

City of West Richland Building Department

LPG Tank Permitting and Installation Handout

Installation of all LPG Tanks shall be in accordance with the most current versions of the International Fire Code Chapter 61 and NFPA 58 Liquefied Petroleum Gas Code. **(Tanks under 125 gallons do not require a permit unless placing multiple tanks together or when placed as part of a generator or other mechanical system.)** LPG tank installations will also need to meet any City of West Richland Planning and/or Building Department requirements, along with the Health District when placing on less than an acre.

1. **TIME LINES:** Average processing time for residential placements is 2-3 weeks. Commercial placements may take longer where there are additional permitting or land use requirements through the West Richland Planning Department. No work can be done until the permit is issued.

2. **REQUIRED SUBMITTALS & REQUIREMENTS:**
 - A. Completed Building Department Application packet.
 - B. Site plan diagram showing property lines along with the proposed location(s) of the tanks including proposed distances to any buildings, property lines, roads, other tanks, building openings, potential mechanical ignition sources and direct intake vents. Direction arrow indicating north direction.
 - C. The size and number of tanks, the tank location(s) shown on the plans, and whether it will be above ground or below ground shall be stated on the plans and application form.
 - D. Depending on the specific location and project scope, an Agent Authorization form, Public Works road approach application, Site Address application or other forms or information may be required.
 - E. Provide name and details of licensed firm/installer.
 - F. Two sets of equipment information sheets (cut sheets) and plans for the following Letters (show how you will meet all applicable items).
 - G. UL or ASME certification for the tank that will be used.
 - H. A declaration if the tank will be a permanent placement (more than 12 months) or a temporary placement (less than 12 months). A temporary placement that will exceed 12 months will have to have approval in advance.

- I. Permanently placed tanks shall be set on a concrete or masonry pad with a minimum 6" thickness. Vegetation, grass, and weeds, brush, trash, shall be kept at least 10' from any tank.
- J. Tanks shall meet minimum setback requirements. See attachment for distances required through the Fire Marshal. Additional or different setbacks may be required through the Planning Department or G. C. Health District when applicable. In each case or direction, the most restrictive setback required will apply.
- K. Height of outside bottom of the tank does not exceed 5' above ground without fire resistive supports.
- L. For multiple tank installations refer to **Table 6104.3** in the International Fire Code.
- M. Tanks that may be subject to vehicle impact shall comply with the following;
 - a. Bollards shall be constructed of steel not less than 4 inches in diameter and concrete filled.
 - b. Spaced not more than 4' between posts on center.
 - c. Set not less than 3' deep in a concrete footing of not less than 15" in diameter.
 - d. Bollards shall be set not less than 3' above grade and not less than 3' from the tank.
 - e. Ecology blocks can be used in place of bollards.
- N. Underground placement shall comply with NFPA 58 section 6.6.6 and provide code compliant corrosion protection.
- O. Piping will be of approved type and installed per section 6.9.3 of NFPA 58. Piping will be tested at normal operating pressure to check for leaks and before being covered. Operating pressure to be stated on the plans.
- P. Commercial installations shall have proper signage;
 - a. No Smoking within 25' No open flame within 50'
 - b. Tank will have a sign showing the contents of the tank.

3. **INSPECTION REQUIREMENTS:**

- A. Site inspection required after installation completed and prior to initial fueling.
- B. Call the Building Department inspection line the day before to schedule inspections. 509-967-3518

