



**DIVISION OF PLANNING AND PERMITTING**  
**FREDERICK COUNTY, MARYLAND**  
*Department of Permits and Inspections*

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## **SPECULATIVE SHELL/CORE BUILDING SPRINKLER SYSTEM REQUIREMENTS**

For Speculative Shell/Core Buildings, the sprinkler system shall be designed for the highest hazard and most demanding use allowed by the building permit or property zoning.

For occupancies allowing storage, the sprinkler system shall be designed for a Class IV non-encapsulated commodity with single or double row racks, eight-foot aisles and a minimum storage height of 20 feet (.495 gpm/sq. ft./2000 sq. ft.). If the structure does not allow for 20-foot storage, the density may be reduced in accordance with the provisions of NFPA #13. Height of storage shall be determined by using the elevation to the bottom of the highest structural joist, beam, girder or purlin.

For Light Hazard Occupancies (as defined by NFPA #13) the system may be designed and calculated for light hazard densities, however no reduction in the area of application shall be allowed for the use of quick response sprinklers for the base building system. Minimum sprinkler outlet size shall be 1".

For Ordinary Hazard Occupancies (as defined by NFPA #13) the system may be designed and calculated for the applicable density, however no reduction in the area of application shall be allowed for the use of quick response sprinklers for the base building system. Minimum sprinkler outlet size shall be 1".

Minimum safety factor for all base-building systems shall be 20%.

Any modifications due to tenant fit outs shall leave the existing base building upright system intact. Sprinklers installed in areas of the building with ceilings shall be supplied by separate feeds.