

# North Maine Fire Protection District

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## Fire Sprinkler/Suppression System Plan Review Packet

Dear resident, builder and/or contractor,

This packet was created to assist residents and contractors who are going to install or upgrade an automatic fire sprinkler/suppression system in a property within the district and, in general, provide information about the plan review & inspection process. All information included within this packet and the plan review itself, shall be incorporated into your design and installation of the fire sprinkler/suppression system. It is your responsibility to follow all information contained within this packet and the plan review. Information contained within this packet and the North Maine and FSCI plan review letter shall be followed for not only the application and designing process, but also the installation and final acceptance.

**\*\*\*Note: ALL fire sprinkler/suppression plans shall be submitted to Fire Safety Consultants, Inc. (FSCI) for the beginning of plan review process (<https://www.firesafetyfsci.com/>). FSCI is located at 2420 Alft Ln. Elgin, IL 60124. FSCI will forward any documentation to our department for the completion of the plan review process. The following link contains a letter of transmittal to assist with submitting documents to FSCI for review- (<https://www.firesafetyfsci.com/fire-protection-submittals/>). All fees from Fire Safety Consultants, Inc are separate from those of the North Maine Fire Protection District and are the responsibility of the resident/builder/contractor. The North Maine Fire Protection District reserves the right to have FSCI conduct inspections of properties and/or systems if necessary.**

Our intention is to prevent any miscommunication among all parties involved. This is a list of items that are viewed when the North Maine Fire Protection District (NMFDP) conducts a plan review for a 13, 13D or 13R fire sprinkler and/or fire suppression system installation.

The NMFDP follows the National Fire Protection Association (NFPA), Life Safety Code 101, 2021 Edition; NFPA 1, 2021 Edition; International Code Council (ICC) International Fire Code (IFC), 2021 Edition; and NFPA 13, 13D, 13R Standard for the Installation of Sprinkler Systems, 2019 Edition & all references to these and other NFPA codes and standards that are also part of the district's ordinances & codes.

We want to create a positive working relationship, and if at any time you have a question, please call the fire prevention bureau at 847-297-5020.

## FIRE SPRINKLER/SUPPRESSION SYSTEM PLAN REVIEW PACKET

Information listed is not in any particular order, so please read carefully.

1. Contractor shall fill out and submit the Application for Fire Sprinkler/Suppression Permit form. This form is part of the plan review / permit process. Failure to correctly fill out the submittal form may delay the plan review process by the NMFPD fire prevention bureau.
2. Provide a copy of the sprinkler/suppression contractor's State License to the NMFPD.
3. Installation shall meet all guidelines set forth by NFPA 13, 13D or 13R 2019 Edition, NFPA, IFC, BOCA codes, other adopted codes, and NMFPD Ordinance 2021-0-3.
4. The Cook County Building Department also reviews plans, prior to issuance of permit.
5. Contact Aqua Illinois Water Company (877-987-2782), the district water purveyor, to schedule your water flow test / hydraulic calculations – unless you have a private or public water source on the property.
6. Hydraulic calculations shall be provided on a laminated placard, attached to or near riser at time of the final inspection of the system.
7. Contractor(s) shall provide the following:
  - a. Two (2) sets of **stamped** architectural / structural to-scale drawings of the complete project – ONE (1) will become property of NMFPD.
  - b. Three (3) sets of **stamped** ( $\geq$ NICET Level III or a licensed professional engineer) sprinkler/suppression system to-scale drawings – ONE (1) will become property of NMFPD and ONE (1) will become the property of FSCI.
  - c. Drawings are to include:
    - i. Legend on each floor plan
    - ii. Riser detail
    - iii. Hanger details
    - iv. Inspector's detail
    - v. Site plan
    - vi. Sprinkler/suppression legend
    - vii. Design criteria for remote area
    - viii. Square footage of areas protected shall be called out on drawings
    - ix. Insulation detail excerpt for piping exposed to freezing temperatures (NFPA13 - R38 minimum)
  - d. Three (3) – complete sets of manufacturer's cut sheets. ONE (1) will become property of NMFPD and ONE (1) will become the property of FSCI.
  - e. Three (3) – complete sets of project hydraulic calculations. ONE (1) will become the property of NMFPD and ONE (1) will become the property of FSCI.