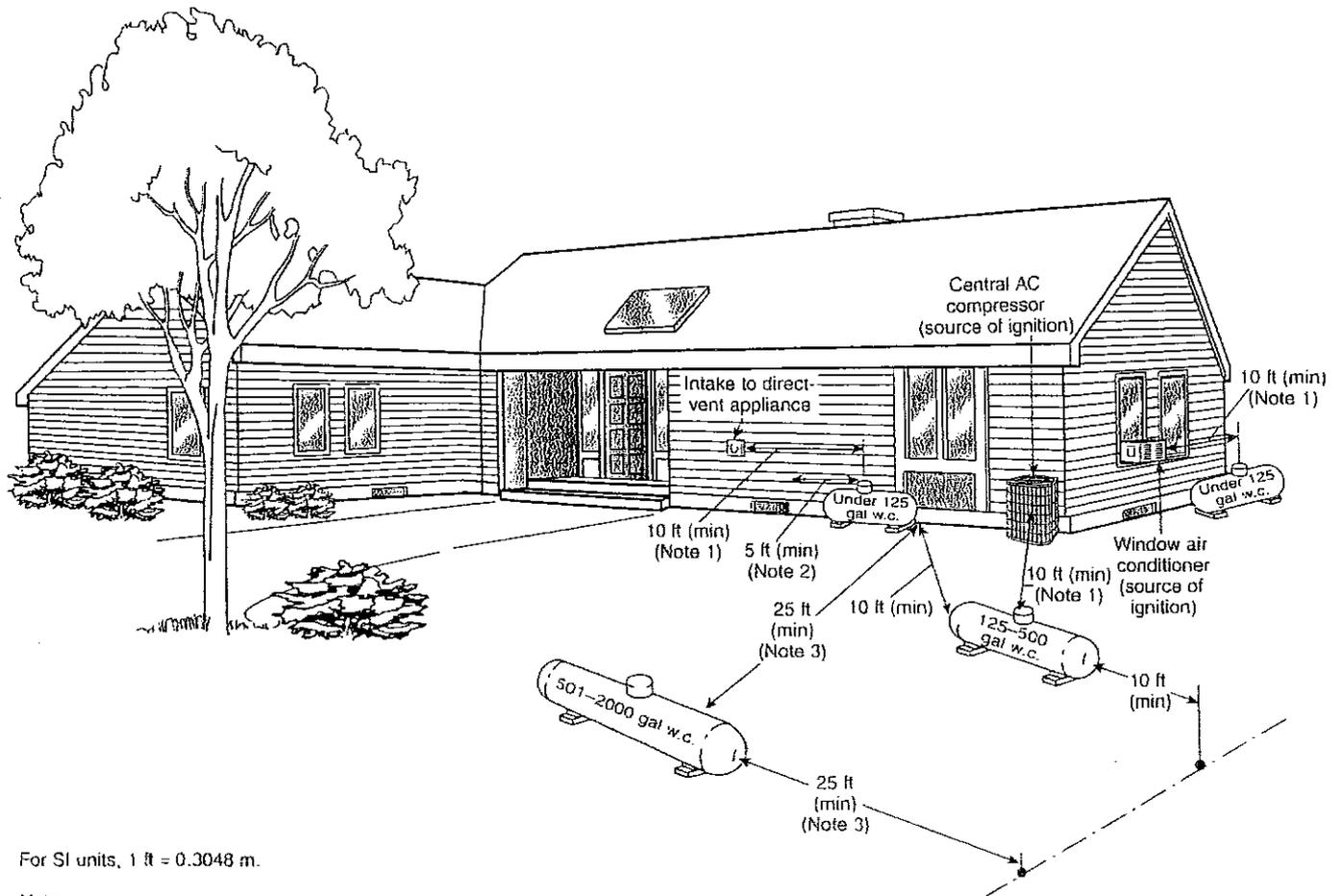
If you have any further questions, please contact the City of West Richland Community Development Office at (509) 967-5902.

**TABLE 6104.3
LOCATION OF LP-GAS CONTAINERS**

LP-GAS CONTAINER CAPACITY (water gallons)	MINIMUM SEPARATION BETWEEN LP-GAS CONTAINERS AND BUILDINGS, PUBLIC WAYS OR LOT LINES OF ADJOINING PROPERTY THAT CAN BE BUILT UPON		MINIMUM SEPARATION BETWEEN LP-GAS CONTAINERS ^{b, g} (feet)
	Mounded or underground LP-gas containers ^a (feet)	Above-ground LP-gas containers ^b (feet)	
Less than 125 ^{c, d}	10	5 ^e	None
125 to 250	10	10	None
251 to 500	10	10	3
501 to 2,000	10	25 ^{e, f}	3
2,001 to 30,000	50	50	5
30,001 to 70,000	50	75	(0.25 of sum of diameters of adjacent LP-gas containers)
70,001 to 90,000	50	100	
90,001 to 120,000	50	125	

For SI: 1 foot = 304.8 mm, 1 gallon = 3.785 L.

