

DESIGN GUIDELINES

FOR THE

Red Clay Valley Scenic Byway Overlay District



ENDORSED BY WILMAPCO NOVEMBER 2016

NEW CASTLE COUNTY, DELAWARE



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Section A

Introduction to the Red Clay Valley Scenic Byway

This section provides a brief history of the byway and an overview of the key elements of the Design Guidelines.

Introduction

What is a Byway?

A byway is a transportation route which is adjacent to or travels through an area that has particular intrinsic scenic, historic, natural, cultural, recreational or archeological qualities. It is a road corridor that offers an alternative travel route to major highways, while telling a story about an area's heritage, recreational activities or beauty. It is a route that is managed in order to protect its special qualities and to encourage appreciation and/or development of tourism and recreational resources.

In the case of the Red Clay Valley, the byway consists of a network of 28 scenic roads. This document details a Byway Overlay District and related design guidelines intended to protect the special qualities of these roads and vistas experienced while traveling them. Figure A-2 show the included roads and the Overlay District boundary.

Legal Basis for the Red Clay Valley Scenic Byway Overlay District and Design Guidelines

The scenic byway program at the federal level was born out of the Highway Beautification Act of 1965. That Act authorized a threefold program: outdoor advertising control, junkyard control, and scenic enhancement.

The National Scenic Byways program was established by Congress in 1991 as a part of the Intermodal Surface Transportation Efficiency Act, to preserve and protect the nation's scenic but often less-traveled roads and promote tourism and economic development. The National Scenic Byways Program (NSBP) is administered by the Federal Highway Administration (FHWA).

In 2000 the General Assembly created a Scenic and Historic Highway Program

allowing residents and community representatives the opportunity to officially recognize unique Delaware corridors. In 2010, the General Assembly amended the legislation changing the name to the Delaware Byways Program (17 Del.C. c. 1 §101).

In 2005, the Red Clay Valley Scenic Byway received official designation from the State of Delaware as a state scenic byway. In 2008, as a result of a public outreach process, the Corridor Management Plan for the Red Clay Valley Scenic Byway was completed.

The Delaware Department of Transportation (DelDOT) developed detailed guidance for protection and enhancement of all of the State's byways in 2011 when it published *Context Sensitive Solutions for Delaware Byways* (CSC Manual), which is attached as an appendix to these guidelines for easy reference.

The County's 2012 Comprehensive Development Plan (Plan) includes several recommendations for increased protection of the Red Clay Valley. This

document is the County's primary planning tool, including important guidance and recommendations for growth and the protection of resources during the next twenty years (2012-2032). Key recommendations and guidance in the Plan for the Red Clay Valley includes the inventorying and documentation of preserved and protected land, critical natural areas and habitat, and the acknowledgement that limited development in the Red Clay Valley would advance the overall County goal of scenic viewshed protection.

This report promotes the implementation of the Byway's Corridor Management Plan by providing land use and design tools to protect the byway.

Roles and Responsibilities

The preparation of these design guidelines has been a cooperative effort coordinated by the Wilmington Area Planning Council (WILMAPCO), in partnership with New Castle County, the Delaware Department of Transportation (DelDOT) and the Delaware Nature Society. New Castle County, responsible for reviewing and approving all land development projects and permits within the Byway, will administer the Overlay District. DelDOT, through its Byway Coordinator at the Division of Planning will be responsible for all projects within the road rights-of-way and coordination on elements or activities adjacent to the rights-of-way that have impacts on DelDOT projects.

The Delaware Nature Society, the original Byway sponsor, is the designated Byway Administrator, and will have the primary role of education, coordination, and outreach for activities within the Byway, as well as general Byway management.

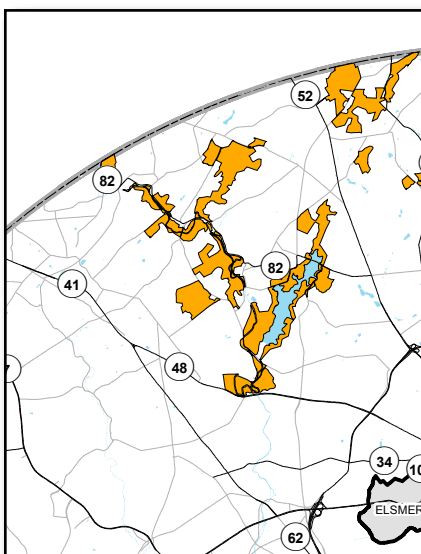


Figure A-1. Critical Natural Lands as identified in the New Castle County's 2012 Comprehensive Plan.

Scenic and Historic Roadways of the Red Clay Valley

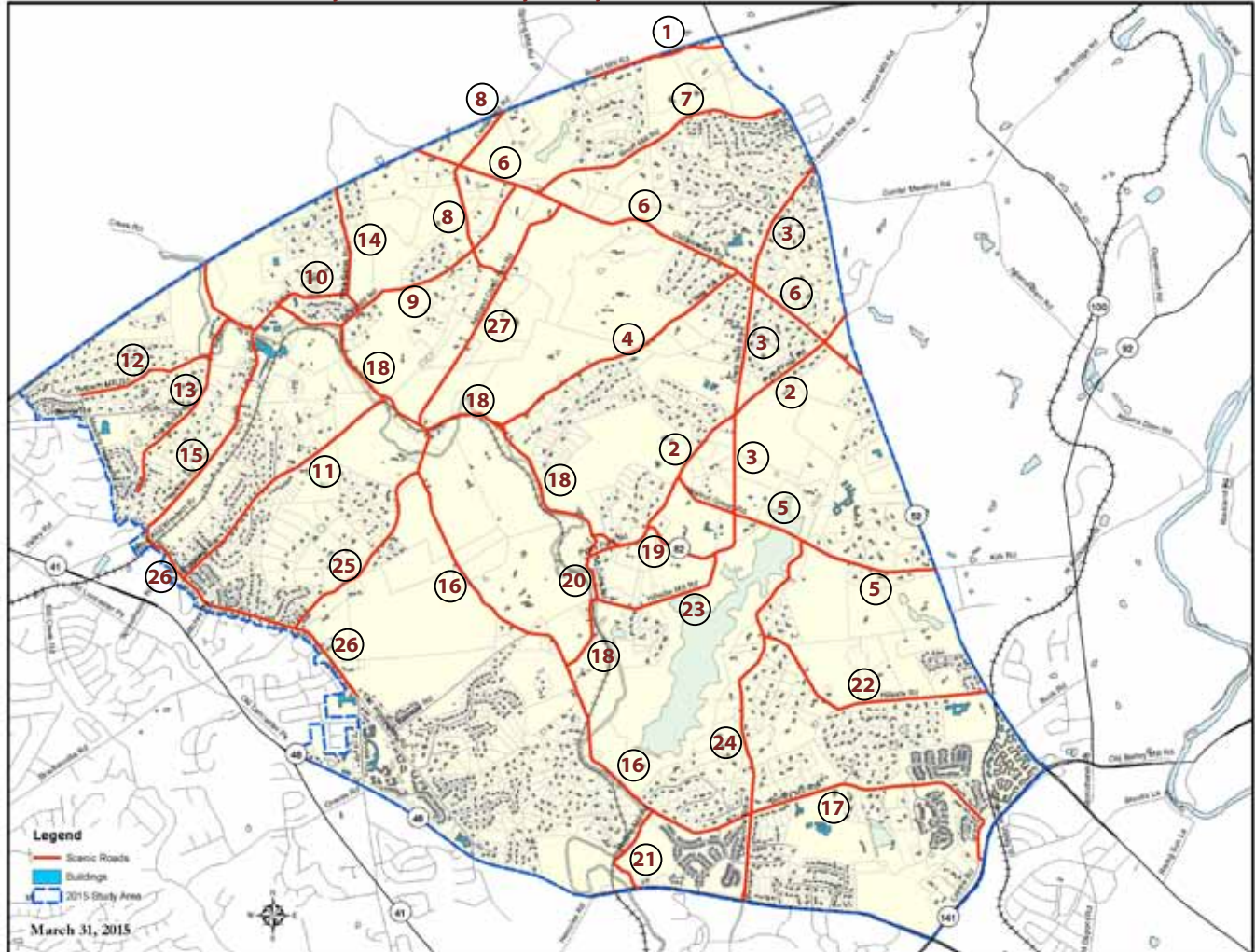


Figure A-2. The general boundary and scenic roads encompassing the Red Clay Valley Scenic Byway Overlay District.

Road Name (Route Number):

- | | |
|---|--|
| 1. Burnt Mill Road (238) | 15. Yorklyn Road (257) |
| 2. Pyles Ford Road (239) | 16. Barley Mill Road / Wooddale Road (258/258A) |
| 3. Owls Nest Road (240) | 17. Barley Mill Road (259) |
| 4. Way Road (241) | 18. Mt. Cuba Road / Creek Road (Rt. 82 - 261) |
| 5. Campbell Road (Rt. 82) / Walnut Green Road (242) | 19. New London Road / Pyles Ford Road - (Rt. 82 - 262) |
| 6. Old Kennett Road (243) | 20. Creek Road (Rt. 82 - 262A) |
| 7. Snuff Mill Road (244) | 21. Rolling Mill Road (263) |
| 8. Center Mill Road (246/248) | 22. Hillside Road (264) |
| 9. Snuff Mill Road / Creek Road (247) | 23. Hillside Mill Road (269) |
| 10. Upper Snuff Mill Row / Lower Snuff Mill Row (250) | 24. Centerville Road (273) |
| 11. Sharpless Road (251) | 25. Brackenville Road / Brackenville Mill Road (274) |
| 12. Auburn Mill Road (252) | 26. Old Wilmington Road (275) |
| 13. Old Public Road / Benge Road (253/255) | 27. Ashland-Clinton School Road / Ashland Road / Ashland School Road (287) |
| 14. Nine Gates Road / Cloud Road (256) | |

In addition to these roles and responsibilities, a Design Review Advisory Committee, or DRAC, will be created and staffed in order to provide review and recommendations on activities within the Byway.

Each entity has a specific role and responsibility, while at the same time, cooperation and coordination between entities is embedded in the new legislation.

Purpose of the Design Guidelines.

There are five primary purposes for these Design Guidelines:

1. As an instructional manual for applicants that are subject to the Overlay District regulations;
2. As a tool for the DRAC when it undertakes its review of applications and makes recommendations on projects within the Byway;
3. As an explanation and clarification of the roles and responsibilities of the various agencies and private entities that regulate and/or manage activities within the Byway;
4. As an educational document that helps to explain and offer examples of proper design in the Byway; and
5. As an educational resource for residents.

The Design Guidelines for the Red Clay Valley Scenic Byway Overlay District (Guidelines) are an illustrative adjunct to New Castle County's Unified Development Code (UDC) update and the new Scenic Byway Overlay District. The Guidelines also provide guidance, consistent with DelDOT's *Context Sensitive Solutions for Delaware Byways* that is specific to the Byway.

This document provides general guid-

ance and direction for applicants and property owners proposing road improvements, land development, and/or building construction in the Byway, and helps illustrate and explain:

- What scenic viewshed protection is and why it is so critical in the Red Clay Valley,
- Where the Overlay District is located and what properties are affected,
- What the Overlay District intends and requires, and
- How to properly implement its standards.

This document illustrates how to plan, design, and implement new projects and growth within the Red Clay Valley by properly protecting and enhancing its irreplaceable intrinsic qualities. It also provides helpful strategies for existing property owners who want to enhance the Byway on a voluntary basis.

The qualitative design measures contained in the Guidelines augment and help explain the requirements of the Scenic Overlay District in UDC.

Consistency with the Design Guidelines is mandatory for certain project types, and voluntary for others. The applicant must consult the UDC and the requirements of DelDOT's permitting process for proper application of the Guidelines. The Department of Land Use at New Castle County will direct inquiries on a case-by-case basis.

How to Use the Design Guidelines.

The Guidelines are a useful resource for anyone interested in Byway protection, and for those owners and/or developers who are intending to submit projects located in the Scenic Overlay District.

This document offers strategies to both existing residents who are looking to improve their property, as well as to pri-

vate developers and builders who aspire to build communities and structures that are in context with the Byway.

The Design Guidelines describe ways to create places and improvements that connect with the best of the Byway's intrinsic qualities.

Residents will find sections C, G, and H helpful in understanding the general strategies that can be implemented on a voluntary basis while land development applicants will find the explanations of the overlay district and the review procedures found in sections E and F helpful. Section D offers several context sensitive solutions for detailed implementation of the Guidelines.

The members of the DRAC will find most sections helpful while reviewing the potential projects and proposed land development applications, with specific emphasis on section E, the overview of the Scenic Byway Overlay District.



Figure A-3. Ashland Bridge.



Section B

Qualities of the Red Clay Valley Scenic Byway

Much of the detailed analysis of the Byway can be found in the Corridor Management Plan and the other foundational documents. The following is a brief synopsis of those documents, highlighting the importance of the Byway's intrinsic qualities and the ongoing stewardship effort to protect and enhance those qualities.

Intrinsic Qualities.

Intrinsic qualities are defined as those features and qualities that are irreplaceable and which make the byway special and unique, as described in the byway's Corridor Management Plan (CMP). Intrinsic qualities and other character-defining features are the foundation for designation as a byway.

Under Delaware's program, a byway must possess at least one of the National Scenic Byway program's six intrinsic qualities: scenic, historic, natural, recreational, cultural, or archeological.

The Nomination Application for the Red Clay Valley Scenic Byway undertook a thorough inventory of the resources of the Byway, including citing past studies, undertaking field inventories, and preparing mapping and text descriptions. The merits of the Byway were then compared to the standards for each intrinsic quality set forth in the Federal Highway Administration (FHWA) policies. It was identified that "scenic" was the primary intrinsic quality of the Red Clay Valley.

According to FHWA Policy, "scenic quality is the heightened visual experience derived from the view of natural and man-made elements of the visual envi-

ronment of the scenic byway corridor."¹ As described in the CMP, the roads of the Red Clay Valley are exceptionally scenic and help tell the history of the valley in the context of human interaction with nature.

The secondary intrinsic quality of the Byway was determined to be "natural." Under FHWA policy, "natural quality applies to those features of the visual environment that are in a relatively undis-



turbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water bodies, vegetation, and wildlife."²

The historic resources of the Byway are a strong supporting quality. Accord-

¹ FHWA Policy 5.18.95.

² FHWA Policy 5.18.95.

ing to FHWA policy, "historic quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man-made, that are of such historic significance that they educate the viewer and stir an appreciation of the past."³ To this end, the CMP documents the early and developmental history of the region, the industrial history that contributed to the region's evolution, and the state and county historic preservation programs that inventoried the regions resources and provide control mechanisms for preservation.

¹ FHWA Policy 5.18.95.

RED CLAY VALLEY INTRINSIC QUALITIES

Primary Quality:
SCENIC

Secondary Quality:
NATURAL

Supporting Quality:
HISTORIC

Other Qualities:
RECREATIONAL
CULTURAL
ARCHAEOLOGICAL



Goals and Objectives.

The CMP's highest priority "is the preservation and stewardship of the Red Clay Valley Scenic Byway's roadways and intrinsic qualities."⁵⁵ As such, the plan offers two levels of effort: 1) efforts significant to the watershed as a whole, and 2) efforts relevant to individual road segments. Of significance is the Plan's desire "to focus on the Byway's roads as an interconnected network closely linked to the Red Clay Creek and its watershed area."⁵⁶ Therefore the planning focus is on consistent watershed-based planning strategies as an overall framework for stewardship and preservation, coupled with an evaluation of the tools most appropriate to individual roadways.

Stewardship (in this case, the goals, objectives and strategies for protection and enhancement of the Byway's intrinsic qualities) is organized around classes of goals: conservation and preservation, restoration and enhancement, transportation and safety, interpretation and education, and coordination and management.



Summary of the Goals of the Corridor Management Plan

A. Conservation and Preservation Goals

Goal 1 - Encourage stewardship of intrinsic qualities through continued conservation efforts.

Goal 2 - Conserve the roadside features of the Byway, particularly the scenic resources (vista points and visual accents), natural resources (rock outcroppings, mature trees, steep slopes and stream valley), and historic resources (houses, bridges, railroads, archeological sites, and scale and features of roads), that contribute to the character of the watershed.

Goal 3 - Encourage context sensitive design that respects the scale and character of surroundings and minimizes change to intrinsic qualities.

B. Restoration and Enhancement Goal

Goal 4 - Encourage restoration and enhancement efforts, where appropriate, to improve the value of the Byway's intrinsic qualities.

C. Transportation and Safety Goals

Goal 5 - Balance the transportation and safety needs of all roadway users in a manner that respects the intrinsic qualities of the Byway.

Goal 6 - Help guide future transportation and land use decisions made by government agencies to ensure consistency with the Byway's mission.

D. Interpretation and Education Goals

Goal 7 - Inspire the public through education on the scenic, natural and historic qualities of the Byway.

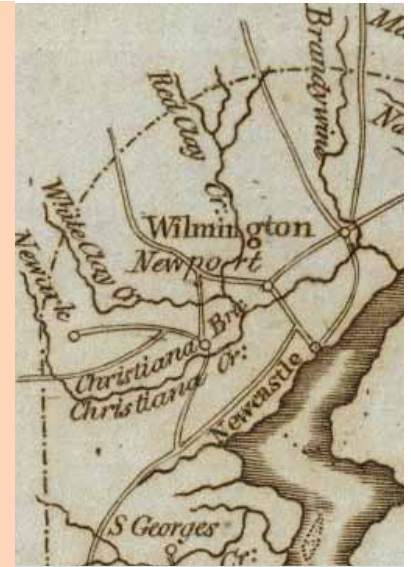
Goal 8 - Instill in the public the need for stewardship of the Byway's intrinsic qualities.

E. Coordination and Management Goals

Goal 9 - Prepare a Corridor Management Plan acceptable to stakeholders and suitable for future funding.

Goal 10 - Create incentives to achieve the Plan's mission.

Goal 11 - Implement the Corridor Management Plan in a cooperative fashion that preserves and protects resources, recognizes the needs and interests of stakeholders, respects the rights and responsibilities of individual landowners, and is sensitive to the needs of organizations and businesses.



Byway Facts:

Overlay District:

16.76 sq. miles

(10,732 acs.)

27 miles of scenic roads

Existing Protected Lands:

3,906 acres (36.4%)

Prominent Base Zone:

Suburban Estate (SE)

5,441 acs. (50+%)

Number of Base Districts: 18

Historic Acreage: 45.4 acs.

Existing Structures:

Dwellings: 2,447

Multi-family: 109

Commercial: 53

Industrial: 41

Institutional: 37

Office: 5

Other: 573

Special Sites and Features:

Ashland Nature Center

Hoopes Reservoir

Coverdale Farm

Valley Garden Park

Auburn Mill Park

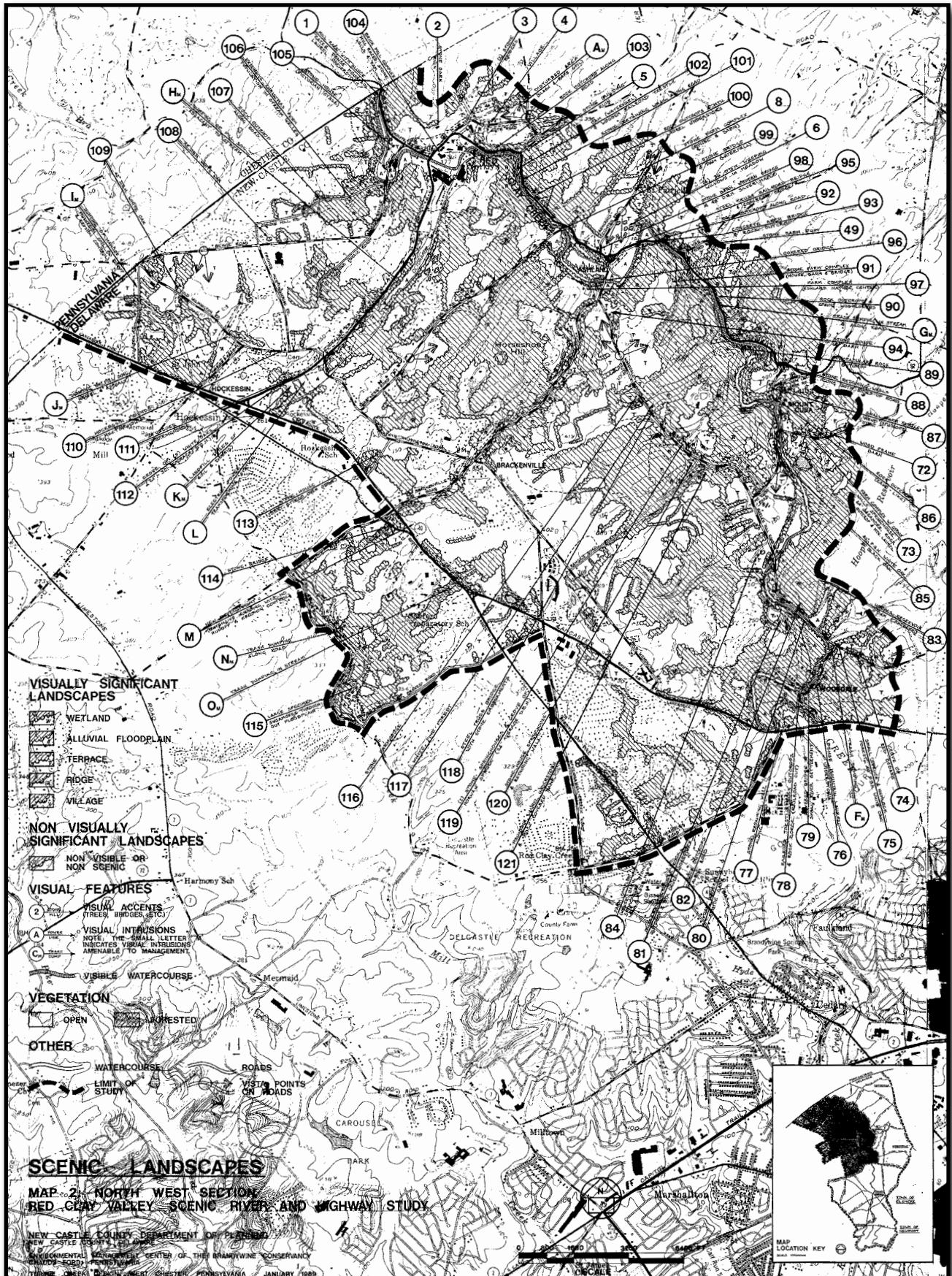
Mt. Cuba

Auburn Heights

Overlook Farm

Old Mill Village

Covered Bridges



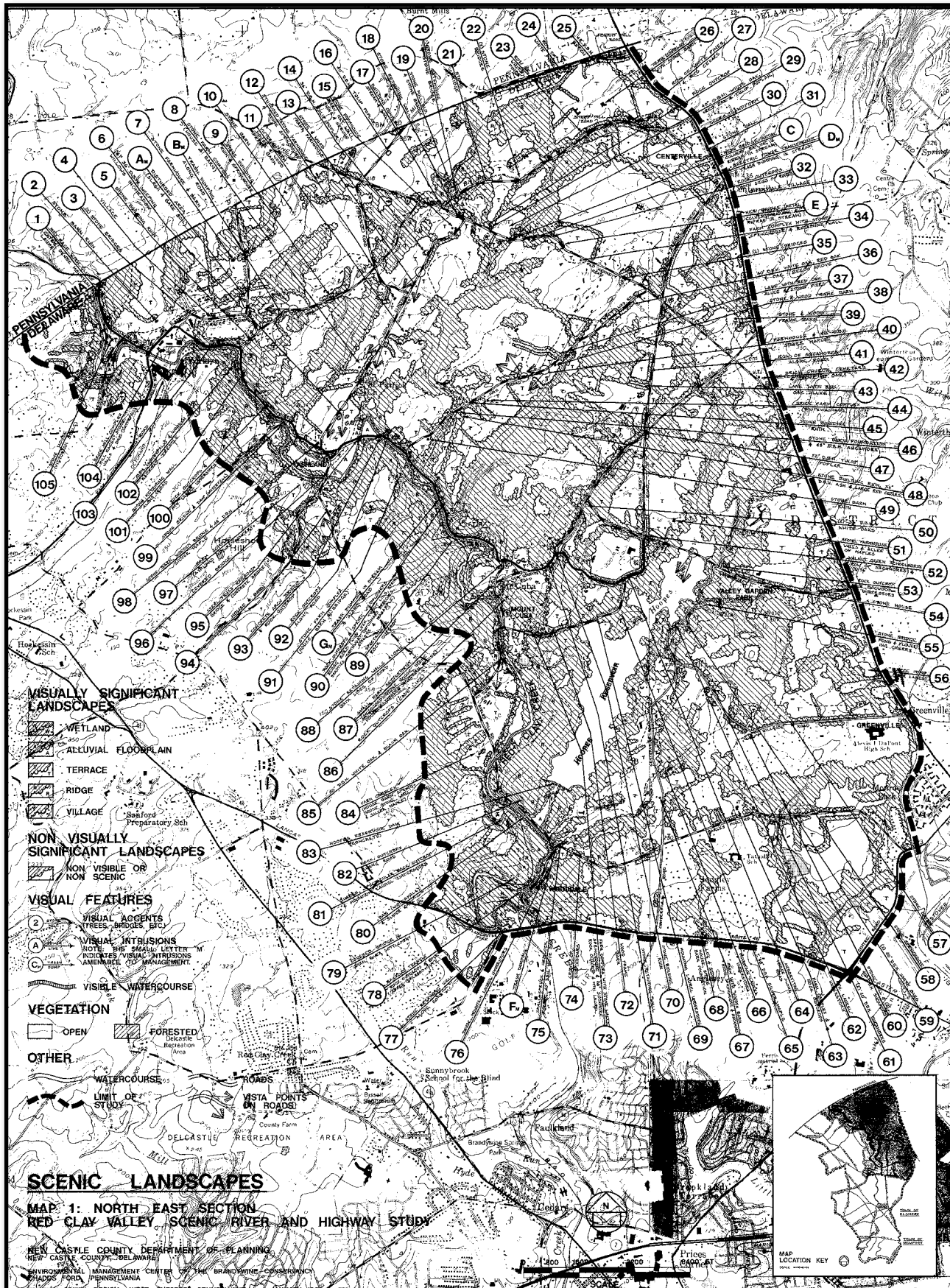


Figure B-1. Early studies of the Byway include a landscape and visual assessment of the Byway as seen from the roadway system. These images were reproduced from the Red Clay Valley Scenic River and Highway Study, produced by New Castle County in 1989. The pictographs indicate significant environmental, topographical and cultural features of the Byway and overlay those inventories with the qualitative analysis of the Byway's viewshed. Documents and studies such as this are extremely valuable starting points when assessing the impact of potential changes and/or development on the Scenic Viewshed of the Byway.

