

2.0 Emergency Planning and Operations

2.1 Fire

2.1.1 Evacuation of the Building

In the event of a fire the sprinkler head nearest the flames will be caused to spray water on the flames. The operation of the sprinkler head will trigger an alarm throughout the building. There will be audible alarms and a voice system prompting residents and staff to evacuate the building. In response to the alarm the elevators stop working, automatically parking at the 5th floor until activated by the fire department for their use. Each living unit as well as common spaces like the 3rd floor meeting room, 3rd floor library, and 3rd floor exercise room provide fire exits. Standard procedure is to evacuate the building via one of these exits. This will place you in one of 4 emergency egress stairwells or somewhere on the outside deck on the 3rd floor of the building if for example you exit from the guest suite, the meeting room or the exercise room. The two rear stairwells empty out on the 3rd floor deck in the rear of the building. The two front stairwells empty on the ground floor just outside the front entrance to the building. If you find yourself outside on the 3rd floor deck proceed to one of the two rear corners of the deck to find outside stairwells leading to ground level. Once on ground level, proceed to the front of the building and the sidewalk on either the south or north edges of the property, making sure not to get in the way of the fire department personnel. The interior egress stairwells are well lit even if commercial power is cut off. Remain there until the fire department personnel give the green light to return to the building.

2.1.2 Fire Sprinkler System Description and Operation

2.1.2.1 Sprinklers

Our system is known as a “wet” system with sprinkler heads of three types distributed throughout the owner’s units and the common areas including garages. A wet system has the sprinklers connected to a reliable water supply via fireproof steel and/or CPVC pipes maintained at a regulated static pressure, ready for use.

Most sprinkler systems installed today are designed using an area and density approach. Sprinkler heads in the Savoy are of three general types. The most prevalent is the type found throughout most areas of your unit with a red glass bulb, much like the one shown below. The red color signifies an operating temperature of 155 degrees F. The air bubble inside the glass bulb expands when heated. If it gets hot enough, the pressure of the expanding air breaks the glass bulb, enabling the flow of 14 or greater gallons of water per minute through a single head. Each sprinkler head operates independently of all others under local fire stimulus.



Figure 2.1.1 Generic Sprinkler Head



Figure 2.1.2 Savoy Unit Ceiling Sprinkler Head-Typical

Some areas like mechanical rooms may have a higher temperature head. If the liquid in the glass bulb is yellow, it indicates an operating temperature of 175 degrees F. In many of the common area such as those on the 3rd floor and in the lobby, the sprinkler heads may be of the concealed typed similar to the one depicted below:



Figure 2.1.3 Concealed Type Sprinkler Head

All that is visible from below is a round, flat cover plate. The cover plate conceals the sprinkler head above it. During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the sprinkler causes the heat-sensitive fusible link to disengage, releasing the deflector and sealing assembly. Water flowing through the sprinkler orifice strikes the deflector, forming a uniform spray pattern to control the fire. Sometimes the temperature needed to release the cover plate is less than that required to operate the sprinkler head, 135 degrees F for the plate versus 165 degrees F for the sprinkler for example. It is very important that the cover plate must not be painted with ordinary paint. This may alter (or worse) prevent the operation of the sprinkler head assembly. If it is deemed imperative to paint the cover plates, then the manufacturer of the sprinkler can perform this using a paint designed for the purpose.

The sprinklers are connected to the sprinkler water distribution system in the building. Each unit has a single pipe feed to which all sprinklers in the unit are connected. Every living area has sprinkler heads as do all garages, trash chutes and trash rooms. Exceptions are for closets under 12 sq. ft or bathrooms under 55 sq. ft

In addition to the sprinkler heads the Savoy has numerous hose valve connections for fire fighters to enable them to distribute greater volumes of water on flames, if necessary.

