas are described in the landscape setbacks section of the guidelines, which follows this section.
- Parking lots must incorporate landscape islands. Islands must make up at least 5% of the area of the parking lot, must be a minimum of 10 feet wide, and must be planted with canopy trees. Other additional planting is encouraged. **Figures 35 and 36.**

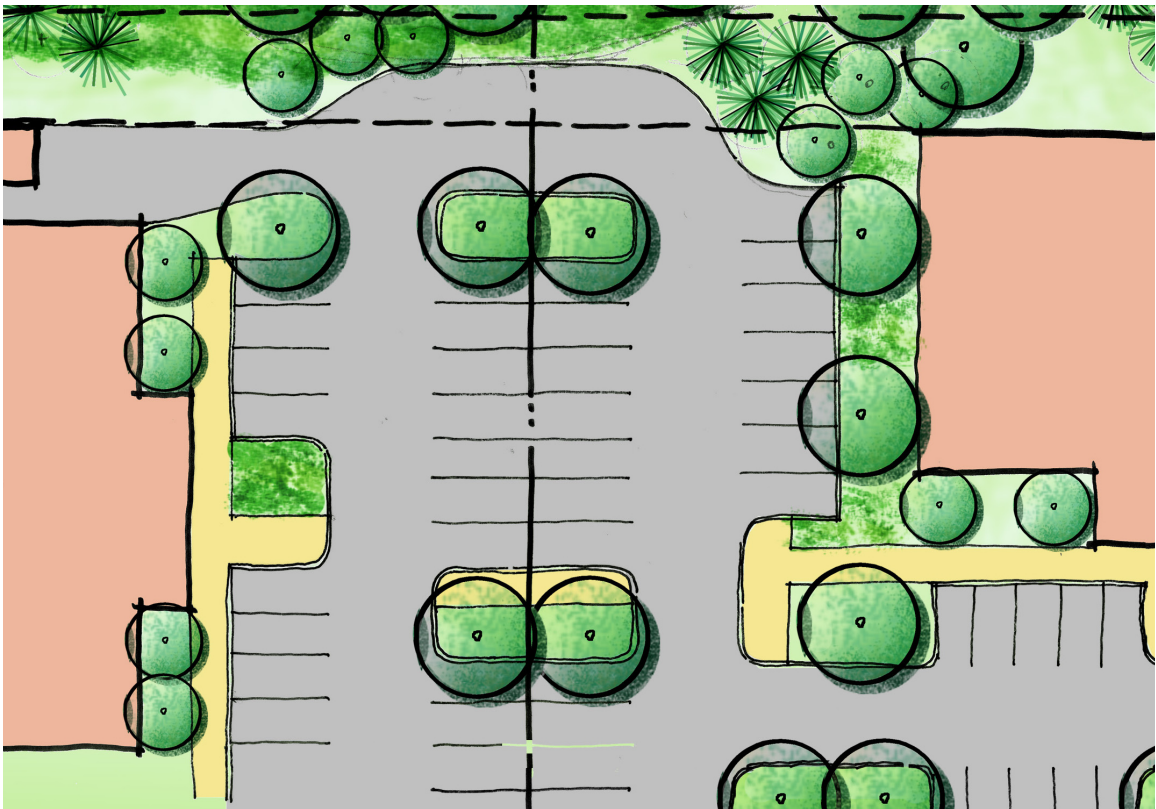
Loading and delivery areas, trash dumpsters, and exterior storage shall not be visible from any public right-of-way. **Figure 32.**

All building walls facing or visible from a public right-of-way or another property must be surfaced with finished materials that are used on the building wall on which the main building entry is located.

Detention basins and other stormwater management structures shall be graded, planted, and maintained



**Figure 35. Parking lot islands should be minimum ten feet in width to provide adequate space for trees.**



**Figure 36. Parking lot islands should occupy at least 5% of the parking lot surface.**



## Setbacks and landscape treatment

Building setbacks adjacent to the right-of-way of the Bypass shall be a minimum of 50 feet from the right-of-way line. Pavement setbacks adjacent to the right-of-way of the Bypass shall be a minimum of 25 feet from the right-of-way line.