Section C

Design Guidance

The previous section summarized what was important in the Byway, and why it is worthy of protection and enhancement. This section provides general design guidance, including general policies, strategies, and tactics that focus on the 'how to' regarding protection and enhancement of the Byway's intrinsic qualities.

This section walks the reader through several generalized protection and enhancement strategies that are embedded in New Castle County's Comprehensive Development Plan and the Overlay District. This section starts at the macro-scale and narrows the focus to detailed applications and tactics. Specific context-sensitive tools and techniques are discussed in the next section.

The general outline for this section starts with regional policies county comprehensive planning guidance that has set the framework for protection and enhancement of the Byway and finishes with the guiding principles of the Overlay District.

Policy Framework

At the macro-scale, there have been several policies put in place to help protect the Byway.

Planning documents prepared by New Castle County and WILMAPCO, the Metropolitan Planning Organization that encompasses both New Castle County and Cecil County in Maryland, recognize the rural, natural and picturesque character of the Byway, as well as many other areas in north-west New Castle County.

As can be seen in both the County Comprehensive Development Plan and the WILMAPCO 2040 Regional Transportation Plan (RTP), the Byway is planned as a rural and resource protection enclave, with limited development.

Until recently, the UDC did not recognize, nor have standards for rural, natural, or picturesque land protection with limited development. The UDC simply was not sufficiently structured to provide the level of protection as recommended in these policy documents at the regional, state, and county levels. The UDC's standards are generally 'suburban' or 'urban' in nature. Additionally, most of the existing zoning districts within the Byway are, and will continue to be, low density sub-

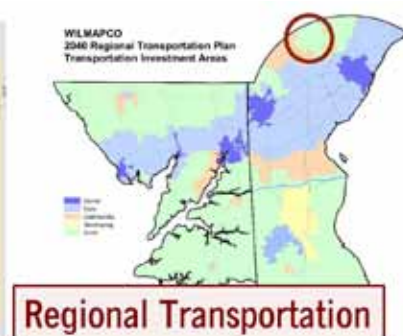


Figure C-1.

urban zones.

The UDC does have certain protective measures for areas of environmental sensitivity or historic significance, but is very limited for scenic viewshed protection. Therefore, the Overlay District bridges the gap in the UDC without the disruption of a new base zone or the comprehensive rezoning of this vast region of the county. The Overlay District is discussed in detail in Section E.

The Overlay District is just what the name implies; it is 'overlaid' on the existing zoning districts in the Byway. It provides additional regulatory control based on a set of established principles intended to provide scenic viewshed protection. The underlying zones do not change, but when there is a conflict between the requirements of the Overlay District and the underlying district, the more stringent of the two will apply.

In most cases, the Overlay District is more stringent. It establishes greater setbacks, greater buffering

standards and a greater level of design scrutiny than is required in the underlying zones. However, in return, the Overlay District also provides greater design flexibility than is offered in the underlying zones.

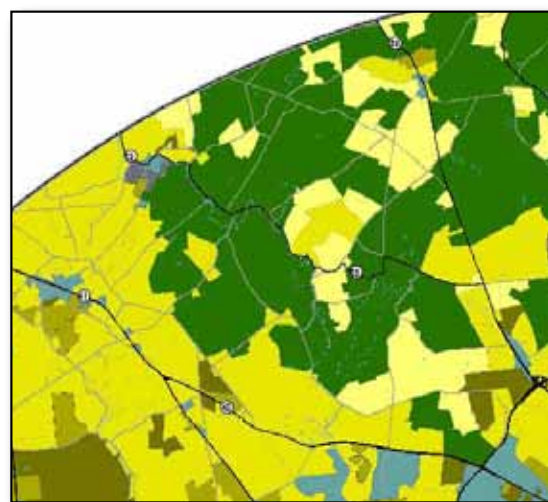


Figure C-2. Future Land Use Map of the Red Clay Valley Scenic Byway area from the 2012 New Castle County Comprehensive Plan, with a substantial amount of the land within the byway identified as "Resource & Rural Preservation" (dark green), and "Very Low (0-1 Dwelling Units Per Acre)". Existing subdivisions, generally around the periphery of the byway are identified as "Low (1-3 Dwelling Units Per Acre)."

Planning Framework: Maintaining Rural, Natural and Scenic Character

This concept is an over-arching policy that affects every aspect of a new proposal, from the general pattern of development to the most minute of details. Patterns, road designs, materials, finishes, massing, landscaping and all other aspects of development fall along the transect. A fence for example, finely refined in wrought iron, set upon a low brick wall may be more at home in an urban context than a rough-hewn post and rail fence. The post and rail would more likely be found in a rural context. The same is true for all other elements. So the first step in planning and designing an improvement in the Byway is to understand the surrounding landscape and how that improvement will enhance, rather than diminish its current character.

Figure C-3 describes a simple human settlement transect, a spectrum of development typologies from rural and natural types at one end to urban types at the other. The Red Clay Valley, notwithstanding its zoning, is a combination of natural and rural typologies. In order to protect these qualities, it is critical that incompatible typologies, such as sub-urban and urban are not allowed to develop in the area. This approach meets the general intent of ‘protection and preservation’.

Enhancements in the Byway can be achieved through improvements to existing structures, landscapes and infrastructure that are compatible with the natural and rural context, and through the removal and expulsion of existing features that are not appropriate in this transect zone.

The landscape dominates the viewshed in the T1 and T2 zones, so the addition of new buildings must be carefully planned and limited to avoid intrusions in the public viewshed and to avoid a pattern of several buildings that may dominate the landscape.

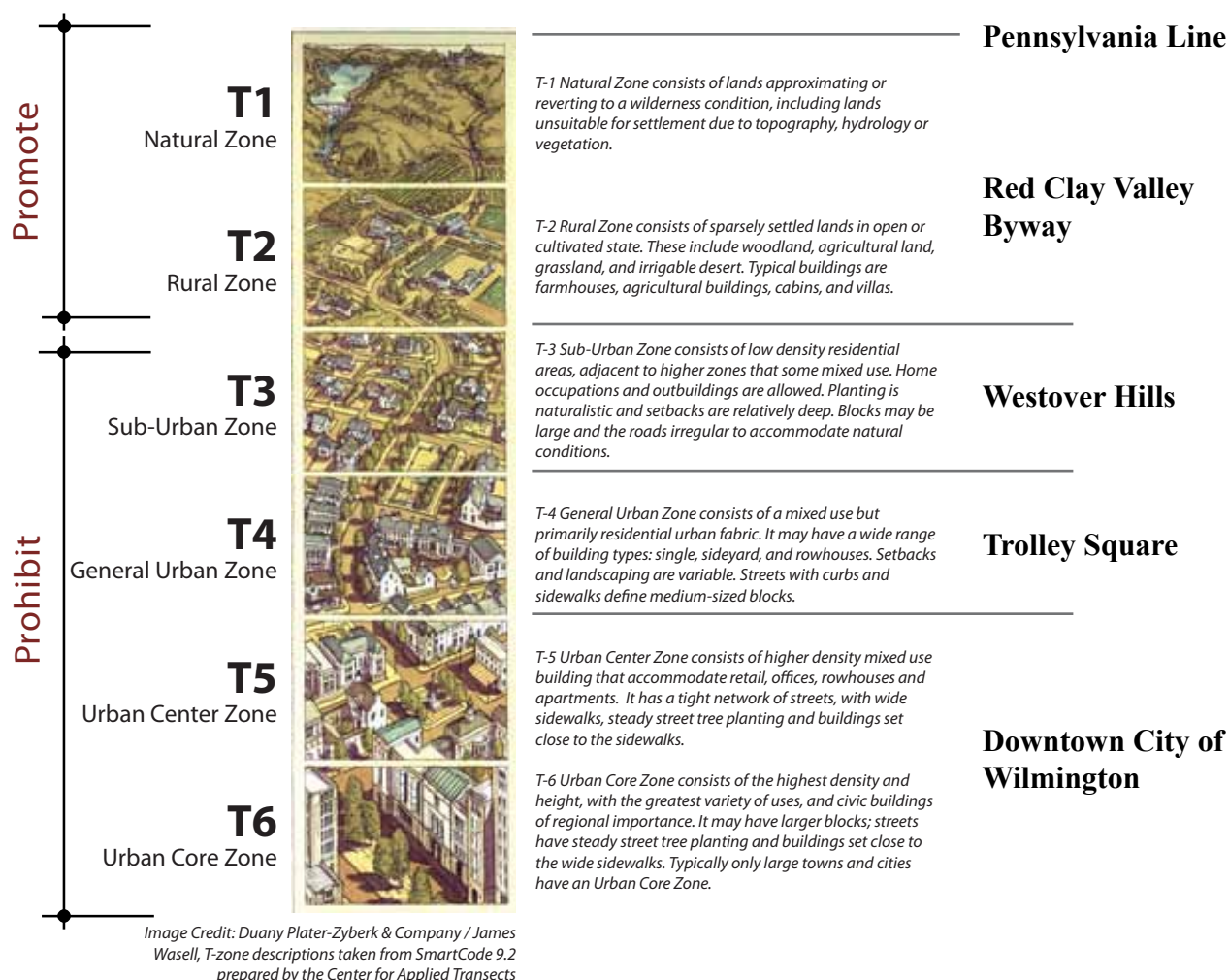


Figure C-3. The Rural to Urban Transect

Guiding Principles of the Overlay District

There has been significant design guidance over the years in many of the preceding studies and reports pertaining to the Red Clay Valley, that include the:

- *2012 New Castle County 2012 Comprehensive Plan,*
- *2011 Project Development Manual - Context Sensitive Solutions for Delaware Byway,*
- *2008 Corridor Management Plan for the Red Clay Valley Scenic Byway,*
- *2007 Red Clay Creek Scenic Byway - Final Report on Vegetation Community Survey, and the*
- *1989 Red Clay Valley Scenic River and Highway Study.*

The following is a summation of that design guidance plus the public feedback received during 2015-2016 as a part of the outreach process that culminated in the preparation of these Design Guidelines.

Primary Goal

During the recent planning sessions, all of this design guidance was synthesized into a simple and overarching goal which is the foundational basis for these Design Guidelines and the Red Clay Valley Scenic Byway Overlay District:

"Protect and enhance the intrinsic qualities of the Byway, primarily its scenic vistas and viewsheds."

Guiding Principles

The Overlay District is somewhat unique in that it includes seven 'Guiding Principles' for design and development. Adherence to the principles is integral to the Overlay District.

The following pages provide strategies, suggestions and tactical approaches for accomplishing the Guiding Principles in a new application. The Overlay District also provides a performance-based and flexible approach in order to achieve the intended outcome.

Guiding Principles

1. Protect and Enhance. Protection, preservation, and enhancement of the character-defining features, unique qualities and scenic resources of the byway; including scenic, natural, cultural, historic, archeological, and recreational features. This includes roadway character.

2. Scenic Viewshed Protection. The primary protection and enhancement objective is scenic viewshed protection.

3. Conservation Design. To the maximum extent feasible, applications must utilize conservation design strategies, consistent with the goals and objectives of the district and the definition found in 40.33.300.

4. Context Sensitive Solutions. To the maximum extent feasible, applications must utilize context sensitive solutions, materials, and methods compatible with the character of the surrounding landscape.

5. Enhanced Resource Protection. In addition to the protections and other standards of Article 10, applications within the Overlay District should also preserve and protect additional natural, cultural, and other character-defining site features, including but not necessarily limited to, stone walls, old lanes, fence rows, and cultural remnants of past human settlement. These features should be integrated into the overall plan for the property.

6. Minimal Impact. Applications must avoid visual intrusions into the scenic viewshed to the maximum extent feasible. If intrusions are unavoidable, the nature, intensity and quantity of the intrusion must be minimized. All unavoidable intrusions must be mitigated with an appropriate level of compensating features.

7. Open Space. Designs should support the creation of open space systems that protect scenic vistas, resource areas, and other character-defining features; and should be configured to provide a contiguous and viable greenway and recreational system within the district.

GUIDING PRINCIPLE 1: Preserve and Enhance Intrinsic Qualities



Figure C-4. Pond near Way Road on Willow Way Farm.



Figure C-5. Historic structure along Creek Road.



Figure C-6. Barns along Mt. Cuba Road.



Figure C-7. Bridge near Yorklyn.

The primary purpose of the Overlay District is to preserve the Byway's character. As discussed elsewhere, the character of the Byway is primarily a function of its scenic and natural beauty. Scenic and natural beauty are the Byway's primary and secondary intrinsic qualities.

1.1. **Preserve intrinsic qualities by utilizing:**

- a. Perpetual easements that preserve character-defining features.
- b. Dedication or purchase in perpetuity options of land for parkland, agriculture and/or other uses that are compatible with the character of the Byway.
- c. Clustering and conservation design strategies that move all development out of the viewshed.
- d. Protection strategies for natural, cultural, historic, archeological, and recreational amenities within the Byway linked with scenic protection strategies, with the highest priority on protections within Sub-districts 1 and 2.
- e. Preservation techniques that protect all character-defining features such as forests, fence-rows, outcrops, and other natural and man-made features that enhance the scenic quality.
- f. Maintain the unique character and scenic quality of Byway roads. All efforts should be undertaken to preserve the present roadway character, unless life safety or maintenance requires change. If changes are required, all reasonable efforts must be undertaken to design, detail and implement changes at the highest level of context sensitivity. Any required changes should be the minimum necessary to resolve an issue with the least impact.

1.2. **Conserve existing character-defining features of the Byway through improvements and maintenance that is context-sensitive.**

- a. Utilize methods and materials that are compatible with the Byway. Conservation strategies and context sensitive strategies apply to all elements, existing and proposed, within and adjacent to the Byway.
- b. New streets should be designed with rural and scenic character, including narrow pavement width, minimal shoulders, horizontal and vertical alignments that match existing topography with minimal cuts and fills.
- b. Stormwater management facilities should seamlessly integrate into the natural environment, without artificial grading or form, and with native planting.
- c. Cultural improvements such as fencing, signage and lighting should be minimal in nature, unobtrusive in design and placement, sympathetic to the surrounding landforms and landscape, contextual with neighboring properties, and made of materials that are consistent with a rural and natural setting.
- d. Locate new utilities below grade or outside the scenic viewshed. Unavoidable intrusions must provide mitigation, buffering, and/or compensating features.



Figure C-8. Campbell Road at Hoopes Reservoir.



Figure C-9. Ashland-Clinton School Road.



Figure C-10. Fence row along Barley Mill Road.



Figure C-11.. Scenic Viewshed at Coverdale.

1.3. **Enhance** the visual quality of the Byway by:

a. Making improvements and/or repairs to existing character-defining features.

b. Add positive elements to the landscape such as forest plantings, fencing, and other features that will contribute to the scenic quality and composition of the landscape.

c. Remove inappropriate elements in the landscape that deter from the scenic quality of the Byway, such as redundant or unnecessary traffic signage that could be consolidated and other existing improvements that are of a character or materials that are not in keeping with the Byway.

d. Green existing lots within and/or adjacent to the Byway in order to provide better visual buffering and a more compatible relationship between earlier developments within the Byway that do not, or cannot positively contribute to Byway character.

e. Provide new construction in the right location, designed and sited in proper relation to the landscape, constructed of the proper materials, and in a style and massing that is compatible with Byway character and limited in visual density.

f. Utilize enhancement strategies, methods and materials that add to and/or improve the character-defining features of the Byway and are consistent with the rural character of the area, with the highest priority on those features within Sub-districts 1 and 2.

g. When building or renovating in the viewshed, only provide accents and avoid visual intrusions.

h. Flexible standards should be employed in order to provide access, pedestrian facilities, utilities, stormwater management, grading, drainage, and signage that are consistent with the character of the Byway.

Preservation.

The act or process of applying measures necessary to sustain the existing form of identified character-defining byway features. This includes both physical features associated with the roadway, and features within the roadway's scenic viewshed.

Conservation.

The act of design that creates a stable condition or a gradual process of appropriate development that prevents a relapse of a desired byway intrinsic quality or character-defining feature.

Enhancement.

The act of augmenting existing byway intrinsic qualities by increasing or magnifying their beauty, effectiveness, or perceived value or improving their environmental context.

GUIDING PRINCIPLE 1: Preserve and Enhance Intrinsic Qualities

Accent Context Sensitive

Preserves/Conserves/Enhances



Roadside Elements.

Roadside elements include signage, drainage features, pedestrian and bicycle facilities, small structures, mail boxes, utilities, retaining walls, landscaping, fencing, lighting, etc. It is critical that these features contribute to, and are compatible with the scenic qualities of the roadway experience. Elements that do not contribute to that experience may be considered an intrusion and must be avoided.

Intrusion Not Contextual

Detracts/Diminishes/Destroys



Architecture.

Accent buildings in rural and natural areas should be constructed of natural materials and be detailed consistent with the proposed style. Painted structures should blend with the natural environment, utilizing muted colors and earth tones. Intrusive buildings that have colors and massing that contrast with the natural environment should be avoided.



Landscape.

Landscaping and vegetation in rural and natural areas include native species planted in natural and organic patterns. Intrusive landscaping patterns include a mix of native and non-native species, often with a predominance of variegated ornamental varieties planted in a pattern that suggests human intervention.



Patterns.

Development patterns in rural areas are very low density, with buildings nestled into the edges of forests, with deep setbacks and the prominence of landforms and vegetation in the viewshed. Intrusive patterns include short setbacks, repetitious building placement and a predominance of buildings and infrastructure, rather than landscape in the viewshed.



Definitions.

Visual Accents. Elements and/or improvements that are compatible with the character-defining features of a scenic byway and protect and/or enhance a byway's intrinsic qualities. Visual accents include visually significant landscapes, structures, and landforms within the public viewshed that serve as indicators of natural, cultural, and/or historic processes, contain multiple resources that together form visually significant groupings, or are clear examples of superior features or characteristics.

Visual Intrusions. Elements and/or improvements that are not compatible with the character of a scenic area and do not add to the protection or enhancement of a scenic area's character-defining features and/or intrinsic qualities.

Figure C-12.

GUIDING PRINCIPLE 2: Provide Scenic Viewshed Protection

Roadside property, that portion of a property that is immediately adjacent to the right-of-way, is the easiest and, relatively speaking, the least expensive to develop. It is also the most critical part of the Byway from a scenic viewshed protection standpoint.

As can be seen in Figure A-1, the Red Clay Valley has slowly over time been the victim of ‘strip lotting’ along its most scenic roadways, generally at the edge of the Byway, a form of ‘development creep’.

In his book *The Experience of Place*, Tony Hiss likens this effect to “Appleton’s Principle” which states that “the first ten percent of development usually destroys fifty percent of the countryside”.¹ The reason this is that most people experience the landscape by driving through it.

The parts of the environment that are visible from the roadway is referred to as the scenic viewshed. It includes all surrounding points that are in the line-of-site of the observer.

Since the Red Clay Valley Scenic Byway’s most important attribute is its scenic beauty, the need for protection of that quality is paramount. Therefore scenic viewshed protection is an integral component of the Overlay District. The Overlay District establishes sub-districts based on visibility zones. Of the four visibility zones: immediate foreground (the visible area within about three-hundred feet of the viewer), foreground (from three-hundred feet and one-half mile), middle ground (from one-half mile to four miles) and background (beyond four miles), the Overlay District is focused primarily on the immediate foreground and the closest portion of the foreground since impacts in these areas have the greatest impact on scenic resources.

The Overlay District focuses on the first one-thousand feet, with the greatest controls required in the first two-hundred feet (Sub-district 2).

¹ Hiss, Anthony; *The Experience of Place*,

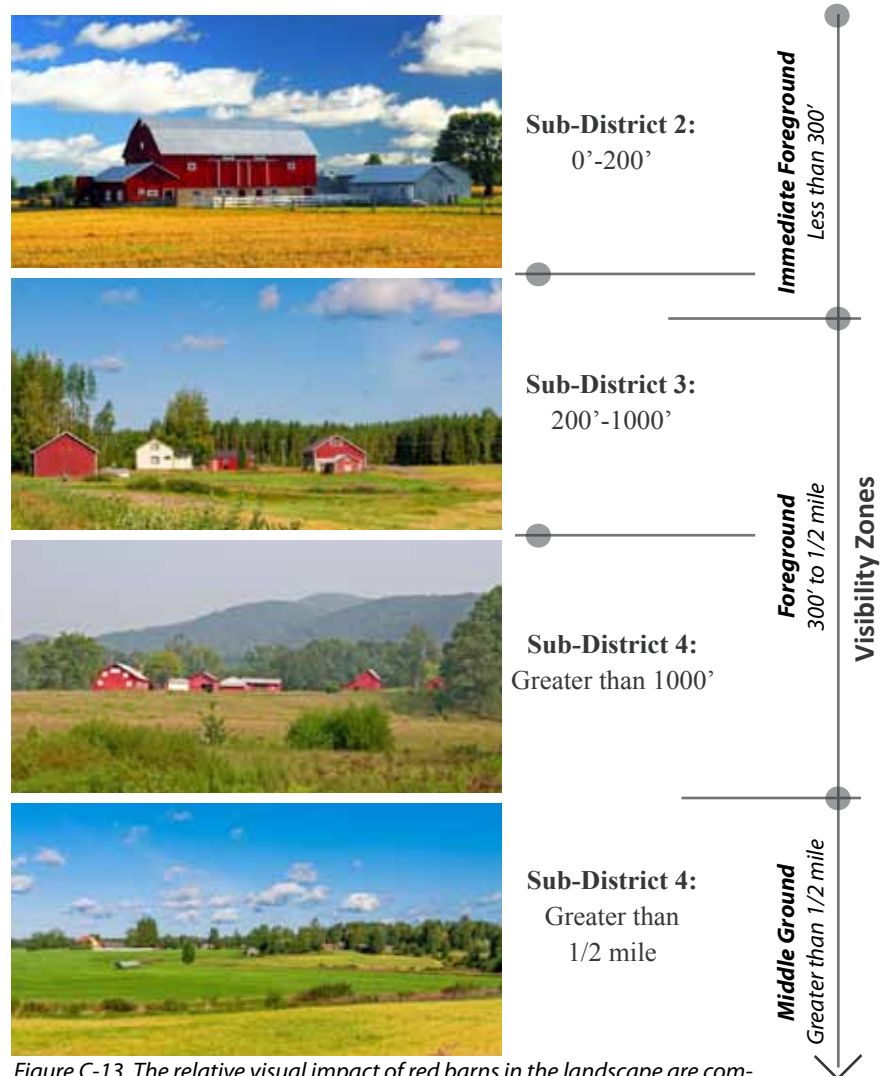


Figure C-13. The relative visual impact of red barns in the landscape are compared based on visibility zones and the Overlay District’s sub-district boundaries.

