



Alliant Energy - Gas Service Manual

Chapter 4 – Gas Meter Connections

Issued: 2019

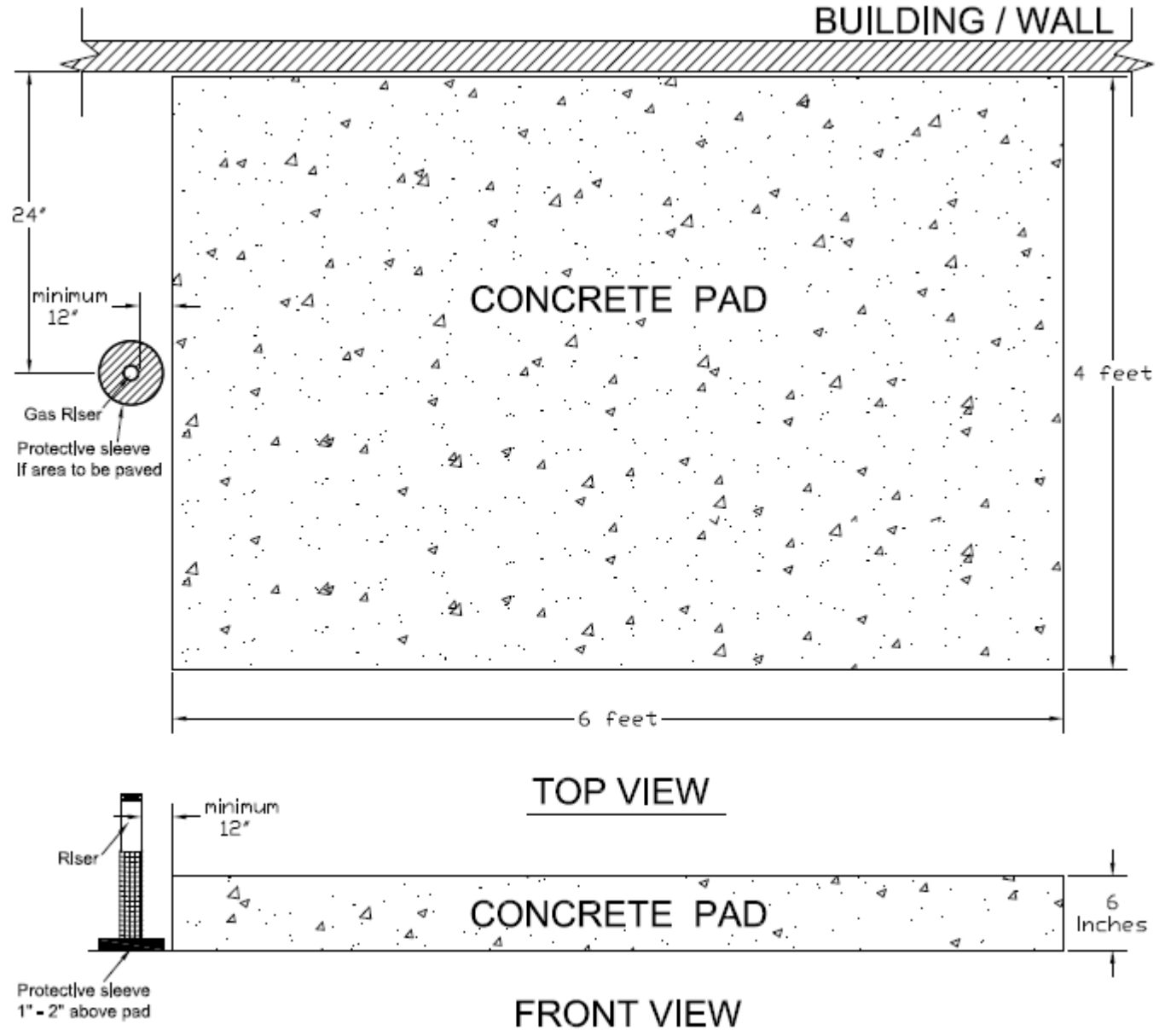
Supersedes: 2018

A. GAS METER CONNECTIONS

1. Meter connections detailed in the following pages are for connected loads from 0 to 22,500 standard cubic feet per hour (Scfh). For volumes greater than 22,500 Scfh consult the Company.
2. Consult the Company for multi-meter facility drawings for installations requiring more than two meters.
3. Shut-off valves on the Company owned side of the figures on the following pages may only be operated by Company personnel. It is recommended that customers install their own shut-off valve for maintenance or emergency use. Shut-off valves must comply with ASME B16.33, B16.34, or B16.38 and must be rated for a minimum of 125 psig.
4. The air intake on most grain dryers is located at the bottom of the unit; therefore meter sets need to be located far enough away from the grain dryers that natural gas from blowing relief valves will not create a hazardous situation. It is recommended that the meter set be placed a minimum of 25 feet away from the grain dryer.
5. The customer shall install, own, and maintain a concrete meter pad whenever a rotary gas meter connection (Type D, F, and G) is required. Pad dimensions shall be a minimum of 4 ft x 6 ft x 6 inches, as shown on the following page. Consult the Company for location and clearance requirements.



