

SUSTAINABLE MOBILITY



FOR ARLINGTON COUNTY

February 11, 2025

Honorable Takis P. Karantonis, Chair, Arlington County Board
Ellen M. Bozman Government Center
2100 Clarendon Blvd, Suite 300
Arlington, VA 22201

RE: Barcroft Streets and Fire Code Aerial Access

Dear Chair Karantonis:

Narrow lanes save lives. Wide streets encourage speeding. These are long-understood maxims in transportation planning in Arlington County (*see Appendix A and B in this letter*). If you look at the street cross-sections labeled *ST 86-40* and *ST 61-40* in your briefing materials for Barcroft (*or Appendix C of this letter*) you will see streets that don't look like any other planning document in Arlington County. *ST 61-40* has 12' wide travel lanes. *ST 86-40* has a strange 4' painted buffer in the middle that appears to serve no purpose. These are not things we generally see in Arlington where the demands on our right of way are huge and every foot of road space is precious. The resulting wider lanes proposed here (12') will result in higher speeds and more crashes, and because the painted median or buffer reduces the "visual narrowing" effect of the 11' lanes in the other cross-section, it is likely to result in higher speeds and higher crashes as well (to say nothing of increasing impervious surfaces, the urban heat island effect, increasing pedestrian crossing distances, and stormwater runoff).

These strange cross sections are a result of the fire marshal enforcing the aerial access section of Appendix D of the Fire Code. It states that access roads (including streets) for buildings over 30' tall must have an unobstructed clear width of 26' and that the access road must be no closer than 15' and no farther than 30' from the building (*see Appendix D in this letter for an illustration*).

The new enforcement of this provision raises a number of questions:

1. Is this the new normal and can we expect this to be enforced on all multifamily construction over 30' tall (which are sprinklered)?
2. Will this be enforced on single family construction over 30' (which are not sprinklered)? The maximum height in residential zones is 35' according to the zoning ordinance, so certainly McMansions are being built that are over 30' tall.
3. If this is consistently enforced, will more lives be saved from fire than are lost to increased crashes on the wider streets?
4. Is this policy truly needed for sprinklered buildings?
5. Would this policy be less important if we purchased fire trucks more appropriate for the size of our streets?

Unlike many provisions of the fire code, this one is (by my layman's analysis) well within your power as a County Board to amend or eliminate. International Fire Code Appendices are **NOT** part of the Virginia Statewide Fire Prevention Code. (*see Appendix E of this letter*). These aerial access provisions have been

SUSTAINABLE MOBILITY



FOR ARLINGTON COUNTY

incorporated into our local, Arlington County Fire Prevention Ordinance by County Board action (though it is unclear to me which version is incorporated by reference). In fact, as part of its incorporation into the local fire code, the County Board has already amended Appendix D (to change the design of fire lane no parking signage) (*see Appendix F of this letter*).

In Conclusion

Long-term enforcement of these aerial access provisions will cost lives on our streets. Nearly all future construction in Arlington is likely to be at least 30' tall. All of that construction, if not already on a multi-lane arterial, would likely trigger this provision and the "need" to create a 26' wide clear space within 30' of the building. This provision leads to overly wide lanes that lead to speeding, removes street design flexibility that allows us to achieve protected bike lanes, increases pedestrian crossing distances, expands impervious surface areas, and increases stormwater run-off and the urban heat island effect.

At an absolute minimum, we need to have a robust conversation about the trade-offs of this policy. Are we saving more lives than we are costing? Are there alternatives? Are there ways to better define "unobstructed" to retain more flexibility for good street designs? Can this provision be dropped at least for sprinklered buildings?

If the Board ultimately decides that this aerial access provision is critically important for resident safety, than I strongly encourage you to implement it consistently and fairly across all types of construction and all types of neighborhoods in Arlington. If 26' of clear width doesn't exist in front of a 33' tall single-family home, street parking should be removed to achieve it. If a 32' tall single-family home is not within 30' of the street, a 26' wide driveway should be paved that reaches within 30' of the house.

Uneven enforcement of the 20' clear width provision in the Statewide Fire Prevention Code (503.2.1 of the VSFPC which the County Board cannot change but Arlington's fire marshal can "permit modifications to the required access widths...to meet the public safety objectives of the jurisdiction" *see Appendix G of this letter*) has already created an inequitable situation where single-family homeowners get to have narrow, safer streets for the kids to walk along, bike to school on, and play basketball on, but residents of newer multifamily buildings must be located on dangerous arterials or neighborhood streets designed with too-wide lanes. If enforcement of aerial access provisions are similarly enforced inequitably, this will only worsen.