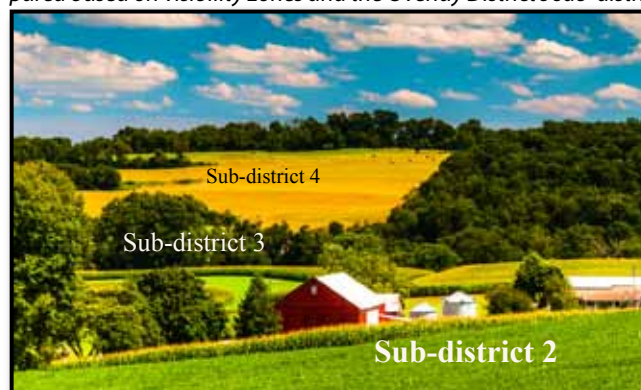


Figure C-14. The Overlay District utilizes sub-districts to control and protect viewsheds. Each farm field shown in this image falls within a sub-district. Although the furthest field (yellow) is in sub-district 4, and is therefore not subject to the scenic viewshed protection measures of the Overlay District, it is clear that non-contextual development would have a strongly negative effect on the scenic viewshed and therefore conservation design strategies and appropriate development patterns would be encouraged.

GUIDING PRINCIPLE 3: Employ Conservation Design Principles

Article 33 of the UDC defines conservation design as “a series of holistic land development design goals that maximize protection of key land and environmental resources, preserve significant concentrations of open space and greenways, evaluate and maintain site hydrology, and ensure flexibility in development design to meet community needs for complimentary and aesthetically pleasing development.

The definition goes on to state that conservation design encompasses the following objectives:

- conservation/enhancement of natural resources, wildlife habitat, biodiversity corridors, and greenways (interconnected open space);
- minimization of environmental impact resulting from a change in land use (minimum disturbance, minimum maintenance);
- maintenance of a balanced water budget by making use of site characteristics and infiltration;
- incorporation of unique natural, scenic and historic site features into the configuration of the development;
- preservation of the integral characteristics of the site as viewed from adjoining roads; and
- reduction in maintenance required for stormwater management practices.

Such objectives can be met on a site through an integrated development process that respects natural site conditions and attempts, to the maximum extent possible, to replicate or improve the natural hydrology of a site.”

This can best be applied in the Red Clay Valley Scenic Overlay District with a emphasis on the UDC objective of “preservation of the integral characteristics of the site as viewed from adjoining roads.”

To fulfill this goal the Overlay District puts its strongest controls in the immediate foreground, the area closest to the road. This includes scenic viewshed protection as well as protection of forest, trees and natural features along the roadway edge. In addition, a more stringent level of screening and buffering, including supplemental plantings, is required in the Overlay District.

In order to accomplish these objectives, applications must be designed and developed utilizing conservation design principles.

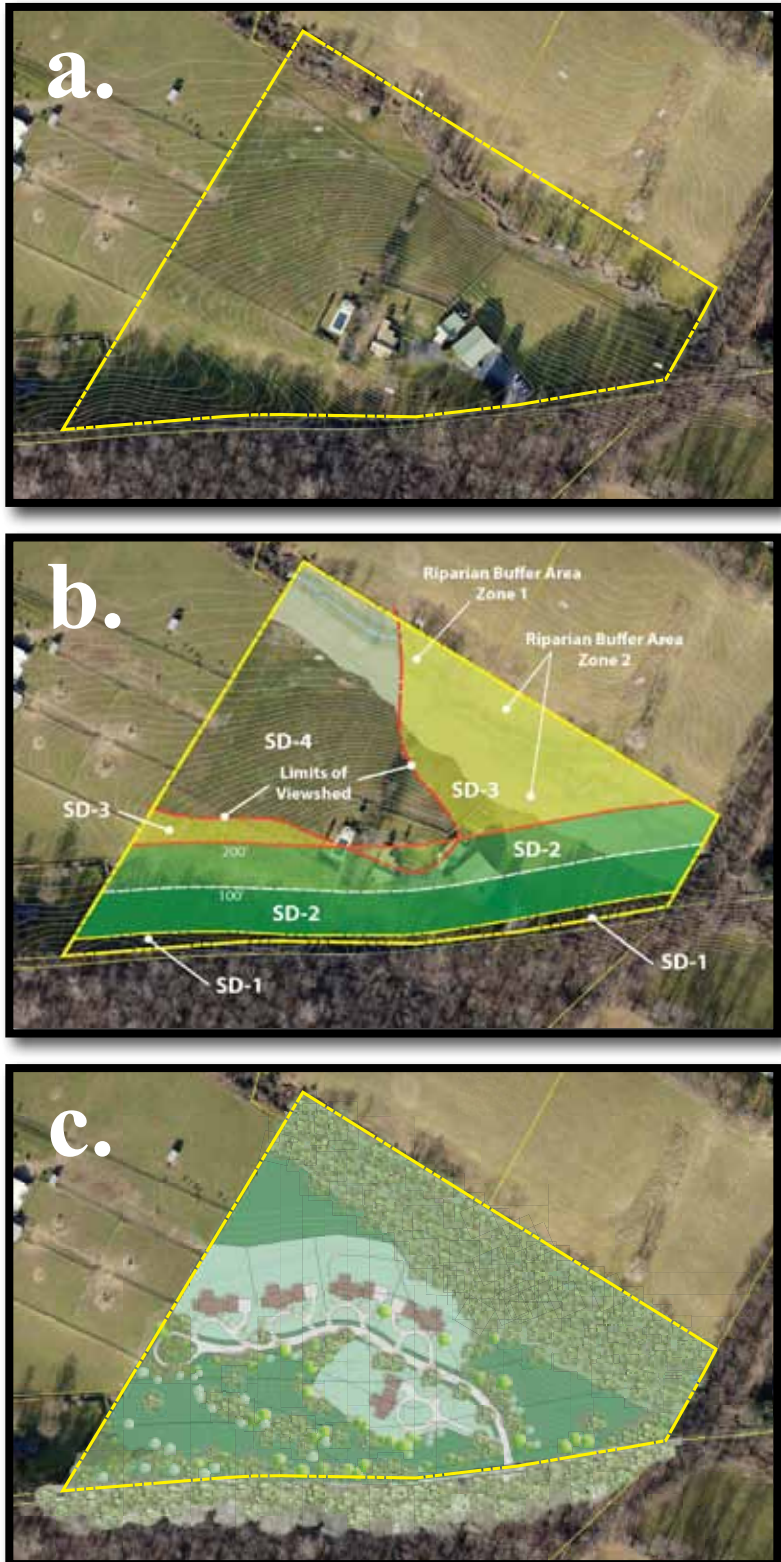


Figure C-15. A summary of conservation design principles that maintain scenic integrity, including viewshed protection, increased setbacks, minimization of access points, enhanced screening and landscaping, and significant open space creation.

GUIDING PRINCIPLE 4: Utilize Context Sensitive Solutions

Context sensitive solutions (CSS) require an increased awareness, sensitivity, and consideration of the impacts of improvements. CSS is the art of providing development patterns and implementation details that are complimentary to the existing landscape pattern.

In the Red Clay Valley Scenic Byway, CSS has a slightly different meaning and approach, depending on whether the proposal is under the jurisdiction of

Appendix 5 of the Red Clay Valley Corridor Management Plan and Section III - Appropriate Treatments of DelDOT's *Project Development Manual - Context Sensitive Solutions for Delaware Byways*, have comprehensive lists and examples of context sensitive design solutions and provide an excellent summary of context sensitive design principles. The reader is directed to those documents for a more detailed discussion of context sensitive design. Section E of these guidelines also provides an overview and summary of context sensitive tools and techniques for use in the Red Clay Valley Scenic Byway.

Context Sensitive Solutions Reference Documents:

1. New Castle County Unified Development Code
2. The Red Clay Valley Scenic Byway Corridor Management Plan
3. DelDOT's Project Development Manual, *Context Sensitive Solutions for Delaware Byways*.



New Castle County or DelDOT.

For projects requiring DelDOT review, the CSS process is a collaborative, interdisciplinary, and holistic approach to development projects. It is both process and product oriented. It involves stakeholders, including community members, elected officials, interest groups, and affected governmental agencies. The goal is to create balance in project implementation, putting both applicant and community values on a level playing field. This process

is more fully explained in *Context Sensitive Solutions for Delaware Byways*.

New Castle County does not have a specific definition for CSS. However the premise of context sensitive solutions is ingrained in the general policies of the county and have been incorporated into the Overlay District.

For projects under the jurisdiction of New Castle County, context-sensitive design and detailing is required. The Overlay District not only permits contextual designs, it strongly discourages any product or design that is not in keeping with the character-defining features of the Byway.

These Design Guidelines are specifically developed to offer unique solutions tailored to the specific context that preserves, maintains, and enhances the

Byway's character defining features.

Flexibility begins with the use

of performance-based standards and the ability to propose viable alternatives to conventional development solutions required by the underlying zoning districts.

These solutions are not limited to general design principles, but permeate every facet of a proposed project, including planning, design, construction, materials, detailing, and maintenance.

As shown in Section D of these Guidelines, and other reference documents, there are several examples of appropriate treatments.



Figure C-16.

GUIDING PRINCIPLE 5: Enhanced Resource Protection.

Enhanced Resource Protection. In addition to the protections and other standards of Article 10, applications within the Overlay District should also preserve and protect additional natural, cultural, and other character-defining site features, including but not necessarily limited to, stone walls, old lanes, fence rows, and cultural remnants of past human settlement. These features should be integrated into the overall plan for the property.



Figure C-17. Route 82 bridge and other examples of Byway elements that would be subject of enhanced resource protection.

Scenic Quality... is defined as the heightened visual experience derived from the view of natural and man-made elements of the visual environment of a scenic and historic roadway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape – landform, water, vegetation, and man-made development – contribute to the quality of the corridor's visual environment. Everything present is in harmony and shares in the intrinsic qualities.

GUIDING PRINCIPLE 6: Minimal Impact.

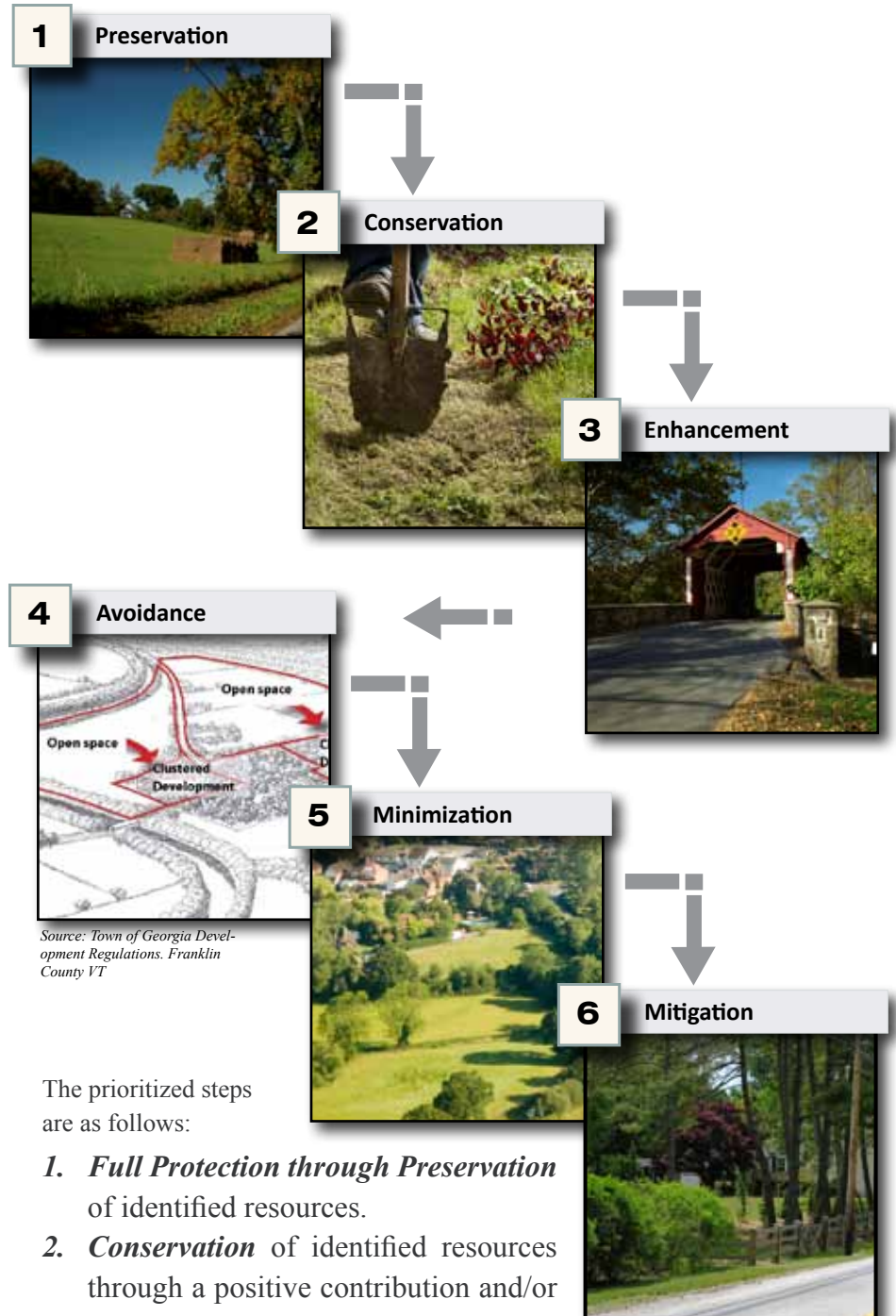
After application of the first five guiding principles, a proposal may still not fully meet the standards of the Overlay District. In these situations, and in order to compensate for negative effects, an applicant must apply a prioritized three step process that includes avoidance, minimization, and mitigation.

When site conditions or other elements of a proposal makes full protection unavoidable, unreasonable or impractical, then the next step in this prioritized process is avoidance of impacts to the greatest extent possible.

If impacts are unavoidable, the second step is to minimize any negative impacts and/or intrusions to the greatest extent possible, and finally, if impacts cannot be avoided, or there is a greater public purpose, mitigation of the impacts would be necessary. Mitigation should be proportional to the magnitude of the impact, utilizing compensating features such as additional buffering, greater setbacks, or other techniques to substantially reduce the intrusion.

An application for development must demonstrate compliance with this approach, and provide justification and compensating features associated with minimization and mitigation if full protection and/or avoidance cannot be accomplished.

This protection strategy is similar to the approach associated with wetlands and/or forest protection, focusing on the most critical elements, then working through a logical process to substantially reduce, minimize and/or mitigate for an impact. It should be noted that many projects will use a combination of these strategies.



The prioritized steps are as follows:

1. **Full Protection through Preservation** of identified resources.
2. **Conservation** of identified resources through a positive contribution and/or process.
3. **Enhancement** of identified resources through improvements, repairs, plantings, etc.
4. **Avoidance** of impacts to identified resources.
5. **Minimization** of impacts to identified resources.
6. **Mitigation** of impacts to identified resources.

Figure C-17.

GUIDING PRINCIPLE 6: Minimal Impact.

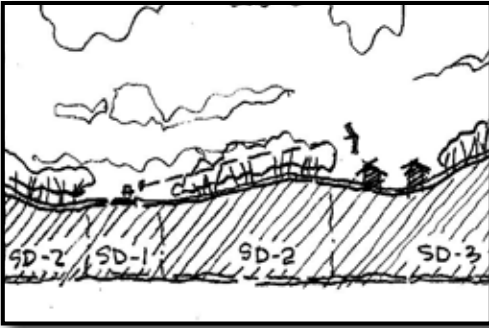


Figure C-18. Use topographic changes and existing vegetation to avoid development in the scenic viewshed.



Figure C-19. Clustered homes on hillside but below the ridge.



Figure C-20. Videre Woods. Visual intrusion of dense suburban pattern that is not compatible with the Byway, and requiring re-mediation.



Figure C-21. Projects must avoid suburban and urban design solutions that are not compatible with the Byway.

Avoid development or alterations within the viewshed.

After maximizing the options available in Guiding Principle 1, employ one or more of the following avoidance strategies:

- a. Cluster development out of Sub-district 2.
- b. Cluster development out of portions of Sub-district 3 that are within the established scenic viewshed.
- c. Cluster development away from the viewshed and into Sub-district 4.
- d. Utilize the flexible design standards of the Overlay District as needed to further the goals and objectives of the Overlay District, emphasizing conservation design strategies and context-sensitive approaches.
- e. Employ conservation design strategies to minimize visual intrusions.
- f. If development must occur within Sub-districts 2 or 3, use distance, existing elements of the landscape, and topography as tools in order to locate new development as far away from the scenic roadway and in the least visually objectionable locations.
- g. Development or other intrusions that do not enhance and/or protect the Byway cannot occur unless it can be demonstrated that the improvement is:
 - i. Determined to be an enhancement to the Byway and is limited in its application, with compensating features as appropriate;
 - ii. Is classified as a de minimus improvement and is implemented in a context sensitive manner; or
 - iii. Is determined by the County or DelDOT to be necessary for general public benefit and is implemented in a context sensitive manner.

Minimize intrusions into the scenic viewshed to the greatest extent practicable.

Reduce the visual impact of new construction and development by avoiding construction that:

- a. Alters or interrupts existing ridgelines. Ideally, new construction should not visually conflict with existing ridgelines.
- b. Impacts steep slopes, moderate slopes with erodible soils, or slopes that are hydraulically adjacent to required riparian buffers. Ideally, riparian buffers should be expanded to include steep slopes, erodible soils, and hydraulically adjacent slopes.
- c. Intrudes on the visual quality of the byway. New construction must be minimized or dissipated through the use of increased setbacks, strategic building siting, topographical features, buffer plantings, and other implementation strategies that minimize unavoidable intrusions into the viewshed.
- d. Where development is permitted, avoid building patterns that are repetitive and static. Rather, provide building configurations and multiple building compositions that are asymmetrically balanced and sit lightly on the landscape with minimal visual intrusions.

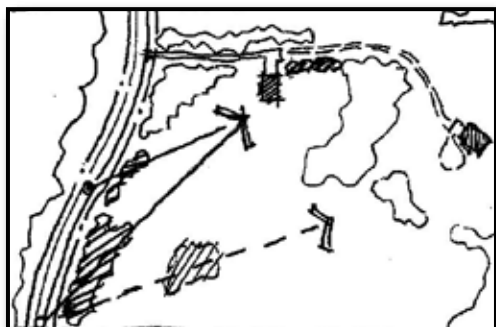


Figure C-22. Use strategically placed elements to buffer and mitigate views to new construction.



Figure C-23. Fence and ornamental plantings that are neutral relative to the forest and adjacent landscape provide screening and mitigation.

1.6. **Mitigate** unavoidable intrusions into the scenic viewshed with an appropriate level of compensating features.

Where negative intrusions have been permitted, relative measures of compensation and mitigation must be provided, such as:

- a. Increased environmental enhancements that substantially increase stream and watershed protection and contribute to the overall greenway system and viewshed protection;
- b. Increased buffering and native plantings that form logical, natural appearing forest blocks and tree stands, consistent with the forest morphology of the area, and in context with the immediate landscape. These plantings should be located to maximize the mitigation of unavoidable and/or permitted intrusions, and should blend with the landscape on the subject tract, and adjoining properties.
- c. Massing of structures that avoid forms that dominate the landscape.
- d. Colors, materials, and textures that blend with the natural environment and reduce contrast. This would include architecture and landscape elements. Contrasting colors and accents will be considered and approved for merit and enhancement only.

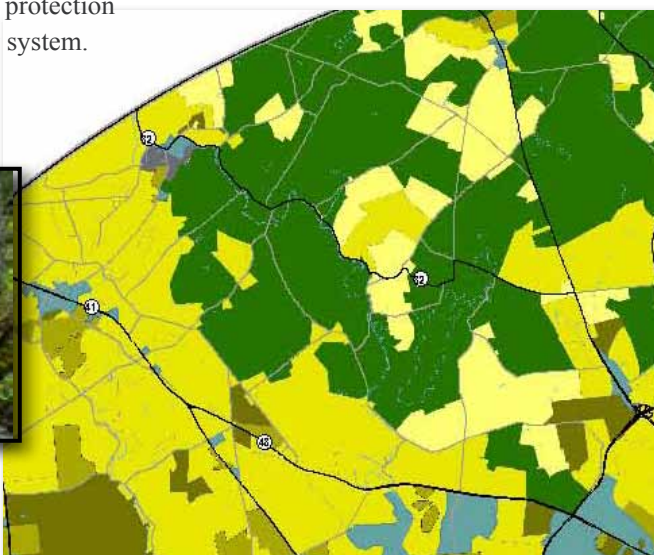
GUIDING PRINCIPLE 7: Open Space.

Cooperative planning efforts between new Castle County, DelDOT, and the Delaware Nature Society should map out a long-term plan for a trails, greenway and open space system for the Byway

Applications should configure open space to maximize scenic protection and to further the implementation of the overall byway greenway system.



Figure C-24. Enhanced natural areas and open spaces configured in such a manner so to create a comprehensive greenway system.





Section D

Context Sensitive Tools and Techniques

Each of the prioritized approaches to protection and enhancement of the Byway's intrinsic qualities listed earlier can be accomplished through a variety and/or combination of specific best practices.

This section of these Guidelines includes a partial list, or menu, of approaches that would fulfill the purpose and intent of the Scenic Byway Overlay District. The Overlay District also allows an applicant to propose solutions that are not listed here if they further the intent of scenic viewshed protection and/or enhancement.



Figure D-1. View from Way Road.



Figure D-2. Auburn Mill Road.



Figure D-3. Avoid unnecessarily straight and wide roads that actually induce greater speeds and increase potential for pedestrian conflicts and are not complimentary to the Byway. Use landscaping and tree canopies to reduce the scale of the road and to add visual interest.

Each of the approaches to protection and enhancement of the Byway's intrinsic qualities listed in the last section can be accomplished through a variety and/or combination of specific best practices associated with appropriate treatments for specific applications within the Byway.

This section is a partial list, or menu, of materials and methods of construction that are consistent with the intent of the Overlay District. The Overlay District also allows an applicant to propose solutions that are not specifically listed here if they further the purposes of the Overlay District. In order to be consistent with the Overlay District, improvements and/or alterations must be enhance the scenic viewshed and further the goals of the Byway.

ALTERATIONS WITHIN THE ROAD RIGHT-OF-WAY AND UNDER THE JURISDICTION OF DeIDOT

Prior to reviewing the guidance within this document for improvements or alterations within the right-of-way, the reader is strongly encouraged to first review DelDOT's *Project Development Manual - Context Sensitive Solutions for Delaware Byways*, which provides general guidance for all byways within Delaware. After applying this general guidance, review the following section for specific guidance for the Red Clay Valley Scenic Byway. The reader is also directed to Appendix 5 of the Red Clay Valley Corridor Management Plan for additional context sensitive suggestions and appropriate treatments within the Byway.