B. CONCRETE METER PAD



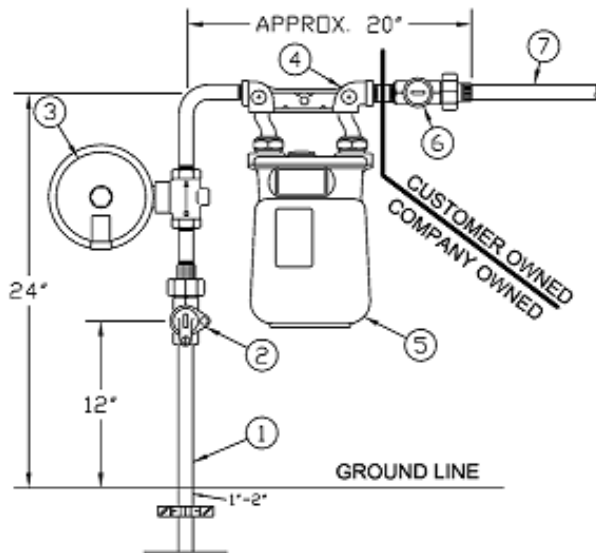
Notes:

1. Backfill under concrete pad must be properly compacted.
2. The pad must slope downward from the building.
3. Rubber sealant or similar filler should be used at the joint between the building and concrete pad.



C. GAS METER CONNECTION – TYPE A

0 to 250 Scfh at 7" w.c. or 2 psig delivery pressure



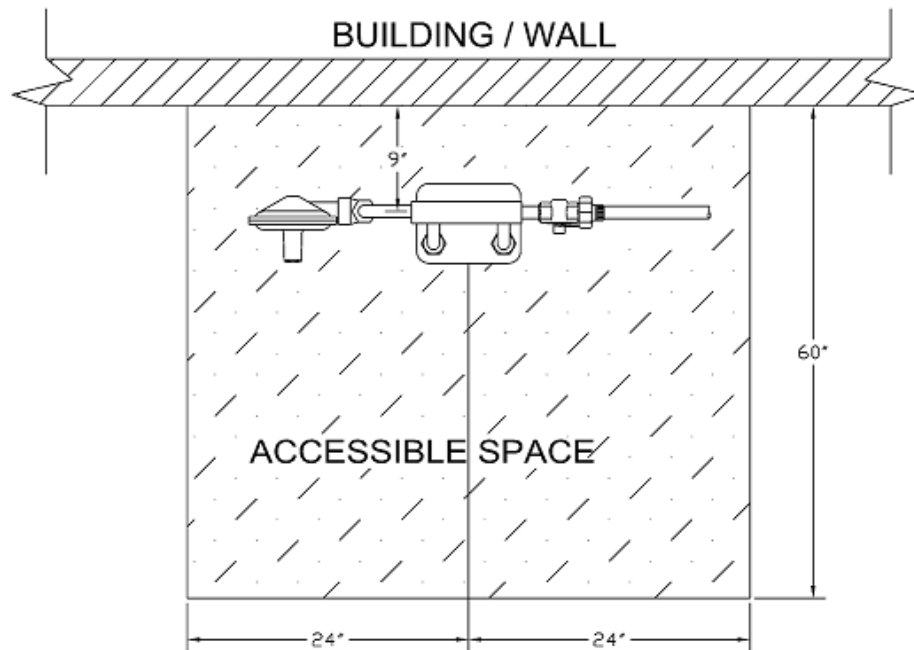
The Company will install, own, and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas meter connection
- 5) Gas meter

The customer shall own and maintain:

