

Appendixes



Roadway Classification System

County Roadway Classification System

The James City County Roadway Classification System is established with planning and design standards for road improvements which promote an efficient transportation system, increase public safety and improve visual quality. All future development proposals with roadway improvements are expected to meet these standards.

Definitions and General Design Standards

Local

These roadway facilities will be designed to handle only lower levels of local or subdivision traffic and will be designed to collect traffic from local subdivision roads and carry these vehicles to adjacent neighborhoods and arterial roads. The primary function is to provide direct access to properties. However, the design of the roadway and adjacent development should minimize vehicular and pedestrian conflicts in order to maintain roadway efficiency.

Minor Collector

These facilities are typically two-lane collector roads designed to collect non-subdivision local traffic and is assumed to have frequent intersection and access points to abutting property.

Major Collector

These are typically two-lane divided facilities designed to provide a link from local streets and residential areas to higher classified routes and major traffic generators. The primary function is to serve local through traffic; direct access to properties is a secondary function.

Although the provision for direct access to adjacent properties is considered a secondary function of collector roads, access to properties is typically more prevalent and more important than on higher classified roads, particularly for minor arterials.

Minor Arterial

These facilities are generally four-lane divided signalized roadways that serve through traffic between activity centers and connect freeways to major traffic generators. The primary function of arterials is to convey through traffic.

Major Arterial

These facilities are generally four-lane divided unsignalized roadways. The primary function of arterials is to convey through traffic. Direct access to adjacent property is a secondary function. Some facilities are limited access with interchanges or widely spaced street intersections.

Principal Arterial

These facilities are generally four to six-lane divided roadways. These facilities are typically limited access facilities with interchanges.

Direct access from individual properties to arterial roads will be discouraged. Property access is to be achieved through the use of access management techniques including: internal, frontage, or service roads; shared entrances; and limitations on the number, location, and spacing of entrances.

Streets within subdivisions will continue to be regulated by the Virginia Department of Transportation Subdivision Street Requirements. Interstate highways will also continue to be regulated by the Virginia Department of Transportation and the Federal Highway Administration.

Every roadway improvement constructed in James City County must also conform to standards set forth in the County Zoning and Subdivision Ordinances, and the County Comprehensive Sidewalk Plan. Specific roadway engineering specifications and right-of-way needs will be determined by the Virginia Department of Transportation. Any roadway improvements needed to accommodate new developments shall generally be paid for by the developer. Developers will be encouraged to submit innovative and visually attractive roadway improvement plans that are best suited to

serve their developments. It is recommended that all developers work with James City County staff and the Virginia Department of Transportation to provide the most efficient transportation system.

Community Character Corridor Buffers

Buffers along Community Character Corridors continue to be an important consideration during development in the County. Many of the buffer requirements along Community Character Corridors (CCC) have been incorporated into the Zoning Ordinance since the 1997 Comprehensive Plan as right-of-way landscape areas. Modifications can be requested for circumstances that prevent the provision of the required planting area, such as topographical and environmental constraints. When development occurs in conjunction with a Special Use Permit or Rezoning, buffers that are consistent with those in the Zoning Ordinance should be provided.

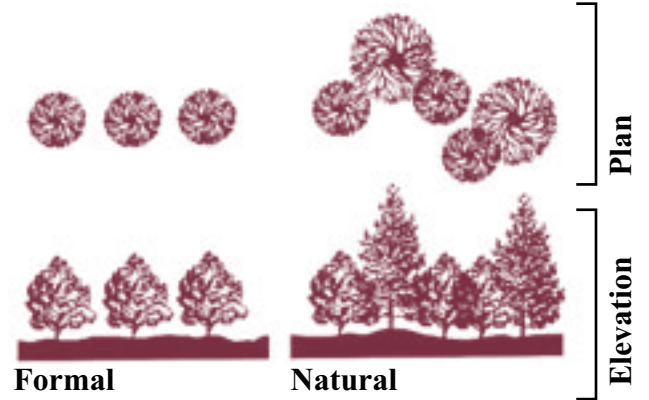
The preferred buffer width for new residential developments along Community Character Corridors is 150 feet. Generally, commercial and industrial development occurs in more urban areas and should have a 50 foot buffer.