Design Speed.

Design speed is arguably the most important design control for setting and selecting standards for a roadway segment. When evaluating safety and mobility considerations associated with Byway roadways, the maintenance of character-defining features of the Byway are as important as the safety improvements.

DelDOT's Road Design Manual lists four objectives when establishing design speed and other design controls: level of service, safety, economics and context.

In the Red Clay Valley, due to its rural character (terrain and land use), limited usage (traffic volumes), and roadway functional classification (not regional arterials), the design speeds can generally be set at lower levels. This allows the roads to maintain their existing horizontal and vertical alignments, which will maintain scenic qualities and limit unnecessary widening and straightening.

An applicant is strongly encouraged to meet with DelDOT's Byway Coordinator early in the design process to discuss levels of service, safety improvements and other design parameters associated with Byway roads.



Figure D-4. Example of roadside barrier that compliments and enhances the byway's character. Source: Blue Ridge Parkway.



Figure D-5. Concrete bridge abutment with stone veneer and weathering steel guardrails at entrance to Spring Valley.



Figure D-6. Decorative roadside barrier.



Figure D-7. Shared accommodations.

Road Alignment.

The scenic roadways within the Red Clay Valley generally have lower traffic volumes and limited regional traffic impacts. This is fortunate in that the Byway's road alignments can generally be maintained 'as is', except for necessary safety improvements. As a general rule, all alignments within the Byway are intended to remain as is, both horizontally, and vertically.

Roadside Barriers.

The selection of roadside barriers must consider both safety and aesthetic considerations. The use of natural materials or materials that simulate natural materials, are acceptable, including weathering steel guardrails and steel-backed timber guardrails. Stone-faced guardwalls with concrete cores, with the appropriate stone material, preferably locally sourced is preferred. Pre-cast simulated stone guardwalls may be acceptable, if aesthetic considerations can be properly resolved. Colors and textures that compliment the natural environment are all critical to the aesthetics. Color and textures that highly contrast with the natural environment are strongly discouraged.

Bridges, Walls and Other Small Structures.

This family of structures can have a tremendous effect on the Byway's character and quality. Proper execution of these elements in the landscape are absolutely critical. As with all roadway improvements, the structure must positively contribute to the safety and management of traffic. Equally important, the structure must contribute to, and enhance the byway experience and compliment its context.

Bicycle Facilities.

Delaware requires all new and rehabilitated roadways, including byways, to be Complete Streets, accommodating pedestrians, bicyclists, and transit users as well as motor vehicles. The resulting policy, outlined in DelDOT's Policy Implement O-6, ensures a "system that is comprehensive, integrated, connected, safe, and efficient, allowing users to choose among different transportation modes."

Bicycle facilities have several different designs, that vary along a spectrum from completely separate accommodations for all users to completely shared accommodations for all users. Separated facilities generally occur in urban areas where user densities and traffic volumes, and speeds are higher and where separation of facilities promotes safety. Shared accommodations generally occur in areas of very low traffic volumes, slower speeds and relatively low usage levels.

As a general rule, bicycles will share accommodations with other roadway users within the Byway, except for planned or constructed shared-use pathways in the open space and greenway system. These shared-use pathways will separate pedestrian and bicycle traffic from the motorized thoroughfare. To minimize intrusions into the landscape, bicyclists and pedestrians will share these accommodations. The reader is referred to the Byway's Open Space and Greenway Plan for further information on this topic.



Figure D-8. New pedestrian sidewalk in rural environment varies in alignment, follows and existing tree line and utilizes asphalt.



Figure D-9. Rural road in Cades Cove, in the Great Smoky Mountains.



Figure D-10. Limited use of contrasting colors and building forms may be approved in the Byway if they contribute to the enhancement of intrinsic byway qualities.



Figure D-11. Rolling Mill Road landscape.

Pedestrian Environment.

State law requires that the needs of pedestrians must be considered along all state roadways where pedestrians are not prohibited. However, in the Red Clay Valley, separate sidewalks are limited to areas of more urban development such as Yorklyn. Trails and multi-use pathways may be used offer an attractive alternative to sidewalks. In many locations, pedestrians will share the roadway with bicyclists, and motorized vehicles.

Projects will be reviewed on a case by case basis in order to determine if limited pedestrian facilities should be provided in order to separate different byway users for safety considerations.

As noted in other areas, if pedestrian facilities are provided, they must blend with, and enhance the Byway's character. The use of natural surfaces if preferred over artificial surfaces. Where firm surfaces are required, asphalt is preferred over concrete. If concrete must be provided, it should be colorized and/or given texture to avoid a high contrasting color and look that is not in keeping with the Byway character.

The alignment of pedestrian accommodations, like roadways, should vary and follow the existing topography as needed to minimize alterations and to maximize preservation of existing character-defining features in the landscape.

Landscape.

Trees and other vegetation are vital to the character of the Byway. However, AASHTO's 2006 *Roadside Design Guide* views mature trees greater than four inches in diameter inside the clear zone as fixed objects that require removal.

The Overlay District strongly encourages the preservation and enhancement of the vegetative fabric of the Byway. Context sensitive solutions encourage property owners and designers to explore flexible alternatives to encourage the preservation and enhancement of character-defining landscape features while meeting the engineering requirements for safety and mobility.

Appropriate plant species, planted in the proper pattern, compatible with the existing forest and tree stands in the Byway are required for new developments, redevelopments, rehabilitation projects and existing neighborhood greening projects. In 2007, the Delaware Department of Natural Resources and Environmental Control (DNREC) issued a comprehensive inventory of the plant communities within the Byway. This document, *Red Clay Creek Scenic Byway - Final Report on Vegetation Community Survey* (Survey), provides a detailed explanation of the various forested communities of the Byway and mapped their locations, with brief explanations. The survey is also a part of Appendix 5 of the CMP, along with a select list of native plants appropriate for use in context sensitive design applications in the Byway. The CMP also includes a list of native tree species that can be planted under or near overhead power lines.

Site Furniture.

Street furnishings are more typical in urban and small town environments. With the exception of small villages like Yorklyn, the Red Clay Valley is very low density and rural in character. Therefore, furnishings within the Byway will be compatible with that general character. Furnishings are generally lim-



Figure D-12. Example of post and rail fence that compliments the rural landscape with rustic, unrefined details.



Figure D-13. Un-shielded light.



Figure D-14. Utility poles and wires along Way Road diminish the scenic quality of the viewshed.

ited to fencing and decorative markers. Furnishings within places like Yorklyn will be determined on a case-by-case basis.

Lighting.

For lighting standards, refer to DelDOT's *Lighting Design Guidelines*. The Overlay District provides additional requirements for lighting in the Byway as well. Lighting should only be used in very limited circumstances, as required by law for safety and other operational considerations. It is the intent of the Overlay District that lighting be very limited in its application and that lighting levels be of the lowest intensity necessary to accomplish the desired task. All light fixtures must be heavily shielded so that light is focused on the required application and does not present a 'glow' in the landscape.

Light fixtures and poles must be rural in character and enhance the scenic qualities of the Byway. Where appropriate, lights should be mounted on already existing poles to avoid a cluttering of infrastructure in the landscape.

Utilities.

Utility poles and overhead wires have a profound effect on the safety and aesthetics of a roadway. Options to relocate or underground utilities, or to screen in order to minimize their visual impact should be considered when utility work is undertaken in the Byway.

There are several techniques that can minimize the visual impact of overhead utilities that include: consolidation of lines along one side of the roadway, wrapping of wires to create the appearance of a single wire, the strategic location of poles along the roadway and at curves to minimize impacts to existing vegetation, and the screening of lines through alignments of utilities behind tree lines or the introduction on new tree lines where space permits. In built up areas, the visual aesthetics of the Byway can be enhanced by moving utilities to alleys or behind buildings.

Utility relocations could provide the opportunity for enhancing the Byway's aesthetics. However, any material change in the nature of the relocation, such as under-grounding would be considered a 'betterment' under the utility franchise agreement and may fall under the responsibility of the project, not the utility franchise.

New construction requires the under-grounding of new utilities. Transformers, and other above ground facilities, should be screened from view, especially within the scenic viewshed.



Figure D-15: Granite curb at Mt. Cuba.

Curbs.

Curbs and gutter pans define roadway edges and help direct storm flows. However, in the Byway, curbing is discouraged unless there is no feasible alternative. In the event that curbing is required, it should be used in such a way as to provide the necessary solution with the minimal amount of material. Where permitted, curbing should be of natural materials, such as granite, however, it may be cost prohibitive. In some locations, asphalt curbing may be a cost effective and visually compatible solution. Where possible, concrete curbing should also be colorized to avoid the negative visual impact of light colored concrete in the landscape.



Figure D-16: Traffic Calming in Centerville.

Traffic Calming.

Traffic calming is not generally anticipated in the Byway. If proposed, it will be considered on a case-by-case basis. For traffic calming options, refer to DelDOT's *Design Manual*.

Grading and Drainage.

Grading and drainage improvements may have a negative impact on the Byway's character and scenic beauty. In addition to engineering requirements, designers should also consider a project's impact on character-defining features, existing landscape and terrain, environmental benefits, design speeds and realistic capacity issues.

Non-traditional solutions for soil stabilization, grading and stormwater management should be explored and are encouraged in the Overlay District. Creative soil stabilization solutions may include, but is not necessarily limited to bio-engineering, small-scale retaining walls, and indigenous rock that blends with the surrounding landscape. Avoid the use of solutions that are not visually compatible with the surrounding landscape and vegetation.



Figure D-17: Sensitive grading and drainage solution.



Figure D-18. Protected viewsheds may permit limited development. New homes and structures within the viewshed should take maximum advantage of the existing topography and vegetation. Structures should blend with the landscape and minimize intrusions.



Figure D-19: Suburban patterns of development and homes in close proximity to points of view from the byway system shall be avoided. .



Figure D-20. Open views to small residential cluster. Abundance of open space, a limited number of homes, the clustering of homes into a hamlet configuration, the utilization of distance as a buffering tool, and complimentary relationship between built environment and existing landforms provides an acceptable level of visual encroachment.

LAND DEVELOPMENT OUTSIDE THE ROAD RIGHT-OF-WAY AND GENERALLY WITHIN THE JURISDICTION OF NEW CASTLE COUNTY.

General Land Development Standards.

In the Red Clay Valley Scenic Byway, property owners interested in new development or changes to existing development, may need to comply to both the base zoning district and the Overlay District. The base zoning district provides a series of bulk standards as described in the UDC. The UDC also provides several other development standards and required calculations for all aspects of land development and building construction.

In addition to the base zoning district, property owners must also comply with the standards of the Overlay District. When there is a conflict between the base zoning district and the Overlay District, the Overlay District applies. Notwithstanding the additional requirements, the Overlay District also allows flexibility to the standards of the base zoning district in order to accomplish the purposes of the Overlay District. The Overlay District is discussed in greater detail in Section E.

Streets.

The Overlay District strongly discourages the placement of new lots immediately adjacent to the Byway roadway network. New roads that provide access from the existing Byway roadway network into areas of new development are a critical component to the success of the Byway.

The design of new roadways and driveways must use context sensitive design solutions. The Overlay District provides the opportunity for, and strongly encourages the design of roadways with a rural character that conform to the contours of the land and respect and protect natural, cultural, historic and scenic elements.

Utilities.

Utilities in new development must be placed underground. Above ground edifices associated with new utilities, such as transformers, must be screened from primary views associated with the scenic viewshed. Disturbances associated with the placement and construction of utilities should be placed in the same disturbance envelope as new streets and driveway and should minimize changes to landforms, vegetation and other key features of the landscape to the greatest extent practicable.

Stormwater Management.

Stormwater management must be designed in a context-sensitive manner that respects the landscape and topography of a site. Low impact development solutions that utilize bioswales, bio-retention, and rain gardens planted with native species is a preferred approach.



Figure D-21. A limited number of homes on a hillside, below the ridge and partially screened with vegetation are in harmony with the rural environment despite contrasting roof colors. A more natural roof color would improve visual compatibility.



Figure D-22. Naturalized stormwater solution. Source: ASLA, Artful Rainwater Design, Stuart Echols and Eliza Pennypacker.



Figure D-23. Context-sensitive stormwater solution near Old Wilmington Road.



Figure D-24. Native vegetation along Pyles Ford Road.

Grading and Drainage.

In order to limit impacts of new development on landforms and existing vegetation, grading in the Overlay District is strictly limited. Cuts and fills cannot exceed three (3) vertical feet from existing grade, unless a waiver is granted.

Landscape.

The Overlay District has general guidance for designers. Primarily, character-defining trees, forest, and other vegetation should be preserved. New planting concepts should enhance byway features and benefit the motorist's experience. Landscaping, like other proposed elements in the Byway, must be context sensitive.

Appropriate plant species, planted in a natural pattern, compatible with the existing forest are required for new developments, redevelopments, rehabilitation projects and existing neighborhood greening projects.

In 2007, the Delaware Department of Natural Resources and Environmental Control (DNREC) issued a comprehensive inventory of the plant communities within the Byway. This document, *Red Clay Creek Scenic Byway - Final Report on Vegetation Community Survey* (Survey), provides a detailed explanation of the various forested communities of the Byway and mapped their locations, with brief explanations. The survey is also a part of Appendix 5 of the CMP, along with a select list of native plants appropriate for use in context sensitive design applications in the Byway.

Forestry.

Generally, forestry will follow standard county procedures. Forestry and forest protection standards are increased in all street bufferyards along scenic roads (scenic corridors). Proposed plant species and forest communities should be consistent with the existing forest and tree stands.

Cultural Features.

Buildings.

Many buildings within the Red Clay Valley speak to the heritage and history of the place. Buildings that enhance the scenic quality of the Red Clay Valley should be retained and rehabilitated where possible.

Trails.

A trail system provides opportunities to experience and enjoy all of the unique features of the Byway. Where possible, existing trails should be retained and improved. New trails should be added in strategic locations in order to link the various public open spaces and to create a more comprehensive trail network.

Stone Walls, Hedge Rows and Fence Rows.

Hedge rows, fence rows and other remnants of human settlement provide unique character to a natural environment and 'tell the story' of past uses of the land. Although these features are not historic, retaining these features in development and/or renovation projects allows these 'historic' features to enrich the scenic landscape and provide 'markers' to past settlement patterns and uses.



Figure D-25. Homes utilizing existing tree rows to minimize their impact on the viewshed. This also illustrates the benefit of not placing homes in the middle of a field but along the edge.



Figure D-26. Cultural features and remnants of the Byway's past are character-defining features that should be preserved.



Figure D-27. Auburn Heights.



Figure D-28. Protected and unprotected ridgelines.

Landmarks.

There are other features in the landscape that are not historic but nevertheless are an integral part of the experience of the place. These features may be a significant tree, a beautiful bend in the road, a scenic vista to a geological formation, or other landmarks in the community that are unique and character-defining. Again, these features are not necessarily historic or protected by law, but are important elements within the landscape that are a part of the experience and uniqueness of the place. These features are worthy of retention and protection and should be included in any project proposed in the Byway.

Architecture.

Architecture is not controlled or regulated by the Overlay District. However, the massing, roof line, color, materials and general siting all have an effect on the scenic quality of the Byway.

Elements of architecture and design such as building placement, building massing, materials, colors, proportions, textures, and patterns all play a significant role in how a building will interface with its environment. In the Red Clay Valley, owners are encouraged to place buildings 'lightly' on the landscape, with a sensitivity toward retention of existing vegetation and landforms.

Buildings should use natural materials such as stone, brick and wood, and color that are complimentary to, rather than contrasting with the natural environment. Buildings should compliment the surrounding landscape. Buildings composed of asymmetrical, irregular and multi-faceted elements are generally more in keeping with the natural environment than large, bulky buildings that are assembled using one or two massing elements.

Buffering and screening of existing homes is strongly encouraged. A program for 'greening' of existing neighborhoods is discussed in later sections.

Ridgelines.

Ridgeline protection is not specifically legislated by the Overlay District. However, the importance of it cannot be overemphasized. These Guidelines strongly encourage new construction to not interfere with existing ridgelines. Proposed structures should be placed below or behind an existing ridge, and should use existing forest and landforms to diminish and screen their impact on the visual landscape.

Signage.

The Red Clay Valley Scenic Byway is a State designated byway, and as such, has specific criteria for signage that are specified in federal, state and local ordinances and regulations.

Signage can be grouped into three general categories: off-premises signage, on-premises signage, and traffic control signage. The County's UDC further subdivides on-premises signage into six regulated sign types: ground signs, marquee signs, projecting signs, roof signs, wall signs, and electronic variable message signs (EVMS). The UDC also stipulates that certain signs, such as signs provided by governmental authorities, are permitted without limitation,¹ while others such as banners, balloons, and moveable signs are prohibited throughout the county. Traffic control signage is under the jurisdiction of the State and is administered through DelDOT.

Off-Premises Signage.

With respect to off-premises advertising signs, the effective control is established in federal regulations, the Delaware Byways Program, and is also regulated by the UDC which states:

"No off-premises advertising sign shall be permitted within the greenways established, and no off-premises advertising sign shall be erected oriented toward or situated to be observed from any greenway."²

"A greenway is defined as strips of land six hundred sixty (660) feet on either side of the outermost edge of the right-of-way of all the roads, routes and waterways so designated, or such boundaries as are specifically delineated by ordinance of the council. In establishing such greenways, the County Council shall find that the area to be so designated meets the following standards:

1. The area has unique scenic, historic or recreational character or value.
2. The area is primarily residential or agricultural in character.
3. Off-premises advertising signs are or would be an intrusion on the unique

value of these areas and in conflict with the essential character of the area."³

The Red Clay Valley Scenic Byway, for the purposes of regulating off-premises advertising signage, is a greenway as defined by the UDC, and thereby off-premises advertising signage is prohibited within the Overlay District, within 660 feet of the byway's scenic road right-of-way, or within the byway's viewshed.

Byway Standards.

Since the Red Clay Valley Scenic Byway is a state designated scenic byway, there are additional signage restrictions. For example, the Delaware Byways Program prohibits the use of EVMS signs along designated Delaware byways.⁴ Section 40.06.010 states that the UDC incorporates 17 DE C, Chapter 11 by reference. Therefore the Overlay District prohibits EVMS signs along all scenic road rights-of-way, or within the viewshed of scenic roads within the district, whether they be on- or off-premises signage.

¹ New Castle County, *Unified Development Code, Section 40.06.040*

² *Ibid.*, *Section 40.06.070.B.*

³ *Ibid.*, *Section 40.06.070.A*

⁴ *17 Del. Laws, Chapter 11, Section 1110(b)(3)e.7.*



Figure D-29. Signs should be minimal in scale and compatible with the natural environment.



Figure D-30. Sign clutter.



Figure D-31. Community identification signage that is not compatible with Byway character.

On-Premises Signage.

In addition to the sign limitations and prohibitions already found in the UDC, the Overlay District requires additional restrictions for signage. For example, the Overlay District prohibits marquee signs, projecting signs, and roof signs.

The Overlay District prohibits the use of back-lit or illuminated signs and requires that when signs are lit, the light source be exterior to the sign using shielded, low wattage, and diffuse white light.

The remaining sign types: ground mounted signs, and wall signs are permitted in the Overlay District, subject to the limitations of the UDC's Schedule of Sign Restrictions and the additional restrictions of the Overlay District:

- **Height.** Heights of signs in the Overlay District will be limited to fifteen feet or one-half the height of the underlying zoning district, whichever is less.
- **Size.** The size of signs in the Overlay District will be limited to seventy-five percent of the sign area permitted in the underlying zoning district, or one and one-half square feet, whichever is greater.
- **Material.** All signs should be constructed of natural and durable materials. Painted wooden signs are generally more appropriate. Aluminum, Alupalite, acrylic, magnetic, nylon-reinforced vinyl, polystyrene, and other similar materials are strongly discouraged. Synthetic materials that mimic natural materials may be considered.
- **Color.** Sign color is not regulated by the Overlay District or the UDC in general. However, as general guidance, color choices should complement the scenic quality of the Byway. New signage should avoid the use of highly intense primary and secondary colors and avoid the use of color combinations that create discordant color schemes. Color schemes should be limited to two or three colors with high contrast for legibility and simplicity.

Oversized community entrance signage, typically referred to as 'monumentation' is strongly discouraged in the Byway. Community signage should be relatively small in scale and utilize natural materials or materials that mimic natural materials so that the signage compliments the surrounding neighborhood. The Overlay District encourages the use of signage that does not contribute to scenic blight, but rather is subtle in nature, utilizing natural elements and materials.

Additional examples of appropriate signage, as well as suitable materials for use in the Byway, can also be found in Appendix 5 of the Corridor Management Plan.

Traffic Control Devices and Signage.

Traffic control signage is necessary to provide direction and information to motorists. These signs, however, have the potential to negatively effect the Byway's aesthetics. To the extent practicable, traffic control devices and signage must be located and coordinated in such a manner so that the least amount of signage is provided.

Directional and wayfinding signage, warning signs, and other traffic control signage are regulated by DelDOT. Signs, even on private roads must meet the guidance in the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD) and the physical and dimensional requirements of the Delaware Standard Signs Book and the Standard Highway Signs and Markings book.

The DE MUTCD states that “regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness. If used, route signs and directional guide signs should be used frequently because their use promotes efficient operations by keeping road users informed of their location.”¹ Consistent with this guidance, the Overlay District encourages restraint in the use of warning, route signs and directional guide signs to the minimum necessary by code. The Overlay District also encourages the use of minimum standards for size of signage based on the flexibility of the DE MUTCD for ‘commercial districts and residential areas’ per Table 2B-1.

When adding or altering signage within the Byway, consider the possibility of combining multiple signs, with the understanding that within the right-of-way signs must meet the co-posting constraints of the DE MUTCD.



Figure D-32.
Context-sensitive
wayfinding and
traffic control
signage.

Other Signage.

Notwithstanding the requirements of the UDC, wayfinding, tourist-oriented signage, point of interest signage, interpretive signage, and trailmarker signage is encouraged if used as part of an overall byway signage plan that provides educational opportunity and/or byway enhancement. Any signage in this category must be approved by the DelDOT Byway Coordinator and is subject to all the requirements of the codes.

Management of Signage.

Ongoing byway management and sign planning should identify and address sign issues that may interfere with the overall aesthetic quality of the byway, such as unnecessary signage, sign clutter, and repetitive or obsolete signs.

¹ DE MUTCD, Chapter 2, Section 2A.04: Excessive Use of Signs.

The

Scenic Byway Overlay District

1

Overview

The following is a general overview of the regulatory elements of the Scenic Byway Overlay District. The language for the Overlay District is in Article 16, Division 40.16.100 of the Unified Development Code (<http://czo.nccde.org/>).

The intent of this section is to break-down the major elements of the Overlay District into simple concepts and offer suggestions for compliance.

Relationship of the Red Clay Valley Scenic Byway Overlay District and the Red Clay Valley Scenic Byway

The Delaware Byways Program is a collaborative effort among Delaware's citizens and local, state and federal governments. DelDOT manages the Delaware Byways Program. The Program's purpose is to recognize Delaware roads possessing the desired intrinsic qualities which enhance the traveler's experience. The Red Clay Valley Scenic Byway is a part of this State system, receiving designation in 2005. The Byway Program does not have any regulatory controls associated with it.

The Scenic Byway Overlay District is a part of the UDC, which is Chapter 40 of the Code of New Castle County. It is a zoning district that 'overlays', or is in addition to, the underlying zoning district and has a set of additional requirements. When there is a variance between the Overlay District standards and that of the underlying district standards, the more restrictive will apply.

The Overlay District generally follows the boundary of the Byway, but not in all cases. The official map may be reviewed at <http://www.nccde.org/403/Zoning> to determine if a particular property is located within the Byway and/or the Overlay District.

Major and minor development applications, and sign permits are subject to

the Overlay District standards. All other activities and permit types are exempt.

Jurisdictional Boundaries

The Overlay District is administered by New Castle County through the development review process. Road rights-of-way and road improvement projects are subject to the review authority of DelDOT.

