ARTICLE 23. ROADS AND ACCESS MANAGEMENT

Sec. 15-341 Statement of intent

The intent of this article is to manage access to land development while preserving the regional flow of traffic in terms of safety, capacity, and speed. Roads serve as the primary network for moving people and goods, provide access to businesses and homes, and are a priority for safe, well designed commercial and residential development. This article balances the right of reasonable access to private property with the right of the people to safe and efficient travel on public rights-of-way.

To achieve its purpose, roads are categorized by function and classified for access purposes on their level of importance, with highest priority given to the state highway system and second priority to the primary network of regional arterials. Access management regulations are applied to roads for the purpose of reducing traffic accidents, personal injury, and property damage attributed to poorly designed access systems; thereby improving the safety and operation of the road network. This protects the substantial public investment in the existing transportation system and reduces the need for expensive remedial measures. These regulations also further the orderly layout and use of land, protect community character, and conserve natural resources by promoting well-designed roads and access systems. Finally, these regulations support the goals of the major thoroughfare plan.

Sec. 15-342 Definitions

The following words and terms have the following meaning unless the content clearly indicates otherwise:

Access. A way or means of approach to provide vehicular or pedestrian entrance or exit to a property or properties.

Access connection. Any driveway or other point of entry and/or exit that connects to the general road system.

Access category. A functional classification that determines which access management standards apply.

Arterial. A road meeting the description of a principal arterial or minor arterial in the major thoroughfare plan.

Auxiliary lane. Any additional special purpose lane, such as speed change lanes, hill climbing lanes, and turning lanes.

Capacity. The ability of the road to provide service to the volume of vehicles seeking to use it. Capacity is most often considered the maximum amount of traffic that can be accommodated by a road during the peak hours of demand. Capacity can also be used in reference to a single lane of a road.

Collector. A road meeting the description of a major collector or minor collector in the major thoroughfare plan.

Connection spacing. The distance between access connections, measured from the closest edge of pavement of the first connection to the closest edge of pavement of the second connection, along the edge of the road.

Corner clearance. The distance from an intersection to the nearest access connection.

Corridor overlay. An area with special requirements in addition to the zoning district's land development requirements.

Cross access. A service road providing vehicular access between two or more contiguous premises so that the vehicle need not use a street.

Design speed. The maximum safe speed that can be maintained over a specified road section when conditions are so favorable that the design features of the road govern.

Driveway. An access road that is private and provides access to two or more lots.

Frontage road. A public or private road auxiliary to and normally alongside and parallel to the main road, constructed for the purposes of maintaining local road continuity and controlling direct access to the main road while providing access to private properties.

Functional classification. A classification system that defines a public road according to its purposes and hierarchy in the state highway system.

Highway. The entire width between the boundary lines of every road publicly maintained or open for public use for vehicular travel. It includes bridges, culverts, sluices, drains, ditches, waterways, embankments, walls, trees, shrubs, and fences.

Interchange. A grade-separated system of access to and from highways that includes directional ramps for access to and from crossroads.

Interstate system. Those highways designated by the commonwealth transportation board in accordance with Virginia Code § 33.2-100.

Joint access. An access for vehicular traffic which connects two or more contiguous properties to the state highway system.

Lane. The portion of a road for the movement of a single line of vehicles. It does not include the gutter or shoulder.

Local. A road meeting the description of local road in the major thoroughfare plan.

Median. That portion of a road separating opposing traffic lanes.

Outparcel. A lot with road frontage which abuts and is external to a larger, main lot, typically with commercial uses, which is under separate ownership.

Primary system. The state highway system in accordance with Virginia Code § 33.2-100.

Right-of-way. Land reserved, used, or to be used for a highway, street, alley, walkway, drainage facility, or other public purpose.

Road. A public or private thoroughfare used for vehicular travel between properties.

Road, private. A road that has not been accepted for maintenance by the county or other government entity.

Roadway. That portion of a road improved, designed, or ordinarily used for vehicular travel exclusive of the sidewalk, parallel gutter, berm, or shoulder. In the event a road includes two or more separate roadways, "roadway" includes any auxiliary lane.

Secondary road. A public street not included in the primary state highway system in accordance with Virginia Code § 33.2-100.

