GENERAL:

Summary - This Section includes water systems piping for potable water service and fire protection service 5 feet outside the building.

Specify: Water Distribution System – Water main valve materials: ductile iron pressure water pipe; Pipe PVC pressure pipe, joints shall be MJ-Mechanical type with thrust locking flanges. Water lines shall be disinfected according to AWWA Standard C-601. All pipes will be tested for leakage. Detectable plastic marking tape shall be installed underground above buried utility lines as required to facilitate the locations of the lines before damage to the lines can occur during required excavation.

The Design Professional shall employ Professional to locate Service and to locate existing utilities during Design Phases and indicate utilities and structures on the drainage.

Coordinate connection to water main with Utility Company.

Coordinate with City of Jacksonville Health Department Procedures.

The Design Professional is responsible for assuring that all permitting requirements of applicable jurisdictional agencies are met during the Design and shall assist as necessary during construction. Provide to the Contractor and the OFPC Project Manager a Checklist and Procedures to be followed for permits, tap fees, meters and water line breaks. Coordinate the location of existing utilities and structures with Plant Services to the extent practical during the Design.

All reasonable efforts shall be made in the design and permitting to give ownership of fire hydrants to the City. Duval County Public Schools will grant any required easements to facilitate. The Design Professional will incorporate any City requirements as to size, type or manufacturer of fire hydrant.

Comply with Jacksonville's City Standard Specifications for Water. Latest Revision and City Standard Details. City requirements should be referenced but **not comprise the entire Specification for Water Systems**. Comply with the latest revision of the Standard Plumbing Code.

NOTE: Irrigation and cooling tower make up water shall not be on the main school water meter.

PREFERRED PRODUCTS AND INSTALLATION: Specify the following:

A. Water Mains: ductile iron pressure water pipe or C901 PVC pressure pipe, Schedule 80 CPVC. Where water mains are used as fire water lines, minimum design operating pressure to be 200 psi per NFPA and shall comply with NFPA requirements. Any installation over 1-1/2" shall be Schedule 80 PVC.

B. Gate Valves at fire hydrants and water meters and Ball Valves at water meters. Isolation valves: ball valves. Water cut-off valves installed below ground to have valve boxes installed at finish grade level. Shut-off valves (including gas main) to be provided at locations requested by the Office of Facilities Planning and Construction and Plant Services. Generally this shall include each individual building or wing. **NOTE: Outdoor isolations valves from 1/2 " to 2" shall be ball valve, curb,**

stop-type or JEA standard. Greater than 2” shall be full body, cast iron, resilient, wedge valve or JEA standard.

C. Backflow Preventers: Design shall consider downtime for service and maintenance while maintaining the water pressure for the school above 20 psi, i.e. eliminate need for bottled water during routine maintenance.
Detectable plastic marking tape to be installed underground and 1'- 0" above buried PVC utility lines to facilitate location of the lines in the future.

Specify Contractor to provide cooled, bottled drinking water to the school within 4 hours of any water line break requiring City of Jacksonville Health Department notification and bacteriological tests. Contractor to post City of Jacksonville Health Department notices at all drinking water fountains and/or faucets and shall cover water fountains with plastic and tape to prevent use. Contractor tobe responsible for notification to City of Jacksonville Health Department and the sewer/water foreman of DCSB Plant Services about all breakage of lines; however, repair of broken lines to be by Contractor.

Design Professional pay particular attention to the support or water systems including, but not limited, to thrust blocks and thrust rods and/or mechanical restraint devices.

END OF SECTION 02665