



**NYC**<sup>TM</sup>

**Buildings**

**NYC Plumbing Code Revision:  
Briefing to NYC Council**

**March 11, 2019**

## Briefing Agenda

1. Introductions
2. NYC Construction Codes Revision
  - Background & Process
3. NYC Plumbing Code Revision
  - Process
  - Highlights of Proposed Revisions
4. Resources to Council
5. Questions, follow-up, next steps



## Why revise the Codes?

- Local Law 99 of 2005 mandated periodic revision of NYC Construction Codes to the latest International Code Council codes.
  - Periodic revisions keep the Codes up to date with latest technologies and standards.
  - DOB's code revision process uses consensus-building technical committees as recommended by post-WTC commission.
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## Background:

- **Outdated Building Code (1968)**
- **September 11<sup>th</sup> 2001 WTC**
- **Nov. 2002 Mayoral Commission**
- **April 2003 Recommendations:**
  - **ICC Codes**
  - **Stakeholder inclusion**
  - **Consensus adoption process**
  - **Periodic revision – based on ICC 3 year cycles**

# Construction Codes Revision: Goals of this Revision Effort



- Update to 2015 I-Codes
- Align with National Standards
- Improve safety, balanced with savings and innovation
- Improve clarity
- Definitions: comprehensive look
  - List of Admin Code (T28) definitions in all tech codes
    - See proposed new section **PC 201.3.1 Terms defined in the general administrative provisions**
  - Check of inconsistencies in defined terms across codes

# Construction Codes Revision: Committee Structure



## Technical Committees

- Accessibility
- Construction Requirements & Materials
- Elevators & Conveyors
- Fire Protection Systems
- Mechanical
- Plumbing
- Structural
- Use, Occupancy Class & Egress

## Advisory Committees

- Administration & Enforcement
- Construction & Demolition Safety
- Cranes
- Flood Resistant Construction
- Special Inspections

# Construction Codes Revision: Managing Committee



**Industry Groups**

+

**Other Government Agencies**

+

**Committee Chairs and Vice-Chairs**

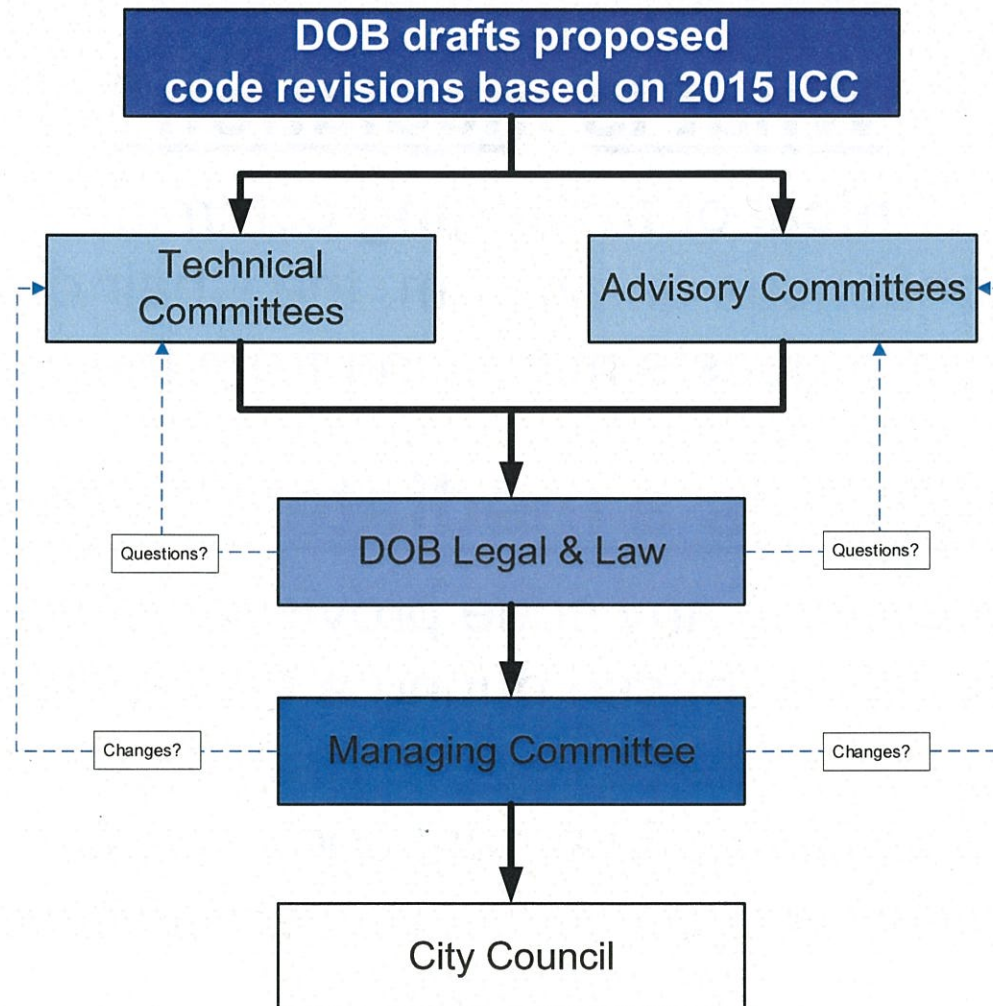
# Construction Codes Revision: Committees - Roles & Responsibilities



