



.1 General

- .1 All plumbing shall comply with the BC Plumbing Code.
- .2 Avoid the use of storm pumps and sanitary sewer system pumps if possible. Design within reasonable limits to ensure that all areas possible are drained by gravity systems.
- .3 All necessary storm and sanitary pumps shall be tied into emergency power, and sump levels shall be monitored electronically through the B.A.S.
- .4 All sanitary sumps within buildings must have gas tight covers and be vented to outdoors.
- .5 Floor drains connected to sump pumps must have backflow valves.
- .6 Do not use floor drains in private washrooms, specify only in public washrooms and where automatic flushing devices are used.
- .7 Review acid waste requirements with Facilities Management.
- .8 Confirm that all plumbing equipment requiring annual or more frequent maintenance is readily accessible. Provide minimum 900mm clear around equipment.
- .9 Specify curbs and house keeping pads under equipment and around pipe penetrations in Mechanical rooms.
- .10 Where solar collectors are planned or contemplated, consult with Facilities Management for approval of concept. Panel locations shall be readily accessible for maintenance.
- .11 Backflow prevention is required on all primary water supplies into buildings.

.2 Non-Potable Water

- .1 Wastewater from the Outdoor Aquatic Facility (an aquaculture facility south of the Cunningham Building) is cleaned and chlorinated and piped around a portion of the campus. It is available for non-potable use which primarily to 2010 has been used for flushing water closets and urinals. There is sufficient capacity for this use for many more buildings. Facilities Management has a set of guidelines for its use and the design of the system (requires pumping, a small open storage tank and municipal water make-up with air gap to the tank). Even if the Treated Water is not being extended to a new building, consideration should be given to piping the water supply piping to the water closets and urinals separately from the rest of the building domestic water piping so retrofitting Treated Water in the future does not require re-piping the building domestic cold water. Note that the best use is for central heavily used washrooms; it may not be practical to extend piping to a single, distant, low-usage fixture.

Determine with Facilities Management whether the Treated Water or piping for future use should be included in the project.

.3 Acid Waste

- .1 The Elliott, Petch and Cunningham buildings each have an acid waste piping system. There is a UVic laboratory policy of not putting any unacceptable waste down drains. As of 2010 the issue of whether laboratory plumbing renovations should connect to that system with acid resistant piping or non-acid resistant piping is under review. In the meantime all connections to these systems shall be with materials designed for acid waste. For each project, confirm in advance of design the status of that decision.
- .2 Do not specify plastic piping for use in building except for acid waste systems.
- .3 All buried acid wastes system piping shall be glass type.



.4 Salvage

- .1 UVic does not have extensive storage facilities for salvaged material. Typically the Plumbing Shop will wish to have salvaged plumbing sinks and trim in good condition and laboratory gas outlets and turrets from benches or fume hoods. Glass acid waste piping and fittings has also typically been salvaged.
- .2 On renovation projects the Consultant shall submit a list of items to be considered for salvage to Facilities Management at the start of the design stage. The Consultant shall coordinate with Facilities Management to determine all materials to be salvaged and the roles of the Plumbing Shop and contractor in the work of salvage which shall then be clearly specified.
- .3 Sometimes Plumbing Shop prefers to use its own forces to remove the material to be salvaged in advance of the construction contract. Other times they prefer the Contractor to remove the materials and store them on site for the Shops to remove.
- .4 All materials to be salvaged shall carefully removed and stored to prevent damage and the contractor shall obtain a signed receipt from the Plumbing Shop for all salvaged materials.

.5 Sleeves

- .1 Specify Schedule 40 steel pipe sleeves at points where pipes pass through masonry, concrete or fire rated assemblies and at Mechanical Room floor penetrations to stories below.
- .2 Sleeves shall have an annular fin continuously welded at midpoint where passing through foundation walls.
- .3 Specify fill for voids around pipes.
- .4 Caulk between sleeve and pipe in foundation walls and below grade floors with waterproof, fire retardant, non-hardening mastic.
- .5 Where sleeves pass through walls or floors, provide space for fire stopping. Where pipes/ducts pass through fire rated walls, floors and partitions, maintain fire rating integrity. Ensure there is no contact between copper tube or pipe and ferrous sleeve.

.3 Escutcheons

- .1 Specify escutcheons on pipes passing through walls, partitions, floors and ceilings in finished areas.
- .2 Chrome or nickel plated brass or Type 302 stainless steel, one piece type with set screws.