DelDOT has a Byways Coordinator to assist applicants within a State byway. DelDOT also has its own guide book: *Context Sensitive Solutions for Delaware Byways*. DelDOT also refers project applicants to these Design Guidelines in that they are specifically tailored to the unique character and challenges of the Red Clay Valley Scenic Byway. Due to this split jurisdiction, the Overlay District utilizes sub-districts in order to organize requirements by jurisdictional boundary.

New Castle County, DelDOT, and the Delaware Nature Society, the Byway Administrator, work cooperatively during the review of projects within the Byway.

The boundaries of the Overlay District align with the boundaries established by the designation of the Red Clay Valley as a scenic byway by the State of Delaware in 2005. The Byway's CMP is a storehouse of information about the byway, its flora and fauna and its history and should be reviewed when proposing changes in the Byway. It also has several context sensitive solutions for construction within the byway. For these reasons, the Corridor Management Plan is an Appendix to these Design Guidelines.

Design Guidelines

These Design Guidelines have been prepared to assist builders, developers, and property owners in the application of the requirements of the Overlay District. The Design Guidelines are not part of the Code of New Castle County. They are intended for guidance only.

These guidelines are also tailored specifically to the Red Clay Valley. Each Scenic Byway in the county has or will have its own set of guidelines. The guidelines are also an attempt to bridge the jurisdictional boundary line, offering suggestions and context sensitive solutions for roadways and alterations to roadways that fall under the jurisdiction of DelDOT.

Finally, the Guidelines are an attempt to be a resource for individuals who want to know more about the Byway .

Sub-Districts

The Overlay District is composed of four sub-districts, each measured from the road network. The combination of these sub-districts, and the relationship of a property to the scenic viewshed establishes the level of control required by the Overlay District. There is a detailed discussion on the methodology of mapping sub-district boundaries and the scenic viewshed in the next section: Development Review Procedures.

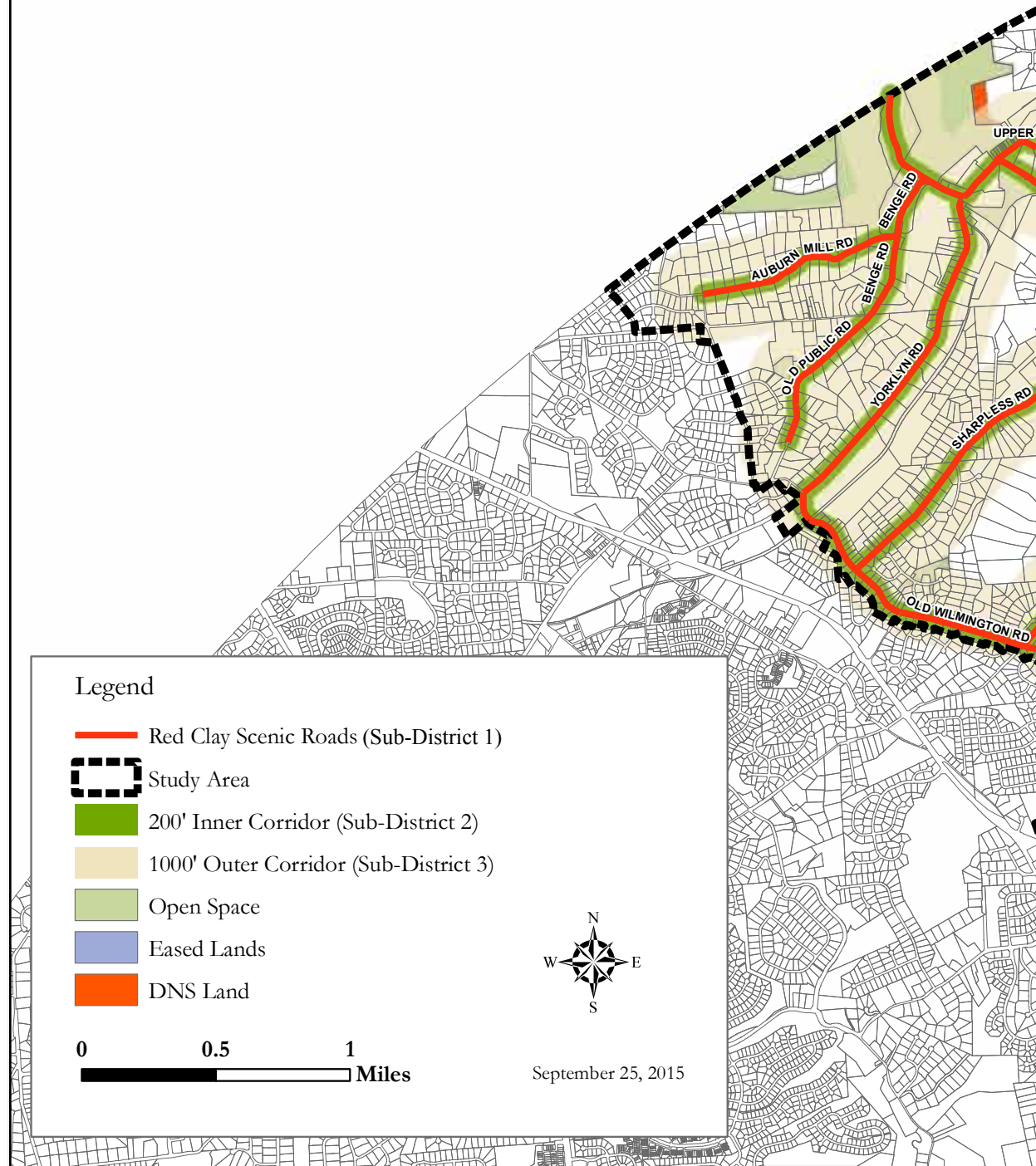
The four sub-districts are:

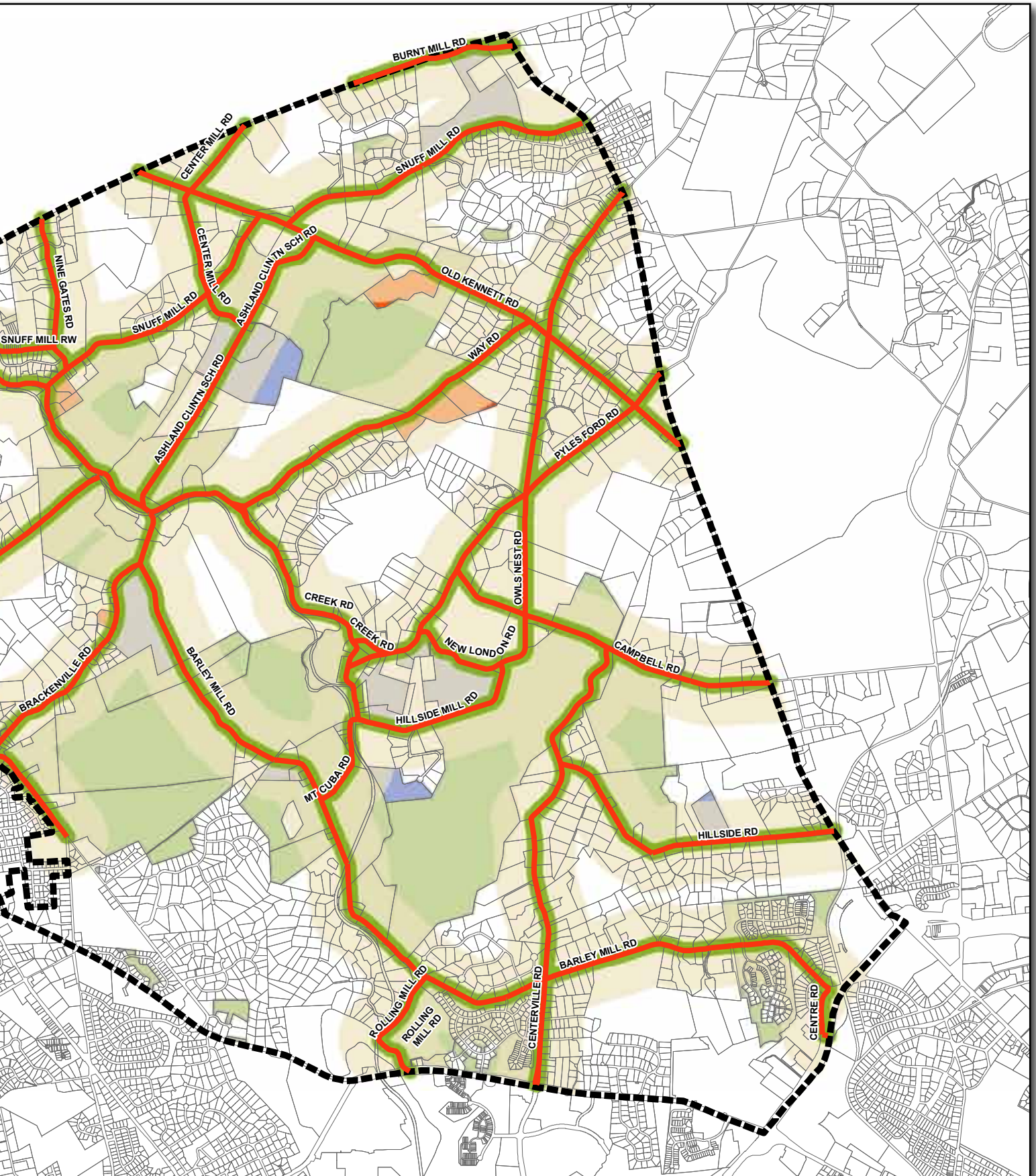
- Sub-district 1: All public road rights-of-way within the byway under the jurisdiction of DelDOT;
- Sub-district 2: The land area within the first 200 feet, measured horizontally from, and immediately adjacent to, the public road right-of-way, generally referred to as the "Inner Corridor";
- Sub-district 3: The land area from the Inner Corridor to 1,000 feet from the public road right-of-way, and which is referred to as the "Outer Corridor"; and
- Sub-district 4: All areas of the Overlay District that do not fall within Sub-districts 1, 2, or 3.

Any areas that are technically within the horizontal boundaries of Sub-districts 2 and 3 but are not within the established scenic viewshed are considered to be part of Sub-district 4.

Figure E-1. General Map of the Red Clay Valley Scenic Byway Overlay District, with scenic roadways, protected lands and protected resource areas highlighted. The Overlay District also shows the general mapping of the four sub-districts.

The Overlay District applies to the Scenic Byway roads and the sub-districts along those roads





Sub-District 2.

It is the intent of the Overlay District that this area not be altered or degraded. Only enhancements to the scenic quality of the Byway should be permitted in this sub-district.

Enhancements may include homes or other improvements that provide exceptional improvement to the scenic qualities of the Byway. Determination of exceptional enhancement will be made by the Department and/or the Planning Board, with a recommendation by the Design Review Advisory Committee.

This sub-district also allows for the potential for limited development, but only if no other alternatives exist, and the impacts are minimized. Mitigation, compensating features, and additional street bufferyard standards would apply.

The sub-district establishes a one hundred foot building restriction line. It also establishes greater landscaping, bufferyard and opacity standards than are found in the underlying zoning districts.

Sub-District 3.

It is the intent of this sub-district to avoid or strictly limit development and other improvements within the scenic viewshed.

As is the case in sub-district 2, alterations in this area are prioritized. First, an applicant must demonstrate that all reasonable efforts have been made to avoid development and other intrusions in the scenic viewshed. This must be accomplished through the use of conservation design strategies and context sensitive solutions.

Additionally, the applicant must prioritize landscaping and forestry proposals for the property to not only enhance existing resource protection areas but also to enhance the scenic viewshed and to provide sufficient levels of visual screening. This can be accomplished in a variety of ways and several illustrations are offered throughout these Guidelines, in the CSS and the CMP.

If an applicant cannot fully comply with the avoidance strategies described above, development within the scenic viewshed may still be allowed, subject to minimization of the proposed intrusion and/or mitigation of the intrusion through the use of compensating features in order to neutralize and harmonize the intrusion with the surrounding landscape..

General adherence to these standards does not necessarily guarantee approval of alterations or development, if in the

opinion of the Department or the Planning Board, that the proposal is an unacceptable intrusion into the scenic viewshed.

Sub-District 4.

This area either is not in the scenic viewshed or is more than one-thousand feet from the scenic roadway right-of-way and is exempt from the Overlay District standards. Having said that, the Overlay District strongly encourages the use of conservation design and context sensitive solutions in Sub-district 4 on a voluntary basis.

Alterations, improvements and development within Sub-district 4 are subject to the standards of the underlying zoning district.

Purpose and Intent

The purpose and intent of the Scenic Byway Overlay District is:

1. To assure maximum preservation and enhancement of the district's outstanding and unique scenic features and resources,
2. To minimize grading, tree removal, signage and changes to the existing character of roadways and the natural topography,
3. To reduce visual intrusions into the district that are not compatible with its scenic qualities,
4. To assure that the design and placement of buildings and other improvements preserve, complement, and/or enhance views from scenic roadways,
5. To assure that new development, redevelopment, infill development and other changes are compatible with scenic resources and intrinsic qualities, and
6. To assure that any changes are consistent with the goals, objectives, and management strategies of CMP.

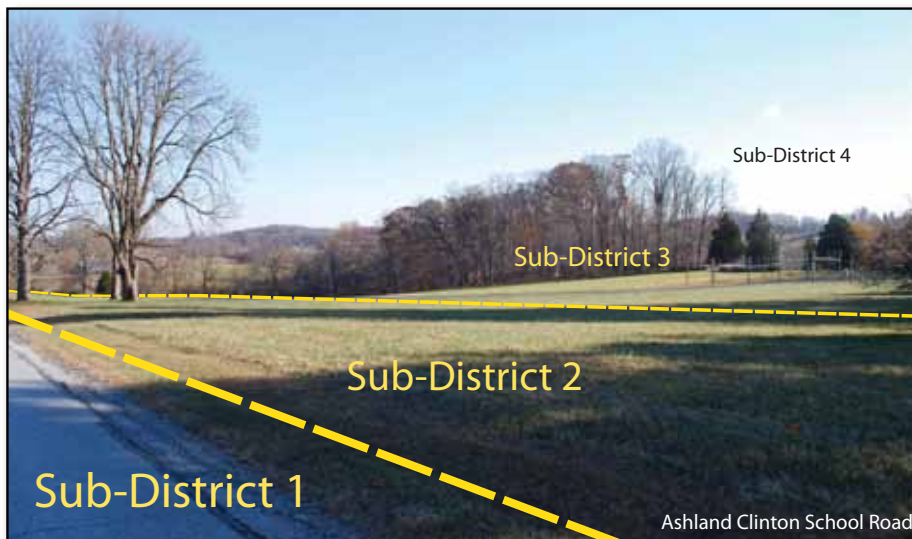


Figure E-2. The Red Clay Valley Scenic Byway is segregated into four sub-districts based on jurisdictional boundaries and district standards.

Guiding Principles

The Overlay District is unique in that it includes several guiding principles in addition to the general purpose and intent clause. These guiding principles provide an additional layer of information and a higher standard of development within the Overlay District. There are seven guiding principles. Refer to Section C of these Guidelines for a more detailed discussion.

Scenic Viewshed Protection

As discussed throughout the Guidelines, the primary focus of the Overlay District is scenic viewshed protection. Refer to Section C for design guidance and Section F for mapping techniques.

Conservation Design

Conservation design is a holistic approach to development that places importance on protection of environmental and scenic qualities of a property while at the same time offering flexibility in design and construction in order to meet the overall goals of protection. Conservation design is discussed in detail in the previous section and is specifically defined in the UDC. We have also included its definition in the Glossary of Terms in the Appendix in this document.

Context Sensitive Solutions

The concept of sensitivity to the context of a proposed byway alteration is interwoven into every level of decision-making, and every aspect of the proposal, from the broadest policy down to the minutest detail.

The Overlay District obligates the applicant to justify any proposed change, and to demonstrate that the proposal either protects, conserves or enhances the intrinsic qualities of the byway. Where this can't be demonstrated, an application may have to be revised, or a series of mitigation strategies utilizing compensating

features must be employed.

Development Standards

Setbacks. The Overlay District requires a greater setback from road right-of-ways than is required in the underlying districts for nearly all permitted uses.

Notwithstanding the use or the underlying zone, all new principal structures must be set back from a road right-of-way at least one-hundred feet unless a proposal meets the exception criteria of the Overlay District. There are three criteria for exceptions discussed later in this section.

The Overlay District also puts strict controls and the ability to locate principal structures and improvements within the Inner Corridor, or the first two-hundred feet of the road right-of-way.

All side and rear yard standards are based on the use and the underlying zoning district as required in Division 40.04.100 of the UDC.

Street Bufferyards. Bufferyards are defined as “a strip of land on the periphery of a property created to separate one type of land use or zoning district from another when they are incompatible or in conflict. Bufferyards include street bufferyards that protect the use from road related nuisances or screen undesirable uses.”¹

The UDC establishes certain criteria for the inclusion of bufferyards in land development projects. In certain situations, the Overlay District requires a higher degree of screening, landscaping and visual opacity than is required in the underlying zoning district, specifically for street bufferyards, but also, in limited cases, for peripheral bufferyards, if scenic

¹ Section 40.33.300. of the UDC.

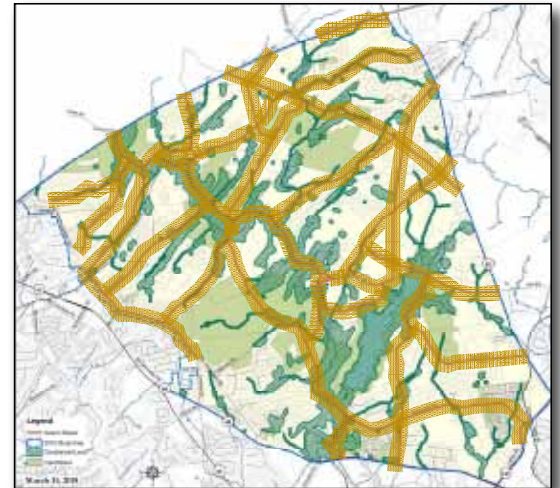


Figure E-3. General Plan of the Byway with scenic roads and protected lands highlighted.

viewshed protection is necessary.

Along scenic byways, the UDC has specific landscaping requirements for street bufferyards, referred to as Scenic Corridor Landscaping (Sec. 40.04.240 of the UDC). The Overlay District has the most stringent Scenic Corridor landscaping standards based on three general principles:

1. Protect existing forest and trees to the greatest extent possible within the scenic viewshed,
2. Provide greater visual buffering and opacity standards, and
3. Plant new native trees within the Inner Corridor and supplement existing forest and tree stands with new native plantings where appropriate.

Access Standards. Access standards in the Overlay District are more restrictive than the requirements generally found in the UDC. Access points to scenic roads are strongly discouraged. New streets, common access easements, or other techniques to aggregate and reduce access points is encouraged.

Visible Building Heights. The most likely impact to the scenic viewshed is new building construction.

In many cases, the increased setbacks,

increased screening, retention of existing forest, and the employment of conservation design strategies will greatly reduce, minimize, or completely screen a proposed building. However, in certain cases, additional screening or alternative design options may be necessary in order to protect the scenic viewshed. One of these tools is the Visible Building Height restriction.

In situations when buildings are proposed within the scenic viewshed, and are less than six-hundred feet from a sce-

namic road right-of-way, then the percentage of the height permitted in the underlying zoning district that may be visible from the observation points is no greater than twenty percent. In order to provide flexibility, this requirement may be expressed as a percent of building mass as well.

The requirement decreases as distance from the scenic road right-of-way increases, as follows:

- From 150' to 200': up to 40%;

with the natural environment, and to encourage creative solutions that minimize disruptions and alterations to the landscape, the Overlay District limits earthwork and grading, and the extent of vertical cut or fill from existing topographic conditions.

Signs. Signs are more strictly regulated in the Overlay District than in the underlying zoning districts.

These restrictions include the practice of 'least control' which attempts to avoid the cluttering of the landscape with unnecessary signage. The general concept is that signage should only be provided to meet the minimum requirements of the intended purpose or use. Additionally, signage should be of the smallest and lowest configurations possible and that where possible, signs should be co-located.

Since the Red Clay Valley is a state designated Scenic Byway, off-premises signage, advertising, and billboards are prohibited. Additionally, the UDC further prohibits these signage types if they are visible from the byway and are located within six-hundred and sixty feet of the Byway boundary (Sec. 40.06.070).

Other signs, that are permitted in the byway have restrictions on colors, character and lighting.

Protections. Protected scenic resources require permanent easements. Conservation easements and historic easements may be used to secure protection of scenic resources. Scenic easements, held by third parties, such as land conservancies may also be permitted.

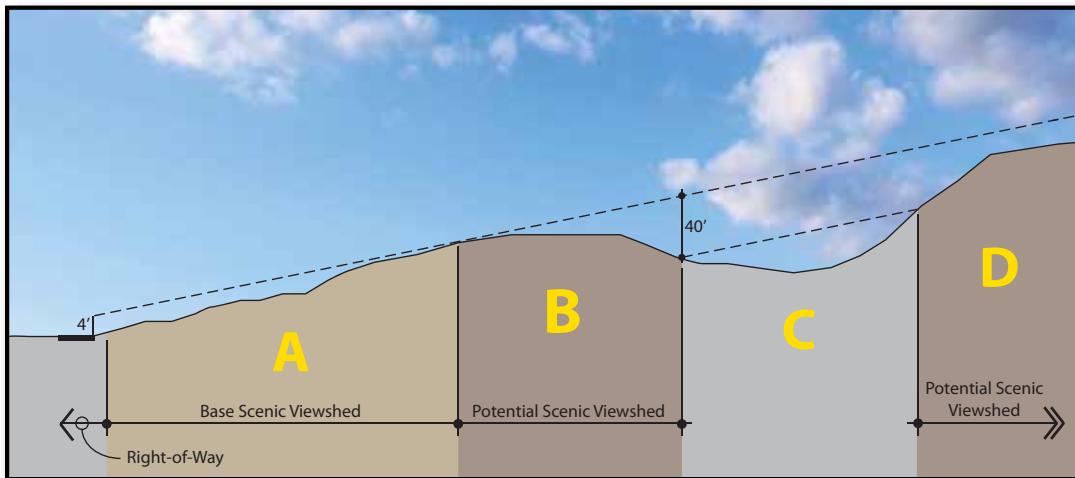


Figure E-4. Cross-section of Scenic Viewshed - Up Slope Condition (Not to scale). For the purposes of discussion, assume that this cross-section is within Sub-districts 2 and 3. Buildings placed in Areas A, B and D would be subject to the screening, opacity and visible height limitations of the Overlay District. Buildings proposed in Area C may be exempt from these same standards since the landform will provide sufficient screening. Buildings in Areas B and D will have limited screening requirements since the landform will provide some of the screening. Area A will have the most stringent standards due to its open nature and proximity to the scenic roadway.

nic road right-of-way, the use of Visible Building Height restrictions are required.

This requirement is proportional to the proposed structure's proximity to the scenic roadway right-of-way. The closer the building is proposed to the scenic roadway, the higher the screening standard. In order to calculate compliance with this standard, a minimum of three (3) observation points must be utilized that are representative of the general view to the structure from the roadway. These observation points may be the same points utilized to establish the scenic viewshed boundary.

The standards for Visible Building Height are as follows:

If a building is permitted to be located

- From 200' to 400': up to 60%;
- From 400' to 600': up to 80%; and
- greater than 600': no requirement.

Forest Retention. Existing forest is a critical component of the byway and its scenic beauty. Protection of this resource is strictly required in the Overlay District. As is the case with other requirements, the degree of retention and protection is inversely proportional to the distance from the scenic road right-of-way and whether the forest is integral to the protection of the scenic viewshed.

Grading and Earthwork. In order to promote development that is compatible

Alternatives to Standards

In order to provide flexibility, the Overlay District offers several options for alternatives to the standards, most of which are based on merit of the proposal, while others are based on potential hardship if strict conformance to the standards. These alternative approaches include design flexibility, modifications, variances, and exemptions.

Modifications. The Overlay District specifically provides for flexibility in design by allowing modifications to certain standards within the UDC. These include district bulk standards, street design standards, landscaping, improvement standards, and parking and loading standards. An applicant may take advantage of these flexible standards when designing a project within the byway.

