

**FOR STAFF USE ONLY**

PERMIT #

APPLICATION DATE



# FIRE CONSTRUCTION PERMIT SUBMITTAL CHECKLIST

*SERVING THE CITIES OF LAKE STEVENS, MILL CREEK, MONROE AND SULTAN*

## SITE LOCATION

Site address:

Parcel Number:

Project name/tenant:

Associated permits:

Property Owner email:

Phone:

## Applicant/Primary Contact Person Information

Contact Person:

Company Name:

Phone:

Email:

Address:

City:

State:

Zip:

## Contractor

Contractor Name:

State Contractors License#:

Contact Person:

Expiration Date:

UBI#

City business license#:

Business Address:

City:

Phone:

State:

Zip:

Email:

## Project Information

Tenant Improvement / system modification

New System

Description of project:

Project Value:

## Type of Permit

**Note:** Check the appropriate scope of work to determine which permit you are applying for. **ONLY ONE PERMIT TYPE IS ALLOWED PER APPLICATION.** Both a permit application and associated submittal checklist are required at time of permit application. Permit submittals will not be accepted without associated permit submittal checklist.

## CONSTRUCTION PERMIT APPLICATION TYPE

### AUTOMATIC FIRE-EXTINGUISHING SYSTEM

- Tenant Improvement       System Modification       New System
- Type of system       NFPA 13       NFPA 13D       NFPA 13R
- # of sprinklers/devices       Quick Start Permit - add/relocation of 20 or less sprinkler heads
- Hood Suppression system       Pre-engineered       Custom Engineered

### BATTERY SYSTEMS

### CAPACITOR STORAGE ENERGY SYSTEMS

### COMPRESSED GASES

- Carbon dioxide used in beverage dispensing operations
- All other compressed gasses

### CRYOGENIC FLUIDS

- 500 gallons or less       501-1000 gallons       Over 1001 gallons

### EMERGENCY RESPONDER RADIO COVERAGE SYSTEM

- Passive Distributed Antenna System
- Active, Hybrid or Digital Distributed Antenna System

### FIRE ALARM AND DETECTION SYSTEMS AND RELATED EQUIPMENT

- NEW       Tenant Improvement       System Modification
- Number of devices
- FACP or Transmitter       New       Replacement
- Quick Start Permit - add/relocation of 7 or less *notification* devices only.

### FIRE PUMPS AND RELATED EQUIPMENT

### FLAMMABLE AND COMBUSTIBLE LIQUIDS

- <500 gallons
- >/= 500-1000 gallons
- > 1000 gallons
- Residential Fuel Tank Install or Abandonment

### FUEL CELL POWER SYSTEMS

### GAS DETECTION SYSTEMS

### GATES AND BARRICADES ACROSS FIRE APPARATUS ACCESS ROADS

### HAZARDOUS MATERIALS

- 1-2 Materials in Excess of Permit Amount
- 3-5 Materials in Excess of Permit Amount
- >5 Materials in Excess of Permit Amount

**HIGH PILED COMBUSTIBLE STORAGE**

- High Piled Storage Installation
- High Piled Storage Modification

**INDUSTRIAL OVENS**

**Liquefied Petroleum Gas**

- Tank 500 gallons or less
- Tank 501-1000 gallons
- Tank over 1000 gallons
- Residential LP-Gas System

**MARIJUANA EXTRACTION SYSTEMS (Valuation)**

- \$25,000 or less
- \$25,001-\$50,000
- \$50,001 - \$100,000
- Over \$100,001

**MOTOR VEHICLE REPAIR ROOMS AND BOOTHS**

- Pre-engineered Booth
- Site Built Repair Room or Booth

**PLANT EXTRACTION SYSTEMS**

**PRIVATE FIRE HYDRANTS**

- Number of Hydrants

**SMOKE CONTROL OR SMOKE EXHAUST SYSTEMS**

- Passive
- Mechanical

**SOLAR PHOTOVOLTAIC POWER SYSTEMS**

- Residential PV System
- Commercial PV System

**SPECIAL EVENT STRUCTURE**

**SPRAYING OR DIPPING**

- Pre-engineered w/documents
- Site built or used w/o documents

**STANDPIPE SYSTEMS**

**TEMPORARY MEMBRANE STRUCTURES AND TENTS**

- Duration / commercial use <3 days
- Duration / commercial use >4 days and < 180 days
- Temporary assembly membrane structures, canopies and tents 50-99 persons
- Temporary assembly membrane structures, canopies, and tents over 100 persons
- Temporary membrane structure for CFRS (fireworks) facility

