



Albemarle County

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AGENDA DATE: 3/1/2017

TITLE:
Emergency Response Apparatus, Access and Road Widths

SUBJECT/PROPOSAL/REQUEST: Discussion/Presentation regarding Emergency Apparatus Size, Access and Impact on Road Widths in the County

ITEM TYPE: Regular Information Item

STAFF CONTACT(S): Walker, Kamptner, Eggleston, Oprandy, Benish, Lagomarsino, Gilmer

PRESENTER (S): Lagomarsino, Benish

LEGAL REVIEW: Yes

REVIEWED BY: Douglas C. Walker

BACKGROUND: Albemarle County embraces the Neighborhood Model form of development within the County. The Neighborhood Model calls for designs that are more human, pedestrian, bicycle and public transportation friendly while promoting economic prosperity at the grass roots level, within the neighborhood. One aspect in achieving these goals requires streets that are more “human centric” rather than vehicle focused. Smaller streets and traffic calming engineering are two processes that achieve the human focus. While it may appear that the design of emergency apparatus, emergency response efforts and the fire code are in opposition to the Neighborhood Model, early involvement in the plans review process along with open communications provides for flexibility where possible and ensures that conflicts are resolved in a mutually beneficial manner.

The purpose of this discussion is to explore the effect of road widths for emergency apparatus access provisions in the Virginia Statewide Fire Prevention Code (SFPC) on the development goals of Albemarle County.

STRATEGIC PLAN: Thriving Development Areas: Attract quality employment, commercial and high density

residential uses into development areas by providing services and infrastructure that encourage redevelopment and private investment while protecting the quality of neighborhoods.

Quality Government Operations: Ensure County government's capacity to provide high quality service that achieves community priorities.

DISCUSSION: Virginia Code § 27-94, which is part of the Virginia Statewide Fire Prevention Code Act, directs the Virginia Board of Housing and Community Development to adopt a Virginia SFPC. The Virginia SFPC is a minimum standards code. In other words, locally there is no authority to lessen the requirements of these codes, but in the case of the Virginia SFPC, it allows stricter standards to be adopted by a local governing body should it choose to do so. (SFPC § 101.5)

Under SFPC § 503.2.1, fire apparatus roads must have an unobstructed width of not less than 20 feet, exclusive of shoulders. There is an exception for single-family dwelling and townhouse developments that are fully sprinklered as provided under the International Residential Code, in which case the minimum unobstructed width, exclusive of shoulders, is 18 feet. Under SFPC § 503.2.2, the fire marshal is authorized to require an increase in the minimum access widths where they are inadequate for fire or rescue operations. The purpose of these regulations is to allow emergency apparatus to pass abreast on these roads during emergency operations and provide operational space for the emergency response efforts.

Emergency vehicle size is a factor in the issue at hand. National Fire Protection Association (NFPA) standards for apparatus design, EPA emission standards, OSHA requirements, staffing ability, station placement, community size, response times and response objectives all play roles in apparatus size. As an example, areas with a less developed water supply system require larger water tanks on fire apparatus. Objectives often dictate multiple roles for one vehicle, especially when stations are geographically more distant from each other, as can be the case in Albemarle County. Minimum storage and equipment requirements set by NFPA also affect the size. As a result, newer apparatus is taller, longer and appear more bulky than older apparatuses. However, width remains constant due to USDOT and highway standards and the need for manufacturers to meet the needs of customers across the country. Current specifications for Albemarle County Emergency Response Apparatus fall within these guidelines and the designs serve the response needs we face.

Emergency apparatus design, the need for emergency access and the Virginia Statewide Fire Prevention Code may appear at first glance to be in opposition to the type of development, healthy communities and economic programs desired and expressed in the strategic initiatives from the Board and the community. With parking added, streets are wider to meet the travel way requirements in the code. Wide streets equate to more pavement, increased runoff, dangerous traffic, and do not provide the desired level of community health and vitality. In fact, the code even appears in contrast with VDOT standards for low volume roads, which allow for a travel way of fifteen (15) feet. However, this does not tell the whole story of the County's efforts to ensure the health, vitality and safety of our communities.

Community Risk Reduction is a major goal of the Albemarle County Fire Rescue Department (ACFR) and the Albemarle County Community Development Department. It includes adhering to "Best Practices" as identified by the Congress for New Urbanism and the Local Government Commission. This includes cooperative efforts between the community, developers, the development authority and emergency responders. These "Best Practices" address traffic-calming, community "footprint", emergency apparatus designs, street designs to meet the desires of the governing authority and emergency responders mutually. To achieve this, County staff engages in open dialogue at all levels, including involvement of the emergency response community at the earliest stages of planning.

There are a number of examples of cooperative successes in meeting the goals of the community and Board. ACFR and Community Development staff engage in the pre-application meeting process and discuss concerns with developers before submission of official plans or construction begins, which leads to mutually

agreeable compromises. Specific examples of the benefits of this collaboration include development projects such as Oakleigh off Rio Road, Dunlora Forest, Riverside Village and Charlottesville Catholic School. Each of these projects had access challenges. Innovation, communication, and compromise overcame those issues while ensuring safety and community goals.

Compromise on street designs and traffic calming initiatives, such as bump-outs, pavement markings to give an illusion of narrow roads, interconnected street designs, roll-over curbs, roundabouts, and innovative efforts in planning parking combine to ensure we meet the intent of the safety codes without adverse effect on the development goals. Response strategies that emphasize strategic placement of apparatus and pre-planning response routes helps with these efforts. Strategic emergency apparatus designs embraced by ACFR such as roll-up doors, fire protection features, including the strategic placement of hydrants/water supplies, and the use of sprinkler systems are representative of the many ways staff has aligned safety goals with development goals.

Collaboration and engagement with the community, developers and other stakeholders, such as VDOT, the water authorities and emergency response partners is the norm for Albemarle County staff. ACFR staff guidance is to ensure the intent of the code in regards to the situation at hand rather than a blanket application for all projects. Compromise is important and flexibility is valued where appropriate. This open communication and honest assessment on the merits of each project occurs early in the process and is the hallmark of the County staff efforts in this regard.

BUDGET IMPACT: No direct budget impact.

RECOMMENDATION:

Staff recommends the continuance of joint efforts of ACFR, Community Development, VDOT and the development community.