Variances. Variances are approvals of alternative methods, materials or design that are not strictly authorized in the Overlay District. The burden of proof, and the requirement for justification of the variance are the responsibility of the applicant. Depending on the request, approval of a variance may be provided by the Department, the Planning Board or the Board of Adjustments.

Zoning and subdivision variances follow the same requirements as the underlying district as described in the UDC.

Exemptions. Exemptions are alternatives to strict adherence to the standards of the Overlay District based solely on the merits of the application. The basis of an exemption to a particular standard is whether the proposal can be classified as an ‘enhancement’. Enhancements are generally elements within the scenic

viewshed that either protect, preserve, conserve or enhance the visual quality of the viewshed, and thereby promote the purposes and intent of the Overlay District. Determination of eligibility as an enhancement, and exemptions to the standards, is made by the Department, with an opportunity for appeal of any decision to be determined by the Planning Board.

Deprivation Standards. For certain properties, where strict adherence to the standards of the Overlay District would render the property unbuildable, the property may be entitled to an exemption under the UDC provision of Deprivation of Use. These properties would be entitled to not less than one house per parcel, assuming the proposed development can meet all other standards of the UDC. Mitigation of impacts to the viewshed would be required.

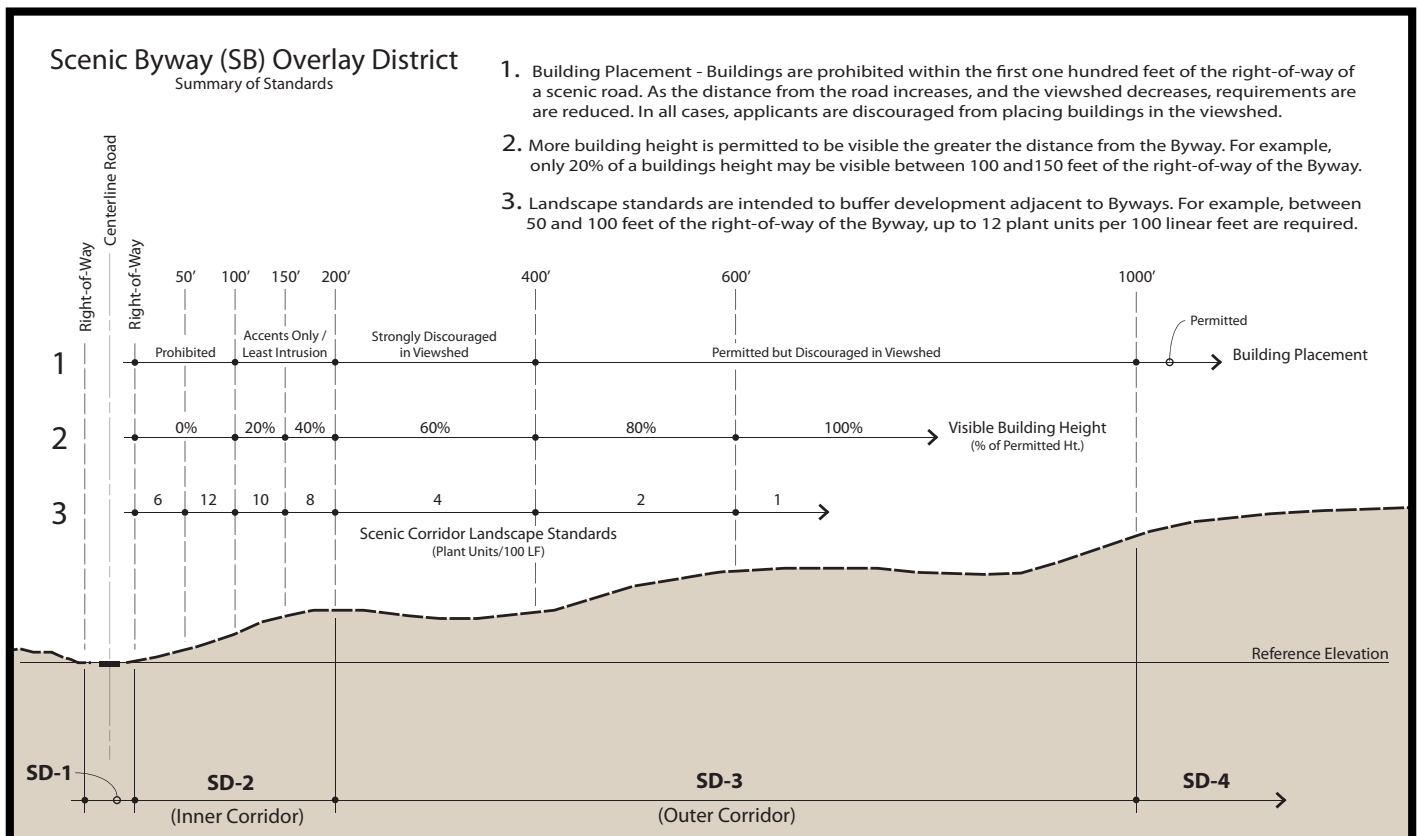


Figure E-5. Summary illustration of the various requirements of the Overlay District including sub-districts, building placement, visible height and screening, and scenic corridor landscape standards.



Section F

Development Review Procedures

This section begins with an overview of the development review and approval process and the second part provides information about the Design Review Advisory Committee, or DRAC.

Review and Approval Process

1:

Location & Jurisdiction

Determine if project falls within the boundaries of the Red Clay Valley Scenic Overlay District. The District Map is included on the Zoning Maps found on-line at New Castle County's Geographical Information Systems Map Viewer: http://gis.nccde.org/gis_viewer/
If yes, proceed to Step 2. If no, stop here. The Scenic Overlay District does not apply.

2:

Project Type

--For Major and Minor Land Development or Subdivision Applications, and any Sign Permits, compliance with the Scenic Overlay District is **REQUIRED**...**proceed to Step 3.**

--For all other applications under the jurisdiction of New Castle County, compliance with the Overlay District is **OPTIONAL** or **VOLUNTARY**. The owner/applicant may choose to proceed to Step 3.

--For work within the Right-of-Way, or work affecting elements under the jurisdiction of DeIDOT and that are not subject to review by New Castle County, compliance with the Scenic Overlay District is **NOT REQUIRED**, however, review and approval of projects of this nature are subject to compliance with DeIDOT's Context Sensitive Solutions for Delaware Byways and the general guidance in these Design Guidelines. ...**proceed to Step 4.**

--For all other projects and activities, the Red Clay Valley Scenic Byway Overlay District does not apply.

3:

Project Design

Begin the project design process by mapping existing features and designing in conformance with New Castle County (NCC) standards (including those for the Pre-Application Sketch Plan), the goals and objectives of the Corridor Management Plan, and these Design Guidelines. As a part of the design strategy, demonstrate conformance with the three primary objectives of the Scenic Overlay District. Where full compliance cannot be achieved, provide Avoidance, Minimization and Mitigation strategies consistent with the Byway's goals.

Primary Objectives:

Protect and Enhance Scenic Qualities

Maximize Conservation Design

Provide Context Sensitive Solutions

The Scenic Overlay District requires emphasis on Conservation Design and the protection and enhancement of scenic and natural qualities of the Byway such as scenic road viewsheds, hedge rows, stone walls, etc., see UDC Sec. 40.31.112.C.9. Also refer to the Corridor Management Plan goals, objectives and context sensitive design solutions (Appendix 5) and these Design Guidelines for appropriate protection and conservation design strategies. **Proceed to Step 4.**

4:

Major, Minor & Sign Applications

NCC

Project Applications

DeIDOT

A

Pre-Application Sketch Plan.

All applications requiring Scenic Overlay District compliance, as outlined in Step 2 above, must submit a Pre-Application Sketch Plan. See UDC Appendix 1 for submission requirements. This submission should include a Natural Resources Management Plan and a Site Analysis Plan pursuant to Appendix 1(3)(K) and (L). See UDC Sec. 40.33.300 for definitions and general descriptions of these elements.

B

DRAC Review

As a first step in the Pre-Application Sketch Plan review process, New Castle County will refer the application to the Byway's Development Review Advisory Committee (DRAC)

for review, comment and recommendation. The DRAC has a specified timeframe upon which to act on the application, as specified in the UDC. Upon receiving a recommendation from the DRAC, the New Castle County will process the application.

C

As provided in the UDC, proceed to additional steps in the development review process as required by the application type.

A

Development Coordination.

All applications within the Scenic Overlay District that are within the road right-of-way or affect the scenic roadway system must also be referred to DeIDOT for review and permitting. When preparing plans, an applicant is referred to Appendix 5 of the Byway Corridor Management Plan, DeIDOT's 'Context Sensitive Solutions for Delaware Byways', these Design Guidelines, and standard DeIDOT design criteria.

B

For DeIDOT projects, the department will coordinate with New Castle County and may send a review copy to the DRAC for comment.

C

As provided in the DeIDOT design manual, proceed to additional steps in the DeIDOT development review process.

Figure F-1. This simplified chart provides an overview of the design and approval process.

Step

1

Identify Location.

The first thing to do is to determine whether your property is located within the Red Clay Valley Scenic Overlay District and is thereby subject to the requirements of the Overlay District. Figure A-1 is a general Overlay District map. The official Overlay District is shown on the zoning district maps, located on the New Castle County web site at www.nccde.gov and at the Department of Land Use.

The Overlay District generally includes all the area encompassed by Kennett Pike (DE Rte. 52) to the east, Centre Road (DE Rte. 141) to the south-east, Lancaster Pike (DE Rte. 48) to the south, Loveville Road and most properties that front on Loveville Road on the west, Old Wilmington Road and most properties that front on Old Wilmington Road on the west, Meetinghouse Road and Bengel Road on the north-west, and the Delaware-Pennsylvania state line on the north. The Overlay District includes the perimeter road rights-of-way.

The Overlay District encompasses approximately sixteen square miles. If your property is located within the Overlay District, proceed to Step 2.

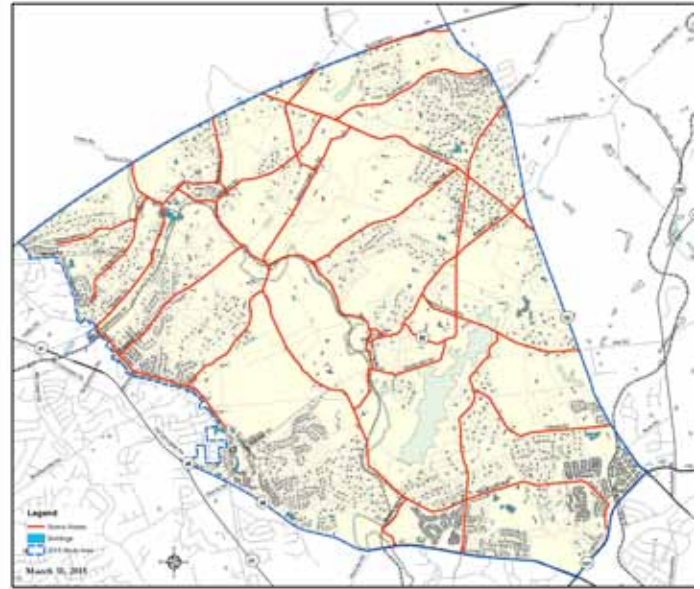


Figure F-2. The Red Clay Valley Scenic Overlay District with designated scenic roads highlighted.

Step

2

Identify Project Type.

For road projects and other improvements within the road right-of-way, go to DelDOT's Project Development Process, which provides guidance for projects, including within designated byway corridors. For projects within the Red Clay Valley Scenic Byway, DelDOT's jurisdiction is limited to improvements within the right-of-way, or improvements that may impact the right-of-way. All areas outside DelDOT jurisdiction, but within the Red Clay Valley Scenic Byway Overlay District are under the jurisdiction of New Castle County.

For improvements subject to New Castle County review, the size and type of the project must be determined. If your project is a major or minor development, a major or minor subdivision application, or a sign permit request, it will be subject to the Scenic Overlay District requirements.

Once the project type and jurisdictional review are confirmed, the project can proceed to pre-design mapping and project design outlined in Step 3. If it is determined that an application does not fall under the criteria mentioned above, it is exempt from the requirements of the Overlay District.

- ☒ Major
- ☒ Minor
- ☒ Sign
- ☐ Other



Figure F-3. Projects within the right-of-way, or projects that affect the right-of-way will include DelDOT review and approval.



Figure F-4. Projects outside the right-of-way are referred to New Castle County.

Step 3

Project Design

- A. Map Existing Conditions.
- B. Calculate Minimum Requirements.
- C. Map and Calculate the Scenic Overlay District Requirements.
- D. Map the Development Envelope.
- E. Design with Conservation and Context Sensitive Solutions.

Map, analyze, and document the resources, including scenic resources. Document all development constraints, including sub-district boundaries. Then design a plan that protects and enhances the scenic qualities of the property and the byway, maximizes conservation design, and provides details and solutions that are context sensitive. Prepare initial submittal documents based on the standards of the Scenic Overlay District.



Figure F-5. Base mapping and minimum requirements.

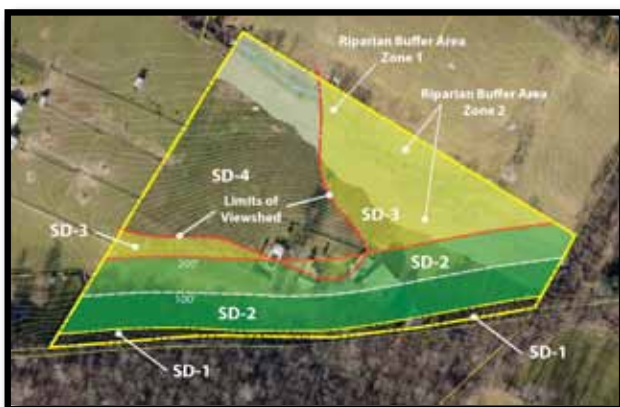


Figure F-6. Base mapping, minimum requirements, and scenic overlay district requirements mapped, establishing the various sub-districts and the development envelope.

A. Prepare Base Mapping

As required for all projects by the Unified Development Code, prepare all base information in conformance with the standards of the UDC. This base information would include, but not necessarily be limited to, topography, property boundary, rights-of-way, easements, existing utilities, rock outcrops, tree lines, waterways, wetlands, etc.

B. Calculate and map base minimum requirements.

Map conservation areas and elements that require protection. This would include floodplains, wetlands, watercourses and their associated riparian buffers, soils, etc. This layer of the map includes those natural elements that will be protected based on regulatory requirements.

C. Calculate and map additional requirements associated with the Overlay District.

These additional elements include scenic viewsheds, vista points, sub-district boundaries, historic sites, archaeological sites, cultural features and natural amenities that are not a part of mapping step 'B' above. Other unique features of the site should also be mapped, such as any existing walking trails, hedgerows, stone walls and remnants of human settlement such as fences, outbuildings, old foundations, etc.

D. Map the development envelope.

Based on mapping steps A, B and C, establish the development envelope. The Overlay District allows for flexibility in house siting subject to the strategies of avoidance, minimization, and mitigation.

Note that if structures are proposed closer than 1,000 feet from the scenic roadway but outside the mapped scenic viewshed, they may still be subject to the requirements of the Overlay District if their height and siting allow them to be visible from the scenic roadway.

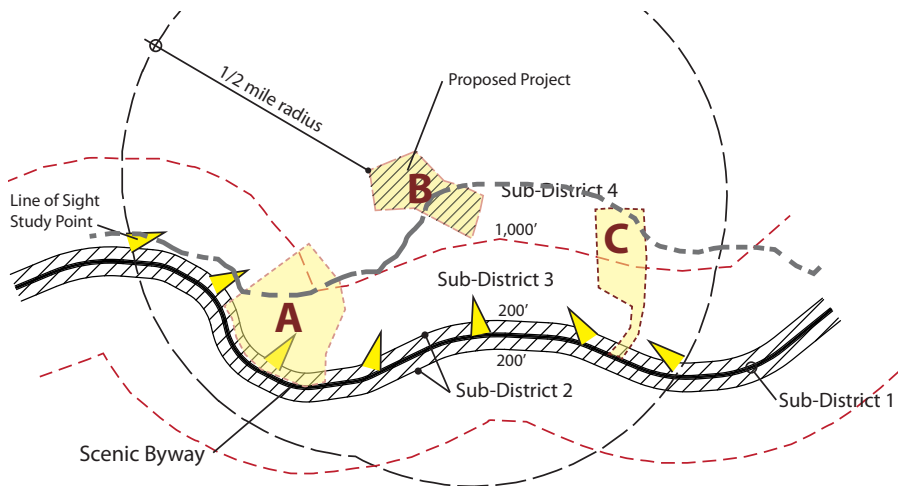


Figure F-7.

Visibility Analysis.

Figure F-7 illustrates the basic elements of visibility analysis necessary for mapping sub-districts and establishing the scenic viewsheds for properties subject to the standards of the Overlay District.

When preparing an application for a minor or major development, or for a sign permit, an applicant must prepare a visibility analysis which includes base mapping of the existing conditions of the property as already required by the UDC. In addition to the base mapping requirements, properties in the Overlay District must also map an inventory of all intrinsic resources and character-defining features, sub-districts, and viewsheds.

Properties that are within sub-districts 2 or 3 and are within the scenic viewshed are subject to the standards of the Overlay District. Properties within sub-districts 2, 3 and 4 that are proposing building construction located less than six hundred feet from the right-of-way of a scenic road (see figure A-1 for a list and location of the scenic roads within the Byway) may also be subject to the Visible Height Limits and Scenic Corridor Landscape standards of the Overlay District.

The mapping process starts with the establishment of observation points. Observation points should be representative of the various perspectives from the scenic road taken at intervals of approximately two hundred to four hundred feet along the road. At least three observation points must be utilized in order to establish property parameters. Observation points are not required beyond one-half mile of the property boundary. Observation points must be photo-documented

Once the observation points are established, line of sight measurements shall be taken from the points, at a height above the road pavement of approximately three to four feet. The limits of visibility from the observation point shall be mapped. Viewsheds, or portions of viewsheds that extend more than one thousand feet from the scenic road right-of-way need not be documented or mapped.

In this particular example, Project B is located in Sub-district 4 and is not subject to the Overlay District requirements, unless the proposed buildings exceed the Visible Building Height standards. Since the property is more than 600 feet from the scenic road right-of-way, it is also exempt from any height visibility standards.

Projects A and C however are subject to the requirements of the Overlay District since portions of these sites lie within sub-districts 2 and 3.



Figure F-8. Photo-documentation of project observation points.

E. Conservation Design Process.

After assembling a solid inventory of the site's attributes, constraints, intrinsic qualities, analysis of the information is necessary. First, perform an on-site investigation to verify the mapping and to add other elements identified in the field.

The next step is to prepare a site analysis drawing that establishes preserved areas and development envelopes that are consistent with requirements of the Overlay District and the specific sub-district in which the property is located.

Based on the context sensitive design guidelines and the bulk requirements of the underlying zone, layout a general arrangement of house sites that not only enhance the site's attributes, but also reflect the requirements of the Overlay District.

The yield associated with this layout may be greater than or less than that of a conventional base zone subdivision, depending on the nature of the property.

Once the best arrangement of house sites has been achieved, connect the homes with driveways, streets and pedestrian connections, again in keeping with conservation design principles and the character of the site.

In Figure F-7, the underlying district allows four potential homes with a minimum requirement of five percent open space. However, the siting of the homes violates the Overlay District standards, allowing two homes in close proximity to the scenic roadway.

The alternative design in Figure F-8, honors the general principles of the overlay district by utilizing conservation design principles and providing additional corridor landscaping that enhances the byway experience and helps screen and mitigate new homes that are partially within the viewshed. This plan also has the opportunity to retain approximately two-thirds of the site in permanent open space. In areas some areas, this open space system could be planned in concert with a larger greenways and trails plan.



Figure F-9. Development potential based on the underlying zone.



Figure F-10. Alternative development based on the standards of the Overlay District and conservation design principles.



Figure F-11. Overlay District standards overlaid on design.

Project Review

Step

4-A. Pre-Application Sketch Plan.

4

The first step in the review process with New Castle County is the submissions of a Pre-Application Sketch Plan. This plan set will include the base mapping, viewshed mapping, and site analysis that was prepared in Step 3, as well as the project design drawings, primarily the Sketch Plan. The process by which a plan is reviewed and the administrative bodies that are involved is explained in Article 30 of the Unified Development Code. A full list of the required submittal documents can be found in Appendix 1, Section 1-A of the UDC.

These documents include:

1. SLD – 1 form;
2. Site analysis plan pursuant to Appendix 1 (3) (K);
3. One (1) or more concept plans with defined conservation, open space and development areas;
4. All adjacent recorded subdivision and development plans;
5. Sanitary sewer location and all possible tie-ins;
6. All existing adjacent transportation, pedestrian and open space inter-connections;
7. The required review fee, and;
8. All current County taxes, school taxes and sewer service fees must be paid or not delinquent at the time of application.
9. Any and all known restrictions or legal impediments which would interfere with or prevent the implementation of the proposed development.
10. For land development applications that contemplate connection to County sewer, a letter from the Department of Special Services indicating that sewer is or will be available for the proposed development.
11. All other information and items required by Section 40.31.112 of the County Code.

These documents also include all of the supplemental information required for submission in the Scenic Byway Overlay District as described in earlier sections.

Once the application is received by the Department of Land Use, it will be referred to the Design Review Advisory Committee (DRAC) for comment. See the DRAC process (Step 4b) for a detailed explanation of the review process and responsibilities of the DRAC.

After the DRAC responds to the Department, the Applicant will have a Pre-application Sketch Plan review conference with the Department. The purpose of the pre-application sketch plan review conference is to familiarize the applicant with principles of conservation design, departmental concerns and with the applicable provisions of this Chapter, especially the Scenic Byway Overlay District, as well as to permit the Department to assess the proposal and to identify

any service problems or concerns in conjunction with the applicant's objectives.

The Department shall use this step to also identify conservation, open space and development areas. Site design and management practices shall also be examined to determine how minimal disturbance can be achieved while maintaining a high standard of community design. Discussion points will include:

1. Greenway linkages on- and off-site (trails, biodiversity corridors, habitat areas, etc.);
2. Interconnectivity issues (pedestrian, vehicular, mass transit, etc.) and access issues;
3. Open space linkages (parks, public and private open space and conservation areas);
4. Article 10 resource protection areas;
5. On-site, of regional scope (extending off-site), fully protected vs. partially protected resources;
6. Soil associations;
7. Farmland concentrations (agricultural districts, preservation easement purchases);
8. Existence and location of historic and cultural resources;
9. Scenic viewsheds or vistas into or out of the site and visual accents and vista points pursuant to County Scenic River and Highway Studies;
10. Natural drainage patterns (pre-development), boundaries and discharged points based on characteristics such as soils, topography, vegetation and other local watershed issues, and;
11. Development options given zoning district and resource protection objectives.

If the proposed project is a major application, it will also be referred the State of Delaware Preliminary Land Use Service (PLUS).

As described in the DRAC process, a public meeting is held with the DRAC, which is an opportunity for input from community members.

An applicant has six months from the time of Sketch Plan review to submit an Exploratory Plan, see Sec. 40.31.112 of the UDC for further detail and explanation.

4-B. Design Review Advisory Committee

Adoption of the Scenic Byway Overlay District includes the designation of a Design Review Advisory Committee, or DRAC, for the Byway. The DRAC has been modeled after the Hometown Overlay District DRACs. The specifics of the DRAC, and its responsibilities, are listed in Chapter 30 of the UDC and summarized below.

The Red Clay Valley Scenic Byway DRAC is responsible for reviewing proposals within the Byway and providing recommendations to the Department of Land Use, the Planning Board, and/or County Council, as the code authorizes, or as directed by the County Council or the County Executive.

A DRAC shall be established for each Scenic Byway Overlay District. The Department shall be the professional staff for each Committee. The duties of each Committee shall be:

1. The Committee shall review plans for major and minor land development applications and sign permits for compliance with the Corridor Management Plan and/or Design Guidelines manual and make recommendations to the Department.
2. The Committee shall review the community standards and make recommendations for revisions and updates to the Corridor Management Plan and/or Design Guidelines manual.
3. Any other purpose provided in county code.