- a. Minimum distance for underground LP-gas containers shall be measured from the pressure relief device and the filling or liquid-level gauge vent connection at the container, except that all parts of an underground LP-gas container shall be not less than 10 feet from a building or lot line of adjoining property that can be built upon.
- b. For other than installations in which the overhanging structure is 50 feet or more above the relief-valve discharge outlet. In applying the distance between buildings and ASME LP-gas containers with a water capacity of 125 gallons or more, not less than 50 percent of this horizontal distance shall also apply to all portions of the building that project more than 5 feet from the building wall and that are higher than the relief valve discharge outlet. This horizontal distance shall be measured from a point determined by projecting the outside edge of such overhanging structure vertically downward to grade or other level upon which the LP-gas container is installed. Distances to the building wall shall be not less than those prescribed in this table.
- c. Where underground multicontainer installations are composed of individual LP-gas containers having a water capacity of 125 gallons or more, such containers shall be installed so as to provide access at their ends or sides to facilitate working with cranes or hoists.
- d. At a consumer site, if the aggregate water capacity of a multicontainer installation, comprised of individual LP-gas containers having a water capacity of less than 125 gallons, is 500 gallons or more, the minimum distance shall comply with the appropriate portion of Table 6104.3, applying the aggregate capacity rather than the capacity per LP-gas container. If more than one such installation is made, each installation shall be separated from other installations by not less than 25 feet. Minimum distances between LP-gas containers need not be applied.
- e. The following shall apply to above-ground containers installed alongside buildings:
 1. LP-gas containers of less than a 125-gallon water capacity are allowed next to the building they serve where in compliance with Items 2, 3 and 4.
 2. Department of Transportation (DOTn) specification LP-gas containers shall be located and installed so that the discharge from the container pressure relief device is not less than 3 feet horizontally from building openings below the level of such discharge and shall not be beneath buildings unless the space is well ventilated to the outside and is not enclosed for more than 50 percent of its perimeter. The discharge from LP-gas container pressure relief devices shall be located not less than 5 feet from exterior sources of ignition, openings into direct-vent (sealed combustion system) appliances or mechanical ventilation air intakes.
 3. ASME LP-gas containers of less than a 125-gallon water capacity shall be located and installed such that the discharge from pressure relief devices shall not terminate in or beneath buildings and shall be located not less than 5 feet horizontally from building openings below the level of such discharge and not less than 5 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances, or mechanical ventilation air intakes.
 4. The filling connection and the vent from liquid-level gauges on either DOTn or ASME LP-gas containers filled at the point of installation shall be not less than 10 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.
- f. This distance is allowed to be reduced to not less than 10 feet for a single LP-gas container of 1,200-gallon water capacity or less, provided such container is not less than 25 feet from other LP-gas containers of more than 125-gallon water capacity.



For SI units, 1 ft = 0.3048 m.