	Technical Committee	Advisory Committee	Managing Committee
Number	8	5	1
Assignment	'Technical' chapters	Chapters regarding administration, operations, inspections, permits, fees and areas of overlapping jurisdiction (State, Federal, etc.)	All Chapters
Type of review	Consensus required	Consensus not required	Consensus required



# Construction Codes Revision: Process



# Construction Codes Revision: Mediation



## What is mediation?

When a **technical** or **managing** committee cannot come to consensus on an item, the Chair declares an impasse and requests mediation from the Department.

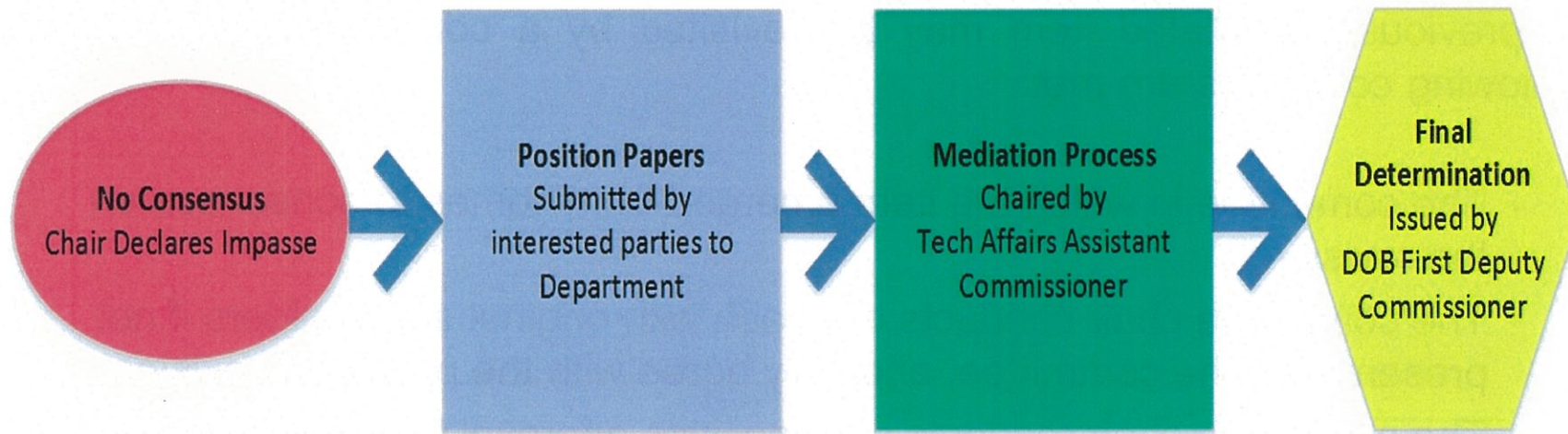
## What is a mediated item?

A mediated item is any code provision or issue that has reached an impasse during a **technical** or **managing** committee's review. Previously mediated items were mediated in a past code revision cycle (2008 or 2014) and are listed in the Handbook.

# Construction Codes Revision: Mediation Process For New Items



The process to address newly proposed items for meditation:



# Construction Codes Revision: Changes to Previously Mediated Items



## **Previously mediated items will not be mediated again**

Per the *Construction Codes Revision Handbook*:

A previously mediated item may be revisited by a committee if all of the following conditions are met:

- The committee in which the item emerged from comes to consensus on the revision,
- The committee chair conducts outreach with original stakeholders if not presently on the committee, and they agree with the proposed revision,
- The committee chair requests and receives approval from the Assistant Commissioner of Technical Affairs and Code Development, and
- Consensus is reached at the managing committee.