On all other roads in the Bypass Corridor, landscape setbacks shall be a minimum of 25 feet wide for buildings and pavement.

On property edges of commercial development that abut any other land use, landscape setbacks shall be a minimum of 25 feet wide for buildings and pavement.

Landscape treatments shall be installed within the area of the minimum required setbacks for building and paving. Setback landscape treatments are required on property lines abutting the Bypass right-of-way and on roads intersecting the bypass up to the first allowed intersection. For every one linear foot of frontage, one point of landscape value must be accrued. For example, a property with 250 feet of frontage must accrue 250 landscape points.

Point values are as follows:

- Three foot or higher berm = ½ point per linear foot
- Medium or large deciduous canopy tree = 10 points
- Medium or large evergreen tree = 10 points
- Small deciduous tree = 5 points
- Medium or large deciduous or evergreen shrubs = 2 points

The tree and shrub sizes described are the mature size of the plant material, not the installed size.

Medium and large deciduous canopy trees will have a minimum height of 25 feet at maturity.

Medium or large evergreen trees will have a minimum height of 25 feet at maturity.

Small deciduous trees will have a height between 15 and 25 feet at maturity.

At the time of planting, all plants will meet the following size requirements:

Medium and large deciduous canopy trees will have a minimum trunk caliper of 2 inches.

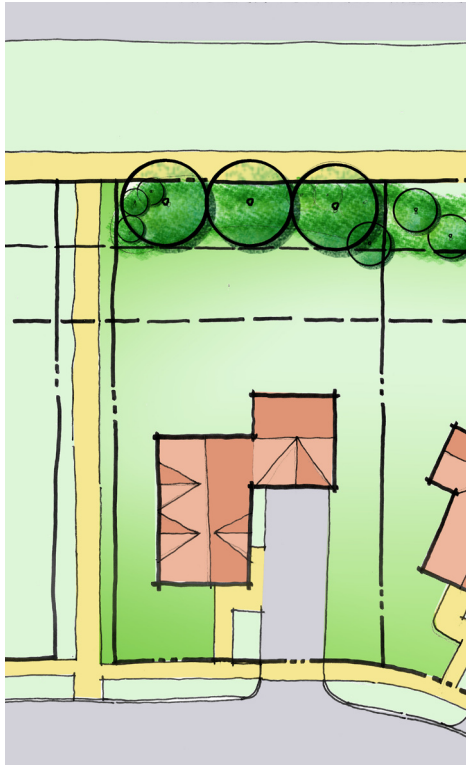
Medium or large evergreen trees will have a minimum height of 6 feet.

Small deciduous trees will have a minimum trunk caliper of 1-1/2" or a height of 6 feet.

Shrubs will be a minimum of 24" if balled and burlapped or 3 gallons if in containers.

Landscape setbacks shall use a mix of plant material sizes and types to provide visual variety and effective screening. Examples of different mixes of landscape material that can meet required point values are illustrated in **Figures 37 - 40**.

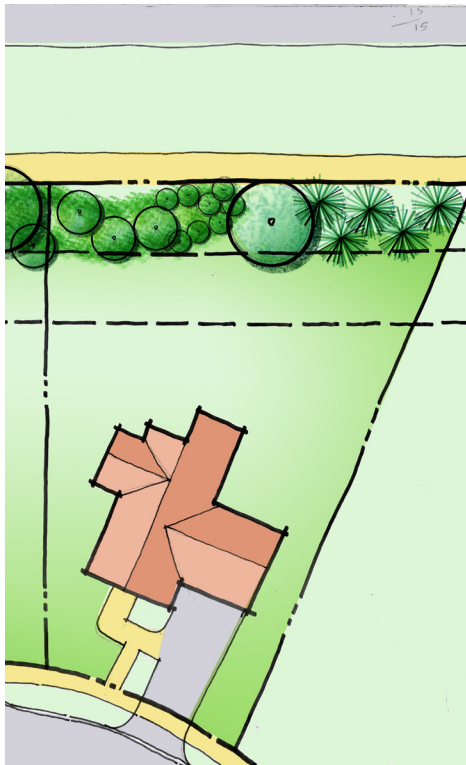
Existing plant material preserved in the landscape setback may be counted toward point values if it meets the minimum planted size requirements.