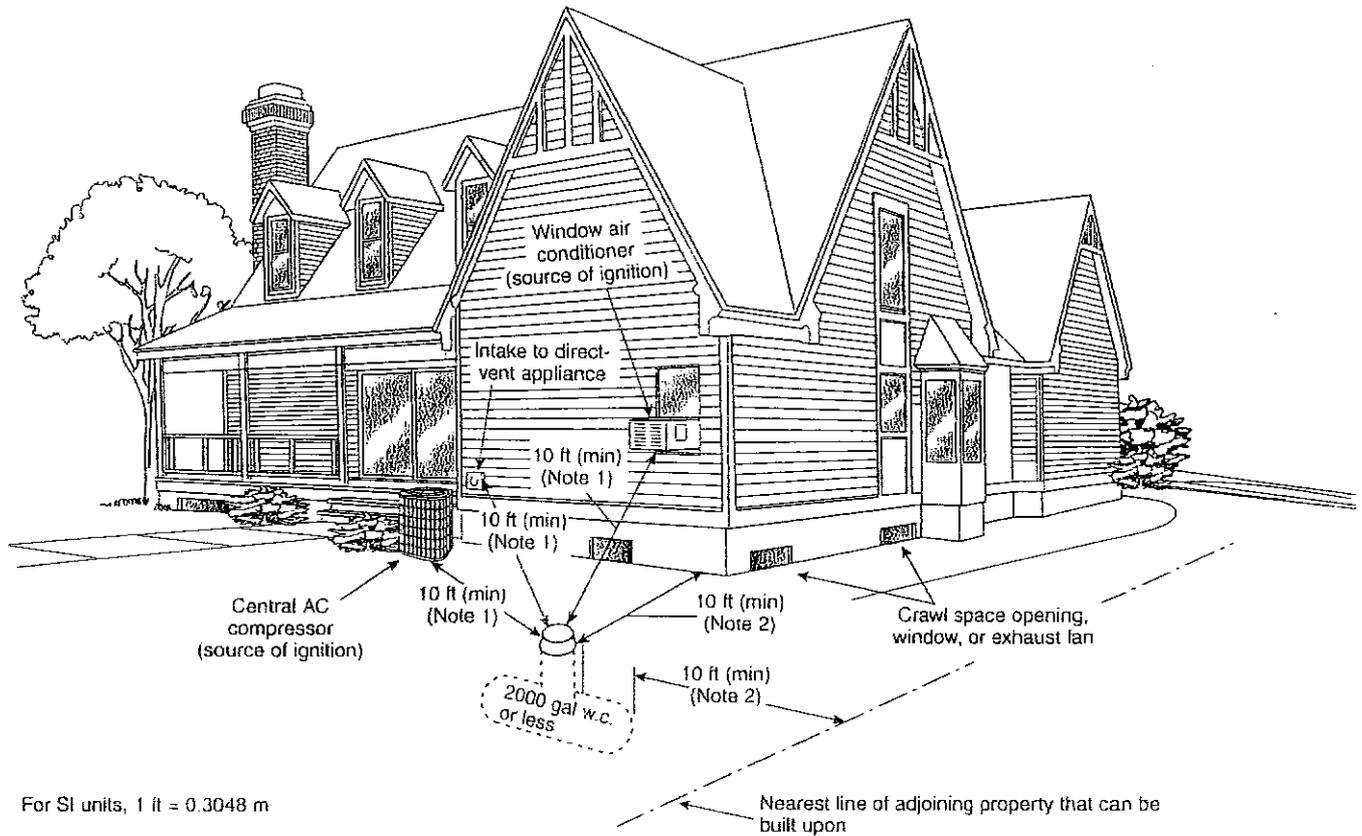
Notes:

(1) Regardless of its size, any ASME container filled on site must be located so that the filling connection and fixed maximum liquid level gauge are at least 10 ft from any external source of ignition (e.g., open flame, window AC, compressor), intake to direct-vented gas appliance, or intake to a mechanical ventilation system. Refer to 6.3.4.4.

(2) Refer to 6.3.4.3.

(3) This distance can be reduced to no less than 10 ft for a single container of 1200 gal (4.5 m³) water capacity or less, provided such container is at least 25 ft from any other LP-Gas container of more than 125 gal (0.5 m³) water capacity. Refer to 6.3.1.3.

FIGURE 1.1(b) Aboveground ASME Containers. (Figure for illustrative purposes only; code compliance required.)