Thank you for your time. I urge you to please prioritize street safety, amend Appendix D of the Arlington County Fire Prevention Code to remove, or significantly improve, the aerial access road requirements.

Chris Slatt
President, Sustainable Mobility for Arlington County

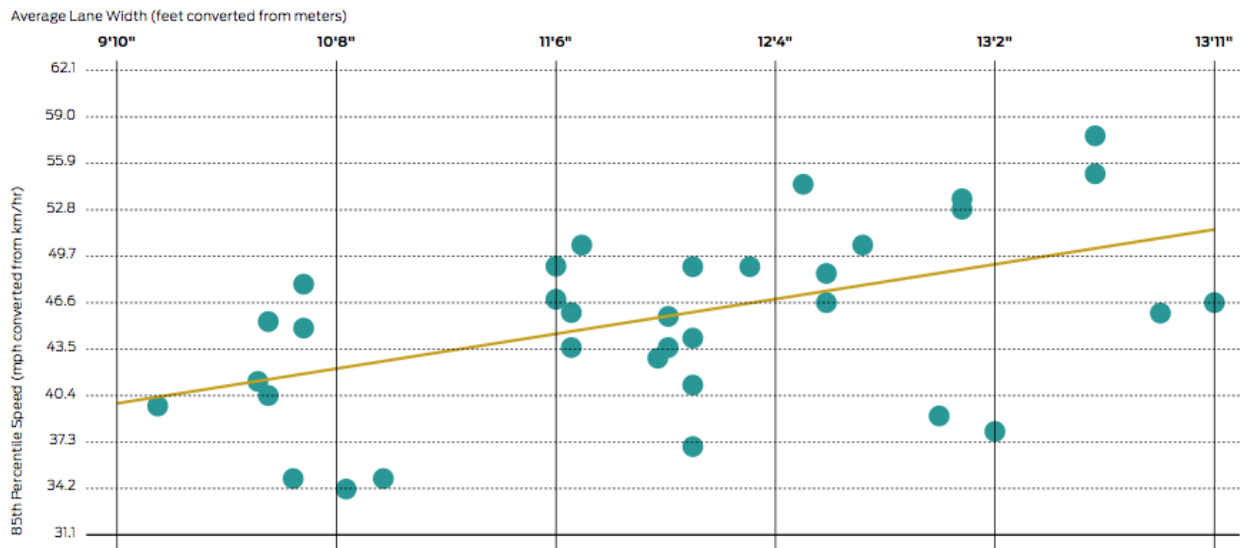
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FOR ARLINGTON COUNTY

Appendix A – Relationship between Travel Lane Width and Observed Speed

Wider travel lanes are correlated with higher vehicle speeds.



"As the width of the lane increased, the speed on the roadway increased... When lane widths are 1 m (3.3 ft) greater, speeds are predicted to be 15 km/h (9.4 mph) faster."

Chart source: Fitzpatrick, Kay, Paul Carlson, Marcus Brewer, and Mark Woodriddle. 2000. "Design Factors That Affect Driver Speed on Suburban Streets." *Transportation Research Record* 1751: 1B-25.

Appendix B – Travel Lane Width and Safety

<https://nacto.org/publication/urban-street-design-guide/street-design-elements/lane-width/>

Lanes greater than 11 feet should not be used as they may cause unintended speeding and assume valuable right-of-way at the expense of other modes.

Restrictive policies that favor the use of wider travel lanes have no place in constrained urban settings, where every foot counts. Research has shown that narrower lane widths can effectively manage speeds without decreasing safety and that wider lanes do not correlate to safer streets. Moreover, wider travel lanes also increase exposure and crossing distance for pedestrians at inter-sections and midblock crossings.