Buffer Treatments

Buffers are predominantly wooded or planted during development, but berms and fences can also be used in situations where they are applicable, many times in conjunction with existing and proposed plant material. Determination of appropriate treatment will depend on the level of screening desired and the type of buffer (wooded, suburban and urban, or open/agricultural). It is beneficial for the applicant to consult staff and fully utilize the conceptual plan process when alternative buffer treatments are being proposed.

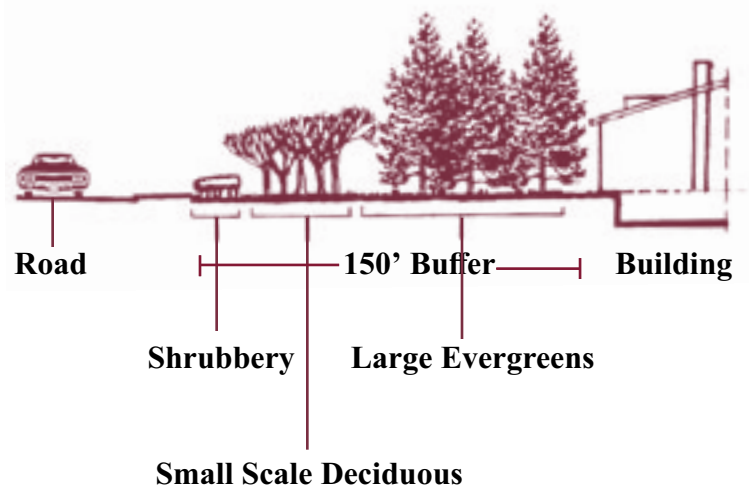
Existing and Proposed Planting of Buffers

To provide the most effective immediate buffer, existing plant material should be maintained and



supplemented with a mix of small trees and shrubs that are both evergreen and deciduous and preferably native. Planting should occur in a staggered pattern, with the smaller under story plant material defining the edges of the existing groupings of material. New buffers can also be successfully planted in a more natural design, especially when the buffer might be very wide and the developer wants to reduce maintenance costs associated with a manicured area.

In urban and suburban CCCs that do not have existing vegetation, it may be more beneficial to take a more formal approach to the buffer design. Trees and shrubs can be planted in rows or groupings that effectively screen as a group. These buffers are more groomed and require higher maintenance.



History of Planning in James City County

Berms

A berm is a man-made mound of earth with the purposed of providing a visual, acoustic, or safety buffer. The optimal slope for a berm is one foot of vertical rise for each 3 horizontal feet. A 50 foot buffer would leave plenty of space for a 6 foot high berm that is optimally sloped.

The advantages to a berm are a more effective buffer, screening directly at the level of a driver's eye, and greater immediate effectiveness of plant material. Alternatively, berms can be expensive if soil must come from off-site and they have the potential to destroy existing plant material during construction. Strict attention must be paid to traffic safety and visibility during the design of a berm. In view of these considerations, berms should be used only when the benefit from their construction would offset the high cost. The use of a berm might be appropriate when there is no existing plant material in the buffer, especially if it is unsuitable for planting.

Fences and Walls

Fences and walls provide another alternative in the buffer and are more appropriate in urban and suburban situations. Fences located in a wooded CCC should be natural in color and blend in with the natural surroundings. In urban and suburban CCCs it may be more appropriate for fences and/or walls that are more formal in design and combined with appropriate plant material. In some instances, fences and walls can offer a better visual buffer than vegetation alone and add interest and variety to the Community Character Corridor landscape.

May 1953

County Planning Commission established.

September 1964

Subdivision and Mobile Home Park Ordinance approved.

