

REGULATIONS for INSTALLATION,
MAINTENANCE, and TESTING

**FIRE SUPPRESSION
SYSTEMS**
APPLICATION PACKET



CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540
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Section 1: General Information

The Naperville Fire Department is the authority having jurisdiction for the plan review and acceptance testing of Fire Protection Systems. This includes new systems and/or modifications/alterations to existing systems. Fire protection systems include, but are not limited to sprinkler systems, dry pipe systems, standpipe systems, cooking suppression systems and FM 200 systems etc. All required fire protection system installations must be approved and accepted by the Naperville Fire Department before the TED group (Transportation, Engineering, and Development) will issue an occupancy permit.

ADOPTED CODES

The following Codes have been adopted by the City of Naperville:

- City of Naperville Municipal Code as amended.

Volumes one through twelve and fifteen through seventeen excepting NFPA numbers

- 3,70,70B,291,402,403,405,412,414,472,473,550,551,555,556,901,921,1000,1001,1002,1003, 1005,1006,1021,1026,1031,1033,1035,1137,1041,1051,11,1071,1081,1142,1143,1144,1145, 1201,1221,1250, 1401,1402,1403,1404,1405,1407,1410,1451,1452, Volumes 13 and 14, 1991,1992,1994,1999 of the National Fire Code, the current edition adopted by the City of Naperville, published and updated (supplemented and amended) by the National Fire Protection Association.
- National Fire Alarm Code (NFPA 72) - Current Edition.
- Life Safety Code (NFPA 101) - 2018 Edition.
- 2018 International Building Code (With City Amendments).
- 2018 International Fire Code (With City Amendments).

NOTE: The alarm installer/contractor will be required to comply with all other applicable NFPA standards, codes and local ordinances that apply to fire alarm systems.

Section 2: Plan Review Information

Plans for each fire protection system must be submitted to the City of Naperville TED Group, 400 S. Eagle, Naperville, Illinois 60540, for review. Plans are generally reviewed and written comments provided within 10-14 business days. A due date will be assigned at the time of submittal. After the review is completed, the applicant will be furnished with at least one (1) set of stamped drawings, which are required to be on-site and available for the Fire Department inspector.

The plan submittal shall include:

1. A minimum of two (2) sets of plans for each fire protection system.
 2. The intended use of the building including materials within the building and the maximum height of any storage.
 3. Identify room use and show dimensions, details of ceiling, etc.
 4. Fire protection system calculations.
 5. Manufacturers specification sheets on all equipment.
 6. Fire Protection System Application Form.
 7. A copy of the Illinois Fire Sprinkler Contractor License.
- The plan review fee must accompany the submitted plans. The plan review fee is **\$48.00** per page plus **\$.50** per sprinkler head plus **\$18.00** clerical fee, and the first inspection fee of **\$68.00**.
 - If plans must be re-submitted the **\$48.00** per page plus **\$.50** per sprinkler head plus the **\$18.00** clerical fee must accompany the resubmitted plans.
 - When a fire protection system is being modified and such modification involves ten (10) heads/nozzles or less, the plan review fee includes one (1) inspection.
 - Fire protection systems must be designed and installed and function in accordance with locally adopted codes and locally adopted amendments to the codes. This information, and other general information regarding Fire Protection Systems and Fire Alarm Systems is available from the Naperville Fire Department. To obtain this information, call 630/305-3768.

Section 3: Requirements - Installation, Maintenance & Testing - Fire Protection Systems

Where Required: All **automatic fire sprinkler systems** shall be provided as follows:

| International Building Code/2018 (IBC) Class | Use: | Example: | Fire area exceeds Gross sq. ft. : |
|---|-------------|--|--|
| Assembly | A-1 | Motion Picture Theatre | 5,000 |
| | A-2 | Restaurant | 2,500 |
| | A-3 | Churches | 5,000 |
| | A-4 | Indoor arenas | 5,000 |
| | A-5 | Stadiums | Per Building Code. |
| Business | B | Professional Services | 5,000 or where the fire area is located more than three stories above grade plane, or where combined area of all group B fire areas on all floors exceeds 5000 sq. ft. |
| Education | E | Schools | 2,500 |
| Factory | F-1 | Moderate Hazard | 5,000 or where the fire area is located more than 3 stories above grade plane, or where the combined fire areas on all floors exceeds 5000 sq. ft. |
| | F-2 | Low Hazard | 5,000 or where the fire area is located more than 3 stories above grade plane, or where the combined fire areas on all floors exceeds 5000 sq. ft. |
| Hazard | H | Chemical Manufacturing | Required |
| Institutional | I-1 | Board & Care/Assisted Living more than 16 residents. Group Homes, Rehab Facilities | Required |
| | I-2 | Hospitals/Nursing Homes | Required |
| | I-3 | Detention Facilities | Required |

