MONTGOMERY COUNTY FIRE AND RESCUE SERVICE

Isiah Leggett
County Executive

Richard R. Bowers
Fire Chief

OFFICE OF THE FIRE MARSHAL

ADMINISTRATIVE INTERPRETATION 09-01

CODE REFERENCE: NFPA 1 (2006) *Uniform Fire Code* Chapter 18 Section 18.2.3.4.2

BACKGROUND: Per NFPA 1 (2006) Section 18.2.3.4.2, fire department access roads shall be designed and maintained to support the imposed loads of fire apparatus.

INTERPRETATION: Designated fire department vehicular access can include elevated decks and other surfaces that must be designed to bear apparatus loading. Per NFPA 1901 (2003) *Automotive Fire Apparatus* Section 20.21.4.2, aerial apparatus outriggers are designed to exert no more than 75psi during aerial operations. Design outrigger pad dimensions are 2'-2" by 2'-6" long. Design loading should place the four outriggers 10'-0" apart along the length of the vehicle and 16'-0" apart in the transverse direction. Depending upon the position of the ladder any pair of two front, side or rear outriggers apply a force of 123,552 lbs (61,776lbs/outrigger) to the structure and the remaining two apply a force of 0 (zero) lbs.

JUSTIFICATION: If elevated decks and roadways designated as access are not designed to support design apparatus loads, they may fail during operations, possibly resulting in civilian and firefighter injuries and significant damage to structures, roadway surfaces, and apparatus. Fire department vehicular access must be constructed such that it can support apparatus while it operates in whatever capacity necessary to preserve life and property.

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DATE 18 May 2009 **FIRE MARSHAL** A/C Richard A. Arnold
Deputy Fire Marshal

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