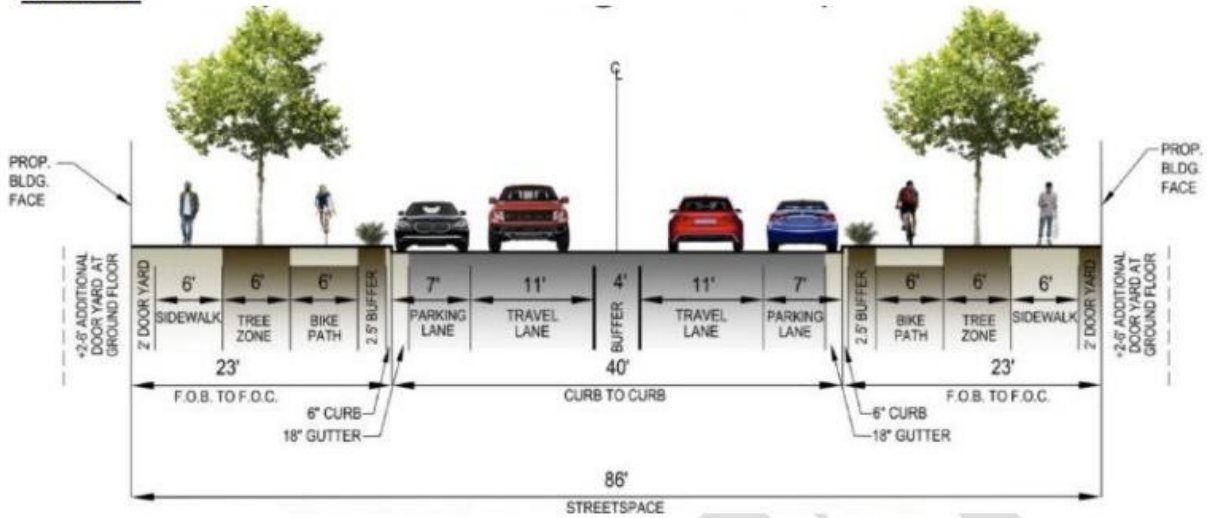
SUSTAINABLE MOBILITY



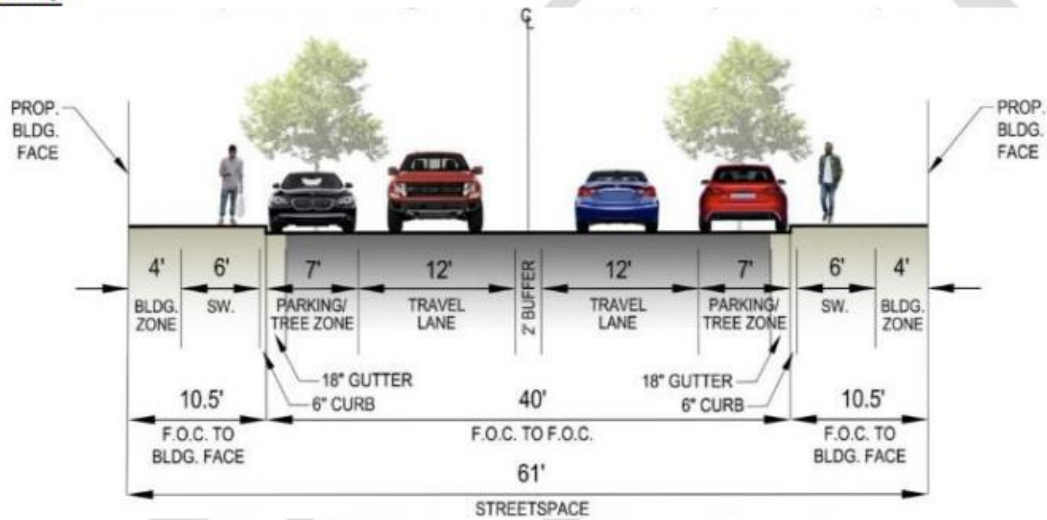
FOR ARLINGTON COUNTY

Appendix C – Proposed Barcroft Street Sections

h. ST 86-40



i. ST 61-40



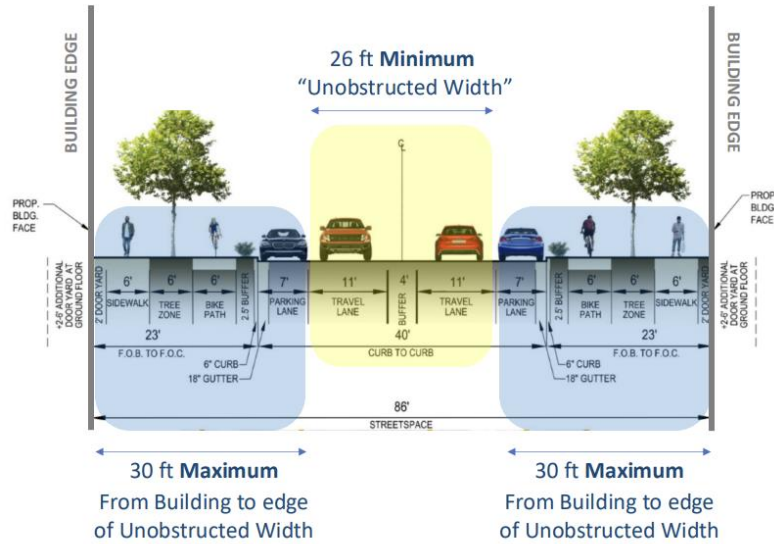
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FOR ARLINGTON COUNTY