- 6) 1" shut-off valve (provided by the utility)
- 7) All customer piping

FRONT VIEW



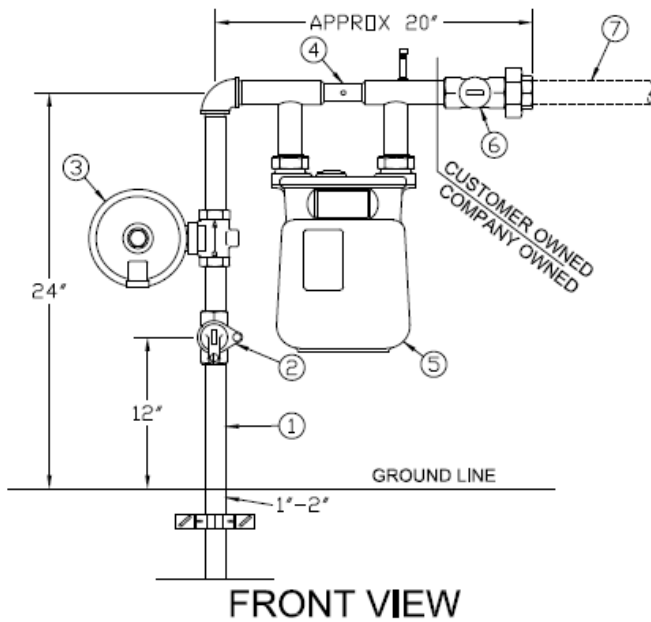
TOP VIEW



D. GAS METER CONNECTION- TYPE B

251 to 630 Scfh at 7" w.c. delivery pressure or

251 to 1,350 Scfh at 2 psig deliver pressure

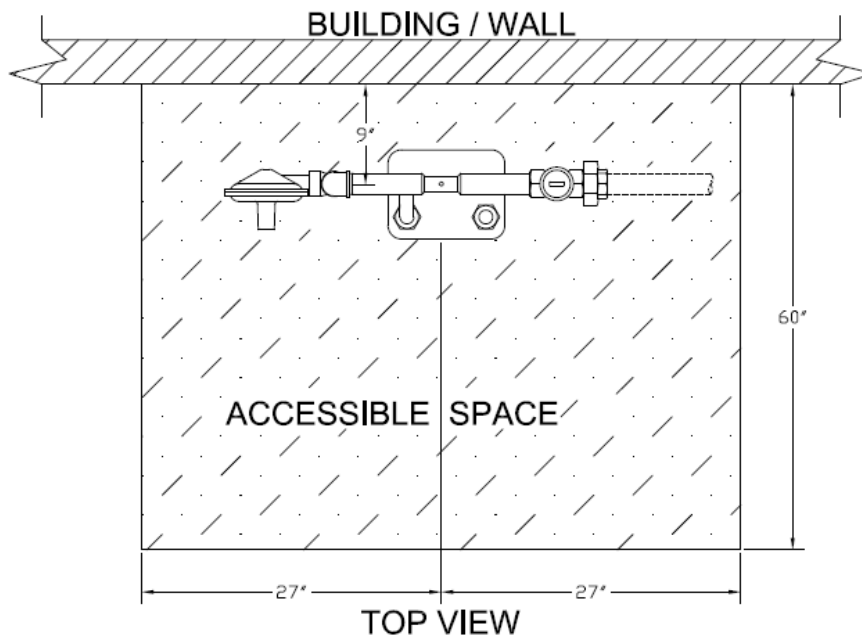


The Company will install, own, and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas meter connection
- 5) Gas meter

The customer shall own and maintain:

- 6) 1-1/4" shut-off valve (provided by the utility)
- 7) All customer piping

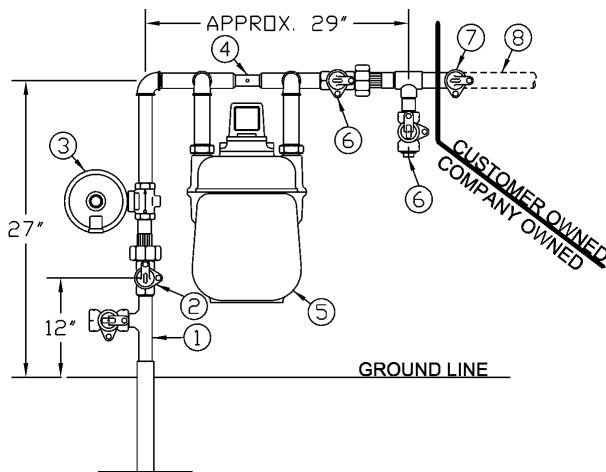




E. GAS METER CONNECTION - TYPE C

631 to 1,000 Scfh at 7" w.c. delivery pressure

Customers requiring flowrates between 1,001 – 1,800 Scfh at 7" w.c. should consult the Company to determine if Type C or Type D should be used.



