

EXHIBIT "A"

**City of Mansfield
Amendments to the
2006 International Plumbing Code
North Central Texas Council of Governments Region**

Table of Contents, Chapter 7, Section 714; change to read as follows:

Section 714 Engineered ~~Computerized~~ Drainage Design..... 65

(Reason: Editorial change to make compatible with amendments to Section 714.1.)

Section 101.1; change to read as follows:

101.1 Title. These regulations shall be known as the *Plumbing Code* of the City of Mansfield hereinafter referred to as "this code."

Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 13 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the *Electrical Code* as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

Section 106.6.2; change to read as follows:

106.6.2 Fee schedule. Fees for all plumbing work shall be in accordance with the City of Mansfield plumbing permit fee schedule.

Section 106.6.3; change #2 and #3 to read as follows:

106.6.3 Fee refunds. The code official shall authorize the refunding of fees as follows.

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. Not more than 80 percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. Not more than 80 percent (80%) of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review effort has been expended.

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The code official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

(Reason: The need to establish an amount for fee refunds.)

Add Section 106.6.4 to read as follows:

106.6.4 Reinspection fees. A reinspection fee may be assessed for each inspection 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 at the inspector's discretion when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, repeated violations, or for deviating from plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid. Reinspection fees shall be in accordance with the City of Mansfield plumbing permit fee schedule.

(Reason: To clarify the need for and use of reinspection fees. Consistent with amendment to IBC 108.7.)

Section 108.4; change to read as follows:

108.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair plumbing work in violation of the approved construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than two thousand dollars (\$2,000), ~~or by imprisonment not exceeding [number of days], or both such fine and imprisonment.~~ Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 108.5; change to read as follows:

108.5 Stop work orders. Upon notice from the code official, work on any plumbing system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work in or about the structure 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 liable to a fine as specified in Section 108.4.

Section 109; Delete entire section and insert the following:

**SECTION 109
MEANS OF APPEAL**

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109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

(Reason: Most jurisdictions already have an ordinance establishing and governing an appeals board for this code. This also calls to the attention of jurisdictions not having such a board that it needs to be established.)

Section 305.6.1; change to read as follows:

305.6.1 Sewer depth. ~~Building sewers that connect to private sewage disposal system shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection.~~ Building sewers shall be a minimum of 12 inches (304 mm) below grade.

(Reason: Provides sewer depth that is common in this region. Deleted reference to private sewage disposal because a private sewage disposal code is not typically adopted in this region.)

Section 305.9; change to read as follows:

305.9 Protection of components of plumbing system. Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

(Reason: Provide a common cutoff point to designate a general separation distance at which plumbing systems should be safe for consistency in enforcement.)

Section 310.4 and 310.5; delete.

(Reason: Enforcement of privacy walls and doors, and the maintenance thereof, should not be a code issue. It is an owner courtesy issue.)

Sections 312.9.1 and 321.9.2; change to read as follows:

312.9.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable. In the absence of local provisions, the owner is responsible to ensure that testing is performed.

312.9.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with applicable local provisions. In the absence of local provisions, the owner is responsible to ensure that testing is in accordance with one of the following standards:

{list of standards unchanged}

(Reason: Recognize TCEQ or other local testing procedures that must be adhered to. To place responsibility of testing on the owner.)

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Section 314.2.1; modify second sentence to read as follows:

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IMC 307.2.1.)

Section 314.2.2; change to read as follows:

314.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC, or schedule 80 PVC pipe or tubing when exposed to ultra violet light. All components shall be selected for the pressure, ~~and~~ temperature and exposure rating of the installation. Condensate waste and drain line size shall not be less than ¾ - inch (19mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for drainage, the pipe or tubing shall be sized in accordance with an approved method. All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope.

(Reason: To provide greater flexibility of materials when exposed to ultra violet light.)

Section 314.2.3; amend # 2 to read as follows:

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IMC 307.2.3 (2).)

Section 401.1; add a sentence to read as follows:

The provisions of this Chapter are meant to work in coordination with the provisions of the Building Code. Should any conflicts arise between the two chapters, the Code official shall determine which provision applies.

(Reason: Gives discretion to code official in case of code conflict.)

Section 403.1; change to read as follows:

403.1 Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number as follows:

1. **Assembly Occupancies:** At least one drinking fountain shall be provided at each floor level in an approved location.

Exception: A drinking fountain need not be provided in a drinking or dining establishment.

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2. **Groups A, B, F, H, I, M and S Occupancies:** Buildings or portions thereof where persons are employed shall be provided with at least one water closet for each sex except as provided for in Section 403.2.
3. **Group E Occupancies:** Shall be provided with fixtures as shown in Table 403.1.
4. **Group R Occupancies:** Shall be provided with fixtures as shown in Table 403.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the *International Building Code*. Occupancy classification shall be determined in accordance with the *International Building Code*.