Appendix D – Arlington County Graphic Depicting Aerial Access Road Requirements

Fire Access Considerations – 12th Street Example



SUSTAINABLE MOBILITY



FOR ARLINGTON COUNTY

Appendix E – 2021 Virginia Statewide Fire Prevention Code

SECTION 103 INCORPORATION BY REFERENCE

103.1 General. The following document is adopted and incorporated by reference to be an enforceable part of the SFPC:

The International Fire Code -- 2021 Edition, hereinafter referred to as "IFC," published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070, 1-888 422-7233.

103.1.1 Deletion. Delete IFC Chapter 1.

103.1.2 Appendices. The appendices in the IFC are not considered part of the IFC for the purposes of Section 103.1.

Note: Section 101.5 references authority contained in the Code of Virginia for local fire prevention regulations that may be evaluated by localities to determine whether provisions in the IFC appendices may be considered for local fire prevention regulations.

103.2 Amendments. All requirements of the referenced codes and standards that relate to fees, nonoperational permits not specifically required by Section 107.2, unsafe notices, disputes, condemnation, inspections, scope of enforcement, and all other procedural and administrative matters are deleted and replaced by the provisions of Chapter 1 of the SFPC.

SUSTAINABLE MOBILITY



FOR ARLINGTON COUNTY

Appendix F – Amendments to Appendix D of the IFC as part of incorporation into the local fire code

ARLINGTON COUNTY CODE

FIRE PREVENTION

All questions concerning the implementation of the fire watch and requests for inspections to terminate the fire watch shall be directed to the Arlington County Emergency Communications Center (ECC) at 703-558-2222.

Strike DHCD note

APPENDIX B (Amendment)

Fire-Flow Requirements for Buildings

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum *fire-flow* and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and *townhouses* shall be as specified in Tables B105.2 and B105.1(2) and no less than 1,500 gallons per minute.

APPENDIX D (AMENDMENT)

FIRE APPARATUS ACCESS ROADS

D103.6 Signs. Delete and substitute as follows.

Fire lane signs shall conform to the following specifications:

1. Approved fire lane signs must meet the following specifications:
 - (a) Metal construction, dimensions twelve (12) inches wide by eighteen (18) inches high.
 - (b) Red letters on a reflective white background with three-eighths (3/8) inch red trim strip around the entire outer edge of the sign.
 - (c) Wording and lettering size as follows, spacing between words to be uniform:

NO PARKING	[two (2) inches, capitalized]
OR	[one (1) inch, capitalized]
STANDING	[two (2) inches, capitalized]
FIRE LANE	[two and a half (2 1/2) inches, capitalized]
← →	[arrow (as required) one (1) inch by six (6) inches with a solid head, one and one half (1 1/2) inches wide by two (2) inches deep solid graphic depiction]

Figure D103.6 Fire lane signs. Delete and substitute as follows.

SUSTAINABLE MOBILITY



FOR ARLINGTON COUNTY

Appendix G – Excerpt from the 2018 IFC Commentary

2018 International Fire Code and Commentary (IFC) PREMIUM

Chapter 5: Fire Service Features First Version: Aug 2018

Hide Commentary

503.2.2 Authority.

The *fire code official* shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

❖ Fire departments respond to many types of emergency situations and the jurisdictions they serve may have traffic safety criteria that impact the design of access roadways used by emergency response vehicles. This section authorizes the fire code official to require greater, or to allow lesser, access-width dimensions based on the size and maneuverability of the anticipated emergency response apparatus, including mutual-aid apparatus from neighboring communities or agencies, among other considerations.

This is an excerpt from the Commentary of the 2018 International Fire Code. The 2018 revision to the IFC is when the language was added to the IFC permitting modifications to the required access width of fire access roads (the code requires 20' of unobstructed width) to “meet the public safety objectives of the jurisdiction”. The commentary makes it clear that this change was made to empower local fire officials to “require greater” or “allow lesser” widths in order to meet “traffic safety criteria”.