



SafeDeKalb

City of Dunwoody

A Comprehensive Community Risk Reduction Initiative

Fire Department Core Values

Protect lives, property, and the environment through preparedness, prevention, public education, and emergency response with an emphasis on quality services, efficiency, effectiveness, and safety.

What Is Community Risk Reduction?

- Comprehensive programs, initiatives, and services that eliminate or mitigate the risk of and effects from fire, injuries, natural disasters, hazardous materials incidents, and other emergency events
- Proactive approach to fighting fires, reducing injuries, and protecting citizens.
- “Those who fail to Plan, Plan to Fail”.



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Fire and Rescue Operations- Effective Emergency Response

- **Fire Station/Staff responsible to conduct a basic operations check to assure effective emergency response.**
- **An operations check is an examination of the hydrant to verify that it is in operating condition and undamaged.**
- **The primary reason for the operations check is to assure there is water available from the hydrant and to maintain the hydrant.**
- **Each fire hydrant shall be checked annually.**

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Fire and Rescue Operations- Effective Emergency Response

- **Evaluate access to the hydrant. The hydrant should be visible from the street and have 3 feet of clearance in all directions.**
- **If the hydrant is obstructed, contact the owner/occupant and ask for assistance in maintaining clearance around the hydrant.**

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Fire and Rescue Operations- Effective Emergency Response

- **Light Maintenance is work performed to keep the hydrant operable or to make minor repairs.**
- **Remove outlet caps and visually inspect for damage, especially to threads and gaskets**

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Fire and Rescue Operations- Effective Emergency Response

- **Flush the hydrant after removing an outlet cap. Place a ground plate to prevent landscape damage. Flow should be maintained until the water is essentially clear.**
- **Records management shall be maintained at the station.**

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Fire and Rescue Operations- Effective Emergency Response

- **Flush the hydrant after removing an outlet cap. Place a ground plate to prevent landscape damage. Flow should be maintained until the water is essentially clear.**

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Fire and Rescue Operations- Effective Emergency Response

- **Repair requests should be faxed directly to the Water Department from the respective Battalion Office.**
- **Damaged or unreliable hydrants must be marked by placing an “Out of Service” disc on the outlet.**

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Fire and Rescue Operations- Effective Emergency Response

- **Private hydrants needing repair must be reported to the property owner and a Fire Hazard Notice shall be issued. If repairs have not been completed within a reasonable amount of time contact the Fire Marshal's Office.**

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State of Georgia Private Hydrant – Engineering

- **501.5 Where buildings or facilities fall under the jurisdiction of the Georgia Safety Fire Commissioner as set forth in the Official Code of Georgia Annotated (O.C.G.A.), Title 25, Chapter 2, except for State owned facilities and State occupied facilities, it is intended that the provisions of Chapter 5 that primarily relate to fire department response, access to facilities, access to building interiors, key boxes, premises identification, fire department connection locations, and fire hydrant locations be administered by the local Fire Chief and/or Fire Code Official responsible for providing fire or other emergency response to the buildings or facilities.**

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State of Georgia Private Hydrant – Engineering

- **507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 500 feet (152 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrant mains shall be provided where required by the local Fire Chief and/or Fire Code Official of the responding fire department or agency**

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State of Georgia Private Hydrant – Engineering

- **507.1 Required Water Supply**
- **An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.**

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State of Georgia Private Hydrant – Engineering

- **507.3 Fire Flow- IFC Adopted Appendix B Fire-Flow Requirements for Buildings**
- **Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.**

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State of Georgia Private Hydrant – Engineering

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State of Georgia Private Hydrant – Engineering

- **B105.2 Buildings Other Than One- And Two-Family Dwellings**
- **The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.**
- **Exception: A reduction in required fire-flow of up to 75 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.**

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State of Georgia Private Hydrant – Engineering

<u>FIRE-FLOW CALCULATION AREA</u> (square feet)					<u>FIRE-FLOW</u> (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	

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State of Georgia Private Hydrant – Engineering