# Construction Codes Revision: Schedule



## **DOB Prep work:**

- August 2015 – June 2017

## **Plumbing Code:**

- July 2017 Committee work begins
- Dec. 2018 Committee work completed
- Dec. 2018 Managing Committee review completed
- Mar. 2019 Submit to City Council

## **Building, Fuel Gas, Mechanical & Admin Codes:**

- Oct. 2017 Committee work begins
  - *Sept. 2019 (est.)* Committee work completed
  - *Oct. 2019 (est.)* Managing Committee review completed
  - *Dec. 2019 (est.)* Submit to City Council
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# Construction Codes Revision: Plumbing Code Revisions



- Plumbing code has historically been submitted to the Council first
  - 2008 Code: Local Law 99 of 2005
  - 2014 Code: Local Law 41 of 2012
- Followed by the completion bills
  - 2008 Code: Local Law 33 of 2007
  - 2014 Code: Local Law 141 of 2013

# Plumbing Code Revisions: Work Effort



- This bill is the work-product of 3 committees:
  - The Plumbing Technical Committee
  - The Administrative & Enforcement Advisory Committee
  - The Managing Committee
- 115 Committee members
- 46 meetings
- Approximately 5,106 person-hours

# Plumbing Code Revisions: Resources for City Council



The following documents have been included to assist the Council Members and Staff in their review of the proposed Plumbing Code revisions:

- 2015 International Plumbing Code and Commentary
  - 2014 NYC Plumbing Code
  - 2017 Code Revision Handbook
  - Committee rosters (Plumbing, A&E, Managing)
  - MIS
  - Changes Tracker spreadsheet
  - Today's presentation
-





Category	#	%	
<i>major change</i>	24	2.9%	
<i>minor change</i>	816	97.1%	
<b>Total Plumbing Changes</b>	<b>840</b>	<b>100.0%</b>	
<i>type of change</i>			
interagency consistency	33	3.9%	
new/expanded requirement	135	16.1%	
incorporation of text as per Rule	0	0.0%	
resolve discrepancy between sections	55	6.5%	
clarification of text as per Bulletin	9	1.1%	
clarification for ease of use	172	20.5%	
update referenced standard	43	5.1%	
global change in terminology	96	11.4%	
typographical error	5	0.6%	
re-number	92	11.0%	
correct cross references	21	2.5%	
conversion error	1	0.1%	
correct error from previous legislation (§)	15	1.8%	
re-organization, no change in requirement	76	9.0%	
re-organization & change in requirement	17	2.0%	
formatting	18	2.1%	
re-location	36	4.3%	
other	16	1.9%	
	<b>Total</b>	<b>840</b>	
		<b>100.0%</b>	
<b>Mediated Items</b>	New Mediated Items	0	0.0%
	Previously Mediate Items 2008 Code	5	0.6%
	Previously Mediate Items 2014 Code	2	0.2%
	<b>Mediated Items Total</b>	<b>7</b>	<b>0.8%</b>
<b>Total Plumbing Changes</b>	<b>840</b>		