Service road. A public or private road, auxiliary to and normally located parallel to a limited access road that maintains local road continuity and provides access to parcels adjacent to the controlled access road.

State highway system. All highways and roadways, under the ownership, control, or jurisdiction of the Virginia Department of Transportation.

Street. A public thoroughfare which affords principal means of access to abutting property.

Stub-out. A portion of a street or cross access built toward and to provide future access to an abutting property that may be developed in the future.

Taper. The widening of pavement to allow the redirection and transition of vehicles around or into an auxiliary lane.

Trip. A single or one-direction vehicle movement with either the origin or the destination inside a study area. A vehicle leaving the road and entering a property is one trip. Later, when the vehicle leaves the property and reenters the road, it is a second trip.

Weave. The movement of one traffic vehicle or traffic stream crossing into another traffic lane or traffic stream traveling in the same general direction.

Weaving. The crossing of two or more traffic streams traveling in the same general direction along a segment of road without the aid of traffic control devices.

Sec. 15-343 Access management classifications

The following access classifications may be assigned to major thoroughfares under state and local jurisdiction. Since different roads serve different purposes, a ranking system for roadways in the county has been developed to determine the appropriate application of designs and strategies. These categories are based on the future roadway travel characteristics and as presented on the major thoroughfare plan. The roadways are assigned to one of seven access categories with access category 1 being the most restrictive and access category 7 being the least restrictive. The categories are as follows:

Access Category 1: Interstate and Limited Access

- High speed
- High traffic volume
- Strong emphasis on mobility for through traffic
- Long distance travel
- No right to direct access

Access Category 2: Major Arterials

- Highways that supplement the federal interstate system
- High speed
- High traffic volume
- Controlled access
- Rural areas
- Serve regional traffic
- Emphasis on mobility

Access Category 3: Minor Arterials

- Emphasis on preserving safety and capacity of roadway
- High speed
- Moderate traffic volume
- Rural areas
- Emphasis on mobility
- Serve regional and local traffic

Access Category 4: Rural Collectors

- High speed
- Lower volume
- Rural areas
- Serve primarily local traffic

Access Category 5: Village/Urban Collectors

- High traffic volume
- Low speed
- Focus on balancing mobility and access, but mostly access
- Located in designated villages

Access Category 6: High Volume Local Roads

- Provide access to arterials and collectors
- Focus on mobility and access, but mostly access
- Serve local traffic
- Moderate traffic volumes
- Within designated villages

Access Category 7: Low Volume Local Roads

- Low speed
- Low volume
- Serve local traffic
- Focus on access
- Within designated villages

Sec. 15-344 Classified roads

The access management classification system and standards apply to all roads that are listed in the table below:

Route	Road Name	Segment	Access Category
I-64		All	1
288		All	1
250	Broad Street Rd	605 Shannon Hill to Rt. 288	3
250	Broad Street Rd	Rt. 288 to Henrico County Line	2
522	Maidens Rd	Powhatan County Line to S SR 6	5
522	Sandy Hook Rd	N SR 6 to Louisa County Line	3
6	River Road West	Fluvanna County Line to W US 522	3
6/522	River Road West	W US 522 to E US 522	5
6	River Road West	E US 522 to 676	3
6	River Road West	Rt. 676 to Rt. 623	3
6	Patterson Ave	Rt. 623 to Henrico County Line	2
45	Cartersville Rd	All	5
271	Pouncey Tract Rd	All	3
600	Rock Castle Rd	All	4