**Lot width at right-of-way is 75 feet**  
75 points needed

75 linear feet of berm	37.5 points
3 large deciduous trees	30 points
1 small deciduous tree	5 points
3 shrubs	6 points
<b>Total</b>	<b>78.5 points</b>

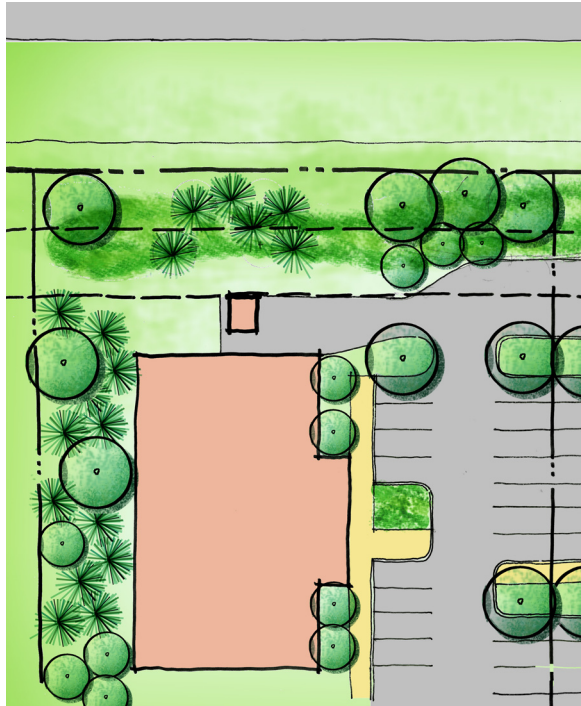
**Figure 37. Residential landscape setback treatment example one.**



**Lot width at right-of-way is 120 feet**  
120 points needed

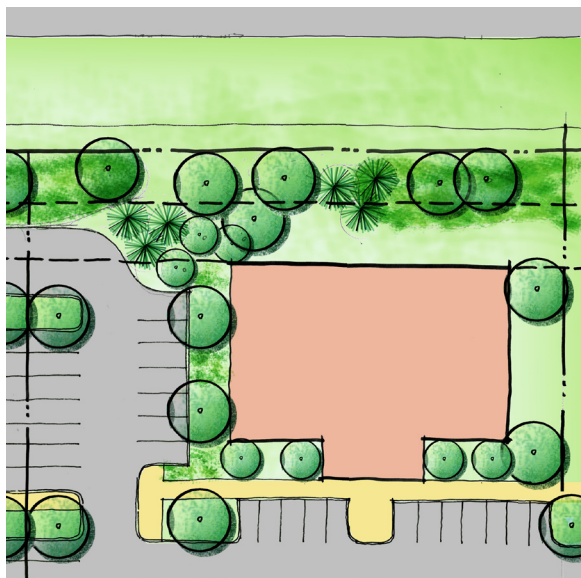
60 linear feet of berm	30 points
1 large deciduous tree	10 points
5 large evergreen trees	50 points
3 small deciduous trees	15 points
8 shrubs	16 points
<b>Total</b>	<b>121 points</b>

**Figure 38. Residential landscape setback treatment example two.**



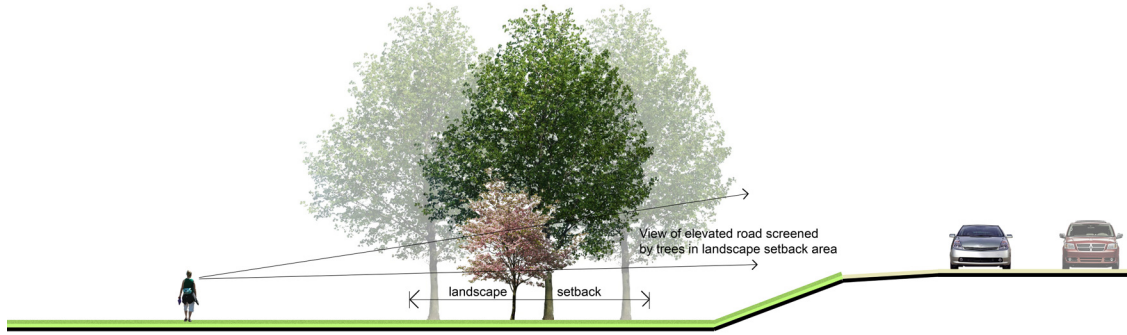
<b>Lot width at right-of-way is 160 feet</b>	
160 points needed	
160 linear feet of berm	80 points
4 large deciduous trees	40 points
6 large evergreen trees	60 points
3 small deciduous trees	15 points
<b>Total</b>	<b>195 points</b>

