

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT BUILDING AND SAFETY DIVISION

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Protection of Water Piping Under a Slab Foundation

2022 California Plumbing Code (CPC)

Section 609.3 Under Concrete Slab. Water Piping installed within a building and in or under a concrete floor slab resting the ground shall be installed in accordance with the following requirements:

- [1] Ferrous pipping shall have a protective coating of an approved type, machine applied and in accordance with recognized standards. Field wrapping shall provide equivalent protection and shall be restricted to those short sections and fittings necessarily stripped for threading. Zinc coating (galvanizing) shall not be deemed adequate protection for pipping or fittings. Approved nonferrous pipping shall not be required to be wrapped.
- [2] Copper or copper alloy tubing shall be installed without joints where possible. Where joints are permitted, they shall be brazed, and fittings shall be wrought copper.

Note: For purposes of this section, "within the building" shall mean within the fixed limits of the building foundation.

Historically, local soil conditions are such that the use of copper water piping under slabs and in contact with the soil has led to corrosion of the copper tubing resulting in leaks. Some types of slab construction prohibit cutting the slab for plumbing repairs. At the very least, cutting the slab for plumbing repairs is expensive. Therefore, in new construction, the City of Perris does not allow the installation of copper water pipes under slabs in contact with the soil. An exception to this requirement would be where structural conditions would require the water pipes be installed under the slab, in which case, the pipes must be sleeved in a manner acceptable to the Building Division. Repair of water piping under post tension slabs is prohibited as the slabs are not to be cut. Therefore, the water piping system must be routed overhead and within the walls.

Where slab construction would allow cutting for plumbing repairs, historical evidence has shown the water pipes would continue to corrode resulting in further leaks. Therefore, the Building Division requires water pipes to be routed overhead and within the walls whenever repairs are required to underslab water-piping systems, unless structural conditions prohibit overhead installation.