1.0 GENERAL

Supply and install a complete system comprised of heating cables, accessories and controls to (select one: prevent pipes from freezing, provide freeze protection of sprinkler system piping).

2.0 MATERIAL

2.1 Shall be Danfoss PX-F self-regulating heating cable.

2.2 The self-regulating heating cables shall consist of two (2) 16 AWG nickel-plated copper bus wires embedded in parallel in a radiation-cross linked polymer core that varies its power output in response to temperature all along its length, allows the heating cable to be cut in the field.

2.3 The heating cable shall be covered with a radiation cross-linked polyolefin dielectric jacket and protected by a tinned-copper braid and a polyolefin outer jacket.

2.4 The heating cable shall operate on line voltage of (select: 120V, 208V, 240V, or 277V).

2.5 The heating cable shall have a nominal power output of (select: 3 W/ft, 5 W/ft, 8 W/ft, 10 W/ft at 50° F).

2.6 Power connection, end seal, splice, and tee connection kit, shall be able to be applied on site.

2.7 Shall be approved to applicable UL and CSA standards.

2.8 Heating cable circuit shall be protected by a ground fault device in accordance with section 426 of the NEC.

3.0 SYSTEM CONTROLS

Option 1: Thermostat

The system shall be controlled by an ambient sensing thermostat Danfoss 088L3422 either directly or through an appropriate contactor.

Option 2: Manual Control

The system shall be controlled by a switch, either directly or through an appropriate contactor.
4.0 EXECUTION

4.1 Installation
   a. System must be installed per manufacturer’s recommendation.
   b. Apply the heating cable linearly on the pipe after piping has been successfully pressure tested.
   c. Secure the heating cable to piping with cable ties or fibreglass tape.
   d. Apply “Electric Traced” labels to the outside of the thermal insulation.

4.2 Tests

After installation and before and after installing the thermal insulation, subject heating cable to testing using a 2500V DC Megger, minimum insulation resistance shall be 20M or greater.