# Plumbing Code Revisions: Changes Tracker



## 2019 New York City Plumbing Code Revision

Committee	Code	Section #	Mediation	Change	Source of Change	Classification	Effect	Explanation
Admin & Enforcement	Plumbing	102.2	No	Modify	Committee	Clarification for ease of use	Minor	The actual date was added to replaced the use of the phrase "at the time of adoption" for clarification and consistency with FGC 102.2 and MC 102.2.
Admin & Enforcement	Plumbing	102.3	No	Modify	Other	Correct error from previous legislation (§)	Minor	This is a double dagger fix. Local law 4112 intended to move text to sub-section 102.3.1 and use it as existing, but it incorrectly underlined it as new. This created two instances of the same text. This was resolved with a double dagger in publication.
Admin & Enforcement	Plumbing	102.4	No	Modify	Other	Correct error from previous legislation (§)	Minor	This is a double dagger fix. Local law 4112 intended to move text to sub-section 102.4.1 and use it as existing, but it incorrectly underlined it as new. This created two instances of the same text. This was resolved with a double dagger in publication.
Admin & Enforcement	Plumbing	102.4.2	No	Modify	Committee	Correct Cross References	Minor	Corrected cross reference. Also includes a double dagger to correct typographical error.
Admin & Enforcement	Plumbing	102.8	No	Modify	Committee	Correct Cross References	Minor	Corrected cross reference to align with standards that will now be in PC Chapter 15. Also includes a change to terminology for consistency with BC 102.4, FGC 102.8, & MC 102.8.
Admin & Enforcement	Plumbing	102.8.1	No	Modify	Committee	Correct Cross References	Minor	Corrected cross reference to align with standards that will now be in PC Chapter 15.
Admin & Enforcement	Plumbing	104.1	No	Modify	Committee	Clarification for ease of use	Minor	Provision modified to be consistent with FGC 104.1 and MC 104.1.
Admin & Enforcement	Plumbing	105.1	No	New	Committee	New/expanded requirement	Minor	New section added in order to maintain Approvals in Title 28 and therefore recommend preserving this section to maintain ICC numbering. This change was made in BC1, FGC1, & MC1.
Admin & Enforcement	Plumbing	106	No	Modify	Committee	Re-number	Minor	This section was renumbered to PC 106 to account for the inclusion of PC 105 and align with the ICC numbering.
Admin & Enforcement	Plumbing	106.6	No	Modify	Committee	New/expanded requirement	Minor	Item #2: This section was modified to clarify DOB/DEP jurisdiction of the building sewer/drain. Item #5: New item added to account for DEP temporary connection permit requirements. Permits are issued by DEP as the connection is outside of DOB jurisdiction.
Admin & Enforcement	Plumbing	106.7	No	Modify	Committee	New/expanded requirement	Minor	This section directs the user to LAA requirements for Limited Plumbing Alterations in the General Administrative Provisions.

# Plumbing Code Revisions: Highlights



Re-organization, no change in requirement

Minor

**201.3.1 Terms defined in the general administrative provisions.** The following terms are defined in Section 28-101.5 of the *Administrative Code*:

**1968 BUILDING CODE.**

**1968 OR PRIOR CODE BUILDINGS OR STRUCTURES (PRIOR CODE BUILDINGS).**

**ACCEPTANCE OR ACCEPTED.**

**ADDITION.**

**ADMINISTRATIVE CODE.**

**ALTERATION.**

**APPROVAL OR APPROVED.**

**APPROVED AGENCY.**

**APPROVED FABRICATOR.**

**APPROVED INSPECTION AGENCY.**

**APPROVED TESTING AGENCY.**

...

# Plumbing Code Revisions: Highlights



New / expanded requirement

Major

**303.4 Third-party ~~[testing and ]certification.~~** All plumbing products and materials shall ~~[comply]~~be listed by a third-party certification agency as complying with the referenced [standards, specifications and performance criteria of this code and]standards. Products and materials shall be identified in accordance with Section 303.1.~~[When required by Table 303.4, plumbing products and materials shall either be tested by an approved third-party testing agency or certified by an approved third-party certification agency.]~~

# Plumbing Code Revisions: Highlights



New / expanded requirement

Major

**312.11 Joint inspection.** Inspections of welded joints shall consist of visual examination, during or after manufacture, fabrication, assembly, or pressure tests as appropriate. Supplementary types of nondestructive inspection techniques, such as magnetic-particle, radiographic, ultrasonic, etc., shall not be required unless specifically listed herein or in the engineering design.

# Plumbing Code Revisions: Highlights



New / expanded requirement

Major

**312.11.1 Welder's qualifications.** Welders installing domestic water piping within buildings at any pressure shall comply with the following:

1. Welders shall be qualified for all pipe sizes, wall thicknesses and all positions in accordance with the ASME Boiler and Pressure Vessel Code, Section IX. Requalification of a welder is required should the welder fail to maintain welder's continuity every 6 months. The licensed master plumber employing the welder shall maintain a welder continuity log and the log shall be made available to the department upon request.
2. Welder qualification testing shall be performed by an approved agency and the inspector witnessing the test shall be an authorized AWS Certified Welding Inspector.
3. Copies of the certified welder qualification reports shall be maintained by both the approved agency and the licensed master plumber employing the welder{(s)} for at least six years and shall be made available to the department upon request.

# Plumbing Code Revisions: Highlights

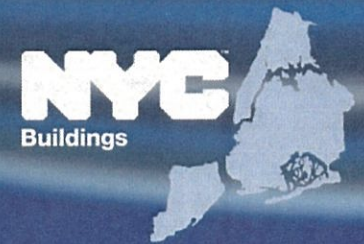


New / expanded requirement1

Major

**403.5 Drinking fountain location.** Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located on each story within a distance of travel of 500 feet (152 m) of the most remote location in the tenant space **on such story**. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet (91 m). Drinking fountains shall be located on an accessible route.