May 1965

First Land Use Plan developed in a cooperative effort with Governor's Office of Industrial Development and Planning.

March 1969

First Zoning Ordinance approved.

May 1972

First County Planner hired.

October 1972

County Wetlands Board established.

October 1975

First Comprehensive Plan adopted by the Board of Supervisors.

April 1985

Update of Zoning Ordinance adopted by the Board of Supervisors.

November 1985

Skiffe's Creek Industrial Area Development Plan adopted as part of the Comprehensive Plan.

January 1987

Richmond Road Corridor Strategy Team completes its work and forwards recommendations to the Board of Supervisors.

July 1987

Neck-O-Land Area Plan adopted as part of Comprehensive Plan.

July 1987

Adoption of Greenbelt Policy, Criteria and Guidelines and additional Greenbelt Roads.

November 1987

Williamsburg Regional Commission on Growth completes its work and forwards recommendations to Board and Council members of the City of Williamsburg and the Counties of York and James City.

January 1988

Monticello Avenue Area Plan adopted as part of the Comprehensive Plan.

May 1989

Non PSA Development Policy and subsequent ordinance changes adopted.

November 1989

Community Participation Team appointed to assist in the coordination of citizen input for the update of the 1982 Comprehensive Plan.

May 1991

Planning Commission recommends approval of the 1991 Comprehensive Plan Update.

August 1991

Board of Supervisors adopts 1991 Comprehensive Plan Update.

October 26, 1995

Community Leaders' Kickoff. Community leaders from across the County gathered at the Williamsburg Winery to hear about the revision process for the 1997 Comprehensive Plan.

November 11, 1996

1997 Comprehensive Plan approved by Planning Commission.

January 28, 1997

1997 Comprehensive Plan approved by the Board of Supervisors.

September 24, 2002

The Community Participation Team, County Administration, and the Board of Supervisors hosted a media event to announce the commencement of the 2003 Comprehensive Plan Update process.

July 14, 2003

2003 Comprehensive Plan approved by Planning Commission.

August 12, 2003

2003 Comprehensive Plan approved by Board of Supervisors.

Awards

James City County has received several commendations recognizing the quality of its comprehensive plan update process:

- In April of 2003 James City County was honored with the Virginia Chapter of the American Planning Association's Public Education Award for its public outreach process.
- In September of 2003 James City County won the Virginia Municipal League's highest honor, its President's Award for Entrepreneurial Government, for its comprehensive plan update process.

Glossary



Action - A statement of a way in which a strategy may be reached; it refers to some specific accomplishment which is reasonably attainable.

Affordable Housing - Housing available to persons who have incomes below the area median income, provided that the occupant(s) pay(s) no more than 30% of gross income for housing costs, including utilities.

Agricultural & Forestal District (AFD) - A formal method of assembling tracts of land into large, contiguous parcels for the purpose of short or long-term conservation. Terms can vary from four to ten years at the discretion of the landowner and landowners are offered reduced tax assessments based on land use values.

Amenities - The physical conditions or facilities of a site which produce a pleasant environment and enhance the quality of life.

Applicant - A person who applies for a land use review or building permit. An applicant can be the owner of the property or the representative of the owner such as a builder, developer, optional purchaser, consultant, attorney, engineer or architect.

Aquifer - An underground layer of earth, gravel, or porous stone that yields water.

Bathymetry - The measurement of the depth of bodies of water.

Berm - A long, narrow, raised strip of ground used as a sight or sound buffer or for landscape enhancement. A berm can also be effective for erosion and stormwater runoff control by intercepting or diverting runoff.

Bikeway - A pathway, often paved and separated from streets and sidewalks, designed to be used by bikers.

Blighted area - An area characterized by deteriorating and/or abandoned buildings, inadequate or missing public or community services, vacant land with debris, lack of sanitation facilities, trash and junk accumulation, and impacted by adverse environmental nuisances such as noise, heavy traffic, and odors.