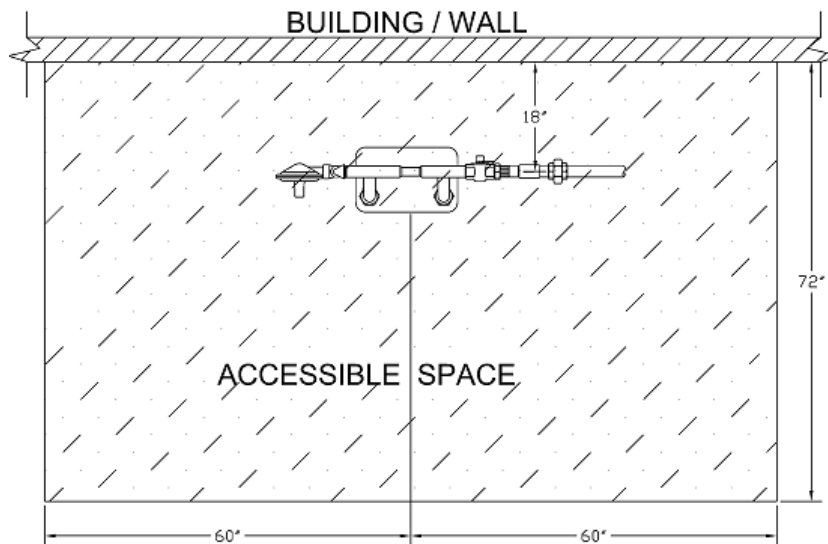
The Company will install, own, and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas meter connection
- 5) Gas meter
- 6) 1-1/4" shut-off valve

The customer shall own and maintain:

- 7) 1-1/4" shut-off valve (provided by the utility)
- 8) All customer piping

FRONT VIEW





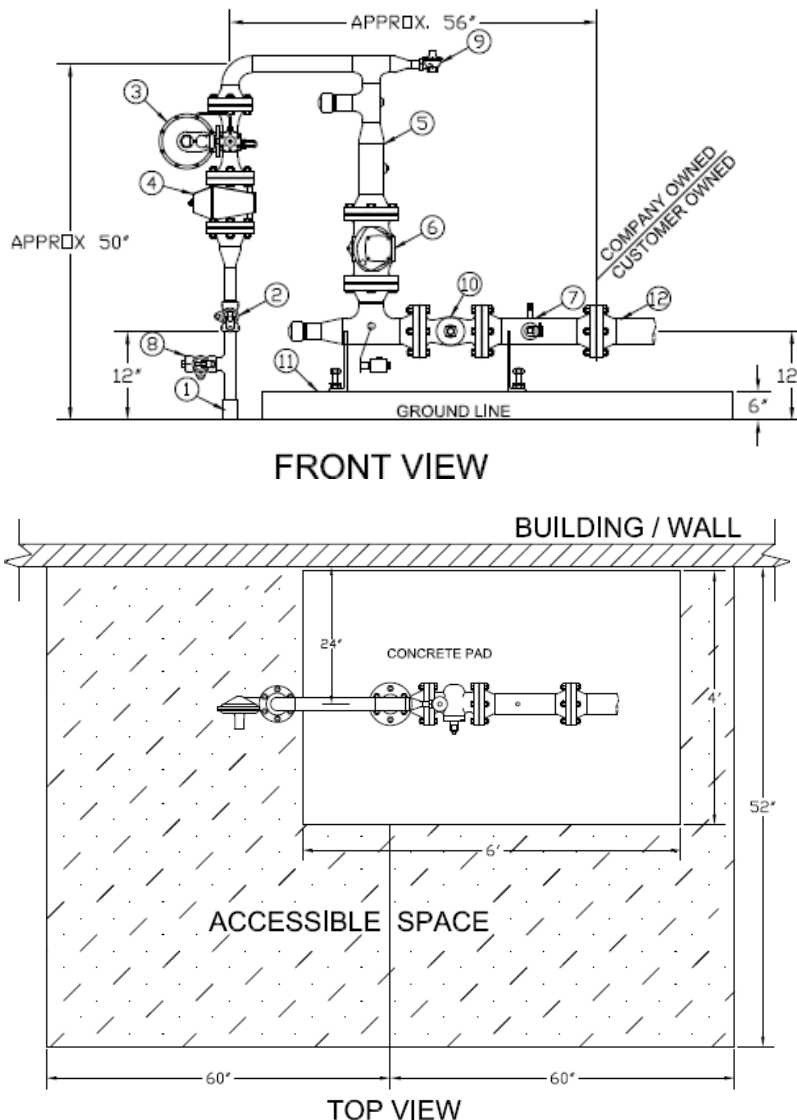
F. GAS METER CONNECTION – TYPE D

1,001 to 5,000 Scfh at 7" w.c. delivery pressure or

Customers requiring flowrates between 1,001 – 1,800 Scfh at 7" w.c. should consult the Company to determine if Type C or Type D should be used.

