

## CHAPTER 157

# PLUMBING CODE

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**157.01 ADOPTION OF PLUMBING CODE.** The State of Iowa Plumbing Code consisting of the Uniform Plumbing Code, as prepared by the International Association of Plumbing and Mechanical Officials, as amended and currently adopted by the State of Iowa Department of Public Health, is hereby adopted. An alternative equivalent form of compliance to the State Code will be the “International Plumbing Code, 2018 Edition,” as published by the International Code Council which volume is incorporated herein by this reference as fully as though set forth herein in its entirety excepting only such portions as are herein stated to be deleted there from; and such additional provisions as are hereafter set forth. This chapter and all provisions incorporated herein by reference or otherwise, shall be known as the “*Altoona Plumbing Code*,” may be cited as such, and will be referred to herein as such and as “*this code*”.

**157.02 DELETIONS.** The following are hereby deleted from the International Plumbing Code (*hereinafter known as the IPC*) and are of no force or effect herein:

1. Section 106.1.1
2. Section 106.1.2
3. Section 106.6.1
4. Section 106.6.2
5. Section 106.6.3
6. Section 108.4
7. Section 109

**157.03 AMENDMENTS AND ADDITIONS.** The remaining sections in this chapter are and represent amendments and additions to the requirements contained in the International Plumbing Code (*hereinafter known as the IPC*) and where they conflict with those of the International Plumbing Code, the requirements of this chapter shall prevail.

1. Section 103.1 Department of Plumbing Inspection
2. Section 106.5 Permit Issuance
3. Section 106.5.3 Expiration
4. Section 106.6 Permit Fees

5. Section 108.5 Stop Work Orders
6. Section 305.4 Freezing
7. Section 312.3 Drainage and Vent Air Test
8. Table 403.1 Minimum Number of Required Plumbing Fixtures
9. Section 410.2 Small Occupancies
10. Section 413.3 Floor Drains
11. Section 504.6 Water Heater Floor Drain
12. Section 603.1 Size of Water Service Pipe
13. Section 710.1 Maximum Fixture Unit Load
14. Section 715.1 Sewage Backflow
15. Section 903.1 Roof Extension
16. Section 1111.1 Subsoil Drains

1. **DEPARTMENT OF PLUMBING INSPECTION.** Section 103.1 shall be amended by deleting the section and replacing with the following: *“There is hereby established in the City the Department of Plumbing Inspections, which shall be under the direction and supervision of the Building and Zoning Official. The Building Official shall be responsible to the Community Development Director for the enforcement of the Plumbing Codes, and such other ordinances as shall assign the Building Official that function, and shall perform such other duties as may be required by the Community Development Director or by any classification plan adopted by the City. Additional responsibilities of the Building Official shall be assigned as required per Chapter 155 of the City of Altoona, Code of Ordinances.”*
2. **PERMIT ISSUANCE.** Section 106.5 shall be added to the end of the section to state as follows:
  1. *Permits are not transferable. Plumbing work performed under the provisions of this chapter must be done by a contractor meeting the licensing provisions as set forth by the Iowa Plumbing and Mechanical Systems Board in accordance with Iowa Code Chapter 105 unless the provisions of Section 155.13 of the Municipal Code are met. A plumbing contractor licensee by the State of Iowa Plumbing and Mechanical Systems Board as a “Master” may sign and obtain a permit for the contractor for which they are employed only when said “Master” has provided proof of employment by said licensed plumbing contractor. Any permit required by the provisions of this code may be revoked by the Building Official upon the violation of any provision of this code.*
  2. *A State of Iowa licensed Plumbing contractor shall be allowed only to secure permits for himself or herself, or for a single firm or corporation. When a State of Iowa licensed Plumbing contractor has secured such a permit, only the employees of such contractor when meeting the provisions of Iowa Code Chapter 105 shall perform the work for which the permit was obtained.*
  3. *For purposes of this section, an “employee” shall be one employed by the contractor, firm or corporation for a wage or salary. A contractor may be required by the Building*

*Official to show positive evidence as to the employee status of workers on the job. Such evidence shall be in the form of payroll and time records, canceled checks, or other such documents.*