Buffer - A land area used to visibly separate one use from another, to shield or block noise, lights, or other nuisances or to provide for erosion control and filtering of runoff for water quality purposes.

Certificate of Occupancy (CO) - A document issued by the Code Compliance Division allowing the occupancy or use of a building and certifying that the structure or use has been constructed or will be used in compliance with all the applicable County codes and ordinances.

Capital Improvements Program (CIP) - The CIP is the scheduling of public physical improvements over a specified period of time. The CIP is an important device to assist in the implementation of the Comprehensive Plan.

Cluster - A development design technique that concentrates buildings in specific areas on the site to allow the remaining land to be used for recreation, common open space, and preservation of environmentally sensitive features.

Community Character Area - A designation given to certain areas in the County that, due to their scenic or historic character and/or location, deserve a higher level of design and development standards.

Community Character Corridor - A designation given to certain roads in the County that, due to their scenic or historic character and/or location, deserve a higher level of design and development.

Community Park - Designed to serve two or more neighborhoods, it contains 3 acres per 1,000 population with a minimum size of 20 acres. Parks contain lighted game fields and court complexes, swimming pool, picnic area, and walking and jogging trails. They are located within 15 minutes driving time of the population to be served, located near the center of the community and have good access and service by public transportation. An example would be Upper County Park.

Comprehensive Plan - A plan which establishes the goals, strategies and actions for the County's development, and guides future decisions on land use, transportation, public facilities, economics, resource protection, housing, human services, and recreation. State law requires a Comprehensive Plan to be reviewed every five years.

Conservation Easement - A voluntary agreement by a landowner to limit development on a piece of property. Easements are held by the Virginia Outdoors Foundation or other authorized body for not less than five years.

Demographic - A statistic characterizing human populations, or segments of them.

Density - A measurement of the number of people or dwelling units in relationship to a specified amount of land. Density is a measurement used generally for residential uses. Gross Density is defined as the total number of acres divided by the total number of units permitted within a development (i.e. 50 units permitted on 100 acres would be equivalent to a gross density of 2 units per acre). Net density is defined as the total number of developable acres (total acreage less wetlands, steep slopes, creeks, etc) divided by the number of units permitted (i.e. 50 units permitted on 50 developable acres would be equivalent to a net density of 1 unit per acre.)

District Park - The largest of the three parks that local governments are responsible for, 4 acres per 1,000 population and a minimum of 50 acres. These three parks should include the same facilities as community parks as well as substantial undeveloped open space to accommodate unstructured recreational activities. The park should be located within 15 to 20

minutes driving time of anyone in the population to be served and preferably served by mass transit and accessible to pedestrians and bicyclists.

Eutrophication - The proliferation of plant life, especially algae, in a body of water, which is promoted by an excess of mineral and organic nutrients. This reduces the dissolved oxygen content of the water body and often causes the extinction of other organisms.

Effluent - Something that flows out or forth, especially a stream flowing out of a body of water, an outflow from a sewer or sewage system, or a discharge of liquid waste as from a factory or nuclear plant.

Estuary - The part of the wider course of the river where its current is met by the tides.

Fetch - The distance a wind blows unobstructed over water affecting the buildup of waves.

Functional classification system - The identification of a hierarchy of road types according to the character of service they are intended to provide.

Goal - A statement addressing a broad subject area which directs efforts toward an ideal value or end result which may not be specifically attainable.

Greenway - A greenway is a contiguous unit of at least one mile established to protect, preserve, and maintain existing natural and cultural corridors. They also function to link population centers with recreation areas and other population centers; and to provide recreation opportunities along these corridors by utilizing watercourses, roads, utility easements and abandoned railroad rights-of-way.

Greenway Master Plan - A comprehensive and integrated plan put into effect by the County in 2002 that is a component of the broader Open Space Master Plan. Its goal is to balance environmental protection with the need for recreational amenities through open space preservation, environmental protection, species habitat protection, and ecotourism initiatives, among other things.