The Committee shall adopt bylaws and rules in accordance with Article 30. Each Committee shall comply with the following:

1. All public meetings shall be open to the public.
2. A majority of the Committees' members shall constitute a quorum necessary to take action and transact business. All actions shall require a simple majority of the quorum.
3. In the event that any member is no longer a resident of the County; is convicted of a felony or an offense involving moral turpitude; violates rules of the board; fails to attend any three consecutive, regularly scheduled meetings except where such absence is deemed by the chairman to be due to illness, incapacity, or a family crises; or, has three unexcused absences in one year, that member shall forfeit his/her membership on such committee. "Regularly scheduled meeting" shall mean a meeting at which a committee member is expected to be present. The chairman of each committee shall forward a letter to the County Executive stating that a vacancy exists on the board and the name of the member who held the forfeited position. The County Executive shall terminate the appointment of such person with the consent of the County Council.

The District Council person(s), in whose district a Scenic Byway Overlay District is found, shall make recommendations to the County Executive who shall appoint members subject to County Council consent. The County Executive shall appoint members subject to the following guidelines:

1. The minimum number of members shall be five and the maximum number shall be nine. The chairperson shall be appointed and serve at the pleasure of the County Executive. The Vice-chairperson is appointed by the Chairperson. The Chairperson shall be in charge of all proceedings, and take such action as necessary to preserve order and integrity of all proceedings.
2. Each Scenic Byway Overlay District committee shall, with the exception of the chairperson, be comprised of business, homeowner, and community organization interests, except that at least one registered landscape architect or one expert in scenic byways/viewshed protection who resides outside of the district may be appointed to the committee.
3. Each committee member shall be appointed for a term of three years. Initial appointments shall be staggered as one, two and three year appointments, with each subsequent appointment to be three years. An individual may serve until replaced and may be reappointed any number of times.

The following procedures apply to land development review by the DRAC.

1. Any proposed major or minor land development application within a Scenic Byway Overlay District shall follow the procedures of Article 31 with the addition of a review by the Design Review Advisory Committee (DRAC). The Department shall review all other land use applications located within any Scenic Byway Overlay. The Department may refer an application to the DRAC for their recommendation if the Department determines that the proposed activity is not consistent

Step

4b

with the Community Corridor Management Plan and/or Design Guidelines Manual.

2. Upon submission of an application, the Department shall notify the appropriate DRAC of the application and schedule a public meeting for the next regularly scheduled monthly meeting in compliance with legal notice requirements. Both the applicant and the Department shall be responsible for public notification in accordance with Section 40.31.340.
3. The Department shall prepare a preliminary report for the DRAC prior to the public meeting. The Department's preliminary report shall include a discussion of the appropriateness of the application in relation to the Corridor Management Plan and/or Design Guidelines manual and the UDC.
4. A public meeting for review of the application shall be held by the DRAC and the Department. The applicant shall be present to provide a brief description of the project and answer questions by the Committee and those in attendance. Based upon its public review, the DRAC shall provide a written recommendation to the Department within ten days of the public meeting. If the DRAC fails to submit a recommendation within those ten days, the Department shall proceed with its review of the application.
5. The DRAC's written recommendation shall advise the Department of the project's conformance with the goals, objectives and standards of the Corridor Management Plan and/or Design Guidelines manual.
6. The Committee may make suggestions or recommendations for desired revisions to further enhance the project or to correct deficiencies.
7. Upon receipt of the DRAC recommendation, the Department shall issue a final report to the applicant. In doing so, the Department shall give due consideration to the public meeting comments and DRAC recommendation in determining conformance with the Corridor Management Plan and/or Design Guidelines manual. A revised exploratory plan or land development application may be required to incorporate the proposed changes identified in the final report. Architectural details, elevations and other design-related elements shall be shown on a landscape plan or on a separate plan. The Department will subsequently respond to the applicant as part of its review in accordance with this Code.
8. Dimensional standards varied by this process and other Corridor Management Plan and/or Design Guideline manual elements shall be noted and depicted on all subsequent plan and/or application submissions.
9. The Department may refuse acceptance of plans that are in substantial noncompliance with the UDC, the Corridor Management Plan and/or Design Guidelines manual and may require subsequent reviews by the DRAC upon submission of revised plans.
10. In the event that an applicant submits supplemental materials to the Department to contradict a recommendation from the DRAC, an additional DRAC meeting, following the notification process outlined in Section 40.26.460 B., shall may be required to provide an opportunity for the DRAC to revisit its prior recommendation in light of any new materials including, but not limited to, all supplemental materials received by the Department from the applicant and the Department's official position. The DRAC shall then have ten days from the date of the public meeting to provide a supplemental recommendation to the Department. If the DRAC fails to submit a supplemental recommendation within those ten days, the Department shall proceed with its review of the application.

Step

4c

4-C. Exploratory Plan Process.

An exploratory plan review is required for all land development plans, including those proposals for which a rezoning is sought. A hearing is not required for minor plans and sign permits, however, the DRAC review serves as a public meeting allowing public input.

For all major plans and rezonings, the Department initial report and PLUS report is required prior to Planning Board public hearing. The County Council makes final decisions on all rezoning applications.

An applicant has thirty-six months from the date of the exploratory plan initial report in order to submit a Record Plan, the final stage in the review process. The exploratory plan and record plan review stages are more fully explained in Sec. 40.31.113.

11. There are several nuances in the UDC depending on the type of application being submitted. The reader is referred to the UDC for a more complete explanation of the different permits, review standards and processes. The Department of Land Use is available for information and explanations of the code at (302) 395-5555 for general questions and (302) 395-5400 for questions relating to planning and permitting.



Section G

Voluntary Implementation of the Guidelines

This section provides a resource to homeowners, associations and property owners who want to implement protection and enhancement measures on their property on a voluntary basis.

The Overlay District does not regulate existing homes or lots. However, it does encourage the ‘greening’ of existing neighborhoods that helps to buffer views from byway roads to homes. This page is a general resource to those who want to protect and enhance the byway on a voluntary basis on individual lots. The Delaware Nature Society is the lead organization regarding assistance with environmental enhancements and screening, as well as other voluntary efforts.

When Building and Renovating.

Building and renovation projects can contribute to the aesthetics and environmental health of the byway. Some of the tools and techniques suggested for new construction also applies to renovations. Designing an improvement that is an enhancement to the scenic beauty of the byway is extremely important to the long-term viability of the Byway and will avoid the ‘chipping away’ effect that each new home has on the byway’s beauty and rural character, especially when aesthetic compatibility is not considered. When properly designed and screened, new construction and renovations can have a ‘healing effect’ on byway beauty.

When Landscaping and Making Other Improvements.

Some of the most beneficial things you can do as an existing property owner, is to start to integrate your property with the natural systems of the Byway when you are doing a landscape project or other exterior renovations. This integrated systems approach begins with the types of plants you choose. Plants that are native to the region not only survive better, they integrate better with the existing ecosystem, use less resources such as water, and require much less maintenance. There are also several strategies to include in your landscape such as rain gardens and providing plantings and areas for food and habitat for the birds and wildlife of the byway.



Native Landscapes.

Native species should always be utilized and planted in a pattern that mimics native forest stands, blending with existing forest and tree stands. The CMP and DNREC have several resources for property owners. The DNS also has information on native Delaware species and provides a Native Plant Sale once a year.

Sustainable Gardening.

Reducing the size of turf areas and replacing them with native plant gardens is a great way to conserve water resources. Because native plants are adapted to local climatic conditions, they require less water than non-natives. Homeowners can also collect roof runoff in rain barrels attached to their downspouts to water lawn and garden areas or create rain gardens comprised of water loving plants, allowing runoff to slowly infiltrate.

Certified Wildlife Habitat.

The Certified Wildlife Habitat® program, conducted through a partnership between Delaware Nature Society and the National Wildlife Federation, provides official recognition for properties that meet five criteria necessary for wildlife: food, water, cover, places for wildlife to raise young, and wildlife-friendly landscaping practices. Learn more at: <http://www.delawarenaturesociety.org/CertifiedWildlifeHabitat>.

DNS also has a great web site with links for more additional information concerning native plants, wildlife gardening, resource conservation gardening, wildlife information, and links to other nature societies, arboreturns and plant societies. http://www.delawarenaturesociety.org/DNS/Conservation/Habitat/Certified_Wildlife_Habitat.aspx?CWH=6#CWH





Section H

Education and Outreach

This section provides a general overview of the educational resources, network opportunities, and information on how you can volunteer to help protect the Byway.

The Corridor Management Plan specifically encourages Byway education as a cost-effective way to ‘spread the word’ and let residents know more about the Byway and why it is critically important to protect it.

Resources

The DRAC and the Delaware Nature Society are key educational resource opportunities. In addition, New Castle County also has several documents and resources about the byway and its protection. Finally, state agencies such as DelDOT and DNREC have surveys and manuals on proper protection, conservation and development within byways, including a detailed survey of the Red Clay Valley forests and vegetative stands prepared by DNREC during the preparation of the Corridor Management Plan. Contact information for each is found in the Quick References section.

DelDOT has a very comprehensive database on all of the byways in the State and is a great place to begin one’s research. The Delaware Byways web site is: http://www.deldot.gov/information/community_programs_and_services/byways/. The Red Clay Valley Scenic Byway web site is: http://www.deldot.gov/information/community_programs_and_services/byways/redclay.shtml. This site also provides links and access to the Red Clay Valley Corridor Management Plan: http://www.deldot.gov/information/community_programs_and_services/byways/redclay_cmp.shtml. The Byway contact is Ginger North, Associate Director of Natural Resources Conservation at the Delaware Nature Society. The Delaware Nature Society also has a web site for the Red Clay Valley Scenic Byway: http://www.delawarenaturesociety.org/DNS/Conservation/Land_Preservation/Red_Clay_Valley_Scenic_Byway/DNS/Conservation/Land_Conservation/Red_Clay_Valley_Scenic_Byway.aspx?hkey=2eea5c7b-769a-40b7-a61b-9689e0e5d527

Other great Delaware sites for general information include:

- The Delaware Byways Program Guide: http://www.deldot.gov/information/pubs_forms/manuals/scenic_hwys/index.shtml
- Context Sensitive Solutions for Delaware Byways: http://www.deldot.gov/information/community_programs_and_services/byways/pdf/Context_Sensitive_Solutions_for_Delaware_Byways.pdf
- Delaware Tourism: <http://www.visitdelaware.com/>
- Delaware State Parks: <http://www.destateparks.com/>
- Biking in Delaware: http://www.deldot.gov/information/community_programs_and_services/bike/biking_in_delaware/index.shtml

National resources include:

- America’s Byway Program: <http://www.fhwa.dot.gov/byways/byways>
- CSS National Dialog: <http://www.cssnationaldialog.org/index.asp>

Networking

In the Red Clay Valley, the best networking sites start at the Delaware Nature Society.

- The general DNS web site is: <http://www.delawarenaturesociety.org/>
- Facebook: <https://www.facebook.com/DelawareNatureSociety>
- Twitter: <https://twitter.com/DENatureSociety>
- Google+: <https://plus.google.com/+DelawarenaturesocietyOrg>
- Youtube: https://www.youtube.com/user/DelawareNature?sub_confirmation=1

Volunteering

The Delaware Nature Society works to preserve and protect the water we drink, the air that we breathe, the lands that our food comes from, and the natural areas that we enjoy. Protecting and restoring our natural resources directly enhances our quality of life, providing recreational opportunities like birding, fishing and hiking while protecting wildlife and native plants. Get involved - learn about and join our conservation initiatives. At the DNS, there are activities, stream watches, volunteering opportunities and summer internships available. The DNS web site for these efforts is: <http://www.delawarenaturesociety.org/GetInvolved>.





Section I

Management of the Red Clay Valley Scenic Byway

This section provides information about the Byway,
the ongoing planning efforts and how it is managed.

Roles and Responsibilities

DelDOT.

Delaware's Byways Program is a collaborative effort of Delaware's citizens, local, state and federal government. The program is administered under the guidance of the State Byways Advisory Board. The State Byways Advisory Board assists and recommends in the designation, development, operation, management and promotion of scenic and historic highways. The program is managed by DelDOT. The Secretary of Transportation designates Delaware Byways. The Red Clay Valley Scenic Byway is a part of the State of Delaware Byway System.

Delaware Nature Society.

The Delaware Nature Society is the contact organization for individuals interested in byway activities. The DNS plays a primary role in the education and outreach occurring in the byway. Since moving their headquarters to Ashland in 1976, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley. The valley includes spectacular natural areas first described by the DNS in the mid-1970s including Red Clay Ravine, Red Clay Creek, Burrows Run, Coverdale Woods, and Red Clay Reservation (now the Ashland Nature Center).

New Castle County.

New Castle County regulates land use and development in the County, primarily through the implementation of Chapter 40, the Unified Development Code of New Castle County. The purpose of the UDC is to establish standards, procedures, and minimum requirements, consistent with the Comprehensive Development Plan. The Red Clay Valley Scenic Byway Overlay District is an Article of the UDC and provides supplemental requirements for certain land development activities within the Red Clay Valley Scenic Byway. The Department of Land Use is the primary county department responsible for administering the UDC, and the Overlay District.

The Red Clay Valley Design Review Advisory Committee.

The Red Clay Valley DRAC is a county appointed citizen-member committee that is responsible for reviewing proposals within the Byway and providing recommendations to the Department of Land Use, the Planning Board and/or County Council, as the code authorizes, or as directed by the County Council or the County Executive.

WILMAPCO

WILMAPCO is the Metropolitan Planning Organization (MPO) that includes New Castle County, Delaware and Cecil County, Maryland. As the federally designated MPO, WILMAPCO is charged with planning and coordinating transportation investments for the region based on federal policy, local input, technical analysis, and best practices.

Contact Information

Byway Administrator:

State of Delaware

Dept. of Transportation (DelDOT)
Statewide & Regional Planning
Attn: Michael C. Hahn, AICP
Byways Coordinator
800 Bay Road, P.O. Box 778
Dover, Delaware 19903
(302) 760-2131, Fax: (302) 739-7218
MichaelC.Hahn@state.de.us

Byway Sponsor:

Delaware Nature Society

Ginger North, Associate Director,
Natural Resources Conservation
3511 Barley Mill Rd,
Hockessin, DE 19707
(302) 239-2334
ginger@delawarenaturesociety.org

Land Use Regulations & Permits:

New Castle County

New Castle County Government Center
87 Read's Way
New Castle, DE 19720
(302) 395-5555 (general questions)
(302) 395-5400 (planning and permitting questions)

Metropolitan Planning Organization:

WILMAPCO

Wilmington Area Planning Council
850 Library Avenue, Suite 100
Newark, Delaware 19711
(302) 737-6205, Fax: (302) 737-9584



Appendix

1. Glossary of Terms
2. Foundational Documents and Other Resources
3. Theoretical Project Examples
4. Image and Photo Credits
5. Quick Reference Guide

A-1. Glossary of Terms.

Some of the following terms are found in the Unified Development Code, and some are generally unique to scenic viewsheds and the Scenic Byway Overlay District. They are either listed in, or have been recently added to Division 40.33.300. General Definitions of the Unified Development Code, or are of a common usage in viewshed and byway planning, and are therefore utilized in these Design Guidelines. Those terms and definitions that are identified with an asterisk (*), are not currently in the UDC and are shown here for convenience. For terms and definitions not listed, here, see the UDC, Article 33. The reader is always recommended to refer to the UDC for terms, definitions and regulations, in that there may be updates, from time to time, that are not reflected in the Design Guidelines.

***Accents.** See Visual Accents.

Buffer. A designated area between two (2) uses deemed incompatible with each other, or along the perimeter of a natural feature to be protected from an incompatible use, or along the perimeter of that use, which will absorb or otherwise preclude such incompatibility by some combination of construction design, vegetative plantings, fences and/or maintenance practices which shall be permanently maintained. For Buffer Standards, see the UDC, Article 4.

Bufferyard. A strip of land on the periphery of a property created to separate one (1) type of land use or zoning district from another when they are incompatible or in conflict. Bufferyards include street bufferyards that protect the use from road related nuisances or screen undesirable uses

Bufferyard, street. See Bufferyard.

Conservation design. A series of holistic land development design goals that maximize protection of key land and environmental resources, preserve significant concentrations of open space and greenways, evaluate and maintain site hydrology, and ensure flexibility in development design to meet community needs for complimentary and aesthetically pleasing development. Conservation design encompasses the following objectives: conservation/enhancement of natural resources, wildlife habitat, biodiversity corridors, and greenways (interconnected open space); minimization of environmental impact resulting from a change in land use (minimum disturbance, minimum maintenance); maintenance of a balanced water budget by making use of site characteristics and infiltration; incorporation of unique natural, scenic and historic site features into the configuration of the development; preservation of the integral characteristics of the site as viewed from adjoining roads; and reduction in maintenance required for stormwater management practices. Such objectives can be met on a site through an integrated development process that respects natural site conditions and attempts, to the maximum extent possible, to replicate or improve the natural hydrology of a site.

Conservation easement. A portion of a lot that is covered by an easement, running in favor of the County, or a nonprofit agency providing that such land shall be left in a natural state or open space access easement. The area of the lot, exclusive of the easement, shall meet the minimum lot area requirements of Article 4.

***Corridor Management Plan (CMP).** A corridor management plan is a written document that specifies the actions, procedures, controls, operational practices, and strategies to maintain the archaeological, cultural, historic, natural, recreational, and scenic qualities that support a scenic byway's designation. The plan should be developed with community involvement, provide for the conservation and enhancement of the byway's intrinsic qualities as well as the promotion of tourism and other economic development, and provide an effective management strategy to balance these concerns while providing for the users' enjoyment of the byway.

***Features, character-defining.** Elements and features within a scenic area or byway that, if lost or altered as a result of a transportation improvement or other action, would change the byway's character and value.

***Features, perceived.** Features such as a peaceful rural landscape or a historic town that can be anticipated and appreciated by byway travelers, but may be less likely to be specifically identified in project documents or in field evaluations. Often multiple elements contribute to these features.

***Features, tangible.** Characteristics such as a historic building or state park that can be easily identified and are often inventoried and categorized by agencies, organizations, or byway sponsors.

Greenway. A linked system of open spaces, parklands, historic and cultural sites, wildlife management areas and natural preserves. Connection corridors between such resources generally will be linear in nature and can include such features as natural areas, hiking trails, bike paths, city sidewalks, stream corridors, rivers, abandoned railroad rights-of-way, or scenic roads. (Greenways are also mentioned in the UDC as protective areas in, or within, visual proximity to a byway in the context of signage regulations. See Article 6 for signage applications).

***Intrinsic quality.** Intrinsic qualities are those features and qualities that are irreplaceable and which make the byway special and unique, as described in the byway's Corridor Management Plan (CMP). Intrinsic qualities and other character-defining features are the foundation for designation as a byway and include features from all or some of the following categories: scenic, natural, historic, cultural, recreational, and archeological.

***Intrinsic qualities, conservation of.** The act of design that creates a stable condition or a gradual process of appropriate development that prevents a relapse of a desired scenic byway's intrinsic quality or character-defining feature.

***Intrinsic qualities, enhancement of.** The act of augmenting existing byway intrinsic qualities by increasing or magnifying their beauty, effectiveness, or perceived value or improving their environmental context.

***Intrinsic qualities, protection of.** The act or process of applying measures necessary to sustain the existing form of identified character-defining byway features. This includes both physical features associated with the roadway, and features within the roadway's scenic viewshed.

***Intrusions.** See Visual Intrusions.

Major land development. A plan that proposes one (1) or more of the following:

- A. A new public or private street.
- B. Buildings or expansions that exceed the limits of the minor land development definition outlined in Subsection B.
- C. A subdivision of land resulting in more than five (5) lots.
- D. Apartment or multi-family development of ten (10) or more dwelling units

Minimize. To reduce to the smallest amount possible using best management practices. "Minimize" shall not mean complete elimination, but shall require that the most substantial efforts possible under the circumstances have been taken to reduce the adverse effect of the action required to be minimized. With respect to activities, the conduct of which is adverse to the conservation of the natural features of land, the requirement to "minimize" shall include but not be limited to the requirement that the placement of dwellings and other

structures and the locations of roads, sedimentation and erosion control devices, and earth-moving activities shall be planned and designed so as to permit the adverse effect of the activity in question to be reduced to the smallest amount possible under the circumstances consistent with the otherwise permitted development.

Minor land development. A plan that proposes one (1) or more of the following:

- A. A subdivision of land resulting in five (5) lots or less and not creating new street rights-of-way.
- B. Except for single-family dwellings and accessory structures on fee simple lots, land development proposing new buildings or additions one thousand (1,000) square feet GFA or greater, or five thousand (5,000) square feet GFA or greater in the OR, BP, I, and HI zoning districts and meeting one (1) or more of the following criteria:
 - 1. Proposed buildings less than twenty thousand (20,000) square feet GFA. One (1) or more buildings may be constructed; however, once the cumulative total of approved square footage on the site exceeds twenty thousand (20,000) square feet GFA, the plan shall be reviewed as a major plan.
 - 2. For lots containing at least twenty thousand (20,000) square feet GFA of existing development, any number of expansions are permitted (including expansions in excess of twenty thousand (20,000) square feet GFA), provided the cumulative total of all the expansions does not exceed fifty thousand (50,000) square feet GFA. Any subsequent plan submission proposing a new building or expansion exceeding fifty thousand (50,000) square feet shall be reviewed as a major plan.
 - 3. In any OR, BP, I, or HI zoning district on lots containing at least fifty thousand (50,000) square feet GFA of existing development, any size expansion of an existing industrial or manufacturing use provided no TIS is required by DeIDOT.
 - 4. Apartment or multi-family development of less than ten (10) dwelling units.
 - 5. Development that would be considered a major land development in industrial or office parks for which a previous record major plan has been recorded to establish lots and otherwise depict the overall limits of development provided that no special studies are required for approval e.g. TIS, CNA, environmental impact assessment report, floodplain application, WRPA, subsidence. The project must be such that any issues or concerns are minor in nature and can be evaluated without the necessity of a PLUS review.
 - 6. Expansions of existing institutional facilities or the replacement of existing public schools provided that no special studies are required for approval e.g. TIS, CNA, environmental impact assessment report, floodplain application, WRPA, subsidence. The project must be such that any issues or concerns are minor in nature and can be evaluated without the necessity of a PLUS review.

Mitigation. Any action taken to lessen the specified undesirable impacts of a proposed land use or land disturbance activity, including those which would adversely affect the health or longevity of a natural feature, pose a visual intrusion or conflict, or otherwise be deemed incompatible with surrounding properties.

***Observation point.** A point or points along a scenic byway roadway that are used to view, measure and map a scenic viewshed. Observation points are typically measured at between three (3) to four (4) feet above the roadway surface, in order to generally simulate a view from a passenger vehicle.

Opacity. The measurement of the screening effectiveness of a bufferyard or fence expressed as the percent of vision that the screen blocks.

Open space. Parcels of land within a residential subdivision, exclusive of streets and lots, generally preserved in a natural state or improved to provide common amenities for the residents of the subdivision. Open space shall be categorized as either natural resource area open space or community area open space. Open space is intended to preserve environmentally sensitive areas and protected resources, provide active and passive recreation facilities, establish greenways, provide wildlife habitats, facilitate stormwater manage-

ment functions, and landscaped bufferyards. Both natural resource area open space and community area open space can be public or private and would be annotated as such on the development record plan and/or deed.

Open space ratio (OSR). The proportion of a development required to be left in open space. It is determined by dividing the area in open space by the base site area. When applied to resource protection, the open space ratio shall mean that percentage of the resource feature to be protected and/or preserved in the total land area in that resource.

Roadway. The portion of a highway including the cartway and shoulders within a right-of-way.

****Scenic byway.*** A roadway and its associated scenic land area that is of significant scenic value, such that it has received official designation as a scenic byway from Federal or State authorities.

****Scenic corridor.*** A land area having a common border with the scenic road right-of-way, the dimensions of which are defined by Article 16.