4. *The contractor may also be required to show the agreement or contract pertaining to the work being questioned as evidence that said contractor is, in fact, the actual contractor for such work. Failure or refusal by the contractor to make available such employee or contractual records within 24 hours from demand therefor shall be grounds for immediate revocation of any permit for the work in question.*

3. **EXPIRATION.** Section 106.5.3 shall be amended by deleting the section and replacing with the following:

***106.5.3 Expiration.*** *Every permit, issued by the building official under the provision of the plumbing code shall expire under any one of the following conditions:*

1. *Failure to begin work authorized within 180 days after issuance of the permit.*
2. *Suspension or abandonment of work for 120 days after commencement of the work. Time of occurrence of suspension or abandonment of work shall be computed from the date of the most recent inspection since which no progress has been made.*
3. *Failure to complete work on a structure designed for residential uses within one year after issuance of a permit.*
4. *Failure to complete work on a structure designed for commercial or industrial uses within two years after issuance of a permit. For permits with a building valuation exceeding \$10,000,000.00 work shall be completed within three years after issuance of a permit.*

*Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence or continue work. The building official is authorized to grant, in writing, for periods not more than 180 days each, two extensions. The extension shall be requested in writing and justifiable cause demonstrated. Any of the extensions may be further extended by action of the City Council. In all cases, when a renewal is granted the structure for which the permit is required shall comply with code requirements in effect at the time the permit is renewed.*

4. **PERMIT FEES.** Section 106.6 shall be amended by deleting the section and replacing with the following:

106.6 Permit Fees:

1. A. A fee for each plumbing permit shall be paid to the building official in the amount set in the Schedule of Fees adopted by the City Council. No plumbing permits shall be issued to any person who has fees outstanding as required by this code or any other laws or ordinances of the City.
- B. If a permit is issued for a specific amount of work and, upon inspection, it is determined that more work was performed than was authorized by the permit, the permittee shall amend the permit or obtain another permit to include all

additional work and shall pay a new base fee and any unit fees as described in paragraph A above.

2. Additional permit fees are as follows:

A. Double Fee. Except in emergency situations, as determined by the Building Official, where work for which a plumbing permit is required by this code is started or proceeded with by any person prior to obtaining a required permit, the fees specified as set forth in the amount set in the Schedule of Fees as adopted by the City Council shall be doubled. The payment of such double fee shall not relieve any person from fully complying with the requirements of this code in the execution of the work or from any other penalties prescribed herein. No additional permits of any type shall be issued to any person who owes the City the double fee described in this subsection. However, no double fee shall be imposed upon any person who starts without a permit if:

(1) The work is started on a Saturday, Sunday, or holiday, or during any other day when the Building Department is not normally open for business; and

(2) The person secures the proper permit on the next Building Department working day.

B. Refunds. If, within 30 days of the date of issuance, the holder of a plumbing permit decides not to commence the work described in said permit, said person may, upon application to the Building Official, be refunded that portion of the permit fee which is in excess of the permit refund fee as set forth in the Schedule of Fees as adopted by the City Council.

C. Fees for Permit Renewals as stated in Section 157.09 shall be based on the amount of remaining work to be completed. If the plans are changed enough to warrant a review then the permit fee shall be  $\frac{1}{2}$  the cost of the original fee plus any fees as set forth in subsection E of this code section.

\* Or the hourly cost to the jurisdiction, whichever is greater. This cost shall include supervision, overhead, hourly wages, and fringe benefits of the employees involved.

D. Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection. Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official. To obtain a reinspection, the applicant shall pay the reinspection fee in accordance with the schedule of fees as set forth in the Schedule of Fees as adopted by the City Council. In instances where reinspection fees have been

assessed, no additional inspection of the work will be performed until the required fees have been paid.

E. Other Inspections and Fees: See the schedule of fees as adopted by the City Council.

Persons performing work for the Federal Government, the State, the county or city may obtain permits for such work without paying the permit fees described herein; provided, however, that nothing in this section shall be construed to exempt payment of permit fees by persons performing work under the direction of the City in connection with the abatement of any public law.

An expired permit may not be reissued without a permit fee except by resolution of the City Council.