**Figure 39. Commercial landscape setback treatment example one.**

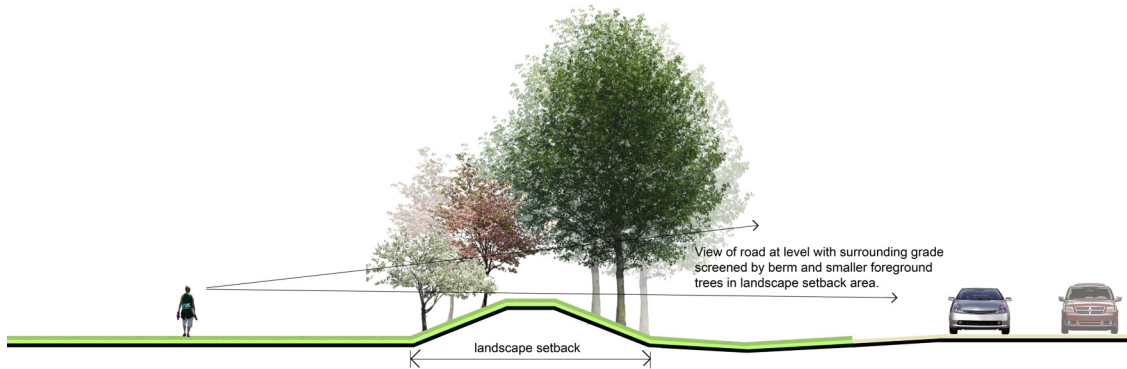


<b>Lot width at right-of-way is 190 feet</b>	
190 points needed	
110 linear feet of berm	55 points
6 large deciduous trees	60 points
6 large evergreen trees	60 points
3 small deciduous trees	15 points
<b>Total</b>	<b>190 points</b>

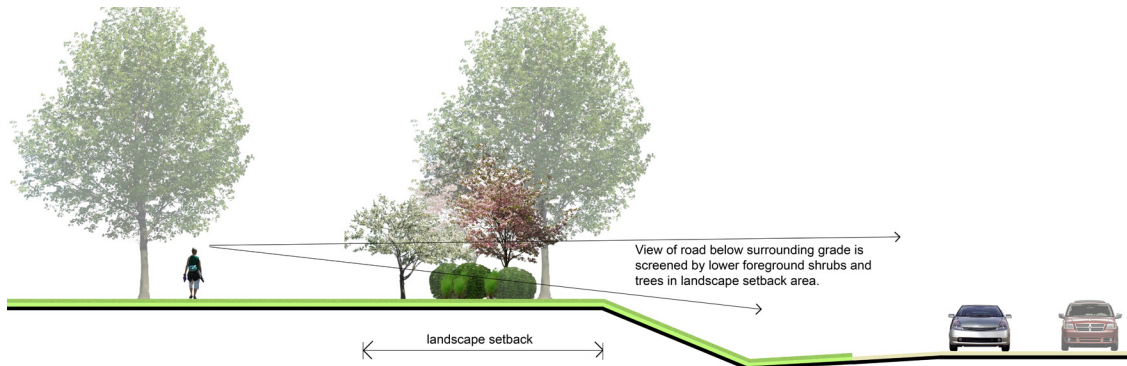
**Figure 40. Commercial landscape setback treatment example two.**



**Figure 41. Landscape setback treatment with mainly trees adjacent to an elevated road segment.**



**Figure 42. Landscape setback treatment with a berm and trees adjacent to a level road segment.**



**Figure 43. Landscape setback treatment with shrubs and low trees adjacent to a depressed road segment.**

Landscape setbacks where the road is elevated three or more feet above the adjacent property should be designed with mostly trees to develop effective screening. In these situations at least 70% of the points should come from trees.