**\*\*All drawings shall be to scale and accurately display all sprinkler and/or suppression components. Contractor/or designee shall provide additional copies of drawings, cut sheets, calculations, or other documents to be stamped if required\*\***

8. Spare sprinkler head box mounted & visible, within close proximity to the riser, with spare heads (proper amount per NFPA 13) of each type used and a wrench.
9. Monitoring of the sprinkler flow switch by a fire alarm system is required with all NFPA 13 and 13 R systems and is recommended if the property with a 13D system has a burglar and / or fire alarm detection system.
10. The homeowner is responsible for flow testing the system a minimum of twice a year, monthly inspections of any valves or tanks, monthly testing of any pumps, visual inspections of sprinkler heads, and inspection of systems by qualified individuals when ownership changes.
11. If applicable, the property owner is responsible to have the RPZ/Back-Flow Preventor/Double Detector Check Valve (DDCV) tested annually by a Certified Cross Connection Device Inspector. It is required by state law and the local water purveyor. Completed reports shall be sent to the NMFPD fire prevention bureau.
12. An Occupancy Sheet shall be completed with critical property information about owners, building managers, key holders, etc. Property owners shall update emergency contact information with the fire department and alarm monitoring company ANY time there is a change. The fire department **shall not** be listed as an emergency contact.
13. Single family residences are highly encouraged to purchase a residential Knox Box (your keys stored for FD personnel only) to reduce damage in case of an emergency when no one is on the property. Certain properties shall be required to purchase and mount a Knox Box. Contact the fire prevention bureau to check if this is a requirement.
14. A single weather resistive UL listed horn/BLUE strobe light (indicating water flow) shall be placed on the front (street side) of the building and clearly visible year-round. A CLEAR horn/strobe shall be used for single family residences. Location shall be approved by fire official prior to installation. These strobe lights shall activate upon water flow of the fire sprinkler system. Additional horn/strobes may be required by AHJ.
15. A 110v, 6-inch bell shall be mounted to the cold air return duct and tied into the riser flow switch and a 12-inch bell shall be mounted above the fire department connection and next to the horn/strobe.
16. Use of CPVC piping is permitted within the boundaries of the NMFPD. Firestopping shall be of a product approved by CPVC manufacturer.
17. The sprinkler contractors shall:
  - a. Have all valves properly labeled / tagged.
  - b. Provide 48-hour notice before testing procedures – rough and acceptance test.
  - c. Test all system appliances/devices prior to scheduling a rough and acceptance test - 200 psi for 2 hours. If any aspects fail, contractor shall make all repairs necessary prior to testing by NMFPD.



## FIRE SPRINKLER/SUPPRESSION SYSTEM PLAN REVIEW PACKET

- d. The test drain (inspector's test) shall have a broken sprinkler head sized to the smallest head in the system at the termination point – approved sump pit, open floor drain (large enough to handle water discharge), or exterior discharge.
18. Insulation of sprinkler systems in cold areas shall follow NFPA 13. Any variation from this or our suggested process shall require contractor to provide letter absolving North Maine Fire Protection District from any/all liability pertaining to the installation or function of the fire sprinkler/suppression system.
19. Any type of fire suppression systems shall be designed, installed, and maintained per the appropriate fire code and the NMFDP 2021 fire code.

Please note that as time, technology, codes and installation techniques change, or questions arise throughout the process – it may be necessary to modify this list at any time. This packet is part of the final plan review for the submitted system. Items listed shall be followed for the design and installation of any systems. Please review NMFDP 2021 fire code for any additional requirements or amendments and for a list of fees charged by the fire district.

Thank you,  
North Maine Fire Protection District

**NFPA 13 & 13R Sprinkler System Permit Fees**

Includes two field inspections.

Additional inspections are ½ of the original permit fee.

\$200.00	1 – 10 sprinklers
\$250.00	11 – 20 sprinklers
\$300.00	21 – 100 sprinklers
\$350.00	101 – 200 sprinklers
\$400.00	201 – 300 sprinklers
\$500.00	Over 300 devices

NFPA 13 & 13R permits expire 180 days from date of issue.