605	Shannon Hill Rd	US 250 to Louisa County Line	3
605	Shannon Hill Rd	Fluvanna County Line to US 250	4
606	Hadensville-Fife Rd	All	5
614	Dogtown Rd	All	4
617	Oilville Rd	US 250 to N Ramp 64	5
617	Oilville Rd	N Ramp 64 to 620	3
620	Hanover Rd	All	5
621	Manakin Rd	All	5
622	Three Chopt Rd	All	5
622	Rockville Rd	All	5
623	Hockett Rd	SR 6 to US 250	3
623	Ashland Rd	All	3
629	Old Fredericksburg Rd	All	5
630	Cedar Point Rd	All	7
631	Scott Rd	All	7
632	Fairground Rd	All	3
634	Maidens Rd	Powhatan County Line to SR 6	3
634	Maidens Rd	SR 6 to Fairground Rd	5
635	Perkinsville Rd	All	4
639	Sheppard Town Rd	All	4
644	Millers Ln	All	4
647	Pagebrook Dr	All	4
649	Blair Rd	All	5
650	River Rd	All	5
654	Shallow Well Rd	All	4
670	Cardwell Rd	All	5
673	Whitehall Rd	All	5
676	Hermitage Rd	All	5
702	Pony Farm Rd	All	4
708	St. Matthews Ln	All	6
740	Tuckahoe Creek Pkwy	All	5
741	Broad Branch Dr	All	5
1000	Plaza Dr	All	6
1001	Mills Rd	All	7
1010	Whippoorwill Rd	All	7

1034	Wilkes Ridge Pkwy	All	5
1250	West Creek Pkwy	All	5

Sec. 15-345 Connection spacing requirements for roads

A. All access connections on road segments assigned an access category in Sec. 15-344 must meet or exceed the following minimum connection spacing requirements:

Access Category	Posted Speed (mph)	Average Daily Traffic	Land Use Characteristics	Driveway Spacing (ft)	Corner Clearance (ft)	Cross-over Spacing (ft)	Signal Spacing (ft)	Turn Lanes (ft)
1	55 or Higher	Over 4,000	Existing rural but chance of land use change in future is high					
2	45-55	Over 4,000	Existing rural but chance of land use change in future is high	660	660	2,640	2,640	200-Storage 200-Taper
3	45-55	501-4,000	Rural	660	660	1,320	2,640	
4	45-55	Under 500	Rural	440	440	1,320	1,320	
5	Under 45	Over 4,000	Village	245	245	1,320	1,320	
6	Under 45	501-4,000	Village	245	245	660	1,320	100-Storage 200-Taper (100-Taper if >35 mph)
7	Under 45	Under 500	Village	125	125	330	1,320	

B. Connection spacing between access classifications on all collectors and arterials under local jurisdiction that have not been assigned an access classification are based upon the posted speed limit in accordance with the following standards:

Posted Speed Limit (mph)	Connection Spacing (ft)
≤35	125
36-45	245

Sec. 15-346 Road Width

All roads, public or private, must have a minimum 50-foot of right-of-way, except for family subdivisions, as defined in the subdivision ordinance.

Sec. 15-347 Widening of roads

Whenever there are plans approved by either the Virginia Department of Transportation or the governing body, for the widening of any street or roadway, the planning commission may recommend additional front yard setbacks for any new construction adjacent to the future planned right-of-way in order to preserve the right-of-way for the proposed widening.

Sec. 15-348 Connection and driveway spacing

A. Driveway spacing will be measured from the closest edge of the pavement to the next closest edge of the pavement. The projected future edge of the pavement of the intersecting road will be used in measuring corner clearance, where widening, relocation, or other improvement is indicated in the major thoroughfare plan or the five-year transportation plan of the metropolitan planning organization.

B. Connection spacing requirements may be reduced by the POD administrator in situations where they prove impractical, but permitted spacing cannot be less than 90% of the applicable standard.

C. If the connection spacing standard cannot be achieved, then a system of joint access roads and cross-access easements will be required in accordance with Sec. 15-350, joint and cross access.

D. Variation from these standards is permitted at the discretion of the POD administrator where the effect would be to enhance the safety or operation of the road. Examples might include a pair of one-way driveways in lieu of a two-way driveway, or alignment of median openings with existing access connections. Applicants may be required to submit a study prepared by a registered engineer to assist the POD administrator in determining whether the proposed change would exceed roadway safety or operational benefits of the prescribed standard.

Sec. 15-349 Corner clearance

A. Corner clearance for connections must meet or exceed the minimum connection spacing requirements for that road.

B. New connections will not be permitted within the functional area of an intersection (or interchange) as defined by the connection spacing standards, unless:

   (1) No other reasonable access to the property is available, and

   (2) The POD administrator determines that the connection does not create a safety or operational problem upon review of a site-specific study of the proposed connection prepared by a registered engineer and submitted by the applicant.