**Figure 41.**

Landscape setbacks in areas where the road is even with surrounding grade or is below the surrounding grade should be designed with a greater number of shrubs, small trees, and earth berms to develop effective screening.

**Figure 42.**

Landscape setbacks where the road is depressed five or more feet below the adjacent property are given a credit of 0.3 landscape points per foot of right-of-way frontage. For example, across 100 linear feet of frontage 30 points are given if the road is depressed five or more feet.

**Figure 43.**

Commercial and residential subdivisions that have frontage on new or existing Class 3 or 4 roads are not required to have a landscape setback on the frontage. Parking lot perimeter landscaping must be provided, however, if parking is visible from the road providing the frontage. Perimeter landscaping on parking lots should accrue .75 points per foot where they are facing a new or existing class 3 or class 4 road.

In no case shall grading for berms conflict with the proper management of stormwater.

## Signs

All provisions of the sign requirements in the Berea Land Management and Development Ordinance apply in the Bypass Corridor along with the following guidelines.

Ground, monument, and architectural signs are the only types allowed as free-standing signs. Signs mounted on pylons are not permitted in the Bypass Corridor.

Ground signs will have a maximum dimension of 10 feet in width by 6 feet in height.

Monument signs will have a maximum dimension of 6 feet in width by 15 feet in height.

Architectural signs will have a maximum dimension of 10 feet in width by 20 feet in height.

**Figures 44-46.**

Free-standing signs are allowed in landscape setbacks with the following limitations:

- Properties with 200 feet or less of frontage on a right-of-way where landscape setbacks are required are allowed one ground sign within the landscape setback on that right-of-way.
- Properties with more than 200 feet and up to 400 feet of frontage on a right-of-way where landscape setbacks are required are allowed one ground or monument sign within the landscape setback.
- Properties with more than 400 feet and up to 600 feet of frontage on a right-of-way where landscape setbacks are required are allowed one ground, monument, or architectural sign within the landscape setback.
- Properties with more than 600 feet of frontage on a right-of-way where landscape setbacks are required are allowed two ground, monument, or architectural signs. Only one may be an architectural sign.
- Free-standing signs in the landscape setback must be placed at least 15 feet from the edge of the public right-of-way.

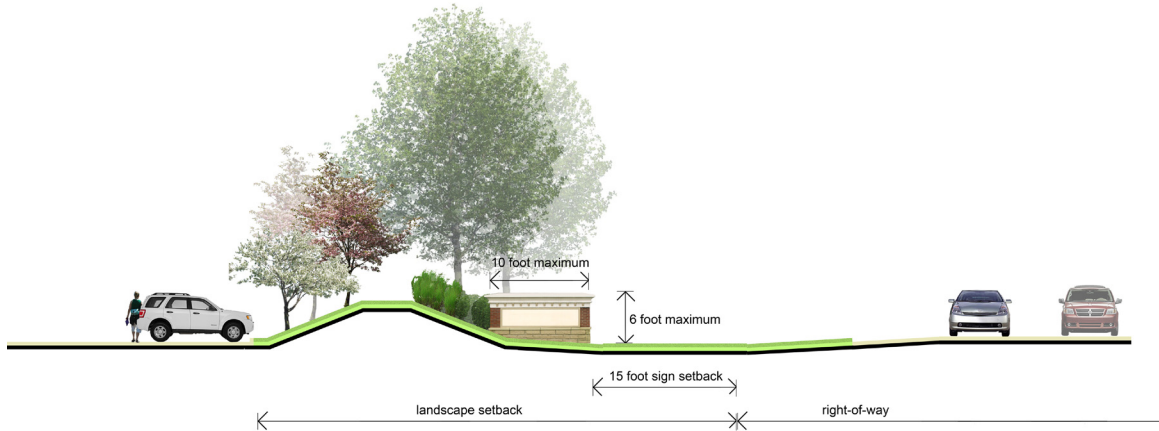


Figure 44. Ground sign.