# Plumbing Code Revisions: Highlights



Clarification For Ease of Use

Minor

## SECTION PC 410 DRINKING FOUNTAINS

**410.1 Approval.** Drinking fountains shall conform to [~~ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M,~~] ASME A112.19.1/CSA B45.2 or ASME A112.19.2/CSA B45.1 and water coolers shall conform to [~~ARI 1010~~]AHRI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9 and ICC A117.1. Drinking fountains required by Table 403.1 shall be equipped with both a bubbler faucet for drinking and a separate faucet designed for filling a container at least 10 inches (254 mm) in height. Drinking fountains and water coolers shall comply with the lead requirements of Section 605.

**410.2 Small occupancies.** Drinking fountains shall not be required for an occupant load of 15 or fewer.



# Plumbing Code Revisions: Highlights



Correct Cross Reference

Minor

~~[701.10]~~701.9 **Plastic pipe.** Plastic piping and fittings shall not be used.

## Exceptions:

1. Plastic piping and fittings may be used in residential buildings five stories or less in height.
2. Plastic piping and fittings may be used as permitted in [~~Sections PC~~] Section 803 [~~and PC 804~~].

# Plumbing Code Revisions: Highlights



Other

Major

**1101.5.2 Detention and retention tanks.** Detention and retention tanks located within buildings in flood hazard areas shall be located above the design flood elevation or shall be designed and constructed to withstand the static pressure conditions the system will experience in the event of a flood condition.

**1101.5.2.1 Emergency overflow.** Emergency overflow piping shall equal the full size of the incoming storm water flow. Emergency overflows and vent terminations for buildings located in flood hazard areas shall be located above the design flood elevation. Such emergency overflow shall discharge the overflow outside of the building into either of the following locations:

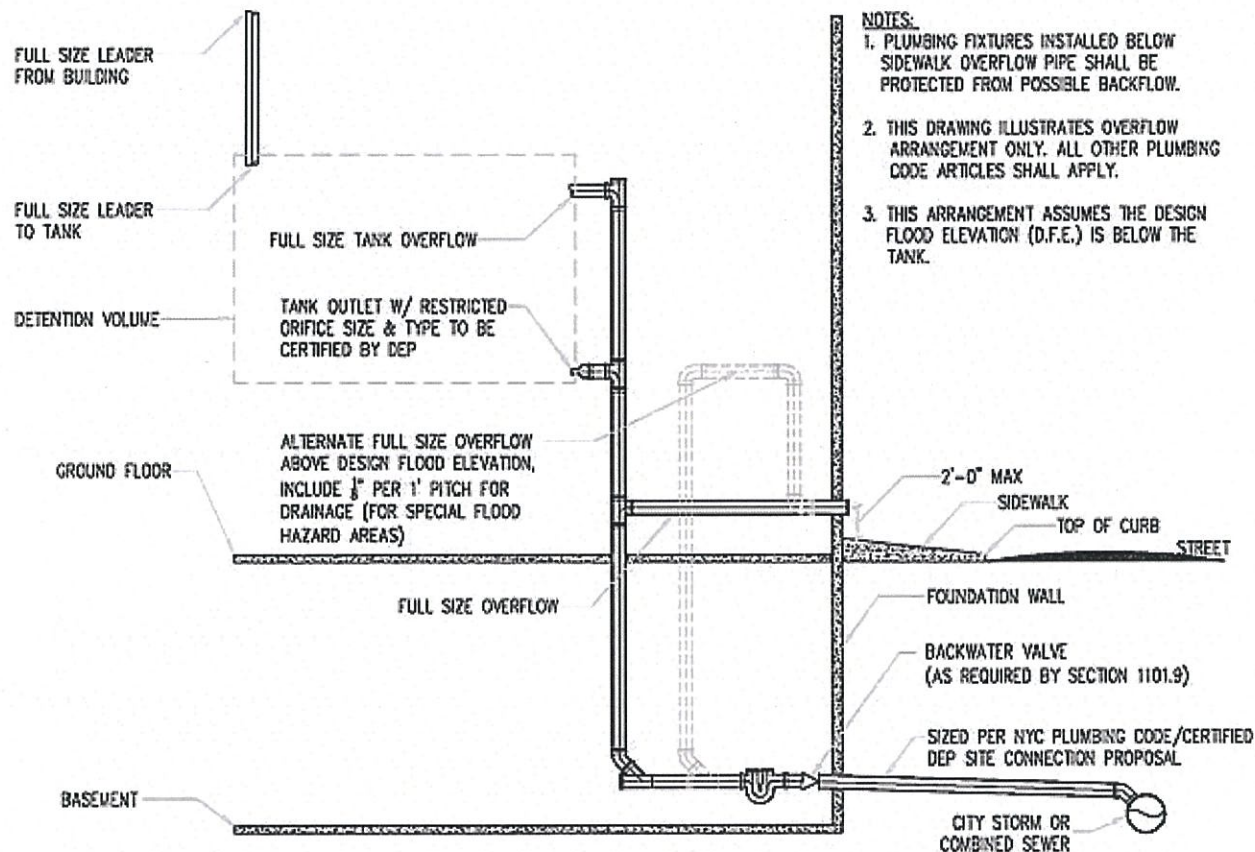
1. The tax lot; or
2. The public sewer, provided that the overflow piping is provided with a vent, of the same diameter as the overflow piping, that terminates on the front wall of the building facing the street and no more than 2 feet (610 mm) above the sidewalk. [See Figures 1101.5.2.1\(1\), 1101.5.2.1\(2\) and 1101.5.2.1\(3\).](#)