C. Where no alternatives exist, the POD administrator may allow construction of an access connection along the property line farthest from the intersection. In such cases, directional connections (i.e., right in/out, right in only, or right out only) may be required.

Sec. 15-350 Joint and cross access

A. Adjacent commercial or office properties classified as major traffic generators (e.g., shopping centers, office parks) must provide a cross-access drive and pedestrian access to allow circulation between premises. Figure 1 below illustrates examples of cross-access corridor design.

B. A system of joint use driveways and cross-access easements must be established wherever feasible and the property must incorporate the following:

(1) A continuous service drive or cross-access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards.

(2) A design speed of 10 mph and 24-foot roadway width to accommodate two-way travel aisles designed to accommodate vehicles, service vehicles, and loading vehicles.

(3) Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive.

(4) A unified access and circulation system plan that includes coordinated or shared parking areas, wherever feasible.

C. The following actions are required:

(1) For plat approval, record an easement with the deed allowing cross-access to and from other properties served by the joint use driveways and cross-access or service drive; and

(2) Record a joint maintenance agreement or covenants and restrictions with the deed defining maintenance responsibilities of property owners.

D. Required separation distance of access points may be reduced by the POD administrator where they prove impractical, provided all of the following requirements are met:

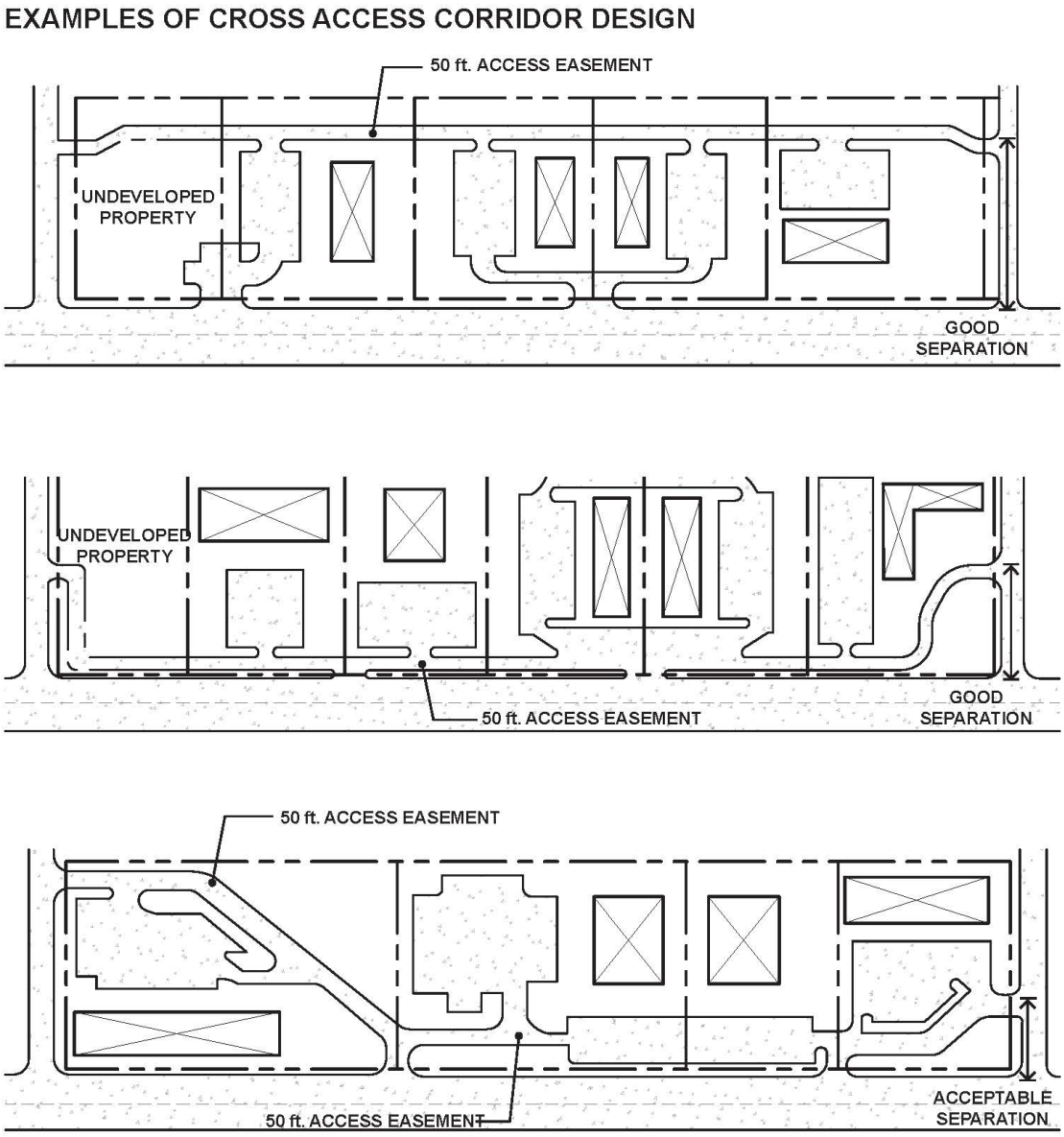
(1) Joint access driveways and cross-access easements are provided wherever feasible in accordance with this section;