Add Section 403.1.2 to read as follows:

403.1.2 Finish material. Finish materials shall comply with Section 1209 of the *International Building Code*.

(Reason: Table 403.1 is made optional. Gives minimum requirements in body of code. Consistent with regional amendments to IBC Section 2902.)

Section 405.6; delete.

(Reason: Texas State regulations cover plumbing in mental health centers. Consistent with regional amendment to IPC 1002.10.)

Section 409.2; change to read as follows:

409.2 Water connection. The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608.

(Reason: Domestic dishwashing machines would be difficult to enforce and should already come equipped with backflow preventers. Consistent with regional amendment in IPC Section 608.)

Section 410.1; change to read as follows:

410.1 Approval. Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. ~~Where water is served in restaurants or where bottled water coolers are provided in other occupancies, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, bottled water dispensers shall be permitted to be substituted for not more than 50 percent (50%) of the required drinking fountains.~~

Exception: A drinking fountain need not be provided in a drinking or dining establishment.

(Reason: Coincide with amendments made to IPC 403.1 and IBC 2902.)

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Section 412.4; change to read as follows:

412.4 Required location ~~Public laundries and central washing facilities.~~ Floor drains shall be installed in the following areas.

1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing the automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet cross section of not less than 3 inches (76 mm) in diameter.
2. Commercial kitchens. (In lieu of floor drains in commercial kitchens, the code official may accept floor sinks.)

(Reason: To make more compatible with local health code practices.)

Section 413.4; change to read as follows:

413.4 Water supply required. All food waste grinders shall be provided with a supply of cold water. The water supply shall be protected against backflow by an air gap or with the installation of a backflow preventer in accordance with Section 608.

(Reason: Consistent with local practice and regulations. Consistent with regional amendment in IPC Section 608.)

Section 417.5; change to read as follows:

417.5 Shower floors or receptors. Floor surfaces shall be constructed of impervious, noncorrosive, nonabsorbent and waterproof materials.

Thresholds shall be a minimum of 2 inches (51 mm) and a maximum of 9 inches (229 mm), measured from top of the drain to top of threshold or dam. Thresholds shall be of sufficient width to accommodate a minimum twenty-two (22) inch (559 mm) door.

Exception: Showers designed to comply with ICC/ANSI A117.1.

(Reason: To provide more specific requirements)

Section 417.5.2; change to read as follows:

417.5.2 Shower lining. Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made water tight utilizing material complying with Sections 417.5.2.1 through 417.5.2.4. Such liners shall turn up on all sides at least 2 3/4 inches (51 mm) above the finished threshold level and shall extend outward over the threshold and fastened to the outside of the threshold jamb. Liners shall be recessed and fastened to an approved backing...*{remainder of section unchanged}*.

(Reason: Consistent with local practice.)

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Add Section 417.7 to read as follows:

417.7 Test for shower receptors. Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.

(Reason: To clarify the water test is required for a shower receptor.)

Section 419.3; change to read as follows:

419.3 Surrounding material. Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.

(Reason: Match un-amended IBC 1209.)

Section 502.3; change to read as follows:

502.3 Water heaters installed in attics. Attics containing a water heater shall be provided and unobstructed passageway large enough to allow removal of the water heater. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the water heater. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the water heater.

(Reason: To ensure adequate access.)

Add Section 502.5 to read as follows:

502.5 Water heaters above ground or floor. When the attic, roof mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A maximum 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater installed not more than ten feet (10') (3048 MM) above the ground or floor level and may be reached with a portable ladder.

502.5.1 Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 502.3.1.

(Reason: To provide safe access to water heaters and to provide lighting and receptacle for maintenance of equipment. Consistent with regional amendments to IFGC 306.7 and IMC 306.6. Note reference to amendment above.)

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Section 504.6; change to read as follows:

504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap. ~~located in the same room as the water heater.~~
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions.

5. Discharge ~~to the floor,~~ to an indirect waste receptor or to the outdoors. Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Not terminate less than six inches (6") or more than twenty-four inches (24") above grade ~~the floor~~ or nor more than six inches (6") above the waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.

(Reason: To provide a higher degree of safety.)

Add Section 604.4.1 to read as follows:

604.4.1 State maximum flow rate. Where the State mandated maximum flow rate is more restrictive than those of this section, the State flow rate shall take precedence.

(Reason: To recognize State standards.)

Tables 605.3 and 605.4; delete "Polybutylene (PB) plastic pipe and tubing".

(Reason: Polybutylene pipe is not allowed for use in this region.)

Section 606.1; delete items #4 and #5.

(Reason: The code is too restrictive as written.)

Section 606.2; items #1 and 2 change to read as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

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1. On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
- ~~2. On the water supply to each sillcock.~~
- ~~3.~~2. On the water supply pipe to each appliance or mechanical equipment.