# Plumbing Code Revisions: Highlights



Other

Major



- NOTES:**
1. PLUMBING FIXTURES INSTALLED BELOW SIDEWALK OVERFLOW PIPE SHALL BE PROTECTED FROM POSSIBLE BACKFLOW.
  2. THIS DRAWING ILLUSTRATES OVERFLOW ARRANGEMENT ONLY. ALL OTHER PLUMBING CODE ARTICLES SHALL APPLY.
  3. THIS ARRANGEMENT ASSUMES THE DESIGN FLOOD ELEVATION (D.F.E.) IS BELOW THE TANK.

DETENTION VOLUME & TANK ABOVE GRADE (WITHIN BUILDING)

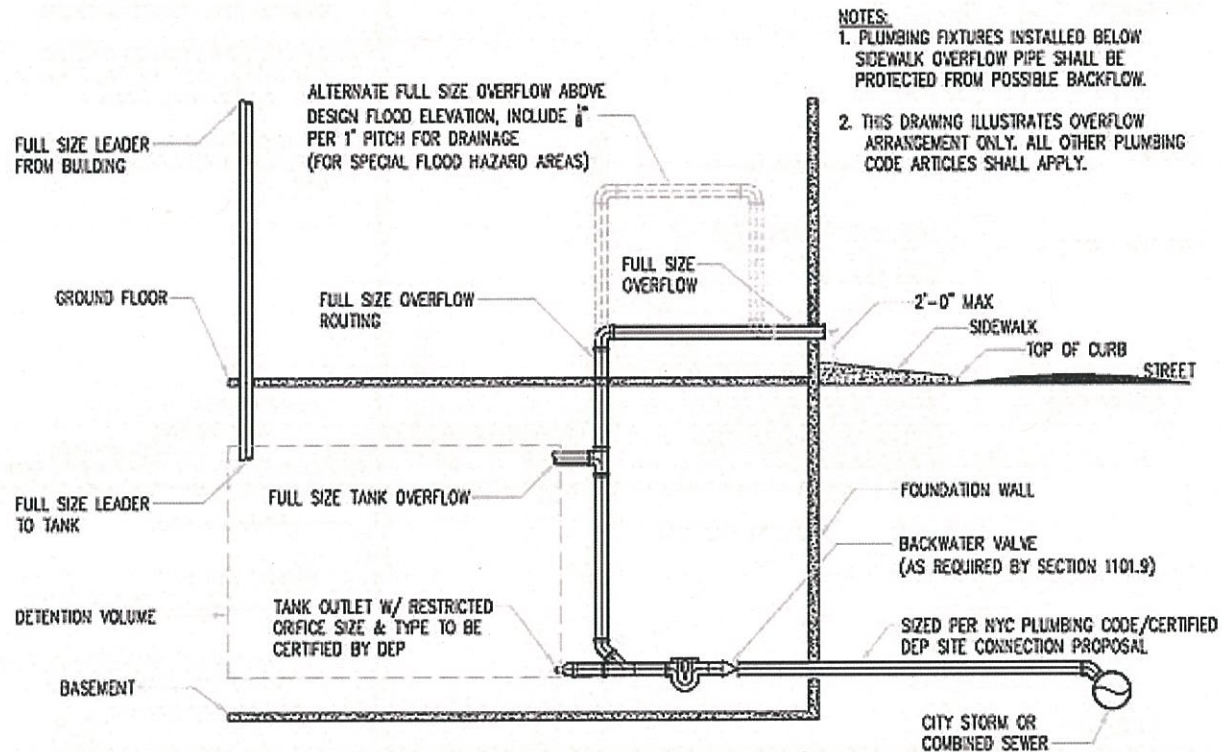
FIGURE 1101.5.2.1(1)