(2) The site plan incorporates a unified access and circulation system in accordance with this section; and

(3) The property owners enter into a written agreement with the county, recorded with the deed, that pre-existing connections on the property will be closed and eliminated after construction of each side of the joint use driveway.

E. The POD administrator may modify or waive the requirements of this section where the physical characteristics or layout of abutting properties would make development of a unified or shared access and circulation system impractical.

Figure 1. Examples of cross-access corridor design



Sec. 15-351 Interchanges

A. New interchanges or significant modifications of an existing interchange will be subject to special access management requirements to protect the safety and operational efficiency of the limited access road and the interchange, pursuant to the preparation and adoption of an access management plan. The plan must address current and future connections and median openings within ¼ mile of the ultimate interchange area (measured from the end of the taper of the ramp furthest from the interchange) or up to the first intersection with an arterial road, whichever is less.

B. The distance to the first connection is required to be at least 660 feet where the posted speed limit is greater than 45 mph, or 440 feet where the posted speed limit is 45 mph or less. The distance is measured from the end of the taper for that quadrant of the interchange.

C. The minimum distance to the first median opening will be at least 1,320 feet as measured from the end of the taper of the ingress/egress ramp.

Sec. 15-352 Commercial driveway design

A. Commercial driveway width must meet the following guidelines:

(1) If the driveway is one-way in or one-way out, then the driveway must be at least 16 feet wide and have appropriate signage designating the driveway as a one-way connection.

(2) For two-way access, each lane must have a width of 15 feet; a maximum of five lanes will be allowed.

(3) Driveways that enter a major thoroughfare at traffic signals must have at least two outbound lanes (one for each turning direction) at least 12 feet wide and one inbound lane at least 15 feet wide.

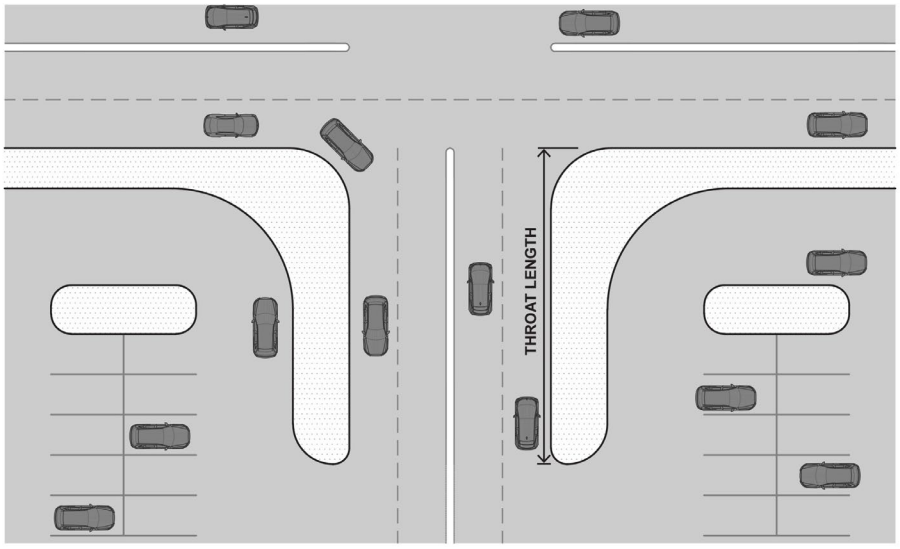
B. Driveway grades must conform to the requirements of the Virginia Department of Transportation subdivision street requirements.

C. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers is discouraged due to the potential for vehicular weaving conflicts.

D. Driveway width and flair must be adequate to serve the volume of traffic and provide for rapid movement of vehicles off of the major thoroughfare, but cannot be so excessive as to pose safety hazards for pedestrians, bicycles, or other vehicles.

E. The length of driveways or "throat length" (see Figure 2) must be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation. Variation from these can be permitted for good cause, upon approval of the POD administrator.

Figure 2. Driveway throat layout



Sec. 15-353 Requirements for outparcels and phased development plans

A. In the interest of promoting unified access and circulation systems, developments under the same ownership or consolidated for the purposes of development, and comprised of more than one building site, or phased development plans will not be considered separate properties in relation to access standards. The number of connections permitted will be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage. All necessary easements, agreements, and stipulations required under Sec. 15-351 must be met. The owner and all lessees within the affected area are responsible for compliance with the requirements of this article and can be cited for any violation.

B. All access to outparcels must be internalized using the shared circulation system of the principal development or retail center. Access to outparcels must be designed to avoid excessive movement across parking aisles and queuing across surrounding parking and driving aisles. Right-of-way for direct access to the road must be dedicated to the county and access dedication must be recorded with the deed.

Sec. 15-354 Emergency access

A. In addition to minimum side, front, and rear yard setbacks and building spacing requirements, all buildings and other improvements, such as landscaping, must be arranged to provide safe and convenient access for emergency vehicles.

B. In the case of culs-de-sac, entrance curves may have a 35-foot radius, with the internal circle radius of 30 feet and an outside radius of 52.5 feet.

Sec. 15-355 Non-conforming access features

Existing access connections that do not conform with these standards are non-conforming features and must be brought into compliance with applicable standards under the following conditions:

A. When new access connection is requested;

B. When there are substantial enlargements or improvements;

C. With significant change in trip generation; or

D. As road improvements allow.

Sec. 15-356 Additional requirements for classified roads

A. The minimum lot frontage on all public roads (except residential subdivision streets) cannot be less than the minimum connection spacing standards of that road, except as otherwise provided in this section. Flag lots cannot have direct access to any private road. Interior parcels must have access via a public or private road in accordance with this article. Flag lot driveways must be separated by at least twice the minimum frontage requirement of that zoning district.

B. Every tax map parcel fronting on a public road is entitled to one driveway, except as noted in subsection (2) below. When subsequently subdivided, either as metes and bounds parcels or as a recorded plat, these parcels must provide access to all newly created lots via the permitted access connection. This may be achieved through subdivision roads, joint and cross access, service drives, and other reasonable means of ingress and egress in accordance with the requirements of this article. The following standards apply:

   (1) Parcels with long road frontages may be permitted additional connections or driveways provided they are consistent with the applicable driveway spacing standards.

(2) Existing parcels with road frontage less than the applicable minimum connection spacing may not be permitted a direct connection to the public road where the POD administrator determines alternative reasonable access is available.

(3) Additional access connections may be allowed if the safety and efficiency of travel on the public road will be improved by providing more than one, based on the POD administrator's determination.

Sec. 15-357 Double frontage

A. Access to double frontage lots is required on the road with the lower access classification.

B. When a residential subdivision is proposed that would abut an arterial, it must be designed to provide lots along the arterial with access from a frontage road or interior local road. A berm or buffer may be required at the rear of through lots to buffer residences from traffic on the arterial. The berm or buffer cannot be located within the public right-of-way.

Sec. 15-358 Shared access

Developments with frontage on the state highway system must be designed to share access points to and from the state highway system.

Sec. 15-359 Connectivity

A. A proposed residential subdivision must be designed to coordinate with existing, proposed, and planned streets outside of the subdivision.