Historic preservation - The protection, rehabilitation, and restoration of sites, buildings, structures, and artifacts significant in American history, architecture, archaeology, or culture.

Hydrology - The scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere.

Impact analysis - A study to determine the effect of a proposed development on activities, utilities, circulation, surrounding land uses, community facilities, environment and other factors directly, indirectly, or potentially affected.

Improvement - Any man-made, immovable item which becomes part of, placed upon, or is affixed to, real estate. May include: streets, sanitary sewers, waterlines, stormwater management and erosion control facilities, monuments, signs, sidewalks, and streetlights.

Infrastructure - The facilities and services needed to sustain industry, residential and commercial activities. Infrastructure includes water and sewer lines, streets and roads, communications, and public facilities such as fire stations, parks, etc.

Infill - The completion of an established development pattern through the development of similar or compatible uses and densities on vacant parcels.

Intertidal - The area in between the points of high and low tide, e.g. intertidal marshes.

Land Use Plan - A guide for policy makers and citizens when making decisions about land use and development within the County. This plan is usually, but not always, consistent with the Zoning Ordinance, which is the legal document by which government classifies land.

Large retail stores – Also known as “big box retail” a large retail store is any combination of retail establishments occupying a single building comprising more than 40,000 square feet or more of total gross floor area. This building may or may not be situated within a larger shopping center.

Life-cycle costing - an analytical process which considers all cost (and revenue) impacts directly attributable to a public facility over the life cycle of that facility.

Light rail - An railway system characterized by its ability to operate single or multiple car consists along exclusive rights-of-way at ground level, on aerial structures, in subways or in streets, able to board and discharge passengers at station platforms or at street, track, or car-floor level.

Limited Access Highway - A highway with no right-of-access given to property by virtue of its frontage on that highway. Access is granted by the Virginia Department of Transportation. There is no functional classification difference between a limited access highway and a controlled access highway. An example is Route 199.

Local road - A road classification intended to provide direct access to adjacent properties and characterized by lower speeds and lower traffic volume.

Median Adjusted Gross Income (MAGI) – A measure of median income calculated after deductions for taxes are made.

Metropolitan Statistical Area (MSA) – A large population nucleus consisting of adjacent communities with a high degree of social and economic integration. Metropolitan areas can comprise one or more entire counties/cities.

Mixed use development - The development of tract(s) of land with two or more different uses such as, but not limited to, residential, office, industrial, or commercial in a compact form.

MPO - The Metropolitan Planning Organization was established to create a cooperative, coordinated, and comprehensive regional transportation planning process.

Neighborhood Park - An intensely developed area which includes playground equipment, game courts, and play fields. It is located 5-15 minutes or ½ to 1-1/2 miles walking distance from the area intended to be served and contains 3 acres of park land per 1000 population. An example of a neighborhood park is Forest Glen.

Nonconforming use - A use that was allowed by right when established or a use that obtained a required land use approval when established, but that subsequently, due to a change in the zone or zoning regulation, the use or the amount of floor area of the use is now prohibited in the zone.

Non-point source pollution - Runoff originating from no specific identifiable source such as agricultural or urban runoff into streams.

Nontidal wetlands - Also known as freshwater wetlands, those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Open space - Land or water left in an undisturbed natural condition and unoccupied by building lots, structures, streets or parking lots.

Overlay district - A plot of land with additional requirements to those of its zoning district.

Per Capita Personal Income - the total income received by all persons divided by the total population of the locality.

Playground - Located on less than ½ acre of land within a residential neighborhood, it contains several pieces of equipment such as swing sets and teeter-totters. A playground serves the residents of the surrounding neighborhood and is accessible to pedestrians and bicyclists.

Point source pollution - An identifiable pollution source, such as a pipe outfall from a specific industry.

Polynomial – Mathematical expression containing two or more active variables i.e. $x + y$.