# Plumbing Code Revisions: Highlights



Other

Major



- NOTES:**
1. PLUMBING FIXTURES INSTALLED BELOW SIDEWALK OVERFLOW PIPE SHALL BE PROTECTED FROM POSSIBLE BACKFLOW.
  2. THIS DRAWING ILLUSTRATES OVERFLOW ARRANGEMENT ONLY. ALL OTHER PLUMBING CODE ARTICLES SHALL APPLY.

DETENTION VOLUME ABOVE SEWER, TANK BELOW GRADE (WITHIN BUILDING)

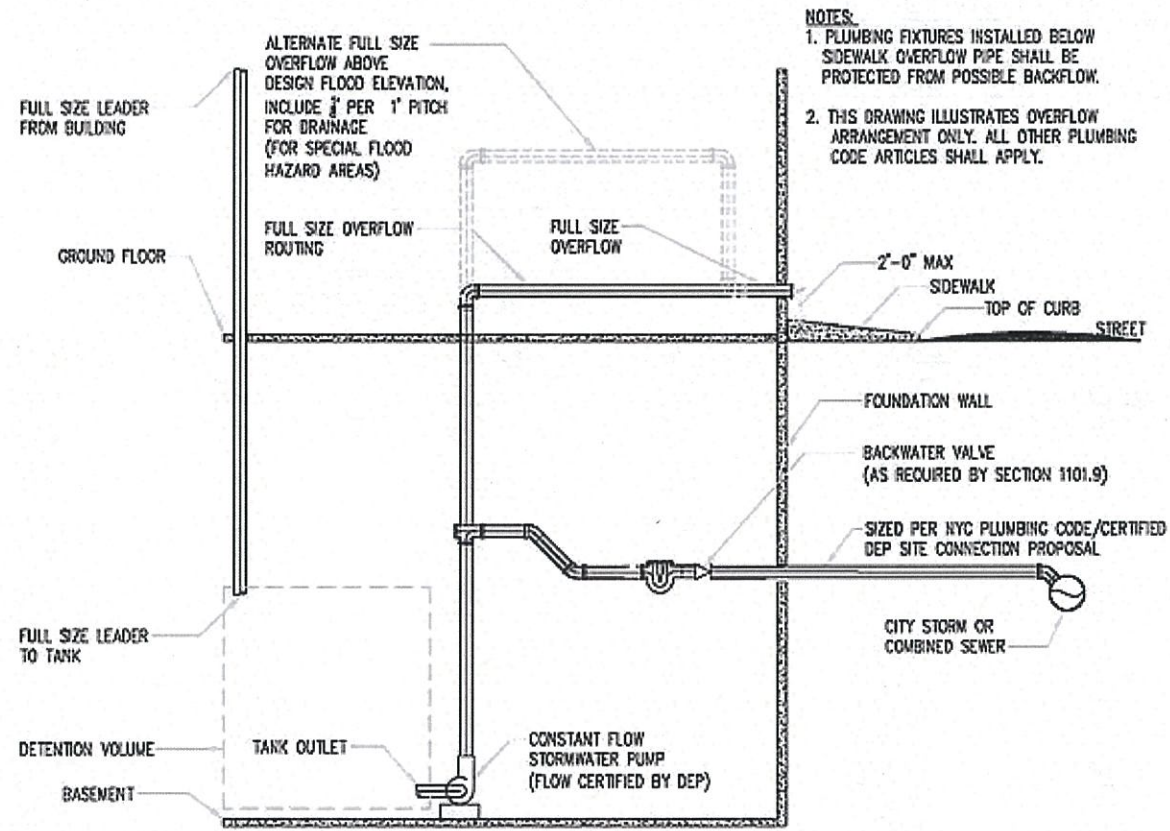
FIGURE 1101.5.2.1(2)

# Plumbing Code Revisions: Highlights



Other

Major



- NOTES:
1. PLUMBING FIXTURES INSTALLED BELOW SIDEWALK OVERFLOW PIPE SHALL BE PROTECTED FROM POSSIBLE BACKFLOW.
  2. THIS DRAWING ILLUSTRATES OVERFLOW ARRANGEMENT ONLY. ALL OTHER PLUMBING CODE ARTICLES SHALL APPLY.

