



FIRE CONSTRUCTION PERMIT SUBMITTAL CHECKLIST

SERVING THE CITIES OF LAKE STEVENS, MONROE AND SULTAN

UNDERGROUND SUPPLY PIPING

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

2021 Washington State Fire and Building Code, 2019 NFPA 24, Chapter 18.160 RCW and as applicable - Lake Stevens Municipal Code 14.84, Monroe Municipal code 15.04.110 and Sultan Municipal Code 15.05.

PERMITTING REQUIREMENTS

A Fire Construction Permit is required to install **Underground supply piping** required by Section 105.6.25 of the 2021 Washington State Fire Code and local code amendments. **The following information is required at time of application for the Fire Construction Permit.**

- Completed Fire Construction permit submittal application
- Completed "Underground supply piping submittal checklist"
- Current copy of the WA State Patrol Sprinkler License

NFPA 13, 13R with underground piping larger than 4 inches, Stamped and signed by the system designer certified by Washington State Fire Marshal's office not less than:

- Level 3 certificate of competency.
- Level U certificate of competency.

NFPA 13 R and NFPA 13D with underground piping less than 4 inches in diameter are not required to be permitted as they are required to comply with local plumbing codes.

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.

Monroe – Contact the City of Monroe Water System for system information.

Sultan - Contact the City of Sultan Water System for system information.

- 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.
- Completed design standard checklist

PLANS

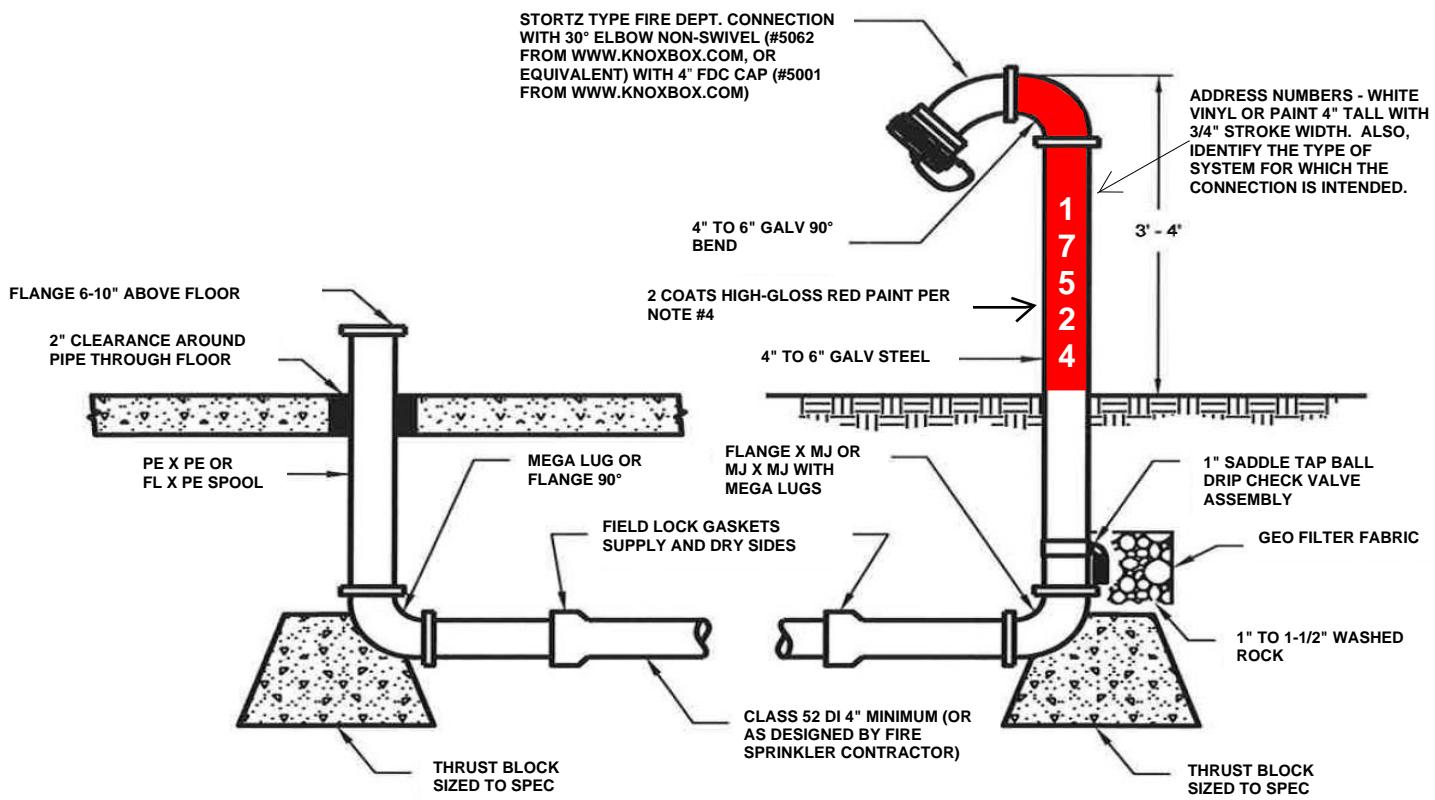
The following is a list of information required on all plan submittals for review of an "Automatic Fire Suppression System" permit application. The plan shall be drawn to 1/8"=1'-0" minimum scale. The applicant is required to submit all of this information so an accurate and timely review may be done:

Plans shall be drawn and shall include the following items that pertain to the design of the system:

- Name of owner
- Location, including street address
- Point of compass
- A graphic representation of the scale used on all plans
- Name and address of contractor
- Size and location of all water supplies
- Hydraulic calculations showing that the water main is able to supply the total aboveground fire sprinkler system demand at the appropriate pressure.
- Size and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment

- Type of system to be supplied
 - Automatic sprinkler system
 - NFPA 13
 - NFPA 13R
 - Open sprinkler systems
 - Water spray fixed systems
 - Foam systems
 - Standpipe systems
- The following items that pertain to private fire service mains:
 - Size
 - Length
 - Location
 - Weight
 - Material
 - Point of connection to city main
 - Sizes, types, and locations of valves, valve indicators, regulators, meters, and valve pits
 - Depth at which the top of the pipe is laid below grade
 - Method of restraint
 - Backflow protection device that is listed for fire protection service.
- The following items that pertain to hydrants:
 - Size and location, including size and number of outlets and whether outlets are to be equipped with independent gate valves
 - Thread size and coupling adapter specifications if different from NFPA 1963
 - Whether hose houses and equipment are to be provided, and by whom
 - Static and residual hydrants used in flow
 - Method of restraint
- Size, location, protection from vehicular damage, and piping arrangement of fire department connections - **See SRFR FDC design standard attached for requirements.**
Manufacturers installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any devices, piping, or fittings.
- Provide the following information:
 - Name of fire sprinkler system contractor and Washington State License level and number with expiration date.
 - Level 1
 - Level 2
 - Level 3
 - Level U

SNOHOMISH REGIONAL FIRE AND RESCUE DESIGN STANDARD



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" STORTZ NON-SWIVEL 30° DOWN ELBOW WITH LOCKING FDC STORTZ 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' 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 DEBRIES 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

DESIGNATION

DS-001

SCALE

NOT TO SCALE

REVISED

August 18, 2020