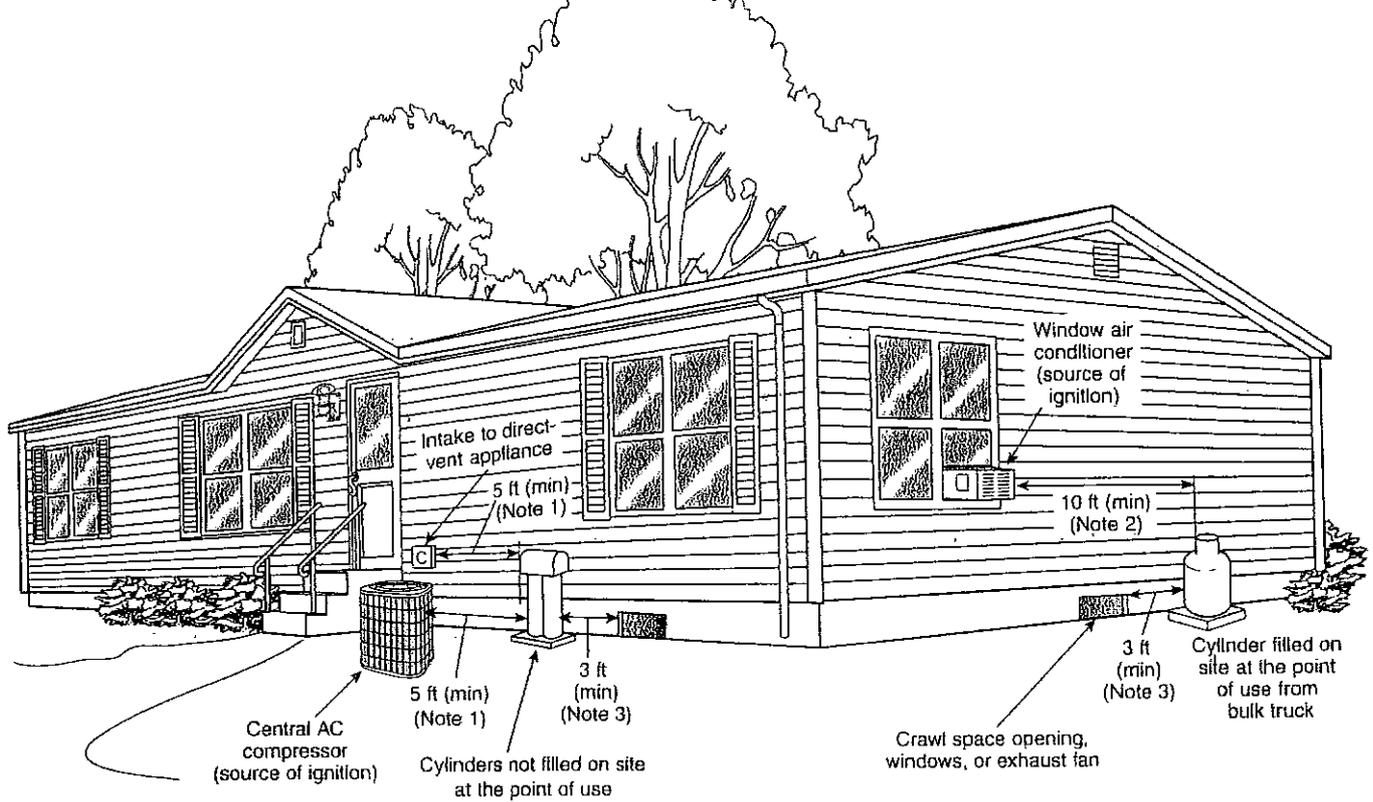


For SI units, 1 ft = 0.3048 m

Notes:

- (1) The relief valve, filling connection, and fixed maximum liquid level gauge vent connection at the container must be at least 10 ft from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes. Refer to 6.3.4.4.
- (2) No part of an underground container can be less than 10 ft from an important building or line of adjoining property that can be built upon. Refer to 6.3.2.3.

FIGURE L.1(c) Underground ASME Containers. (Figure for illustrative purposes only; code compliance required.)



For SI units, 1 ft = 0.3048 m.

Notes:

- (1) 5 ft minimum from relief valve in any direction away from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes. Refer to Table 6.3.4.3.
- (2) If the cylinder is filled on site at the point of use from a bulk truck, the filling connection and vent valve must be at least 10 ft from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes. Refer to 6.3.4.4.
- (3) Refer to 6.3.4.3.

FIGURE I.1(a) Cylinders. (Figure for illustrative purposes only; code compliance required.)

ILL. 7

UNDERGROUND TANK INSTALLATION

