

## 21 40 00 Fire Suppression Water Storage

Revision 01/04/2019

### **Purpose:**

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

### **1. Design Standards**

- a. Break Tanks shall be a minimum of 2,500 Gallons
- b. Break tanks shall be rectangular steel with internal coating
- c. Where a project also requires a domestic water storage tank, a single tank with internal separation is acceptable.
- d. Break tank drains shall be hard piped to the exterior of the building, not to interior floor drains.
- e. Break tanks shall be fitted with a manway that is:
  - i. minimum 24" x 24"
  - ii. bolted closed with tight fitting gasket.
- f. Alarms
  - i. Break tanks shall have local audio/ visual alarms and interface with the building fire alarm panel and BAS system front end graphics.
  - ii. Minimum alarms
    1. Low level
    2. High Level
    3. Overflow
- g. Break tanks shall be installed on concrete housekeeping pads.
- h. Break tanks shall be painted red. If a combined firewater/domestic water tank is used, then the fire water side shall be painted red and the domestic water side blue.
- i. A hydraulic analysis shall be performed to make sure an adequate fill water supply is provided to the fire pump. This analysis shall be provided to the Rice Project Manager.
- j. Installation shall comply with current adopted NFPA and City of Houston standards.