B. Wherever a proposed development abuts unplatted land or a future development phase of the same development, stub-outs must be provided as deemed necessary by the county to provide access to abutting properties or to logically extend the road network into the surrounding area. All stub-outs must be provided with temporary turn-arounds or culs-de-sac unless specifically exempted, and the restoration and extension of the road is the responsibility of any future developer of the abutting land.

C. Collector roads must intersect with collector or arterial roads at safe and convenient locations.

D. Local residential access roads must connect with surrounding roads to permit the convenient movement of traffic between residential neighborhoods and facilitate emergency access and evacuation, but such connections are not permitted if it would encourage substantial through traffic.

E. Proposed developments must connect to stub-outs on abutting properties. The POD administrator may waive this requirement for non-residential development proposed to abut single family residential development.

Sec. 15-360 Turn lanes

Auxiliary lanes (right and left turn lanes, and acceleration lanes) reduce the slowing and stopping of traffic that is caused by turning vehicles. The purpose of the auxiliary lane is to enhance motorist safety and to prolong the intended through function of the road. The lanes are needed wherever the anticipated volume of traffic turning at a site would be high enough in relation to the existing or anticipated future through traffic, the safety of motorists or residents may be at risk without the lanes, or other road or site-specific conditions exist that suggest that the health, safety and welfare of residents or travelers on the road would best be served with auxiliary lanes. This determination will be based on characteristics of the particular development and the road under consideration.

A. *Commercial and industrial development.* Turn lanes will be provided as required by the Virginia Department of Transportation.

B. *Major subdivisions.*

(1) All entrances onto major and minor arterial and collector roads must provide right and left turn lanes.

(2) Developments that exit onto a local road, not internal to development (i.e. another section of same development) and that have more than 30 lots, must provide a right turn lane.

(3) Developments with more than 40 lots which are located on an existing local road where the speed limit is 45 mph or greater must provide a left turn lane in addition to the right turn lane.

C. *Major subdivision with entrances onto a road with a median.*

(1) The primary entrance must be designed to align with an existing median break or be located pursuant to the Virginia Department of Transportation criteria for median break spacing.

(2) In cases where, due to the location of the proposed development, the proposed entrance cannot align with an existing or proposed median break, the left turn lane requirement may be waived by the community development director.

D. *Board of supervisors waiver*. Through a rezoning or a conditional use permit, the board of supervisors may waive any requirements of this section. The following factors should be considered as part of the waiver request:

(1) Sight distance, road alignment, and grade changes

(2) Frequency of rear-end crashes along roadway

(3) Traffic volume

(4) Speed limit

(5) Capacity analysis of receiving roadway

Sec. 15-361 Traffic impact analysis

Traffic impact analyses (TIAs) are studies of the transportation needs and traffic impacts of a development on the surrounding road network and should be an integral part of the development review process. An analysis should be performed for each of the following situations:

A. All major subdivisions and commercial developments.

B. All developments and redevelopments that can be expected to generate more than 100 new peak-hour vehicle trips on the adjacent road, or for a lesser volume when a review of the plan of development indicates the need for additional data.

C. Development that generates fewer than 100 new peak-hour trips, if it affects local problem areas, including high accident locations, currently congested areas, or areas of critical local concern.

D. Any change in the land use or density that will increase the traffic generation by more than 15%.

E. Any change in the land use or density that will cause the directional distribution of traffic to change by more than 20%.

F. When the original TIA is more than two years old, access decisions are still outstanding, and changes in development have occurred nearby.

Sec. 15-362 Variations

Variation from the standards is permitted at the discretion of the POD administrator if the granting of the variation is in harmony with the purpose and intent of these regulations and if every feasible option for meeting access standards has been explored. The applicant must provide proof of unique or special conditions that make strict application of the provisions impractical. Under no circumstances shall a variance be granted, unless not granting the variation would deny all reasonable access, endanger public health, welfare or safety, or cause an exceptional and undue hardship on the applicant. No variance shall be granted where such hardship is self-created. In exercising discretion, the POD administrator should consider the following:

A. Indirect or restricted access cannot be obtained;

B. No engineering or construction solutions can be applied to mitigate the condition; and

C. No alternative access is available from a street with a lower functional classification than the primary roadway.

Secs. 15-363 through 15-370. Reserved.