Primary Service Area (PSA) - A principal tool used by the County to manage growth. The PSA is the area where the County encourages most growth to occur and where the bulk of public facilities and services will be provided over the next 20 years. The PSA has as its main goal to promote the efficient delivery of public facilities and services.

Prime agricultural soils - As defined by the U.S. Department of Agriculture, all Class I and II soils not limited by wetness.

Proffer - Contributions to the government from private developers offsetting the cost incurred in development process. These costs include installation of water and sewer lines as well as construction of access roads and reparations to adjacent properties whose land has been disturbed.

Purchase of Development Rights (PDR) – A voluntary program for landowners interested in preserving their property and allows landowners to enter into agreements to sell the development potential of qualifying property to the County while maintaining the right to continue to own and use the property. Property in the PDR program is put into a conservation easement that places permanent limits on future development of the property and binds all subsequent owners of the property.

Recreation Center - A community center typically providing open space, ample parking, and a building designed for a variety of intensive uses. Athletic activities, classes, meetings and special events are routinely scheduled at such a facility.

Regional Park - This park is not necessarily the exclusive responsibility of individual local governments. Its service area radius should be approximately 25 miles, with a minimum size of 100 acres. A regional park is best provided by two or more units of government working together. A wide variety of developed facilities and also undeveloped open space should be included.

Response Time - The amount of time between receipt of an alarm or call for service and the arrival of the first vehicle to the scene.

Riparian - Of or pertaining to the banks of a natural course of water, e.g. a riverbank.

Runoff - Rainfall that is not absorbed by the soil, often causing erosion of topsoil and decreasing water quality within a watershed if not properly managed.

Scenic easement - An easement the purpose of which is to limit development in order to preserve a view or scenic area.

Screening - A method of visually shielding or obscuring one abutting or nearby structure or use from another by fencing, walls, berms or densely planted vegetation.

Special Use Park – A park which provides unique recreational activities not found at neighborhood, community or district parks such as boating fishing or skating. An example of a special use park is Little Creek Reservoir Park.

Sprawl - Haphazard growth outwards, especially that resulting from development on the outgrowths of a city.

Standards - A guide of how various uses should be accommodated in a manner harmonious to the natural and man-made environment. The standards in this Comprehensive Plan provide a basic framework for evaluation in rezoning, special use permits, site plan, subdivision and other review processes and are presented in the form of recommendations.

Strategy - A statement addressing a specific subject which directs efforts toward an ideal value or end result which may not be specifically attainable.

Strip development - Commercial or residential development oriented to a roadway with multiple access points which often results in increased traffic hazards and adverse visual impacts.

Substandard housing - Housing lacking some or all plumbing and/or housing of poor exterior and/or interior condition. Overcrowding and unsanitary conditions are also factors usually considered.

Swale - A low area relative to surrounding land, especially moist or marshy ground, usually serving as a drainage way for surface water during rainy weather.

Topography - The geographic surface features of a place or region.

Transitional uses - Land uses of an intermediate

intensity between a more intensive and less intensive use (i.e., locating an office building between a residential use and a business). Land uses of this type act as a buffer between two land uses with their purpose being to preclude the more intensive uses from “creeping” into the less intensive zone.

Turbidity - Muddiness created by stirring up sediments or having foreign particles suspended.

Value engineering - The systematic application of techniques to identify the function of a public facility, establish a worth for that function, and provide the needed functions to accomplish the original purpose of the facility at the lowest life-cycle cost without sacrificing the quality of the proposed facility.

Watershed – The region draining into a river, river system or other body of water. For example, all area draining into Powhatan Creek and the bodies of water that flow into it would be part of the Powhatan Creek Watershed.

Zoning Ordinance - The legislative process/document by which a local government classifies land within the community into areas and districts referred to as zones. Zoning regulates building and structure dimensions, design, placement, and use. Requirements vary from district to district, but they must be uniform within districts.