DETENTION VOLUME & TANK BELOW GRADE (WITHIN BUILDING)

FIGURE 1101.5.2.1(3)

# Plumbing Code Revisions: Highlights



New / Expanded Requirement

Major

**1106.2 Size of storm drain piping.** Vertical and horizontal storm drain piping shall be sized based on the flow rate through the roof drain. The flow rate in storm drain piping shall not exceed that specified in Table 1106.2.

**TABLE 1106.2**  
**STORM DRAIN PIPE SIZING**

<b><u>PIPE SIZE</u></b> <b><u>(inches)</u></b>	<b><u>VERTICAL</u></b> <b><u>DRAIN</u></b>	<b><u>CAPACITY (gpm)</u></b>			
		<b><u>SLOPE OF HORIZONTAL DRAIN</u></b>			
		<b><u>1/16 inch per</u></b> <b><u>foot</u></b>	<b><u>1/8 inch per</u></b> <b><u>foot</u></b>	<b><u>1/4 inch per</u></b> <b><u>foot</u></b>	<b><u>1/2 inch per</u></b> <b><u>foot</u></b>
<b><u>2</u></b>	<b><u>34</u></b>	<b><u>15</u></b>	<b><u>22</u></b>	<b><u>31</u></b>	<b><u>44</u></b>
<b><u>3</u></b>	<b><u>87</u></b>	<b><u>39</u></b>	<b><u>55</u></b>	<b><u>79</u></b>	<b><u>111</u></b>
<b><u>4</u></b>	<b><u>180</u></b>	<b><u>81</u></b>	<b><u>115</u></b>	<b><u>163</u></b>	<b><u>231</u></b>
<b><u>5</u></b>	<b><u>311</u></b>	<b><u>117</u></b>	<b><u>165</u></b>	<b><u>234</u></b>	<b><u>331</u></b>
<b><u>6</u></b>	<b><u>538</u></b>	<b><u>243</u></b>	<b><u>344</u></b>	<b><u>487</u></b>	<b><u>689</u></b>
<b><u>8</u></b>	<b><u>1,117</u></b>	<b><u>505</u></b>	<b><u>714</u></b>	<b><u>1,010</u></b>	<b><u>1,429</u></b>
<b><u>10</u></b>	<b><u>2,050</u></b>	<b><u>927</u></b>	<b><u>1,311</u></b>	<b><u>1,855</u></b>	<b><u>2,623</u></b>
<b><u>12</u></b>	<b><u>3,272</u></b>	<b><u>1,480</u></b>	<b><u>2,093</u></b>	<b><u>2,960</u></b>	<b><u>4,187</u></b>
<b><u>14</u></b>	<b><u>4,204</u></b>	<b><u>1,312</u></b>	<b><u>1,856</u></b>	<b><u>2,621</u></b>	<b><u>3,713</u></b>
<b><u>15</u></b>	<b><u>5,543</u></b>	<b><u>2,508</u></b>	<b><u>3,546</u></b>	<b><u>5,016</u></b>	<b><u>7,093</u></b>
<b><u>16</u></b>	<b><u>5,543</u></b>	<b><u>2,508</u></b>	<b><u>3,546</u></b>	<b><u>5,016</u></b>	<b><u>7,093</u></b>
<b><u>18</u></b>	<b><u>8,218</u></b>	<b><u>3,100</u></b>	<b><u>4,386</u></b>	<b><u>6,192</u></b>	<b><u>8,773</u></b>

# Plumbing Code Revisions: Highlights



Formatting

Major

## CHAPTER 14 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS

### SECTION PC 1401 GENERAL

1401.1 Scope. The provisions of Chapter 14 shall govern the materials, design, construction and installation of subsurface landscape irrigation systems connected to nonpotable water from on-site water reuse systems.

# Plumbing Code Revisions: Highlights



New / Expanded Requirement

Major

## APPENDIX C STRUCTURAL SAFETY

### SECTION PC C101 CUTTING, NOTCHING AND BORING

C101.1 Cutting, notching and boring in wood members. The cutting, notching and boring of wood members shall comply with Sections C101.1.1 through C101.1.5.



Questions?  
Comments?  
Next steps