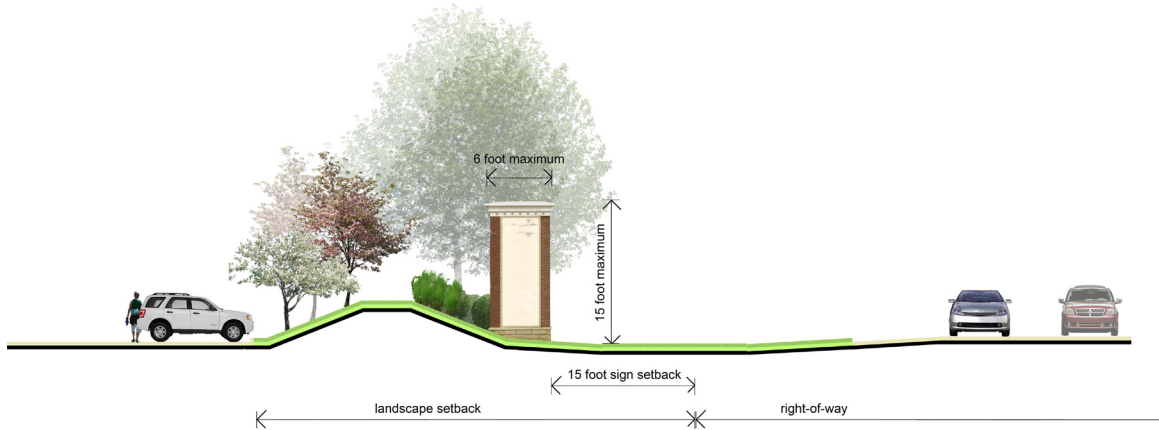


Figure 45. Monument sign.

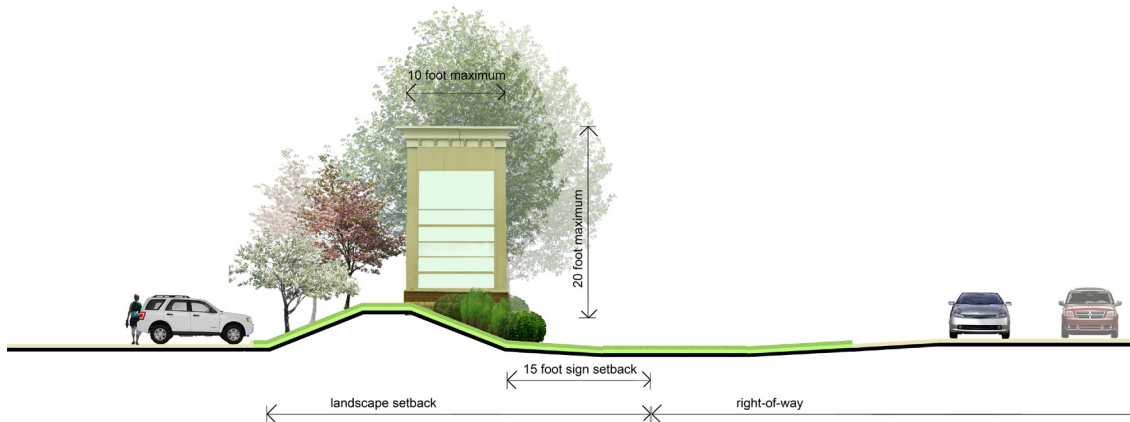


Figure 46. Architectural sign.

## Lighting

All provisions of the site lighting requirements in the Berea Land Management and Development Ordinance apply in the Bypass Corridor along with the following guidelines.

No lighting may be placed in a landscape setback along any road in the Bypass Corridor that is higher than 12 feet from the ground.

Light fixtures in the interior of parking lots shall be placed in landscape islands.

Walkways leading to the street, other properties or between buildings on a property should be lit at illumination levels considered medium in the LMDO.

Indirect illumination of buildings, freestanding signs, and landscaping, including plant material and free-standing signs in the buffer area is permitted as long as requirements related to light trespass in the LMDO are met.