**UNDERGROUND SUPPLY PIPING FOR AUTOMATIC SPRINKLER SYSTEMS**

**ELECTRONIC SUBMITTAL INSTRUCTIONS FOR DIFFERENT CITIES**

**MONROE** – [monroewa.gov/259/permit-applications](http://monroewa.gov/259/permit-applications)

**MILL CREEK** - [cityofmillcreek.com/resident\\_resources/permits\\_licenses](http://cityofmillcreek.com/resident_resources/permits_licenses)

**LAKE STEVENS** - [apps.lakestevenswa.gov/citizen/web\\_public/citizenconn](http://apps.lakestevenswa.gov/citizen/web_public/citizenconn)

**SULTAN**- [https://public.mygov.us/sultan\\_wa](https://public.mygov.us/sultan_wa)

Signature of applicant: \_\_\_\_\_ Date Signed: \_\_\_\_\_



# FIRE CONSTRUCTION PERMIT SUBMITTAL CHECKLIST

*SERVING THE CITIES OF LAKE STEVENS, MILL CREEK, MONROE AND SULTAN*

## AUTOMATIC FIRE SUPPRESSION SYSTEMS – NFPA 13D, 13R AND 13 SYSTEMS

### PROJECT INFORMATION

Site address:	Associated Permits:
Project Name / Tenant:	Property Owner:

### Electronic file standards

File naming standard: Electronic plans and documents shall be named as specified in bold type under “permitting requirements”. For example, the seating plan must be named “Seating Plan”.

Acceptable file types: Plans, calculations, specifications and supporting documents shall be uploaded as a PDF file.

Document Orientation: All plans must be uploaded in “Landscape” format in the horizontal position. All other documents can be in “Portrait” format.

### CODE EDITIONS

- 2018 Washington State Fire Code and Building Code, IRC Section P2904 & IBC amended code, 2016 NFPA 13, 13R, 13D and as adopted by each city's municipal code - Lake Stevens 14.84.020, Mill Creek 15.04.120, Monroe 15.04.110 and Sultan 15.05.

### PERMITTING REQUIREMENTS

A Fire Construction Permit is required to install or modify an ***Automatic fire-extinguishing Systems*** required by Section 105.7.1 of the 2018 Washington State Fire Code and local code amendments. **The following information is required at time of application for the Fire Construction Permit. Note – some requirements may be N/A.**

- ❑ Completed Fire Construction permit submittal application
- ❑ Completed “Automatic fire-suppression system NFPA 13/13R submittal checklist”
- ❑ Current copy of the WA State Patrol Sprinkler License
- ❑ Current copy of the Department of Labor and Industries contractor’s License
- ❑ Plans - Stamped and signed by the system designer certified by Washington State Fire Marshal’s office not less than:
  - Level I Certificate in Water Based Sprinkler Layout Systems for a NFPA 13-D system
  - Level II Certificate for a NFPA 13-R system, Level III Certificate for a NFPA 13 system.
- ❑ Water system calculations shall be no more than one year old, reflect the “worst case” demand scenario on the water supply, and should be taken as near the point of connection to the sprinkler system as possible.
  - Lake Stevens** - Contact SnoPUD Integrated 3 for system information.
  - Mill Creek** – Contact the Silver Lake Sewer and Water Association or Alderwood Water and Wastewater District for system information.
  - Monroe** – Contact the City of Monroe Water System for system information.
  - Sultan** - Contact the City of Sultan Water System for system information.
- ❑ Drawings shall be legible, scaled, and contain only the fire sprinkler components and those structural and building components necessary to provide proper sprinkler layout
- ❑ Submitted hydraulic calculations shall show the water system calculation back to the point where the test was performed.
- ❑ Hydraulic calculations stamped and signed by system designer, or a note indicating that area of work is less demanding than the existing demand area. **Note – For hydraulically calculated systems, a minimum safety margin of 10psi below available water supply is required.**
- ❑ Contractor shall provide a Contractor’s Material and Test Certificate for both Underground and Aboveground Piping. Signed copies of these forms shall be provided to the AHJ before the system is accepted. Installing contractor must provide copy of NFPA 25 to building owner, along with manufacturer instructions and literature. Cut sheets for fire sprinklers, valves, connectors, hanger, bracing and risers **HIGHLIGHT THE CUT SHEETS FOR ALL SYSTEM COMPONENTS TO BE INSTALLED.** Completed design standard checklist