| International Building Code/2006 (IBC) Class | Use: | Example: | Fire area exceeds Gross sq. ft. : |
|---|-------------|---|--|
| Mercantile | M | Department Store | 5,000 or the combined fire areas on all floors exceeds 5000 sq. ft. |
| Residential | R-1 | Boarding Houses/Hotels | Required |
| | R-2 | Apartments/Dorms | Required |
| | R-3 | Adult & Child Day Care | Required |
| | R-4 | Residential Care/ Assisted Living 16 or fewer residents | Required |
| Storage | S-1 | Furniture, lumber yards | 5,000 or where the fire area is located more than 3 stories above grade plane or the combined fire area on all floors exceeds 5000 sq. ft. |
| | S-2 | Non-combustible storage | 5,000 or where the fire area is located more than 3 stories above grade plane or the combined fire area on all floors exceeds 5000 sq. ft. |
| Utility | U | Greenhouses, barns | Not Required |

- Gross square footage is defined as the total area of the building including floor area, basements, mechanical penthouses and areas under attached canopies. These areas shall be included when calculating the building square footage. These areas are to be protected by the automatic sprinkler system.
- A fire hydrant shall not be more than 50 feet travel distance from the Fire Dept. Siamese connection that it serves, unless otherwise approved by the Fire Dept.

Section 4: Naperville Requirements

Existing Buildings, Structures, or Occupiable Spaces:

A change of use, addition, alteration, or repair to any building or structure shall require fire protection systems per the Building Code prior to issuance of occupancy. The portions of the structure or building not affected by the change of use, addition, alteration, or repair shall comply with the fire protection system requirements of the Building Code no later than 10 years from the date of permit issuance for the change of use, addition, alteration, or repair. Prior to the issuance of a permit the property owner shall enter into a legal agreement with the City of Naperville that details a plan for the installation of a fire suppression system for the remaining portion of the building. It shall be the applicant's responsibility to pursue said agreement prior to the issuance of the permit. The City of Naperville Legal Department, Fire Department, and Transportation, Engineering and Development must approve the plan for the installation of the fire suppression system.

Exception: Alterations or repairs to improve accessibility, means of egress, health and sanitation, or code compliance are not subject to this section.

Repair Garages:

Buildings two or more stories in height, including basements, with a fire area containing a repair garage exceeding 5,000 square feet or one story buildings with a fire area containing a repair garage exceeding 5,000 square feet require sprinkler protection.

Bulk Storage of Tires:

Buildings and structures where the area for the storage of tires exceeds 5,000 square feet shall be equipped throughout with an automatic sprinkler system.

Sprinkler Zones:

All sprinkler systems in buildings having two or more floors, including basements, shall provide sprinklers zoned by floors. Standpipe and combination systems shall also be zoned by risers.

Sprinkler Rooms:

All doors which lead to fire pumps and sprinkler riser rooms shall be labeled with minimum 4 inch lettering "**SPRINKLER ROOM**".

Standpipe Systems:

A Class III standpipe system shall be installed throughout all buildings where the floor level of the highest story is three stories and has corridors 25 feet or more in length, and in all buildings where the floor level of the highest story is 4 or more stories in height including penthouses. Connections are required on each level and every floor.

Section 905.3.2 Building Area: Without exception, standpipe systems shall be installed in all buildings where any portion of the building **floor area is more than 400 feet** of travel from the nearest point of fire department vehicle access.

Section 5: Inspection Information

Fire Protection systems must be inspected at certain intervals according to the following schedule:

Fire Sprinkler Systems: Witness underground pipe flush test.
Rough inspection of piping if required.
Hydrostatic test (includes the Fire Department Connection)
Air Test (where required) in addition to Hydro Test.
Flow test/Trip test
Final acceptance/performance test

Ansul Systems: Trip/Dump test (Includes verification of fire panel zoning)
Final acceptance/performance test

Other Systems: Information is provided on the plan review comment sheet/form, included with your permit.

- Inspections may be scheduled by calling 630/420-6100 option 1 - 48 hours in advance. All appropriate installers must be present for system inspecting and testing.
- The fee for all inspections is \$68.00 per hour (one hour minimum).
- If an inspection/test fails, the Fire Department will attempt to accommodate the fire protection system installer's request by scheduling a re-test the next business day. Any re-inspection/re-test will result in a fee of \$68.00 per hour (one-hour minimum).
- All Fire Alarm and Supervisory devices shall be installed and connected at the time of final acceptance testing.