4. **STOP WORK ORDERS.** Section 108.5 shall be amended by deleting the last sentence and replacing with the following: *“Any person who shall continue any work on the system after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to civil penalties as defined in Chapter 4 “Municipal Infractions” of this code of ordinances.*
5. **FREEZING** Section 305.4 shall be amended by deleting *“Exterior water supply system piping shall be installed not less than 6 inches below the frost line and not less than 12 inches below grade.”* and replacing with *“Exterior water supply system piping shall, whenever feasible, be no less than five (5) feet below the surface of the ground”.*
6. **DRAINAGE AND VENT AIR TEST.** Section 312.3 shall be amended by deleting the first sentence in the paragraph.
7. **MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES.** Table 403.1 shall be amended by deleting footnote e and replacing with the following footnote e:  
*e. For business and mercantile occupancies with an occupant load of 30 or fewer, service sinks shall not be required.”*
8. **SMALL OCCUPANCIES.** Section 410.2 shall be amended by deleting the section and replacing with the following:  
*410.2 Small occupancies. Drinking fountains are not required for an occupant load of 50 or fewer however a bottled water dispenser shall be provided for occupancies with an occupant load between 16 and 49. For occupancies less than 100, individual water bottles that are readily available, offered continuously without fee, and displayed with approved signage within the public area shall be allowed in place of drinking fountains or water dispensers.*
9. **FLOOR DRAINS.** Section 413.3 shall be amended by adding the following to the existing section:  
*“Unless otherwise approved by the inspector, at least one floor drain shall be provided in each room where an automatic water heater is, or will be installed, and in each mechanical room. When installed in a basement floor, such floor drain shall be at least three inches in*

*diameter”. Every water meter shall be within 8 feet of a floor drain as described per Ordinance section 91.04.”*

- 10. WATER HEATER FLOOR DRAIN.** Section 501 shall be amended by adding the following section.

***501.9 Proximity to floor drain.** Every water heater shall be located in close proximity to a floor drain meeting the provisions of ordinance section 157.03 #10 unless otherwise approved.”*

- 11. SIZE OF WATER SERVICE PIPE.** Section 603.1 shall be amended by deleting “*The water service pipe shall be not less than ¾ inch in diameter*” and replacing with “*The water service pipe shall be not less than 1 inch in diameter*”

- 12. MAXIMUM FIXTURE UNIT LOAD** Section 710.1 shall be amended by adding the following sentence at the end of the section “*The minimum diameter for a building sewer shall be four (4) inches.*”

- 13. SEWAGE BACKFLOW.** Section ~~715.1~~ 714.1 shall be amended by adding the following sentences at the end of the paragraph:

*“The requirement for the installation of a backwater valve shall apply only when it is determined necessary by the Building Official based on local conditions. When a valve is required by the Building Official, it shall be a manually operated gate valve or full-way ball valve. An automatic backwater valve may also be installed, but is not required.*

- 14. ROOF EXTENSION.** Section 903.1 shall be amended by deleting “[*NUMBER*]” located in the second line of the first sentence and replacing with “*12 inches*”.

- 15. SUBSOIL DRAINS.** Section 1111.1 shall be amended by deleting the sentence “*The subsoil sump shall not be required to have either a gas-tight cover or a vent.*” and replaced with the following: “*The subsoil sump shall have a gas-tight cover appropriate to the sump basket attached in an approved manner. The lid shall have an opening with a diameter of 4 inches that is gasketed with a 4 inch pipe stubbed through the lid and capped for the future use of a radon vent. Any system used for the removal of the radon gas shall be in accordance with accepted industry standards.*”

**157.04 LICENSING FOR ELECTRICAL, PLUMBING, AND MECHANICAL CONTRACTORS AND INSTALLERS.** The provisions of Ordinance Chapter 160 of the City of Altoona, Code of Ordinances shall be applicable for any work performed in regards to electrical, plumbing, and mechanical systems.

**157.05 EXCAVATION PERMITS.** Excavation permits shall meet the requirements of Chapter 141 of the Altoona Municipal Code. Plumbing permits shall be obtained for the installation and repair of private utilities/services located within the public right of way.

**157.06 SEWER SERVICE LINES MAINTENANCE.** All costs and expenses incident to the installation, connection and maintenance of the building sewer as well as the storm sewer service line (the service line being the pipe from the storm sewer main to the structure) shall be borne by the property owner. The owner shall indemnify the City from any loss or damage that may directly

or indirectly be occasioned by the installation or maintenance of the building sewer as well as the storm sewer service line.