2,301 to 5,000 Scfh at 2 psig delivery pressure

Customers requiring flowrates between 5,001 – 5,500 Scfh at 2 psig should consult the Company to determine availability.



The Company will install, own, and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas strainer
- 5) Gas meter connection
- 6) Gas meter
- 7) 3" steel nipple (on meter connection outlet)
- 8) Bypass valve
- 9) Relief valve
- 10) Shut-off valve

The customer shall install, own, and maintain:

- 11) Concrete meter pad
- 12) All customer piping



G. GAS METER CONNECTION – TYPE E

1351 to 2,385 Scfh at 2 psig delivery pressure or

0 to 2,700 Scfh at 5 psig delivery pressure or

0 to 3,400 Scfh at 10 psig delivery pressure or

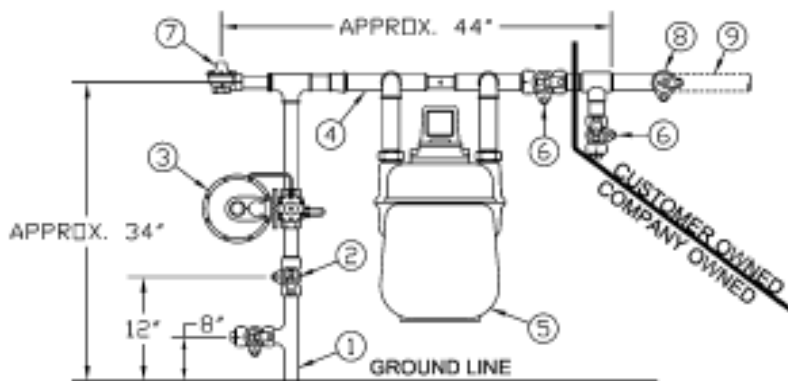
0 to 3,700 Scfh at 15 psig delivery pressure

The Company will install, own, and maintain:

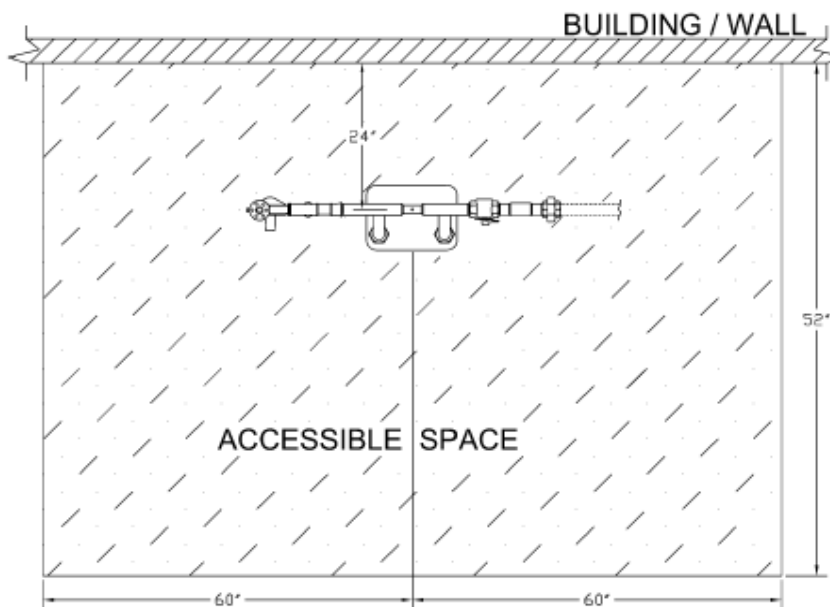
- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas meter connection
- 5) Gas meter
- 6) 1-1/4" shut-off valve
- 7) Relief valve

The customer shall own and maintain:

- 8) 1-1/4" shut-off valve (provided by the utility)
- 9) All customer piping



FRONT VIEW



TOP VIEW

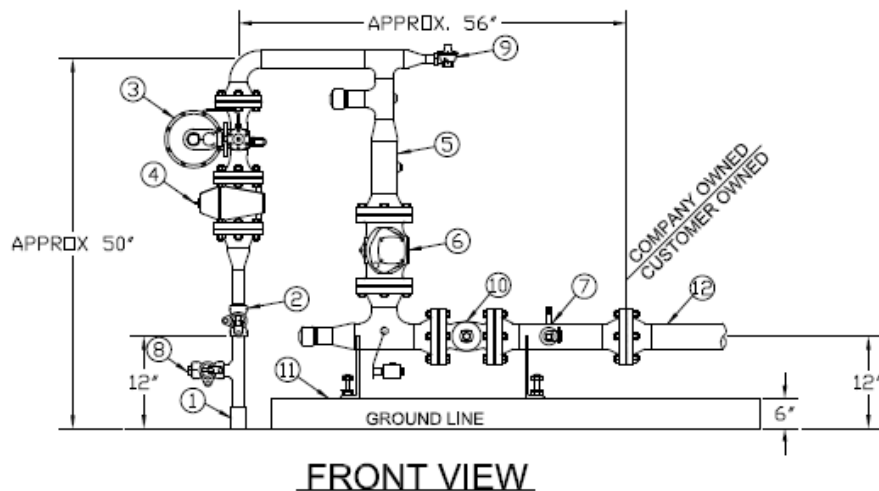


H. GAS METER CONNECTION – TYPE F

2,701 to 9,300 Scfh at 5 psig delivery pressure or
 3,401 to 11,600 Scfh at 10 psig delivery pressure or
 3,701 to 14,000 Scfh at 15 psig delivery pressure

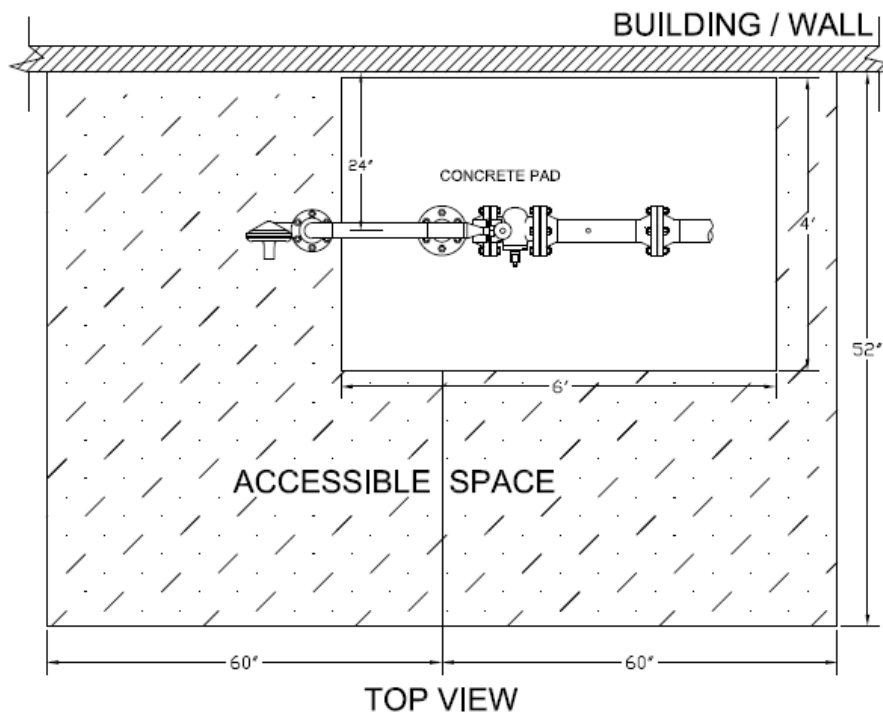
The Company will install, own, and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas strainer
- 5) Gas meter connection
- 6) Gas meter
- 7) 3" steel nipple (on meter connection outlet)
- 8) Bypass valve
- 9) Relief valve
- 10) Shut-off valve



The customer shall install, own, and maintain:

- 11) Concrete meter pad
- 12) All customer piping





I. GAS METER CONNECTION – TYPE G

9,301 to 14,600 Scfh at 5 psig delivery pressure or

11,601 to 18,200 Scfh at 10 psig delivery pressure or

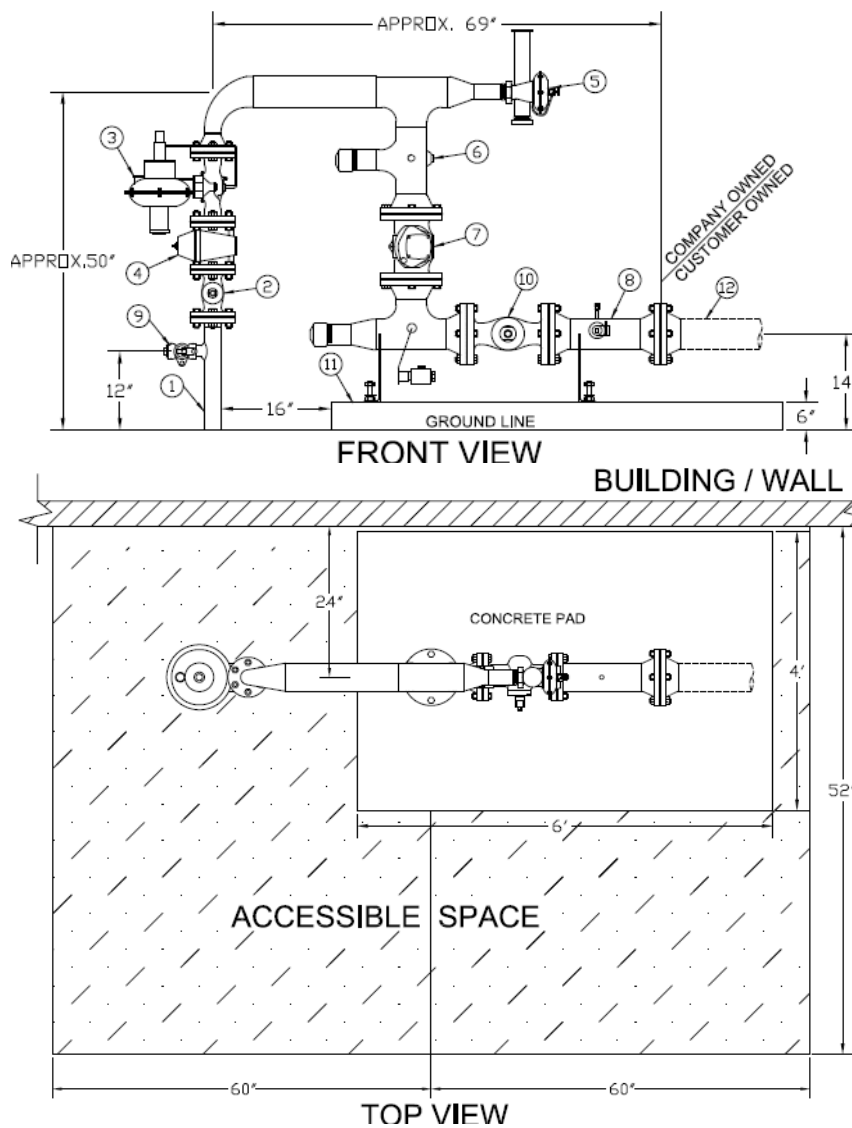
14,001 to 22,200 Scfh at 15 psig delivery pressure

The Company will install, own and maintain:

- 1) Gas service lateral
- 2) Gas service shut off valve
- 3) Gas regulator
- 4) Gas strainer
- 5) Gas relief valve
- 6) Gas meter connection
- 7) Gas meter
- 8) 4" steel nipple (on meter connection outlet)
- 9) Bypass valve
- 10) Shut-off valve

The customer shall install, own and maintain:

- 11) Concrete meter pad
- 12) All customer piping





J. AUTOMATED METER READING INSTALLATIONS

The Company will install, own, and maintain:

- 1) Gas meter
- 2) Gas meter corrector/instrument
- 3) Automated meter reading recorder (CID) if applicable
- 4) Wiring from meter/corrector/instrument to CID if applicable
- 5) Wiring from CID to telephone network interface device
- 6) Pulse relay equipment if applicable
- 7) Intrinsic safety barrier if applicable
- 8) Wiring from pulse relay to CID or corrector/instrument if applicable

The customer shall install, own and maintain:

- 9) 120 VAC with maximum 10 AMP breaker if applicable
- 10) Nema approved outdoor enclosure for pulse relay if applicable
- 11) 2'X2' plywood mounting board if applicable
- 12) Wiring from pulse relay to customer equipment if applicable
- 13) Customer pulse management system if applicable
- 14) Reading circuit maximum 30 VDC and 1 AMP if applicable
- 15) A direct inward dialing telephone extension or standard voice-grade, analog telephone line. Telephone extension or line cannot be shared or used by other telephone or telephone operated equipment. Tone dialing service is preferred. Telephone line will terminate at plywood mounting board with telephone network interface device

