

# FIRE STATION 2

## 375 Lily Cache Lane, Bolingbrook

### FIRE SPRINKLER RETROFITTING

## SCOPE OF WORK

- Engineering, labor, and material to install a completely new fire sprinkler system in Bolingbrook Fire Station 2.
- Provide and install one (1) new sprinkler riser header, consisting of a backflow preventor, with a single wet pipe riser having a butterfly type control valve with main drain, pressure gauge, and flow switch. The wet system riser will be in a designated open area and feed both stories. Provide an outside fire department (Siamese) connection at the building to meet the local fire department requirements.
- Design for the open truck area is based upon an Ordinary Hazard 2 occupancy, hydraulically calculated to provide a density of .20 GPM over the most remote 1,500 ft<sup>2</sup> with 250 GPM hose stream allowance.
- Design for the offices, stairwell and entire 2nd floor is based upon a Light Hazard occupancy, hydraulically calculated to provide a density of .10 GPM over the most remote 1,500 ft<sup>2</sup> with 100 GPM hose stream allowance.
- Performed a water flow test.
- Sprinklers in areas with finished ceilings will be semi-recessed white pendants on concealed piping and will be in the ¼ point of a 2x4 acoustical ceiling tile. Sprinklers in exposed areas without finished ceilings will be brass uprights on exposed piping.
- All hangers will be sized and spaced in accordance with N.F.P.A. codes for standard building construction. Determine if an allowance has to be made to supply or install additional or special hanger materials or devices to improve the structural strength of the building to enable it to bear the weight of the sprinkler system. Include any costs associated with unknown expansion joints for this project.
- Subcontract a new underground 6" water service to feed fire sprinkler system.
- Mobilize necessary equipment & crew.
- Provide necessary barricades, snow fence and caution tape
- Saw cut necessary concrete
- Break, remove and haul

- Remove necessary shrubbery in conflict
- Dig interior to facilitate new riser per site survey
- Excavate & expose city water main in grass parkway.
- Shore & prep for Hot Tap
- Excavate approx. 115' x 4' x 6' from WM to foundation wall per site survey
- Provide and install:
  - Approx. 115' of 6" ductile iron pipe
  - One tapping sleeve and valve
  - One Tapping Vault complete
  - Necessary fittings and bends with mega lugs
  - One 6" flanged spigot with bolt kit
  - One 6" x 1" chlorination kit
  - One new Mueller Hydrant w/Aux Valve
  - One new valve box
  - Provide and install bedding and cover around pipe with CA-7 stone
  - Backfill to grade with stone under all paved areas
  - Backfill to grade with existing material in all grass areas
  - Perform flush & hydrostatic pressure test on new 6" service per IAW/Village requirements
  - Perform chlorination on new 6" service
  - Haul all remaining spoils (spoils considered to be non-contaminated)
  - Cut and cap existing service at main per Village requirements
  - Patch concrete sidewalk and interior slab Existing Domestic will be disconnected once cross over is completed
- Install the following devices and tie existing fire alarm system into the new fire sprinkler system.
  - Two (2) OS&Y tamper switches, one (1) water flow switch, one (1) outside horn strobe, two (2) electric bells and modules and wiring for devices.
  - If any repairs to existing fire alarm system are required then additional pricing shall apply.