# HANOVER COUNTY
## Office of the Fire Marshal

Office (804) 365-6195
Fax (804) 537-5488
13326 Hanover Courthouse Road
P.O. Box 470 Hanover, VA 23069
fmo@hanovercounty.gov
Dispatch (804) 365-6140

Return this form to Matt Rice at mbrice@hanovercounty.gov or by fax at 804-537-5488

**Needed Fire Flow (NFF) Estimate Form**

**Virginia Statewide Fire Prevention Code Method of Calculating NFF (Needed Fire Flow)**

Engineer/ R.D.P: **Townes Site Engineering** Date: **11-13-26**

Project Name and Address: **Binns Road Data Centers (SPR2026-00035) – 16076 Binns Rd, Doswell, VA 23047; GPINs 7883-50-0062, 7882-48-6475, 7882-58-3767, 7882-47-6634**

Type of Construction – Based on Current Edition of the Virginia Construction Code: **Type IIA**

Total Ground Floor Area–Including Projections (Canopies. Loading Docks, Etc.) **Building 1 & 2: 137,000 SF footprint per building; Building 3: 148,000 SF footprint**

Total Area of floors above grade and below grade **Bldg 1 & 2: 137,000 SF (no below-grade floors); Bldg 3: 148,000 SF (no below-grade floors)**

No. of Stories **2** Building Height **50 ft max. (M-3 limit)** Total Building Area in Square Feet **Bldg 1 & 2: 272,400 SF; Bldg 3: 296,000 SF**

**FIRE AREA CONSIDERED:**

*Note: In order to apply for a reduction in total area for a building, a fire resistive rated FIRE WALL without openings shall be provided. WITHOUT OPENINGS refers to no penetrations being permitted (i.e. – doors, duct penetrations, pipe penetrations). (B104.2)*

Fire Resistive Rating of FIRE WALL (Hours) **N/A – no fire walls; each building evaluated as one fire area**

Square feet of most restrictive single area between FIRE WALLS or Either Side **N/A – full 272,400 SF & 269,000 SF considered**

Required Fire Flow from Virginia Statewide Fire Prevention Code – Table B105.1 **6,000 GPM (Table B105.1(2), Type IIA, 166,501 SF and greater)**

Fire Flow Duration in Hours from VSFPC – Table B105.1 **4 hours**

**NEEDED FIRE FLOW:** (Based on Total Square Foot or Fire area considered)

Automatic Sprinklers (YES **X** NO ___) Reduction Factor for sprinklers is (75%)

Fire flow for area considered X (1) (if non sprinklered) **N/A (sprinklered)** = NFF (GPM)@ min 20psi residual. OR

Fire flow for area considered X (.25) (if sprinklered – 1,500 gpm Min.) **6,000 x 0.25 = 1,500 GPM** = NFF (GPM) @min 20psi residual.

Required fire flow for Total Area or Fire Area considered **1,500 GPM @ 20 psi residual**

Water Supply Available GPM's (provide calculations extrapolated to 20psi.) 80

Required minimum number of Fire Hydrants (VSFPC Table C105.1) **1**

Required average spacing between Fire Hydrants (VSFPC Table C105.1) **500 ft**

Number of hydrants provided **13** (Do not include dedicated hydrant for FDC)

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Average spacing provided **400**

Maximum distance from building frontage to a hydrant allowed (Table C105.1) **250 ft (Table C102.1); FM (8/26/26 mtg): sprinklered bldg – hydrant within 600 ft of all parts of bldg**

Maximum distance from building frontage to a hydrant provided **126**

I certify that the above information is true and correct.

Signature: Zackary Wilkins P.E.

(Signature Required)

Reference**:** Virginia Statewide Fire Prevention Code Appendix B and C.

*REV 5/20*