

# City of North Richland Hills

## Building Inspection Department

### Builders Bulletin

January 18<sup>th</sup>, 2018

Dear NRH Contractors:

Staff has noticed a few conditions as of late that we'd like to bring to your attention.

1. As many of you know, the energy code requires insulation on refrigerant lines; as well as protection of the insulation from UV rays and equipment damage. Painting the insulation with approved latex paint can provide the UV protection; however, it doesn't protect it from lawn maintenance equipment (i.e. mowers and weed whips). Please note that scenarios where the insulation is suspended over turf/landscaping heavier

coverings are needed to protect the insulation.

Figure #1 is one example of the heavier protection.



Figure 1- Insulation protection

2. There have been a number of flexible gas piping installations (including gas connectors) where the piping has been installed low to the floor, making the lines easily accessible to children who may not know what the "pretty-yellow-stretchy-thing" is. All of the manufacturer's installation instructions say that the piping/connectors are not to be installed in areas subject to damage or where repeated bending may occur. As such, staff is asking all plumbers to be aware of this potential problem when locating supply lines for appliances located in open areas (such as a garage) as opposed to in an alcove or closet.

NRH Building Inspection personnel have discussed this issue at length over the past several days and have come up with the following policy that should provide a bit

**411.1.2 Protection against damage.** Connectors and tubing shall be installed so as to be protected against physical damage.

❖ Appliance connectors, although sound, are not constructed or tested to withstand the same rigors of service as the gas piping system without physical damage. Therefore, they must be installed to minimize the potential for damage. For example, "flexible" and semirigid tubing connectors should not be used where subject to excessive vibration or impact by occupants, vehicles, animals, doors, stored materials, etc. Impact, repeated movement and vibration can cause connector failure.

It is not the intent of this section to require that appliance connectors be hidden from view behind or under an appliance to consider them as protected from damage. For typical range and clothes dryer installations, the connectors are physically protected by the appliances themselves. However, for water heaters, furnaces, boilers, unit heaters, infrared heaters, etc., the connector will be located in the open and thus will need protection from damage by proper location, placement, elevation or guards. Protection from damage is commonly afforded by locating the connector out of harm's way, such as between a wall and an appliance or 8 feet (2438 mm) or more above the floor.

Figure 2 IFGC commentary

more flexibility for our plumbers. Please note that staff will not require hard-piping in these scenarios provided the connector lengths are not excessive and plumbers take measures to rough-in supply lines in closer proximity to the appliance locations. We ask plumbers to carry multiple length connectors so that the shortest length possible can be installed and not invite the potential of bending and kinking.

For clarification purposes, Figure #2 is the applicable section from the International Fuel Gas Code Commentary.

3. Please be advised that some tank and tankless water heaters are being incorrectly installed in areas subject to vehicle damage (including their gas lines). According to section M1307.3.1 of the International Residential Code, water heaters in garages that are not in an alcove or closet and are located in an area where a vehicle can hit them are required to have physical protection or be elevated above the height of a vehicle.

Water heaters in garages that are not protected by an alcove or closet, must have physical protection by pipe bollards (see photo below), curb/wheel stops of sufficient height and depth to stop a vehicle before it collides with the water heater; or they must be elevated above the height of a vehicle. Stepped garage floors in front of the parking area may provide the needed protection if the floor containing the water



Figure 3 Water heater protect

heater is elevated at least 6 inches and has a depth that is at least 24 inches in front of the water heater to accommodate the overhang of the vehicle. Tankless water heaters installed on the interior side of a garage wall are subject to the same protections. See Figures #3 and #4 depicting examples of water heater vehicle protection.

Staff asks that you forward this message to all applicable employees and subcontractors.

As always, we appreciate everything you do for the citizens of North Richland Hills and look forward to a great 2018!

Most sincerely,

*David B. Pendley*  
AICP, CBO, LEED Green Associate

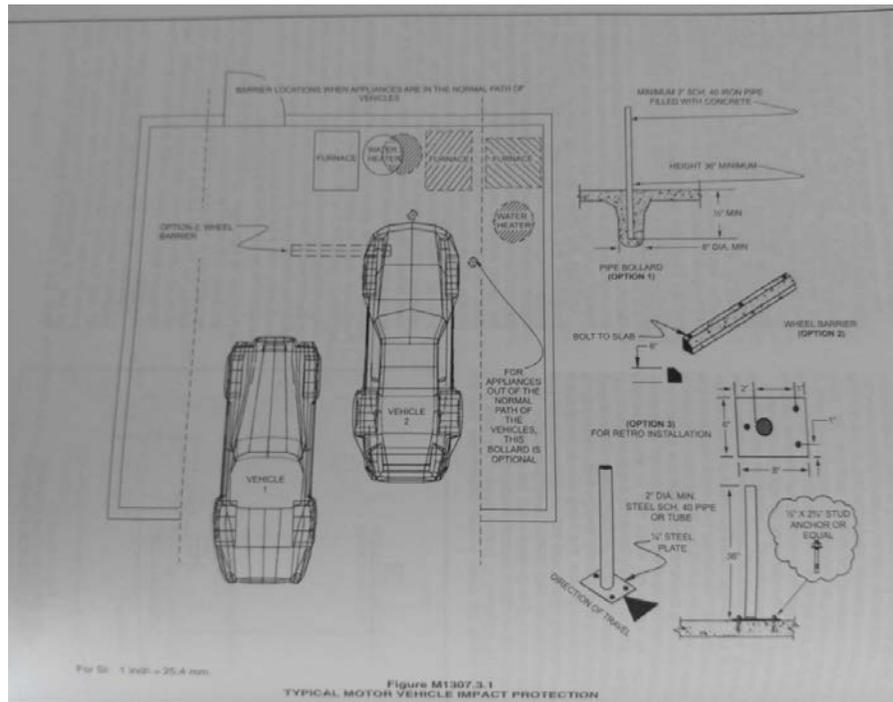


Figure 4 - IRC commentary for water heater protection