****Scenic easement.*** A portion of a lot or parcel that is covered by an easement, running in favor of the County, or a nonprofit agency, providing protection and/or enhancement of the scenic qualities of such land. In New Castle County, conservation easements, historic easements and permanent agricultural easements are typically utilized to meet all or a portion of a required scenic protection requirements.

****Scenic landmark.*** This term is used one time in Article 15 of the UDC. It generally refers to important elements of the viewshed that are of such importance that they are identified and referenced by the general public as landmarks.

****Scenic quality.*** The heightened visual experience derived from the view of natural and man-made elements of the visual environment of the scenic and historic highway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape – landform, water, vegetation, and man-made development – contribute to the quality of the corridor’s visual environment. Everything present is in harmony and shares in the intrinsic qualities.

****Scenic resource.*** Scenic resource is a general term of reference for elements, features, viewsheds, intrinsic qualities, physical improvements, etc. of a scenic roadway, scenic byway, or a scenic vista that provide beauty and character.

****Scenic road or roadway.*** A roadway and other land within a right-of-way under the jurisdiction of the Delaware Dept. of Transportation (DelDOT) that has been designated as a scenic byway or other roads so designated as scenic by other agencies and/or jurisdictions..

****Scenic view.*** A general term defining an area of scenic beauty and superior aesthetic value, as seen from a particular vantage point or observation point. For the regulatory definition as used in the Scenic Overlay District, see Scenic Viewshed.

****Scenic viewshed.*** The scenic viewshed includes all land and existing improvements visible from the scenic byway roadway network, as measured from multiple observation points along the roadway. The scenic viewshed includes all features visible from the observation points in a winter, or leaf-off condition.

Subdivision, major. See Major land development

Subdivision, minor. See Minor land development.

***Viewshed.** A general term defining an area that is visible from a certain observation point, especially when considered valuable or worth preserving for aesthetic reasons. It includes all surrounding points that are in the line-of-sight with an observation point location, and excludes elements that are beyond the horizon or are obstructed by terrain and other features.

***Viewshed, immediate foreground.** That portion of the viewshed that is generally within three-hundred (300) feet of the observation point.

***Viewshed, foreground.** That portion of the viewshed that is generally beyond three-hundred (300) feet, but less than one-half (1/2) mile from the observation point.

***Viewshed, middle ground.** That portion of the viewshed that is generally beyond one-half (1/2) mile, but less than four (4) miles from the observation point.

***Viewshed, background.** That part of the viewshed that is generally beyond four (4) miles of the observation point.

***Vista.** A general term usually signifying a large and beautiful view of an area of land and/or water.

***Vista points.** Vista points are specific locations that are used to designate broad, expansive views, the scenic boundary of which are primarily defined by forest cover, geological features and ridge lines within the scenic viewshed. Vista points may also be referred to as Vantage Points.

***Visual accents.** Elements and/or improvements that are compatible with the character-defining features of a scenic byway and protect and/or enhance a byway's intrinsic qualities. Visual accents include visually significant landscapes, structures, and landforms within the public viewshed (i.e. visible from scenic roadways) that serve as indicators of natural, cultural, and/or historic processes, contain multiple resources that together form visually significant groupings, or are clear examples of superior features or characteristics. Visual accents can be natural or man-made.

Visual amenity. Any type of visible feature which the observer finds attractive or pleasing to the eye.

***Visual building height.** That portion of a building that is permitted to be viewed from the scenic roadway, measured as a percentage of the allowable height in the zoning district.

***Visual intrusions.** Elements and/or improvements that are not compatible with the character and nature of a scenic area and do not add to the protection, nor enhancement of, a scenic area's character-defining features and/or intrinsic qualities.

2. Foundational Documents

These Design Guidelines support and explain the code language in the Unified Development Code (“UDC”), as it applies to the Red Clay Valley Scenic Byway Overlay District. The Design Guidelines are also linked to other documents, either directly or indirectly. These documents are foundational in the protection of the Red Clay Valley Scenic Byway. In addition to careful review of the code, and the use of these Design Guidelines, each of the documents listed here has merit, and is a valuable reference when preparing a development proposal.

1. *New Castle County 2012 Comprehensive Plan*. April 2012. New Castle County, Delaware.
2. *Corridor Management Plan for the Red Clay Valley Scenic Byway*. 2008. Delaware Department of Transportation.
3. *Project Development Manual - Context Sensitive Solutions for Delaware Byways*. June 2011. Delaware Department of Transportation.
4. *Red Clay Creek Scenic Byway - Final Report on Vegetation Community Survey: 2007*. October 2007. Natural Heritage and Endangered Species Program, Delaware Division of Fish and Wildlife, Delaware Department of Natural Resources and Environmental Control.
5. *The Red Clay Valley Scenic River and Highway Study*. August 1989. New Castle County, Delaware.

The following list of books is for reference purposes only, however, each offers valuable insight into scenic viewshed protection. Therefore the reader is encouraged to review the documents to further one’s understanding of conservation design, context sensitive solutions and the art of creating new housing and improvements that are compatible with, and complementary to the rural and scenic character of the byway.

Arendt, Randall. 2015. *Rural By Design, Planning for Town and Country*. Second Edition. Washington, D.C.: American Planning Association.

Duerksen, Christopher J. and R. Matthew Goebel. December 1999. *Aesthetics, Community Character, and the Law*. PAS Report Number 489/490. Washington, D.C.: Scenic America and the American Planning Association.

Yaro, Robert D. et al. June 1989. *Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development*, Third Edition. Amherst: Lincoln Institute of Land Policy and the Environmental Law Foundation.

Codes.

For a list of the codes from other jurisdictions that were researched during this project, see the summary report on file at the Department of Land Use.

Project Examples:



The projects on this and the following pages are included to help illustrate some of the techniques described in these design guidelines. They are not located in the Red Clay Valley or in New Castle County.

Property 1: Equestrian Center

Viewpoint 1 Distance: 920 +/- feet

Viewpoint 2 Distance: 490 +/- feet

Viewpoint 3 Distance: 520 +/- feet

Building placement from Street B exceeds 1,000 feet, so project is exempt from Overlay District requirements along that street. Building placement relative to Street A is between 400 and 1,000 feet so placement of the building within the viewshed is permitted but discouraged if alternatives exist. Note that the buildings have been strategically located to maximize distances where open views from the surrounding streets occur and utilize the screening effects of existing forest and vegetation. Street level views from points 2 and 3 illustrate this effect.. The street level view from point 1 is an open view but the distance is greater than 800 feet. The Overlay District standards require at least 20 percent of the building to be screened (which has been exceeded) and supplemental plantings of 1 plant unit per 100 linear feet of frontage to be provided, but only in the areas where existing vegetation is insufficient and along Street A, up to 1,000 feet from the structure. Visually enhancing features such as pastures and paddocks have been placed within the most visually sensitive areas of the site (Inner Corridor).



Source: Image capture: May 2012 © 2016 Google (street level)
Imagery Date: 4/14/2016 © Google Earth (aerial)

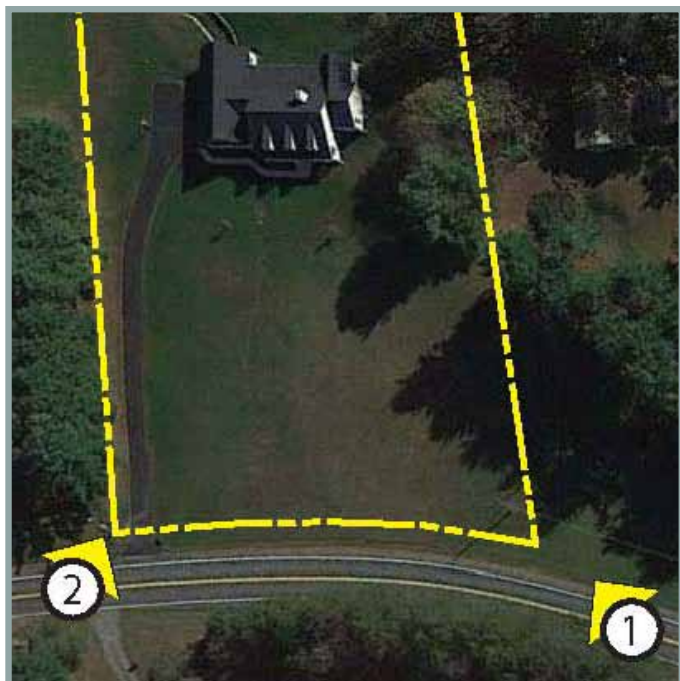


Property 2:

Viewpoint distances are between 650 to 850 +/- feet. Proposed structures are located beyond the viewshed, and therefore, this project is exempt from the Overlay District standards. However, this property owner honored the scenic viewshed by including context sensitive fencing and visually enhancing uses within the viewshed.



Source: Image capture: Dec 2007 © 2016 Google (street level)
Imagery Date: 4/14/2016 © Google Earth (aerial)



Property 3:

This new home is built just outside the Inner Corridor (200'). Due to the proximity to scenic byway, this proposal needs to provide at least four planting units per 100 linear feet, and screen at least 40 percent of the new structure.



Image Source: Image capture: Oct 2012 © 2016 Google (street level)
Imagery Date: 10/23/2014 © Google Earth (aerial)
Renderings by Townscape Design LLC





Property 4:

These two adjoining lots violate the Inner Corridor, with homes located between 150 and 200 feet from the right-of-way. The lot on the left provides substantial landscaping within the first 100 feet which approximates the Scenic Overlay District's corridor landscape standards (street views 3 and 4). The lot on the right has little to no landscaping and recreational facilities within the first 100 feet from the right-of-way (street scenes 1 and 2). The Overlay District strongly discourages placement of new structures this close to a scenic byway, however, when homes are proposed in this manner, the corridor landscape standards are a critical mitigating factor.



*Image Source: Image capture: Oct 2012 © 2016 Google (street level)
Imagery Date: 10/23/2014 © Google Earth (aerial)*



Property 5:

Conservation Design is a land development and project design methodology that puts an emphasis on the identification, protection and enhancement of the scenic, natural, historic, and cultural elements of a site; in other words, its intrinsic qualities, while at the same time providing development on the property, compatible with the surrounding context. Flexible design approaches and regulatory standards are utilized in order to create a balanced approach and the creation of permanently protected open space.

Roadside property is the easiest and, relatively speaking, the least expensive to develop. As can be seen in Figure xx, the Red Clay Valley has slowly over time been the victim of ‘strip lotting’ along its most scenic roadways at the edges of the byway. This has been referred to as ‘development creep’. In his book *The Experience of Place*, Tony Hiss likens this effect to ‘Appleton’s Principle’ which states that “the first 10 percent of development usually destroys 50 percent of the countryside” primarily because the public generally perceives the environment, not by walking through it, but rather by experiencing it

from driving through it.

This theoretical project is an example of the importance of preserving the views from the scenic roadway and the benefits of utilizing conservation design principles.

This property is approximately sixteen acres in size with more than 1,400 linear feet of frontage on a scenic roadway. The base zoning district, Suburban Estate, allows up to four residential lots that are a minimum of two acres in size, and a minimum open space of five percent. That option is illustrated in image 2.

An open space design, utilizing smaller lots and conservation design principles is permitted up to six residential lots. Image 6 illustrates a five lot plan that protects scenic vistas and creates more than sixty-five percent open space.





Image 4 indicates the minimum required constraints map and image 5 illustrates the additional requirements of the Overlay District.



Image capture: Nov 2012 © 2016 Google



Image capture: Nov 2012 © 2016 Google

District:	SE-Suburban Estate
Gross Site Area:	16.37 acres
Base Site Area:	15.64 acres
Protected Land:	5.29 acres
Min. District Open Space:	9.4 acres
Open Space Provided:	10.6 acres / 68%
DU Allowed/2 Acre:	4
DU Allowed/Open Space:	6
DU Provided:	5*

*Note: An additional lot may be provided if Overlay District standards can be met and the open space ratio is maintained above sixty percent. If the open space option was not utilized, the total yield may only be three lots.



Property 6:

The importance of existing forest retention along scenic byway right-of-ways is illustrated in this example. The three lots share a single common point of access, utilizing a narrow road section which maximizes the screening effect of the forest. Although the forest retention meets or exceeds the corridor landscape standards, understory planting with native species along byway side of the road would enhance screening of residences.

Source: Image capture Apr 2009 ©Google (Street Level)
Imagery Date: 4/14/2016 © Google Earth (Aerial)

3. Photo and Image Credits

Cover and Back Photos: Gaadt Perspectives, LLC.

A. Morton Thomas, Inc. Newark, DE	Figures C-20, E-2 (photo); Photos on pages iii, 6, 44, 56 and 58.
American Society of Landscape Architects Washington, DC	Figure A-22.
Delaware Dept. of Transportation	Figure D-32.
Duany, Plater-Zyberk & Co. Miami, FL	Figure C-3.
Darke, Richard	Aerial photo, page 19.
Gaadt Perspectives, LLC Chadds Ford, PA	Figures A-3, C-4, C-5, C-6, C-7, C-8, C-9, C-10 C-11, C-16, D-1, D-2, D-5, D-11, D-14 thru D-17, D-23, D-24, D-27, D-29, F-3; Photos on pages iii, iv, 4, 5, 6, 10, 24, 56.
Google Earth and Google Maps	Base aerials and street views for example projects.
LandDesign Alexandria, VA	Figure D-31
New Castle County - GIS Services New Castle, DE	Figures A-1, A-2, C-1, C-2, E-1, E-3, F-2; map base for figure C-24.
Townscape Design LLC Clarksville, MD (Certain photos under limited license from BigStockPhoto.com)	Figures A-2, C-12 thru C-19, C-21, C-22, C-23, C-24, D-3, D-4, D-6, D-7, D-8, D-9, D-10, D-12, D-13, D-15, D-19, D-20, D-21, D-25, D-26, D-28, D-30, E-2, E-4, E-5, F-1, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11; Photos on pages 55, 57, and 59; Project examples on pages A-8 through A-14.

Quick Reference Guide

Quick Links:

State of Delaware

Department of Transportation
 Scenic Byways Home Page
 Context Sensitive Solutions
 Maps
 DNREC
 State Parks Facilities

Delaware Nature Society

Home
 Facebook
 Ashland Nature Center
 Abbotts Mill Nature Center
 Coverdale Farm Preserve
 DuPont Environmental Nature Center

Delaware Greenways

Home
 Links to Partnering Organizations
 Scenic Byways Tour

New Castle County

County Executive
 County Council
 County Laws and Codes
 Comprehensive Plan
 Dept. of Land Use
 Dept. of Community Services
 Document Search
 DRAC of the RCV (no link yet)
 Historic Review Board
 Interactive Maps
 Planning Board
 Planning Review
 RPATAC
 Unified Development Code
 Zoning Maps

WILMAPCO

Data and Maps
 Home Page
 Plans and Reports
 Regional Transportation Plan
 Unified Planning Work Program
 WILMAPCO Council

Contact Information:

State of Delaware

Dept. of Transportation (DelDOT)
 Statewide & Regional Planning
 Attn: Michael C. Hahn, AICP, Byways Coordinator
 800 Bay Road, P.O. Box 778
 Dover, Delaware 19903
 (302) 760-2131, Fax: (302) 739-7218

Delaware Nature Society

3511 Barley Mill Rd, Hockessin, DE 19707
 (302) 239-2334

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New Castle County Government Center
 87 Read's Way
 New Castle, DE 19720
 (302) 395-5555 (general questions)
 (302) 395-5400 (planning and permitting questions)

WILMAPCO

Wilmington Area Planning Council
 850 Library Avenue, Suite 100
 Newark, Delaware 19711
 (302) 737-6205
 Toll Free From Cecil Co: (888) 808-7088, Fax: (302) 737-9584

Commonly Used Terms:

See the Glossary of Terms in the Appendix and the Definitions in Article 33 of the UDC.

Commonly Used Abbreviations:

AASHTO:	American Association of State Highway and Transportation
Byway:	The Red Clay Valley Scenic Byway
CMP:	The Corridor Management Plan for the Red Clay Valley Scenic Byway
CSS:	Context Sensitive Solutions
DelDOT:	State of Delaware, Department of Transportation
DNREC	Department of Natural Resources and Environmental Control
DNS:	Delaware Nature Society
DRAC:	Development Review Advisory Committee
Guidelines:	The Red Clay Valley Scenic Byway Overlay District Design Guidelines
LSR:	Landscape Surface Ratio
NCC:	New Castle County
NCCLU:	New Castle County's Department of Land Use
OSR:	Open Space Ratio
Overlay District:	The Red Clay Valley Scenic Byway Overlay District
Plan:	New Castle County's Comprehensive Development Plan
UDC:	New Castle County's Unified Development Code



DESIGN GUIDELINES

FOR THE

Red Clay Valley Scenic Byway Overlay District

WILMAPCO

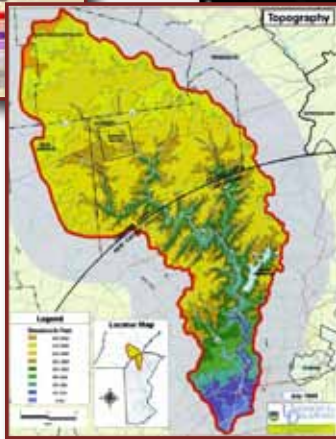
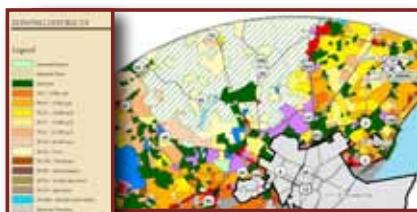


ALLIANCE FOR THE
red clay VALLEY
SCENIC BYWAY
A scenic network of roads,
roads and forests.

Junkyard



Figure C-xx Clustering and hamlet designs.



land-Clinton School Road.



Marshall Museum.

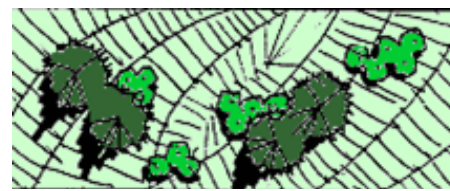


Figure C-10.

Conservation Design:

A series of holistic land development design goals that maximize protection of key land and environmental resources, preserve significant concentrations of open space and greenways, evaluate and maintain site hydrology, and ensure flexibility in development design to meet community needs for complimentary and aesthetically pleasing development. Conservation design encompasses the following objectives:

- conservation/enhancement of natural resources, wildlife habitat, biodiversity corridors, and greenways;
- minimization of environmental impact resulting from a change in land use;
- maintenance of a balanced water budget by making use of site characteristics and infiltration;
- incorporation of unique natural, scenic and historic site features into the configuration of the development;
- preservation of the integral characteristics of the site as viewed from adjoining roads; and
- reduction in maintenance required for stormwater management practices.

Such objectives can be met on a site through an integrated development process that respects natural site conditions and attempts, to the maximum extent possible, to replicate or improve the natural hydrology of a site.

Protection and enhancement is accomplished through the use of the Byway's Scenic Viewshed. The Overlay District has requirements for calculating the Scenic Viewshed and how changes are regulated within and near the Scenic Viewshed.

There are multiple ways to protect the viewshed. When full protection is either not practical or possible, there are several means to minimize intrusions. Negative intrusions can and must be mitigated using compensating features that can help buffer and/or avoid the impacts.

Property owners are encouraged to investigate all options and to utilize the approach that best fits their circumstances. A combination of approaches is also encouraged. The Overlay District is flexible as to the 'means' in order to accomplish the ultimate 'end' of protection.

The following is an outline of the suggestions offered in the Design Guidelines, in the prioritized order of preservation, conservation, avoidance, enhancement, minimization, mitigation.

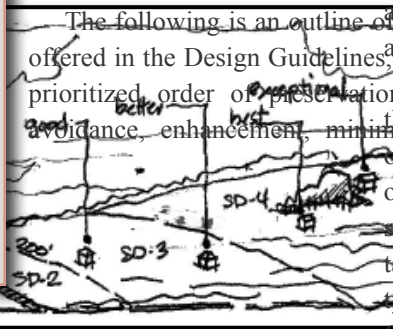
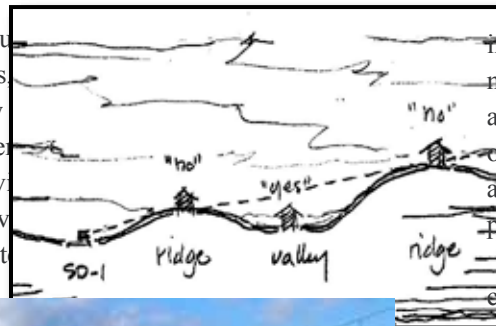


Figure C-21. Maximize distances from scenic roads in order to minimize visual intrusions.



Mapping Scenic Viewsheds and Sub-districts

To determine visibility of a proposed project from one or more scenic byways, a visibility study must be undertaken. Ideally, this analysis should be done in the winter, or leaf-off condition. The first step in the study is to identify all scenic roadways within one-half mile from the boundary of the proposed project.

After identifying the affected byway roads, document the visibility of the property from the roads through a series of photographs taken from the roadway edge at the height of approximately three feet to four feet above the pavement surface and angled toward the property. Photos should be taken as needed to provide all angles of view to the property, but not less than one photo for every two-hundred linear feet of roadway. The property should be properly identified in the photos. This photo-documentation will assist staff in review of the project's attributes.

The viewshed, or the portion of the landscape and existing improvements that are visible from the roadway, must now be mapped. The 'base' viewshed is determined through a line-of-sight analysis based on the photo-documentation of the preceding step. Therefore, the viewshed will include all visible elements of the landscape, including existing improvements that can be seen from the scenic roadway.

A secondary viewshed, the 'potential' viewshed, includes areas where improvements may be anticipated. In order to map this potential viewshed, an assumed height of forty feet is utilized. On ridge line conditions, this viewshed will be established at a point where the topographic elevation of the existing grade is 40 feet below the grade of the ridge. Down-slope conditions, or areas lower than the roadway, should already be a part of the 'base' viewshed and should not need additional mapping. However, there may be situations where an intervening ridge obstructs a down-slope condition. In these situations, the same mapping criteria as the uphill condition would apply (that is, mapping to a topographic elevation that is forty feet vertical differential below the ridge elevation).

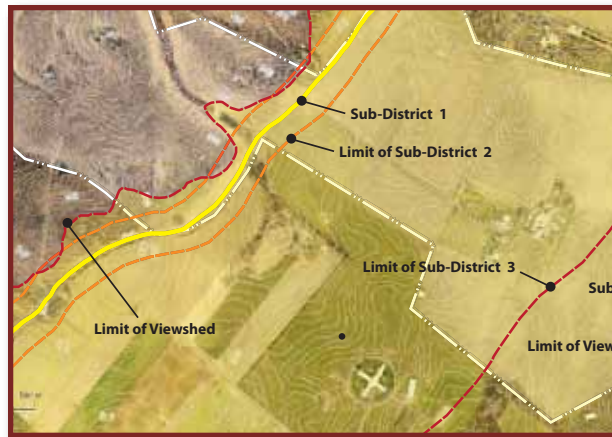


Figure F-8. Mapped Viewshed and Sub-Districts.

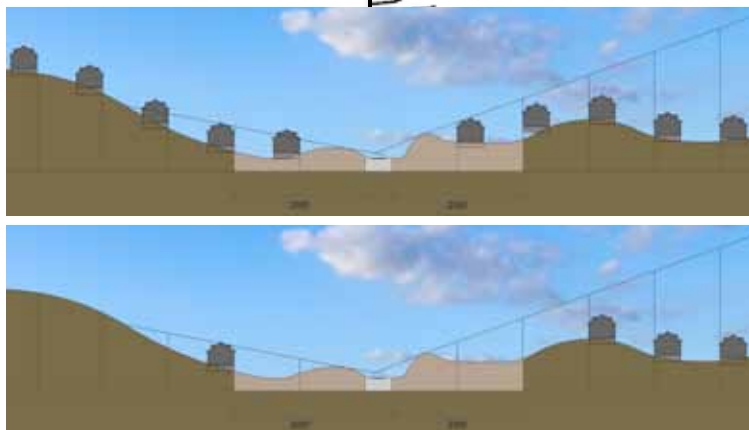


Figure F-9. Above image illustrates homes permitted under the base zone, and the lower image indicated the restrictions based on the Overlay District.