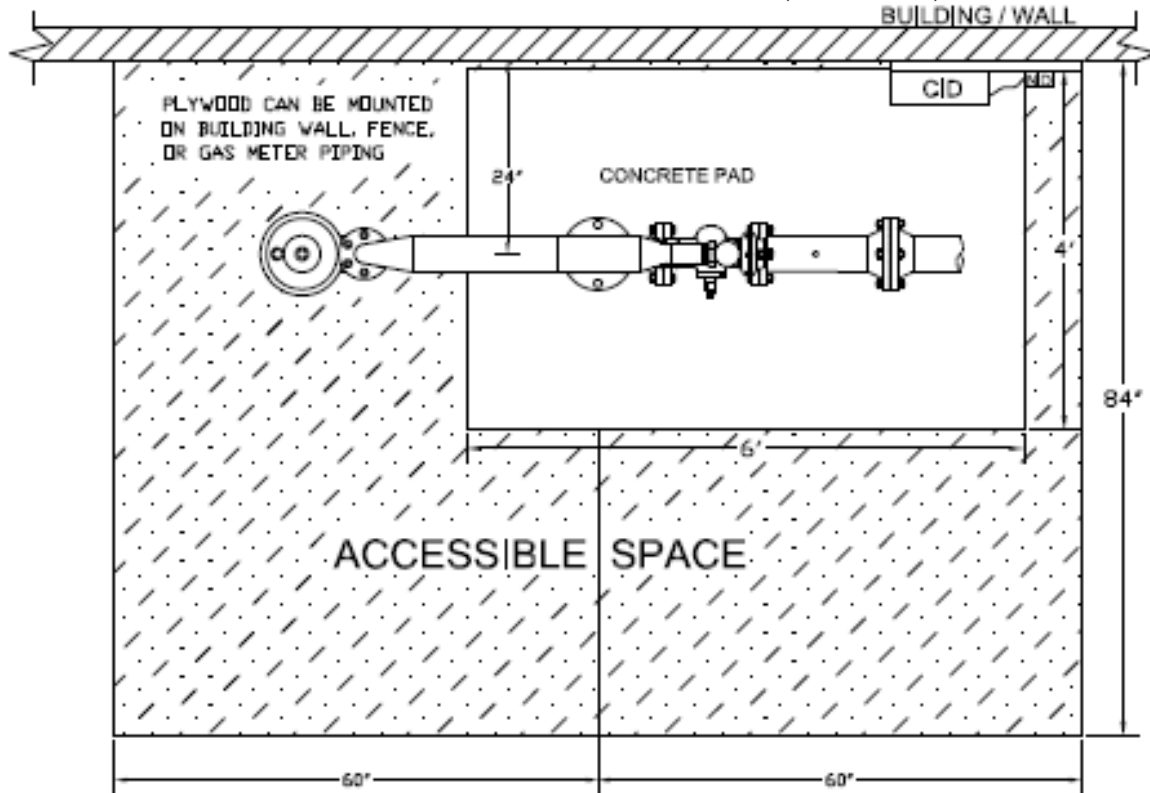
(Refer to figure on next page)

Clearance requirements are dependent on the type of equipment being installed. Consult the Company for required clearance.

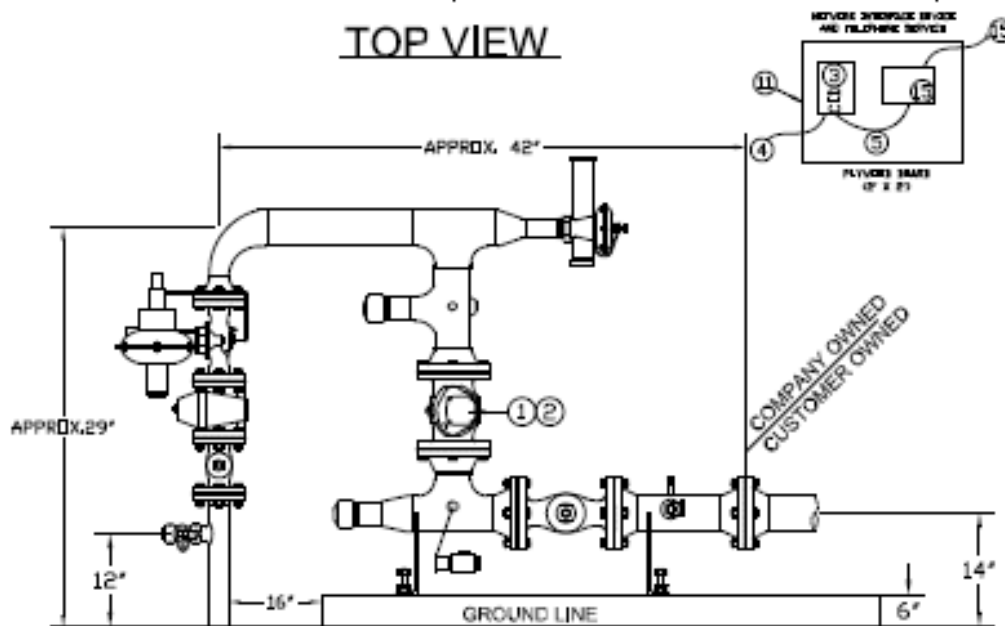
Wisconsin customers choosing to participate in the cellular modem pilot should consult the Company for more information.



AUTOMATED METER READING INSTALLATIONS (Continued)



TOP VIEW



FRONT VIEW