**NOTE – A PRE-ENGINEERED KITCHEN FIRE-SUPPRESSION SYSTEM SUBMITTAL HAS ITS OWN PERMIT CHECKLIST**

## Quick Start Permits – NFPA 13 SYSTEMS ONLY

**NOTE - A Quick Start Permit may be obtained by the contractor for the installation or relocation of 20 fire sprinkler heads or less.**

- Completed Automatic Fire Sprinkler Permit
- Application No new or relocated mains or cross mains
- A stamped **Designer of Record Letter** from sprinkler designer that states that the work will not affect the hydraulic calculations.
- A copy of the Plans showing the proposed area of work shall be submitted at time of permit application.

## PLANS

The following is a list of information required on all plan submittals for review of an “Automatic Fire Suppression System” permit application. The plan shall be drawn to 1/8”=1’-0” minimum scale. The applicant is required to submit all of this information so an accurate and timely review may be done:

- Stamp and signature of system designer on layout drawings and calculations
- Code editions utilized for design of system
- Type of system installed (NFPA 13, 13R, 13D)
- Plan of each floor required
- Name of owner and occupant
- Location, including street address
- Point of compass
- Full height cross section or schematic diagram, including structural member information of required for clarity and including ceiling construction and method of protection for nonmetallic piping
- Location of partitions
- Location of fire walls
- Occupancy classification of each area or room
- Location and size of concealed spaces, closets, attics, and bathrooms
- Any small enclosures in which no sprinklers are to be installed
- Show distances between fire sprinklers and other sprinklers, walls, and obstructions
- Explanation of why omissions (if any) are being proposed with code reference
- Show location of bracing and hangers
- Show location of risers and valves, ILLUSTRATE RISER DIAGRAM ON PLANS
- Make, type, model, and nominal K-factor of sprinklers, including sprinkler identification number

Main office: (360) 805-0338, Inspection Request Line: (360) 805-0338 Option 2,  
Email: [FireMarshal@SRFR.org](mailto:FireMarshal@SRFR.org), Headquarters: 163 Village Court, Monroe, WA 98272

- ❑ Temperature rating and location of high-temperature sprinklers
- ❑ Total area protected by each system on each floor
- ❑ Number of sprinklers on each riser per floor
- ❑ Total number of sprinklers on each dry pipe system, pre-action system, combined dry pipe-pre-action system or deluge system.
- ❑ Approximate capacity in gallons of each dry pipe system
- ❑ Pipe type and schedule of wall thickness
- ❑ Nominal pipe size and cutting lengths of pipe (or center to center dimensions). Where typical branch lines prevail, it shall be necessary to size only one typical line
- ❑ Type and locations of hangers, sleeves, braces, and methods of securing sprinklers when applicable
- ❑ All control valve, check valves, drain pipes, and test connections
- ❑ Make, type, model, and size of backflow prevention assembly, and **MEANS TO FORWARD FLOW TEST AT SYSTEM DEMAND**
- ❑ Make, type, model, and size of alarm or dry pipe valve
- ❑ Make, type, model, and size of pre-action or deluge valve
- ❑ Kind and location of alarm bells
- ❑ Size and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment
- ❑ Piping provisions for flushing
- ❑ Where the equipment is to be installed as an addition to an existing system, enough of the existing system indicated on the plans to make all conditions clear
- ❑ For hydraulically designed systems, the information on the hydraulic data nameplate
- ❑ A graphic representation of the scale used on all plans – EACH SHEET TO HAVE SCALE
- ❑ Name, address, and phone numbers of the contractors
- ❑ Hydraulic reference points shown on the plan that correspond with comparable reference points on the hydraulic calculation sheets
- ❑ The minimum rate of water application (density or flow or discharge pressure), the design area of water application, in-rack sprinkler demand, and the water required for hose streams both inside and outside
- ❑ The total quantity of water and the pressure required noted at a common reference point for each system
- ❑ Relative elevation of sprinklers, junction points, and supply or reference points
- ❑ Calculation of loads for sizing and details of sway bracing
- ❑ The setting for pressure-reducing valves
- ❑ FDC details complying with the SRFR FDC Design standard - attached.