2.1.2.2 Fire Sprinkler Water Distribution System

The Savoy building fire sprinkler system has a connection direct to the Sarasota City water main system at a supply pressure of approximately 50 psi. The Savoy fire sprinkler water distribution system consists of the following components:

1. City Water Main Interface
2. Building Fire Sprinkler pump and connection system
3. Fire controller pump power panel
4. Fire Sprinkler water distribution system

2.1.2.2.1 Connection to the City Water Main

The interface to the City Water Main is on the Northwest corner of the building, the corner closest to the intersection of Palm Ave. and Ringling Blvd inside the privacy gate. Following is a photo of the interface plumbing (light green).

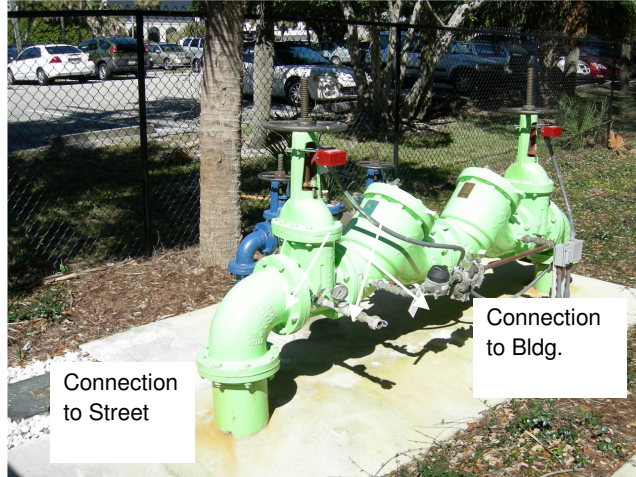


Figure 2.1.4 Connections to City Water Supply

The blue plumbing behind the fire connection is the potable water supply for the building with a separate connection to the city water main.

2.1.2.2.2 Fire Pump Room

From the outside connection to the city water supply the pipe with the water for the sprinkler systems runs underground to the building fire pump and water supply room at the Northeast corner of the second floor garage. The pumps and controls for the fire sprinkler water system are located in this room. The key to this room is number 373 in the key cabinet in the room behind the front desk. The main fire sprinkler pump is a 1000 gpm, 125 hp electric pump. The main pump and auxiliary “jockey” pump maintain a static pressure of 174 lbs/sq. in at the pump room level. There is a test loop plumbed to the pump so that it can be exercised periodically for maintenance purposes. Following is a photo of the fire sprinkler water pump and associated equipment:

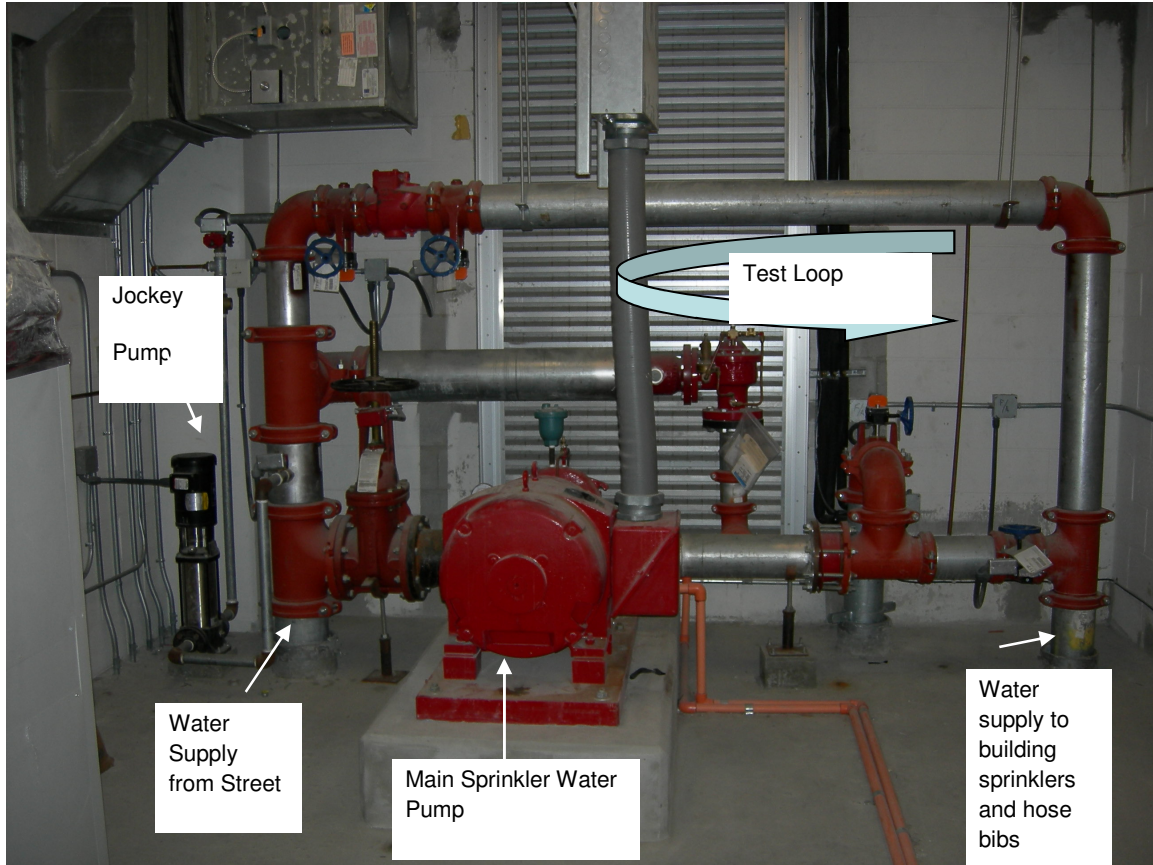


Figure 2.1.5 Main Pump and Associated Connections and Equipment

There is about a 3.5 lb/sq. in. drop in static pressure for each floor above the 2nd floor. The pressure at the roof is about 140 lbs/sq. in. When a sprinkler head is activated or a hose valve turned on, a sensor in line with the pump output senses a drop in the static pressure. This causes the pump to turn on. Water is then delivered at high pressure through the building to wherever it is needed at a total maximum volume of about 1,000 gallons per minute. The volume of water delivered by any sprinkler head is of course limited by the design of the sprinkler head.

2.1.2.3 Fire Pump Control Panel

There is a large red control panel to the right of the pump as you enter the door. The left half of this panel is dedicated to the transfer switch that connects the fire pump to the building diesel emergency generator system and supplements the power to the pump from the Florida Power and Light grid in the event of a power failure to the building. In this way the fire sprinkler system

continues to operate in the event of a commercial power failure as long as the emergency generator is running. (See Section 2.3 for a description of the emergency generator system.)