- **507.3 Fire Flow- Appendix C Fire Hydrant Locations and Distribution**
- **C103.1 Fire Hydrants Available**
- **The minimum number of fire hydrants available to a building shall not be less than that listed in Table C105.1. The number of fire hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed in Table C105.1 when applied to fire apparatus access roads and perimeter public streets from which fire operations could be conducted.**

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State of Georgia Private Hydrant – Engineering

<u>FIRE- FLOW</u> REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS^{a, b,} ^c (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT^d
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more ^e	200	120

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State of Georgia Private Hydrant – Enforcement

- **507.5.2 Inspection, Testing and Maintenance**
- **Fire hydrant systems shall be subject to periodic tests as required by the fire code official. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective**

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State of Georgia Private Hydrant – Enforcement

- **507.5.3 Private Fire Service Mains and Water Tanks**
- Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with **NFPA 25** at the following intervals:
- Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually.
- Fire service main piping: Inspection of exposed, annually; flow test every 5 years.

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State of Georgia Private Hydrant – Enforcement

- **507.5.4 Obstruction**
- **Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.**

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State of Georgia Private Hydrant – Enforcement

- **507.5.5 Clear Space Around Hydrants**
- **A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved.**

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State of Georgia Private Hydrant – Enforcement

- **507.5.6 Physical Protection**
- **Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.**

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NFPA 25 Private Hydrant Responsibility- Education

- **4.1.1 Responsibility for Inspection, Testing, Maintenance, and Impairment.**
- **The property owner or designated representative shall be responsible for properly maintaining a water-based fire protection system.**

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NFPA 25 Private Hydrant Responsibility- Education

- **4.1.1.2 Inspection, testing, and maintenance shall be performed by qualified personnel.**
- **4.1.5.1 The property owner or designated representative shall correct or repair deficiencies or impairments that are found during the inspection, test, and maintenance required by this standard.**
- **4.1.5.2 Corrections and repairs shall be performed by qualified maintenance personnel or a qualified contractor.**

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NFPA 25 Private Hydrant Record Keeping- Education

- **4.3.1 Records shall be made for all inspections, tests, and maintenance of the system and its components and shall be made available to the authority having jurisdiction upon request.**
- **4.3.3 Records shall be maintained by the property owner.**

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NFPA 25 Private Hydrant Required Annual Report- Education

- **7.1.1.2**
- **Table 7.1.1.2 shall be used to determine the minimum required frequencies for inspection, testing, and maintenance.**
- **Inspections- Annually**
- **Test- Annually**
- **Maintenance- Annually**

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NFPA 25 Private Hydrant Annual Inspection Procedures-Education

Table 7.2.2.5 Wet Barrel Hydrants	
Condition	Corrective Action
Inaccessible	Make accessible
Leaks in outlets or at top of hydrant	Repair or replace gaskets, packing, or parts as necessary
Cracks in hydrant barrel	Repair or replace
Tightness of outlet caps	Lubricate if necessary; tighten if necessary
Worn outlet threads	Repair or replace
Worn hydrant operating nut	Repair or replace

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NFPA 25 Private Hydrant Annual Test Procedures- Education

- **7.3.2 Hydrants shall be tested annually to ensure proper functioning.**
- **7.3.2.1 Each hydrant shall be opened fully and water flowed until all foreign material has cleared.**
- **7.3.2.2 Flow shall be maintained for not less than 1 minute.**

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NFPA 25 Private Hydrant Annual Maint. Procedures- Education

- **7.4 Maintenance.**
- **7.4.1 General.** All equipment shall be maintained in proper working condition, consistent with the manufacturer's recommendations.
- **7.4.2.1 Hydrants** shall be lubricated annually to ensure that all stems, caps, plugs, and threads are in proper operating condition.
- **7.4.2.2 Hydrants** shall be kept free of snow, ice, or other materials and protected against mechanical damage so that free access is ensured.

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NFPA 25 Private Hydrant Impairments- Education

- **15.6 Emergency Impairments.**
- **15.6.1 Emergency impairments shall include, but are not limited to, interruption of water supply, frozen or ruptured piping, and equipment failure, and includes impairments found during inspection, testing, or maintenance activities.**
- **The fire department shall be notified of all impairments, as well as, restoration of the fire protection water supply**



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