## NFPA 13-D SYSTEMS SPECIFIC DETAILS

- Indicate on the plan near the sprinkler system shut off valve that there will be a placard installed stating: *NFPA 13-D 6.3.4*

**WARNING:** The water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut-off the water to the fire sprinkler system, such as water softeners, filtration systems, and automatic shut-off valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.

- A control valve shall be installed on the fire sprinkler system piping and locked in the open position. A separate control valve shall be installed on the domestic supply. The domestic supply control valve shall not turn off the fire sprinkler system. The fire sprinkler control valve shall be labeled with a placard stating "Fire sprinkler system shut off" *NFPA 13-D 7.1*

**NOTE** - For systems designed with a double backflow check valve, the system side shutoff valve on the backflow is allowed to be the sprinkler system shut-off valve. This valve shall be identified with a placard stating "Fire Sprinkler system shut off".

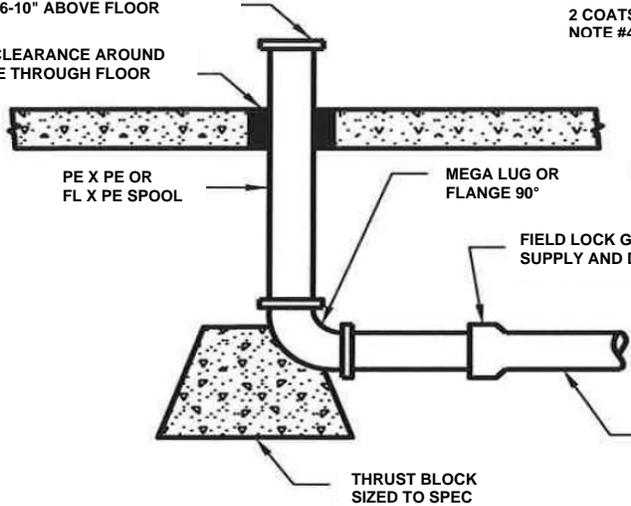
- A permanent fire sprinkler system drain shall be installed and be a minimum of ½" internal diameter, located on the system side of the control valve. The drain shall be extended to an approved location, to allow the home owner to drain the system expeditiously. The valve shall be labeled with a placard stating "fire sprinkler system drain". *NFPA 13-D 7.2*
- The installer shall provide the occupant instructions on inspecting, testing, and maintaining the system. This document shall be stored in a storage location near the sprinkler system control valve. *NFPA 13-D 12.1*

# SNOHOMISH REGIONAL FIRE AND RESCUE DESIGN STANDARD

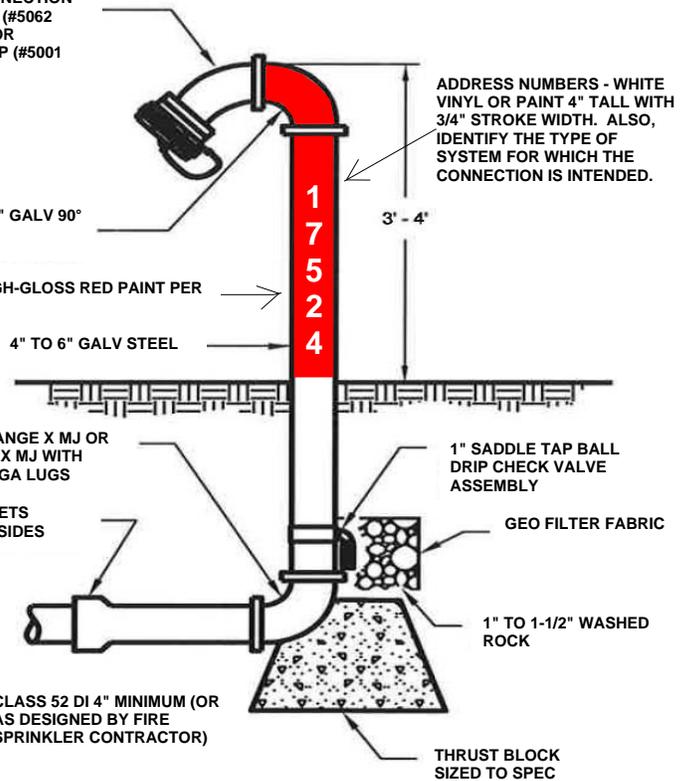
STORZ TYPE FIRE DEPT. CONNECTION WITH 30° ELBOW NON-SWIVEL (#5062 FROM WWW.KNOXBOX.COM, OR EQUIVALENT) WITH 4" FDC CAP (#5001 FROM WWW.KNOXBOX.COM)