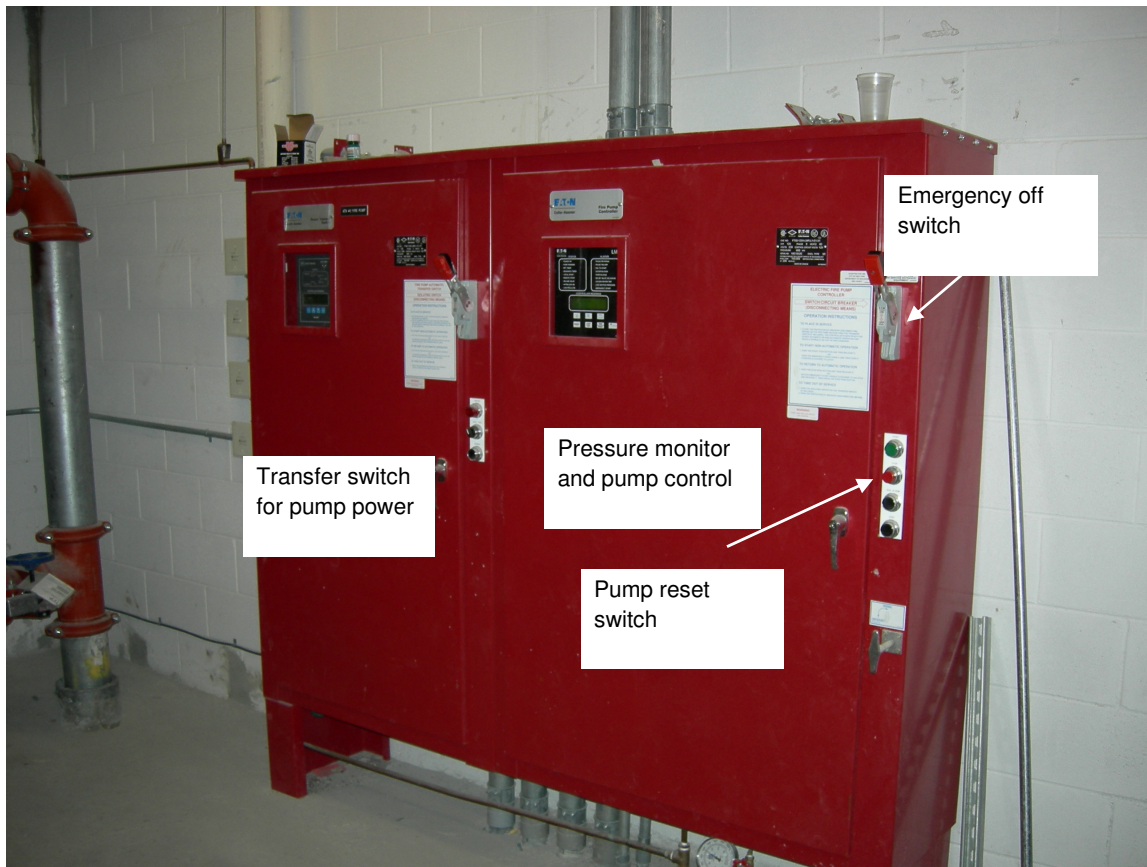


Figure 2.1.6 Fire Pump Control Panel

The equipment behind the right hand panel monitors pressure at the output of the pump and powers the pump. There is an emergency shut-off switch that when pulled down disconnects power from the pump. The red switch indicated as the “Pump Reset Switch” provides a temporary operation after water flow is cut off. Once the water flow is staunch (by closing a valve to a unit for example) static pressure builds up. When it reaches 174 lbs/sq. the pump is shut down.

In addition to the name plate with pump specifications there is a plate with serial number, manufacturer and installation company information.



Figure 2.1.7 Fire Pump Installation label

Note that “Southeast Fire Protection” has been acquired and is now known as “East Coast Fire Protection” at the same location.

2.1.2.4 Sprinkler Water Supply to Each Unit

There are four vertical pipes that carry water for the hose valves and two of these supply the floor by floor sprinklers, one on the north side of the building serving the 01 units and one on the south side of the building shared by the 02 and 03 units. The vertical pipe is accessed in the rear emergency exit stairwell (Stairwell 1) in the case of the 01 units and in the front stairwell (Stairwell 4) in the case of the 02 and 03 units. Each water supply connection has an associated drain pipe and facilities for inspection of the connection. Following is a photo of the connection from the vertical supply pipe shared by 02 and 03 units as an example:

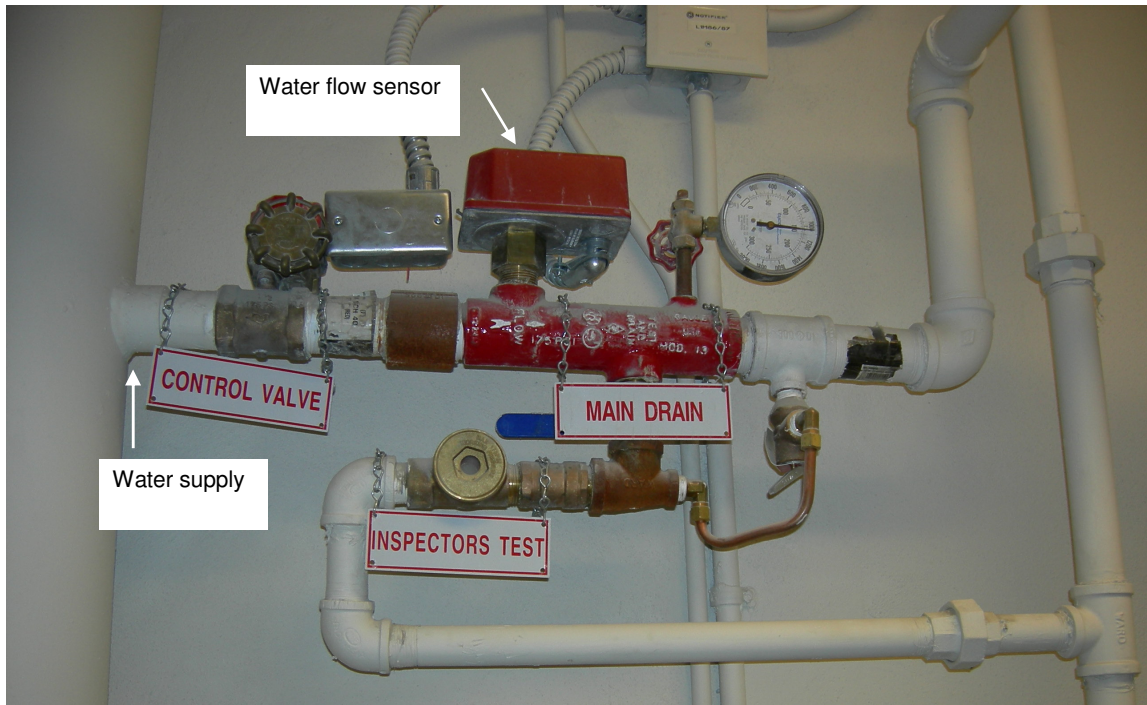


Figure 2.1.8 Fire Pump Connection to Individual Units

The round control valve, so labeled in Figure 7 above, when turned clockwise, shuts off the water to the sprinklers in the associated unit or units. When this is done, there is still water remaining in the pipes leading to the sprinklers in the unit. The vertical pipe on the right of Figure 7 is a drain pipe. Unseen in this photo below the blue handle behind the “Main Drain” sign, there is a second blue handle that, when pulled down allows the water in the pipes to drain out. This prevents water that remains in the pipes from flushing into the unit with the damaged sprinkler head. Note the red box labeled “Water Flow Sensor”. This device detects the flow of water to the unit or units and triggers the building fire alarm.

2.1.2.5 Fire Sprinkler System Cautions

The fire sprinkler system in the Savoy is neither foolproof nor tamper proof. Anyone who can gain access to Stairwell 2 or Stairwell 4 can shut off the water supply to any and all units. This action would trigger an alarm and would be easily corrected.

It is relatively easy to accidentally damage a sprinkler head in a unit. Bumping a sprinkler head with a large piece of furniture or sticking a clothes hanger through a sprinkler head assembly are example of actions that can cause the unintended breaking of the sprinkler trigger mechanism and cause water to be sprayed from the sprinkler head at the maximum volume its design will allow. In this event a unit owner or their surrogate must take the following actions:

1. Quickly go to the rear stairwell from an x01 unit (stairwell 2) or to the front stairwell from an x02 or x03 unit (stairwell 4). Turn the control valve clockwise to shut off water flow. Pull down the upper of the two blue handles to drain water from the sprinkler pipes in the unit.
2. Notify the Front Desk or a Board Member in order to initiate the reset mode of the pump which will continue to run after the control valve is closed. This is done by pushing the red button on the right hand panel in the pump room.
3. Call in the company responsible for sprinkler system maintenance to replace the sprinkler head and open the control valve to the unit or units.

The current supplier of maintenance services for the system is

East Coast Fire Protection
2280 Old Lake Mary Road
Sanford, FL 32771
Office -- (407) 688-1949
FAX (407) 688- 4393

2.1.2.6 Fire Sprinkler System Maintenance and Replacement

The pumps have an automatic run period. The sprinkler system is currently inspected by East Coast Fire Protection once/year.

Reserves, when established should include an amount set aside for eventual replacement of the pump which should last more than 20 years.