**157.07 SUBSURFACE DRAINAGE.** The provisions of Section 157.08 of this chapter, which relate to subsurface drainage, shall apply to all subsurface drainage from buildings whether new or existing. In the event such drainage would discharge to a point upon or so adjacent to a public sidewalk or street as to permit the water so discharged to drain upon a public sidewalk or street during periods of community emergency generated by extra ordinarily high levels of precipitation is permissible upon approval.

**157.08 SECONDARY STORM SEWER.** No building permits shall be issued for any structure in the City until provisions have been made to provide for secondary storm sewers to drain all subsurface and foundation drains in compliance with the following:

1. Sanitary Sewers - Prohibited Discharge. No person shall discharge or cause to be discharged any storm water runoff, surface or ground water, roof runoff, or subsurface drainage by a direct or indirect connection into the sanitary sewer system for any new construction within the area served by the City. Prohibited subsurface drainage shall include both interior and exterior foundation drains into the sanitary sewer system.

2. Foundation Drain Discharge - Alternative Methods. All foundation drains shall be disposed of in one of the two following alternative methods:

- A. Sump Pump. A sump pump shall meet the provisions of the International Residential Code, when applicable, or the International Plumbing Code. Notwithstanding the provisions of Section 901.2.1 of the International Plumbing Code, in single-family dwellings, sumps of approved construction to which no fixtures except one floor drain are connected, and which receive only laundry wastes or basement drainage, need not be vented.

- B. Alternative Method. Upon submission of plans and specifications to the City Engineer and/or Building Official by any developer for an alternate method of disposing of said waters which can be shown to be as effective as the above, then said proposed method shall be allowed by the City Engineer and/or Building Official.

3. Secondary Storm Sewer Details. Secondary storm sewers shall be constructed in accordance with the following:

- A. Design and Materials. Discharge from footing drains and sump pumps must be discharged into a secondary storm sewer system or alternative drainage way as approved by the City Engineer and/or the Building Official. Piping for secondary storm sewer system shall be PVC pipe with thickness of SDR Series 35, or thicker, with joints capable of pressure loadings for periods when all sump pumps may be operating simultaneously. The secondary storm sewer system shall be located in the same manner as the normal storm sewer location unless it can otherwise be shown that a different location is advantageous and acceptable. It shall be equipped with an approved flap valve at the discharge end and shall have a sealed lid manhole at the upper terminus.

B. Capacity. The line shall be so designed as to accommodate the required flows based upon the assumption that:

- (1) With one-half of the sump pumps pumping at 20 gpm (average 10 gpm per residence) the secondary storm sewer will handle all flows by gravity with pipe flowing full with velocity of minimum 2 fps;
- (2) With all sump pumps pumping (each at 20 gpm) the velocity in the secondary storm sewer system shall not exceed 10 feet per second and the friction loss shall not exceed 5 feet per 100 feet of pipe; and
- (3) That the minimum size shall not be less than 4”;
- (4) House connections shall be a minimum 1 ½” Schedule 40 PVC water pipe.

C. Flow Design Standards. The conditions of flow design for both gravity flow and pressurized flow shall be as per the following chart entitled “Friction Loss Characteristics of Water Flow Through Rigid Plastic Pipe”. Typical results are as follows:

<b>FRICITION LOSS CHARACTERISTICS OF WATER FLOW THROUGH RIGID PLASTIC PIPE</b>							
Pipe	Min. Velocity Flowing Full-ups	Min. Slope at/100	Q at Min. Slope gpm	H1 Controls at 5' per 100p	Q at H1 Controlling gpm	V Controls at 10 fps	Q at V Controlling gpm
1½" Sch. 40	2	1.2	12	Yes	28	No	----
2" Sch. 40	2	0.85	19	Yes	53	No	----
4" DR 25	2	0.37	82	Yes	350	No	----
6" DR 25	2	0.23	178	No	----	Yes	910
8" DR 25	2	0.18	295	No	----	Yes	1490
10" DR 25	2	0.14	470	No	----	Yes	2400

Sump pump should deliver 20 gpm against operating head of 35 feet (or 15 psi) based upon a 50- foot long discharge line and 450 feet of secondary sanitary sewer, figuring 25 feet of line loss, 5 feet of lift, and 5 feet of loss through valves and fittings.

