

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 American Iron and Steel Institute (AISI)
    - .1 AISI 316L Stainless Steel.
  - .2 American Society for Testing and Materials (ASTM)
    - .1 ASTM B117, Standard Practice for Operating Salt Spray (FOG) Apparatus.
    - .2 ASTM D635, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
    - .3 ASTM D2843, Standard Test Method for Density of Smoke from the Burning or Decompositions of Plastics.
    - .4 ASTM3222, Standard Specification for Unmodified Poly (Vinylidene Fluoride) (PVDF) Molding Extrusion and Coating Materials.
    - .5 ASTM D4101, Standard Specification for Polypropylene Injection and Extrusion Materials.
    - .6 ASTM E-84, Standard Test for Surface Burning Characteristics of Building Materials.
    - .7 ASTM F1412, Standard Specification for Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems.
    - .8 ASTM F1673, Standard Specification for Polyvinylidene Fluoride (PVDF) Corrosion Waste Drainage System.
  - .3 Canadian Standards Association (CSA)
    - .1 CSA-B181.3, Polyolefin Laboratory Drainage System.
  - .4 Underwriters Laboratories (UL): UL 94, Test for
    - .1 Flammability of Plastic Materials for Parts in Devices and Appliances.
    - .2 UL 723, Test for Surface Burning Characteristics of Building Materials.
- 1.2 DELIVERY  
STORAGE AND  
DISPOSAL
- .1 Waste Management and Disposal:
    - .1 Separate and recycle waste materials in accordance with Section 01 10 10 - General Instructions.
    - .2 Collect and separate for disposal, paper, plastic, polystyrene, corrugated cardboard, packaging material in appropriate on-site bins for recycling.

## PART 2 - PRODUCTS

### 2.1 CORROSION RESISTANT

- .1 General:
  - .1 All corrosion resistant piping, as indicated on drawings, shall discharge into the existing non-corrosive, acid-resistant waste system. All drainage and vent piping in this system to be constructed of corrosion-resistant materials described herein.
- .2 Above floor piping except in horizontal service spaces (i.e. plenums):
  - .1 All drainage pipe run above ground including traps, waste and branch vents to be Schedule 40 blue-line polypropylene drainage pipe. The system to include all straight lengths, fittings and traps, couplings and hanger supports as well as adapters to connect to the tail pieces of sinks and to existing glass drainage piping.
  - .2 All piping to be installed free of strain. Horizontal runs to be supported by hangers spaced at 1.2 m centres. Vertical risers to be supported at floor by riser clamps to prevent lateral and downward movement.
  - .3 All corrosion resistant drainage piping to be joined utilizing compression joints for piping up to and include NPS 2 and mechanical joints for piping NPS 3 and above. Joints to be fabricated from material similar to that utilized in pipe. The outer band of mechanical joints to be 300 series stainless steel, with bolt, nuts and washers plated to meet 100 hour salt spray test as per ASTM B117.
  - .4 All flame retardant polypropylene (polypropylene) piping wall and floor penetrations through fire separations to be provided with ULC (Underwriters Listed for Canada) rated fire stop assemblies to provide a minimum 1 hour fire stop.
  - .5 Fill openings between wall and/or floor and piping at penetrations through fire separations, with annular space greater than 6 mm with high density rock wool insulation. Provide sufficient void space to seal with fire stop sealant.
  - .6 Provide fire stop sealant between wall and/or floor and pipe at penetrations through fire separations with annular space less than 6 mm.
  - .7 Provide fire stop collars at either side of fire separation wall penetrations and one side only for fire separation floor penetrations. Secure collars in place with fastening hooks secured with either toggle bolts (gyproc) or anchors (concrete).

March 2016

2.1 CORROSION  
RESISTANT  
(Cont'd)

- .2 (Cont'd)  
.8 Supply and install 18 gauge metal pan enclosure around pipe openings in concrete floors on metal deck.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Install in accordance with Canadian Plumbing Code and local authority having jurisdiction and by certified journeyperson.
- .2 Install above ground piping parallel and close to walls and ceilings to conserve headroom and space, and to grade as indicated.
- .3 All vent piping serving corrosion resistant drainage piping distribution system to be corrosion resistant up to and through the roof penetrations.
- .4 Provide fire stopping at drainage piping wall and floor penetrations through fire separations.
- .5 Install and test to manufacturer's recommendations.