A METAL SIGN WITH 1" RAISED LETTERS STATING "AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION" OR A COMBINATION THEREOF SHALL BE MOUNTED ON ALL FDC'S

FLANGE 6-10" ABOVE FLOOR  
2" CLEARANCE AROUND PIPE THROUGH FLOOR



**FLOOR FLANGE SUPPLY AND DRY SIDES**



**FIRE DEPARTMENT STAND PIPE CONNECTION WITH STORZ 30° ELBOW**

**NOTES:**

1. SUPPLY AND DRY LINES TO BE RESTRAINED BY FIELD LOCK GASKETS ON BELL JOINTS, MEGA LUGS AND BLOCKING SHALL BE INSTALLED AT ALL CHANGES IN DIRECTION. PIPE TO BE CLASS 52 DI PIPE (TO 90° FLANGE).
2. FIRE SYSTEMS SHALL BE DESIGNED BY A NICET LEVEL III DESIGNER/WASHINGTON LICENSED ENGINEER. THE INSTALLER OF THE FIRE PROTECTION SERVICE UNDERGROUND LINES SHALL BE LICENSED AND CERTIFIED AS REQUIRED BY THE OFFICE OF THE STATE FIRE MARSHAL.
3. 1" SADDLE TAP BALL DRIP WITH 90° DOWNTURN IN A BED OF 1" TO 1-1/2" WASHED ROCK ENVELOPED IN GEO FILTER FABRIC. HEIGHT OF DRIP CHECK DETERMINED BY GROUND WATER ELEVATION.
4. FDC TO BE A 4" STORZ NON-SWIVEL 30° DOWN ELBOW WITH LOCKING FDC STORZ CAP (MODEL #5001 4" HARD ANODIZED ALUMINUM FROM WWW.KNOXBOX.COM) FDC STANDPIPE TO BE PAINTED WITH 2 COATS HIGH-GLOSS SHERWIN WILLIAMS SAFETY RED INDUSTRIAL ENAMEL B54R389. DO NOT PAINT 30° ELBOW.
5. CENTER OF FIRE HYDRANT TO CENTER OF FDC TO BE NO MORE THAN 25' (Lake Stevens) 50' (Monroe) AND NO LESS THAN 4' APART
6. PRESSURE TESTING PER NFPA 24 STANDARDS (200 PSI FOR 2 HOURS WITH NO LOSS)
7. FLUSH PER NFPA 24 STANDARD. FULL FLOWS WITH BURLAP BAGS FOR DEBRIS INSPECTION. FLOW OF FLUSH WILL BE ACCORDING TO DIAMETER: 4":390 GPM; 5": 610 GPM; 6": 880 GPM.
8. SOURCE WATER FOR FLOW TESTING TO BE PROTECTED BY MEANS OF A TEMPORARY DCVA THAT HAS BEEN VERIFIED TESTED BY A BACKFLOW ASSEMBLY TESTER. DCVA'S ARE TO BE A MINIMUM OF 4" DIAMETER AND SIZED TO ACHIEVE PROPER FLOW FOR FLUSH AFTER HYDRO TESTING HAS BEEN ACHIEVED. FLOW CALCULATIONS TO BE ESTABLISHED BY A NICET LEVEL III SYSTEM DESIGNER.
9. VERIFICATION OF FLOW RATE AND TESTING TO BE WITNESSED BY AUTHORITY HAVING JURISDICTION. NOTE: ALWAYS CHECK WITH WATER PURVEYOR ABOUT BACKFLOW REQUIREMENTS ON FIRE SPRINKLER SYSTEMS.



## FDC DESIGN STANDARD FOR FIRE SPRINKLER AND STANDPIPE

SCALE

NOT TO SCALE

REVISED

August 18, 2020

DESIGNATION

**DS-001**