4. Elevation and Material to be Used for Footing Drains. Drain materials and elevation of piping shall meet the provisions of the International Residential Code, when applicable, or the International Plumbing Code. Such piping shall be placed with two (2) inches of bedding underneath and twelve (12) inches of washed gravel or crushed rock over with an

approved filter membrane and shall be acceptable to the Building Official and subject to review by the Building Official.

5. Method of Installing Secondary Storm Sewers and Service Lines. With respect to installation of PVC SDR 35, or thicker, secondary storm sewer systems, all regulations that apply to the laying of PVC water main and service lines shall also apply to the laying of PVC secondary storm sewer and service lines, including depth and cover.

6. Installation of Footing Drain Service Lines Into Standard Storm Sewer. In instances where standard storm sewer is available for the connection of 1 ½" PVC Schedule 40 service lines, the Schedule 40 service lines shall be connected to the storm sewer by drilling a hole in the concrete storm sewer pipe of a diameter only slightly larger than the outside diameter of the service pipe, then place the service pipe through the storm sewer extending the end of the service pipe to, but not past, the interior wall of the storm sewer. The storm sewer shall be entered in its mid point or above with these footing drain service lines. The ditch shall be filled under, around and over the PVC storm service pipe with stone or gravel to form a firm base under the PVC in the open ditch between where the PVC pipe comes out of unexcavated natural ground and the wall of the storm sewer pipe; all in a manner acceptable to the engineer.

7. Occupancy Permit. No occupancy permit shall be issued for any building or structure within the City that is not in compliance with this section.

8. Site Plan Detail. All site plans must provide details showing compliance with this section for the proposed system of Secondary Storm Sewer.

9. Illegal Acts. It shall be unlawful for any person to cause a violation of this section. A person who is the owner of any building or structure shall be responsible to cause that building or structure to be in compliance with this section. Any inhabitant or occupant of any building or structure shall be responsible to cause that building or structure to be in compliance with this section.

10. Continuing Violation. Each day that a violation of this section occurs shall be deemed to be a separate violation.

11. Mandatory Connection. At such time as the Community Services Director decides there is adequate storm sewer or secondary storm sewer capacity available for the property owner to connect to, the Community Services Director shall inform the property owner in writing and allow said property owner ninety (90) days to install and connect a sump pump to the lines. If the property owner fails to comply, the Community Services Director shall hire a qualified plumber to complete the job and the costs shall be assessed to the property. Secondary storm service lines shall be installed in compliance with Section 157.23 of this code.

**157.09 GREASE INTERCEPTORS.** Notwithstanding the provisions of section 1003.3 of the International Plumbing Code, all Food Service Establishments as defined per Chapter 100 of the City of Altoona, Code of Ordinances, 2004, shall meet the requirements of such ordinance in regards to grease interceptors.

**157.10 BOARD OF APPEALS.** General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and

interpretation of this code, there shall be and hereby created a Board of Appeals, consisting of five (5) members. Board members shall be chosen and appointed based on diversity and building construction knowledge, all of whom shall be residents of the City of Altoona, Iowa. One (1) member of said Board of Appeals at a minimum shall be a private citizen. The Building Official or designated representative shall be an ex-officio member without a vote and shall act as secretary of the Board. The appointment of members shall be for four (4) year terms, expiring on December 31, with not more than three (3) members' terms expiring any one year.

The Building Board of Appeals shall be appointed by the Mayor, subject to Council approval, and shall serve without compensation. The Board shall adopt reasonable rules and regulations for conducting its investigations and shall render all decisions and findings in writing to the Building Official with a duplicate copy to the appellant, and may recommend to the City Council such new legislation as is consistent therewith. The Board shall meet at will and when there are appeals or business on file for a hearing.

Nominal appeal fee to the Building Board of Appeals shall be paid as set forth in Section 157.03 #4 PERMIT FEES. The appeal shall be valid for one (1) year from the date of the Board approval to the commencement of work and to the completion of work undertaken pursuant to the approval.

**157.11 VIOLATIONS.** See Chapter 4 of this Code of Ordinances.