(Reason: To provide shut-off valves to every fixture.)

Section 608.1; change to read as follows:

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to applicable local regulations, Table 608.1, ~~except~~ and as specifically stated in sections 608.2 through 608.16.9.

(Reason: To recognize local requirements.)

Section 608.16.1; change to read as follows:

608.16.1 Beverage dispensers. The water supply connection to beverage dispensers shall be protected against backflow by a stainless steel reduced pressure zone backflow preventer conforming to ASSE 1013, AWWA C511 or by an air gap. The backflow preventer device and the piping downstream therefrom shall not be affected by carbon dioxide gas.

(Reason: To protect against the possible harmful effects that carbon dioxide gas has on bronze materials and copper which in turn could enter the potable water system.)

Section 608.16.5; change to read as follows:

608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check valve assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(Reason: To recognize regional practices.)

Section 608.17; change to read as follows:

608.17 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. In the absence of other local regulations, installation shall be in accordance with Sections 608.17.1 through 608.17.8.

(Reason: To allow local requirements to govern.)

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Section 610.1; add an exception to read as follows:

New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to "on-site" or "inplant" fabrication of a system or to a modular portion of a system.

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Exception: With prior approval the Code Official may waive this requirement when deemed unnecessary.

(Reason: May not always be needed.)

Add Section 712.5 to read as follows:

712.5 Dual Pump System. All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

(Reason: To address dual pump systems. To provide reference for storm drainage systems.)

Section 714, 714.1; change to read as follows:

SECTION 714 ENGINEERED COMPUTERIZED DRAINAGE DESIGN

714.1 Design of drainage system. The sizing, design and layout of the drainage system shall be permitted to be designed by approved computer design methods.

(Reason: Code was too restrictive.)

Section 802.1.6; amended sentence to read as follows:

802.1.6 Domestic dishwashing machines. Domestic dishwashing machines shall discharge indirectly through an air gap or air break into a standpipe or waste receptor in accordance with Section 802.2, or discharge into a wye-branch fitting on the tailpiece of the kitchen sink or the dishwasher connection of a food waste grinder. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder

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shall connect to a deck-mounted air gap. ~~or the waste line shall rise and be securely fastened to the underside of the sink rim or counter.~~

(Reason: Provide positive backflow protection to the water supply and prevent contamination of the contents of the dishwasher and to be consistent with IRC Section 2717.3)

Section 802.4; add a sentence to read as follows:

No standpipe shall be installed below the ground.

(Reason: To make systems less susceptible to improper modifications.)

Section 904.1; change to read as follows:

904.1 Roof extension. All open vent pipes that extend through a roof shall be terminated at least six inches (6") (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least seven feet (7') (2134 mm) above the roof.

(Reason: To provide regional guideline on standard installation method for this area.)

Section 906.1; delete exception:

906.1 Distance of trap from vent. Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in Table 906.1.

~~**Exception:** The developed length of the fixture drain from the trap weir to the vent fitting for self-siphoning fixtures, such as water closets, shall not be limited.~~

(Reason: To be consistent with regional established practices.)

Section 912.1; change to read as follows:

912.1 Type of fixture. A combination drain and vent system shall not serve fixtures other than floor drains, ~~sinks, lavatories and drinking fountains~~ standpipes and indirect waste receptors. Combination drain and vent systems shall not receive the discharge from a food waste grinder or clinical sink.

(Reason: To prevent trap siphoning of sinks and lavatories.)

Section 1002.10; delete.

(Reason: Texas State regulations cover plumbing in mental health centers. Consistent with regional amendment to IPC 405.6.)

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Section 1101.8; change to read as follows:

1101.8 Cleanouts required. Cleanouts shall be installed in the building storm drainage system and shall comply with the provisions of this code for sanitary drainage pipe cleanouts.

Exception: Subsurface drainage system.

(Reason: To specify that cleanouts are only required in the building.)

Section 1106.1; change to read as follows:

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six inches (6") per hour ~~the 100-year hourly rainfall rate indicated in Figure 1106.1 or on other rainfall rates determined from approved local weather data.~~

(Reason: Specify the roof drain size normally used in the area.)

Section 1107.3; change to read as follows:

1107.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 ~~based on the rainfall rate for which the primary system is sized in Tables 1106.2, 1106.3 and 1106.6 by two.~~ Scuppers shall be sized to prevent the depth of ponding water...*{remainder of section unchanged}*

(Reason: Specify that overflow drainage is to be the same size as the normal roof drains.)

Section 1202.1; delete Exception 2.

(Reason: State law already specifies that vacuum systems must comply with NFPA 99C.)

END

***NOTE:** Underlining indicates new words and phrases to be added to the 2006 International Plumbing Code. ~~Strikeouts~~ indicate existing words and phrases to be deleted.