**NFPA 13D Sprinkler System Permit Fees**

Includes two field inspections.

Additional inspections are ½ of the original permit fee.

\$250.00: Flat rate for systems up to 50 heads. Add \$1.00 per additional head.

NFPA 13D permits expire 180 days from date of issue.

**Commercial Hood & Duct System**

Includes two field inspections.

Additional Inspections are half of the original permit fee.

\$150.00: Flat rate per system

Permit expires 180 days from date of issue.

**Fire Pump Installation (New, Replacement, or Annual Fire Pump Test)**

\$150.00: Flat rate per pump

Permit expires 180 days from date of issue.

**\*\*\*Final acceptance/occupancy certification will not be issued by North Maine Fire Protection District until all project fees have been paid in full.  
Additional fees assessed for non-compliance\*\*\***

## Occupancy File Information

Date: \_\_\_\_\_ Business / Complex / Homeowner Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Management Company: \_\_\_\_\_  
Management Company Address: \_\_\_\_\_  
Business / Office #: (\_\_\_\_) \_\_\_\_\_ Fax #: (\_\_\_\_) \_\_\_\_\_ After Hours #: (\_\_\_\_) \_\_\_\_\_  
Management Company / Business Email: \_\_\_\_\_  
Owner / Manager's Name: \_\_\_\_\_ Email: \_\_\_\_\_  
Address: \_\_\_\_\_  
Home #: (\_\_\_\_) \_\_\_\_\_ Cell #: (\_\_\_\_) \_\_\_\_\_ Key Holder? Yes \_\_\_ / No \_\_\_

### Key Holder / After Hours / Emergency Contacts / Alarm Authorization

Name/Title: \_\_\_\_\_ Home #: \_\_\_\_\_ Cell #: \_\_\_\_\_  
Are they authorized to place the alarm out-of-service? Yes \_\_\_ / No \_\_\_ Are they a key holder? Yes \_\_\_ / No \_\_\_  
Name/Title: \_\_\_\_\_ Home #: \_\_\_\_\_ Cell #: \_\_\_\_\_  
Are they authorized to place the alarm out-of-service? Yes \_\_\_ / No \_\_\_ Are they a key holder? Yes \_\_\_ / No \_\_\_  
Name/Title: \_\_\_\_\_ Home #: \_\_\_\_\_ Cell #: \_\_\_\_\_  
Are they authorized to place the alarm out-of-service? Yes \_\_\_ / No \_\_\_ Are they a key holder? Yes \_\_\_ / No \_\_\_  
Name/Title: \_\_\_\_\_ Home #: \_\_\_\_\_ Cell #: \_\_\_\_\_  
Are they authorized to place the alarm out-of-service? Yes \_\_\_ / No \_\_\_ Are they a key holder? Yes \_\_\_ / No \_\_\_

**Fire Alarm Company** \_\_\_\_\_ Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Business / Office Email: \_\_\_\_\_ Fax #: (\_\_\_\_) \_\_\_\_\_

**Radio Alarm Company** \_\_\_\_\_ Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Business / Office Email: \_\_\_\_\_ Fax #: (\_\_\_\_) \_\_\_\_\_

**Fire Sprinkler/Suppression Company** \_\_\_\_\_ Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Business / Office #: (\_\_\_\_) \_\_\_\_\_ Fax #: (\_\_\_\_) \_\_\_\_\_ After Hours #: (\_\_\_\_) \_\_\_\_\_

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### FIRE DEPARTMENT USE ONLY

Fire Alarm Position #: \_\_\_\_\_ Knox Box Keys Working: Yes \_\_\_ / No \_\_\_ Need Replacement? Yes \_\_\_ / No \_\_\_

Occupancy ID: \_\_\_\_\_ Specific Property Use: \_\_\_\_\_ (Firehouse Info)

Building Construction Type: I \_\_\_ II \_\_\_ III \_\_\_ IV \_\_\_ V \_\_\_ Dimensions: \_\_\_\_\_ x \_\_\_\_\_

Special Hazards or Other Important Information: \_\_\_\_\_



