

Fire Protection Systems Permit

All projects that require plan review must be submitted electronically. Please visit our website at www.cityoffederalway.com/page/permit-center to request a document upload link and obtain information on how to successfully prepare your application materials for electronic submittal and review. Documents that are incorrectly named for formatted will not be accepted for review.

The following information is required in order to consider applications for Fire Prevention (FP) permits. If any required information is not included, the application may not be accepted.

ALL SUBMITTALS:

- Completed *Construction Permit Application* form, which must include:
 - Person responsible for the design, installation, and acceptance testing of entire system
 - Valuation of entire system (pre-engineered systems have not been approved by the authority having jurisdiction)
- Application filing fees
- A set of plans and/or other materials that include the applicable items detailed below and in the following pages

ALL PLANS

- Plan sheets must be a minimum 11" x 17" (maximum 30" x 42"). Please see Electronic Document Submittal Standards for format requirements.
- All plans must be drawn to scale. Scale for site plans is a minimum 1" = 20'-0" (architectural scale equivalent of 1/2" = 10'-0"). The minimum scale for all other drawings is 1/4" = 1'-0" or 1/8" = 1'-0".

FIRE SPRINKLERS

- Site plan
- Floor plans, and shall show those items from the *International Building Code* standard that pertain to the design of the system.
- Hydraulic calculations, as required
- A person holding a current sprinkler certificate of competency issued by the State of Washington shall stamp the plans and hydraulic calculations

FIRE ALARM

- Floor plans clearly showing the monitoring system, location of all alarm devices and equipment, all connections between devices (both existing and new), and device quantities (shown by total and zone)
- Wiring Riser Diagram
- Battery calculations and catalog cut sheets for all alarm devices in the system

FIRE SPRINKLER UNDERGROUND SUPPLY

- All piping, including the FDC downstream of the DCVA to one-foot above the finished floor shall be approved by the fire code official.
- Site plan that matches the legal description, that clearly shows:
 - The location of existing and proposed hydrants
 - All water mains and their sizing
- Details and specification of piping, fire hydrants, valves, connections, and blocking. Coordinate supply connection with local water purveyor for requirements for backflow, type of material, depth, and bury of piping.

HOOD SUPPRESSION SYSTEM

These drawings may be provided on 8½" x 11" sheets provided the drawings are legible and all pertinent information is shown. Only complete systems will be accepted for review and approval. No partial system submittals. Fire suppression system drawings must include:

- Hood, duct system, and kitchen appliances plan views
- Make, model, and size of the system (Specify the location and describe the nozzles.)
- Information pertaining to the location and function of detection devices, operating devices, auxiliary equipment, and electrical equipment, if any
- Applicable manufacturer's data sheets

MEDICAL GAS PIPING

- Site plan
 - For outdoor facilities, detailed site plan showing specific location where storage or handling will occur
- Floor plan
 - Detailed floor plan showing specific location where storage or handling will occur
 - Location, size, and materials used in all gas piping systems
 - Location and discharge of emergency vents in accordance with the *International Mechanical Code*

INSTALLATION OF COMMERCIAL FUEL STORAGE TANKS

- Site plan indicating location and size of tank(s), dispensing lines, vent lines and dispensers
- Manufacturer's specifications and installation requirements

REMOVAL OF COMMERCIAL FUEL STORAGE TANKS

- Site plan indicating location and size of tank(s), dispensing lines, vent lines and dispensers
- Method proposed to inert tank(s) prior to removal

INSTALLATION OF CO2 SYSTEMS FOR BEVERAGE DISPENSING*

***PERMIT IS NOT REQUIRED WHERE THE TOTAL QUANTITY OF CO2 IN USE IS NOT GREATER THAN 100 LB.**

- Floor Plan that identifies the tank(s) and component locations.
 - Tank(s) placement, relief valves, tubing runs, leak alarm location, ventilation location etc.
- Size and number of tanks.
 - How they will be filled - Internal or external port.
- Document how the tanks will be secured into position and how they will be protected from impact or other damage as applicable.

- Signage.
- Specify if an alarm or ventilation will be utilized. Electrical or mechanical permits may be required.
- Cut sheets for all components

GATES INSTALLED ACROSS A FIRE APPARATUS ACCESS ROAD

- Site plan.
- Specify manual or automated gate(s).
- Construction plans with details including gate swing, dimensions, and security method.
- Automated gate operators shall comply with UL 325 and ASTM F2200
- Automated gate operators must be equipped with electronic sensing devices that are compatible with “Opticom” sending units used by South King Fire, or a “Knox” brand gate (toggle) switch within a “Knox” box installed at an approved location.
- Cut sheets for all components.

EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (DAS/BDA)

- Site Plans and Elevations
 - All plans and calculations shall be prepared by a licensed WA electrical engineer or, by the licensed WA electrical contractor who shall construct the system, or by the manufacturer of the proposed system
 - Include the site name, address, and elevation name or floor number of each plan sheet.
 - Show or state how the cable will be protected against damaged if located in vertical risers or low areas in the building
 - Include a minimum of one building elevation depicting the location of any outdoor antennas associated with the proposed system
 - clearly indicate on the plans where the control amplifiers are to be located and protected
 - include a plan view of each interior floor where indoor antenna systems are proposed. Include antenna numbers, coax routes and the locations of any other system components, including splitters, couplers, filter, amplifiers, etc.
 - Specify antenna grounding and surge protection in accordance with the national electric code
 - specify the back up power source. include calculations to ensure that the backup power requirements are met.
 - provide plans showing each floor divided into 40 equal squares for testing or a minimum of 20 x 20 squares, except for isolated areas
- Equipment specifications Sheets
 - Provide copies of the manufacturer specification sheets of all systems components, including: amplifiers, antennas, coax, couplers, splitters, combiners, or any other passive components proposed.
 - backup battery and charging system (if utilized) or generator specifications.
- Ambient Signal Level Measurements
 - For all proposed systems utilizing broadband amplification schemes, including bidirectional amplifiers (bda’s) ambient signal level measurements for nearby carriers in the adjacent amr and cellular bands must be provided
- RF Power Budget Calculations