

## DIVISION 10

### PLUMBING

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#### SECTION 1002 GENERAL REQUIREMENTS

**1002.1** Other regulatory authorities may require permits or have requirements in addition to the ICC Codes and the Guide. Please refer to Section 110 for additional information and guidance.

#### SECTION 1003 SEWAGE DISPOSAL

**1003.1** All waste from kitchen areas except food grinder/garbage pulpers shall discharge through a grease trap as approved by the local wastewater authority..

**1003.2** Food grinders/garbage pulpers shall not be installed in facilities served by a septic system in accordance with SCDHEC regulations.

#### SECTION 1004 INTERIOR PLUMBING

**1004.1** Hot water may be omitted from student group toilets. Hot water is required at all other lavatories and other fixtures in accordance with the plumbing code.

**1004.2** Rain water, and/or grey water systems for use within buildings requires prior approval by the OSF with demonstration of adequate protection to ensure the health of the building occupants to include, but not limited to pipe identification.

#### SECTION 1005 GAS PIPING

**1005.1** Science laboratories containing piped natural gas systems are required to have shut off valves and isolation provisions in accordance with NFPA 45.

**1005.1.1** A manual shutoff valve at the point of use shall be located away from the potential hazard and within 6 feet of the point of use.

**1005.1.2** An emergency shutoff device in an accessible location at the exit shall be provided in addition to the manual point-of-use valve.

#### SECTION 1006 FIXTURES

**1006.1** Mounting heights and configurations for fixtures shall comply with the applicable codes including ANSI 117.1. The requirements for Water Closets and Toilet Compartments for Children's Use shall apply to fixtures intended to serve children in first grade and younger. Urinals, if used in these rooms, shall be mounted with the top of the front rim at the same height as required for the water closet. Please refer to the section discussing toilet facilities in the "Best Practices for Instructional Space" for additional recommendations and guidance.

DIVISION 11

MECHANICAL

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SECTION 1102 GENERAL REQUIREMENTS

1102.1 Access for fire dampers and other equipment requiring inspection and maintenance shall accepted if installed in accordance with manufacturer's instructions and applicable codes and standards and it is physically possible to touch, manipulate or replace the required item.

SECTION 1103 SYSTEMS

SECTION 1104 EQUIPMENT

SECTION 1105 VENTILATION

SECTION 1106 MATERIALS AND INSTALLATION

SECTION 1107 FIRE AND SMOKE SYSTEMS

SECTION 1108 FIRE SPRINKLER SYSTEMS, STANDPIPES AND FIRE HYDRANTS

1108.5 Underground Fire Service to Buildings

1108.5.1 Each fire line serving a riser assembly shall contain either a free standing post indicator valve, or a wall indicator valve visible from the outside of the building. These above-grade valves shall be provided with tamper switches connected to the building fire alarm.

1108.6 Design Requirements

1108.6.1 The following spaces shall be protected at a minimum hazard classification of Ordinary Group I: Secondary school laboratories and preparation rooms, computer labs (rooms containing 30 or more computers), office/administrative areas, vocational labs, kitchens, storage areas, mechanical equipment areas, electrical rooms, coolers, and freezers. Note that sprinklers may be omitted from electrical rooms, when the room meets all the necessary exception requirements from NFPA 13, including being enclosed by a 2-hour rated construction.

1108.6.2 Stage sprinklers shall be designed to operate before stage smoke and heat vents.

Comment [dcc1]: Best Practice discussion about admin and IT areas

Comment [dcc2]: Best Practices – add information about noise

Comment [dcc3]: O&M best practice

Comment [dcc4]: Move to separate division?

**1108.7 Materials and Installation**

**1108.7.5** Quick response type sprinkler heads shall not be used in coolers and freezers.

**SECTION 1109 KITCHENS**

**1109.3** Hood exhaust fans shall be designed to prevent air from being discharged down toward the roof.

Comment [dcc5]: Required by SCDHEC

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**DIVISION 12**

**ELECTRICAL**

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**SECTION 1202 GENERAL REQUIREMENTS**

**SECTION 1203 POWER SERVICE AND DISTRIBUTION OF ALL SYSTEMS**

**1203.2.3** Fire alarm cable shall be installed in metallic conduit.

**1203.2.4** Where wiring of any type or system occurs above an inaccessible ceiling or portion of a building structure, it shall be installed in conduit. No other raceway will be acceptable where systems are inaccessible.

**1203.7 Receptacles (Convenience Outlets)**

**Comment [dcc6]:** Best Practice

**SECTION 1204 LIGHTING**

**1204.2 Lighting Control**

**SECTION 1205 EMERGENCY POWER**

**SECTION 1206 EXIT SIGNS**

**SECTION 1207 EMERGENCY LIGHTING**

**SECTION 1208 FIRE ALARM SYSTEM**

**1208.1.3** When using a Remote Supervising Station Fire Alarm system, the School District shall be responsible for providing response by trained service personnel within one hour of an alarm and within four hours of a supervisory signal from that fire alarm system. Trained service personnel can be fire alarm companies, third-party contractors, or District employees who are trained in accordance with NFPA 72 Annex A. The School District shall be responsible to confirm in writing to OSF the method of response which will be used.

**Comment [dcc7]:** Cose requirements for existing systems to be placed in best practices

**1208.5.2** An annunciator panel, where required by the selected system, shall be installed at an attended location in the school administration area

**1208.5.3** When a graphic display panel is used, the basic operation of the fire alarm system shall operate independently of the display panel and shall not rely upon any component or function of the graphic panel or its associated circuitry.

**1208.5.4** An audible and visual trouble alarm shall be installed at an attended location in the school administration area to signal an off-normal condition of alarm initiation, or alarm and supervisory portions of the system. This trouble signal may be integral with the control-panel or annunciator at the discretion of the engineer.

**1208.5.5** A drill switch shall be provided to enable the administrative personnel to initiate fire drills without operating an initiating device or activating the fire department notification apparatus.

**1208.5.9** Apparatus for transmitting alarm and trouble signals shall be provided as applicable to operate with local alarm-reporting equipment. The engineer shall coordinate with the local fire authority to determine the method to be used. Leased, dedicated telephone lines may be used with the permission of the school district. Where a municipal fire-reporting circuit is available near the job site, a municipal fire-reporting box and connection to the municipal system shall be provided. In areas where connection to a municipal system, or direct phone line connection to a remote receiving station is not possible, radio signal communication may be utilized. Automatic telephone dialers with pre-taped messages are not recommended to report the alarm condition, as they tend to tie up reporting lines excessively.

**1208.5.13** All control switches and indicator lamps for remote operation of the system and trouble monitoring shall be provided and installed at an attended location in the administrative area. The fire alarm control panel should also be located in this area and protected as much as possible from fire hazards.

**1208.5.14** All K4 and younger classrooms shall have smoke detectors installed in accordance with NFPA 72. These detectors shall be tied directly into the school's fire alarm system.

**1208.6** Contractors installing fire alarm system must be certified and acceptable to the Authority Having Jurisdiction.

## **SECTION 1209 FIRE ALARM SYSTEM OPERATION**

### **SECTION 1210 EXHAUST HOOD**

Comment [dcc8]: Move to best practices