

City of Alexandria, Virginia

MEMORANDUM

DATE: JULY 25, 2011

TO: DESIGN PROFESSIONALS, CONTRACTORS, DEVELOPERS, AND
PROPERTY OWNERS

FROM: ADAM K. THIEL, FIRE CHIEF
JOHN D. CATLETT, DIRECTOR, CODE ADMINISTRATION

SUBJECT: FIRE DEPARTMENT CONNECTIONS

In an effort to improve safety and water delivery to water-based fire protection systems, the Alexandria Fire and EMS Department now uses 4-inch hose on City fire apparatus. In conjunction with adding 4-inch hose to apparatus, all newly installed fire department connections and all replaced fire department connections on existing buildings where a single or multiple fire department connections are required will correspond to one of the following applicable configurations:

- Where new buildings require a minimum fire protection system demand of *less than or equal to 250 gpm*, contractors shall install a single 2-1/2 inch national standard thread fire department connection.
- Where new buildings require a minimum fire protection system demand *greater than 250 gpm up to and including 1000 gpm*, contractors shall install a single 4-inch Knox® StorzGuard® adapter with 4 inch locking cap Model number 5001 at each fire department connection required on the building.
- Where new buildings require a minimum fire protection system demand *greater than 1000 gpm*, contractors shall install two, single 4-inch Knox® StorzGuard® adapters with 4 inch locking caps Model number 5001 at each fire department connection required on the building.

Installation of a Knox® StorzGuard® adapter shall comply with the following requirements:

- The Knox® StorzGuard® adapter shall be constructed of high strength, lightweight, corrosion resistant aluminum alloy capable of being securely attached to the buildings standpipe or sprinkler inlet.

- Knox® StorzGuard® adapter lug connections shall conform to the national industry standard.
- The hose-sealing surface of the Knox® StorzGuard® adapter shall consist of a machined metal seat, coated to protect against long-term exposure to the environment. The use of a rubber gasket is ***not permitted*** on the sealing surface.
- The Knox® StorzGuard® adapter shall connect to a corrosion resistant pipe incorporating national standard thread (NST). The top of the corrosion resistant pipe extending thru the exterior wall shall be a maximum of 48-inches above finished grade. All Knox® StorzGuard® adapters shall be angled at 30 degrees in a downward position. The bottom of the 4-inch Knox® StorzGuard® adapter after the 30 downward angle and cap shall be a minimum 18-inch above grade. (See attached detail).
- Each Knox® StorzGuard® adapter shall have a designated check valve.
- When installing more than one Knox® StorzGuard® adapter, each shall be a minimum of 18-inch and a maximum of 24-inches from center of outlet to center of outlet.
- A listed weatherproof audio / visual notification appliance, not less than 177 candela, shall be mounted directly above any new Fire Department Connection at a minimum of 7'-0" to a maximum 10'-0" above grade. The dimension shall be measured from grade to the centerline of the device.
- Each 4-inch Knox® StorzGuard® adapter installed as part of a permanent fire protection system shall be equipped with a Knox StorzGuard® Cap Model #5001.
- Each 4-inch Knox® StorzGuard® adapter installed as part of a temporary standpipe system shall contain a 4-inch StorzGuard® locking cap Model number 5001.
- All order forms for the Knox® StorzGuard® adapter and cap are available at 301 King Street, Room #4200, Alexandria, VA 22314.

Questions concerning these requirements should be directed to Code Administration at 703-746-4200.