

Plumbing Board
 c/o Department of Labor and Industry
 443 Lafayette Road North
 St. Paul, MN 55155-4344
 www.dli.mn.gov

Plumbing Board Request for Action

PRINT IN INK or TYPE

NAME OF SUBMITTER Aaron Ganson	PURPOSE OF REQUEST (check all that apply): <input checked="" type="checkbox"/> New Code <input checked="" type="checkbox"/> Code Amendment <input type="checkbox"/> Repeal of an existing Rule
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The Minnesota Plumbing Code (MN Rules, Chapter 4714) is available at www.dli.mn.gov/CCLD/PlumbingCode.asp

Specify the purpose of the proposal: If recommendation for code change for appurtenance or method (check all that apply)

- Appurtenance (e.g., water conditioning equipment) Test Method
 Other (describe) Addition of Building Storm Sewer Table 1101.4.5

Does your submission contain a Trade Secret? Yes No

If Yes, mark "TRADE SECRET" prominently on each page of your submission that you believe contains trade secret information. Minnesota Statutes, section 13.37, subdivision 1(b), defines "trade secret" as follows:

"Trade secret information" means government data, including a formula, pattern, compilation, program, device, method, technique or process (1) that was supplied by the affected individual or organization, (2) that is the subject of efforts by the individual or organization that are reasonable under the circumstances to maintain its secrecy, and (3) that derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

Note that, although "trade secret" information is generally not public, the Board and its committees may disclose "trade secret" information at a public meeting of the Board or committee if reasonably necessary for the Board or committee to conduct the business or agenda item before it (such as your request.) The record of the meeting will be public.

Describe the proposed change. The Minnesota Plumbing Code (Minnesota Rules Chapter 4714) is available via the World Wide Web at <http://www.revisor.leg.state.mn.us/arule/4714/>

NOTE:

- Please review the Minnesota Plumbing Code and include all parts of the Code that require revision to accomplish your purpose.
- The proposed change, including suggested rule language, should be *specific*. If modifying existing rule language, underline new words and ~~strike through deleted words~~. Please list all areas of the Minnesota Plumbing Code that would be affected.

The proposed change would create a building storm sewer table in Chapter 11 that allows the use of qualified materials instead for storm water management and drainage. The table would add Polyethylene Pipe per F2648 and F2306, Polypropylene Pipe per ASTM F2881, and Reinforced Concrete Pipe per ASTM C76. Additionally, the table would mirror approved standards as listed per 2018 ICC-IPC 1102.4 while not restricting the use of materials per Table 701.2. Lastly, the code as proposed as a MN state amendment would provide additional performance or assurance of quality joint performance modeling the layout Chapter 7 for building sewer materials with section 1101.XX.

Office Use Only

RFA File No. PB0123	Date Received by DLI 3.21.2019	Dated Received by Committee	Date of Forwarded to Board
Title of RFA	By:		

Committee Recommendation to the Board: <input type="checkbox"/> Accept <input type="checkbox"/> Reject <input type="checkbox"/> Abstain	Board approved as submitted: <input type="checkbox"/> Yes <input type="checkbox"/> No	Board approved as modified: <input type="checkbox"/> Yes <input type="checkbox"/> No
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This material can be made available in different forms, such as large print, Braille or on a tape. To request, call 1-800-342-5354 (DIAL-DLI).

Need and Reasons For the Change. Thoroughly explain the need and why you believe it is reasonable to make this change. During a rulemaking process, the need and reasonableness of all proposed rule changes must be justified; therefore, a detailed explanation is necessary to ensure the Board thoroughly considers all aspects of the proposal. The Board should thoroughly consider the proposed code change because there is currently an ASTM Standard Specification for these pipe material for use in Storm Water Applications. Further, the Canadian Standards Association (CSA) has also identified these pipe materials as an acceptable product. Currently, the 2018 Uniform Plumbing Code (UPC) is not well codefied to meet the state needs of Minnesota in defining building storm sewer piping materials. This particular RFA and recommeded change would utilize the more well defined building storm sewer table in the 2018 ICC-IPC with enhancements to requiring minimum joint performance requirements. Finally, the changes as suggested would offer relief to the state plumbing inspectors and reviewers from having to consistently review alternate requests for use of these materials as storm sewer piping on project sites.

If your product/method standard(s) is not currently listed in both national codes, your Request For Action will not be considered by the Board or its committees, however, you are welcome to present at any Board meeting during the Open Forum section of the Agenda.

The proposal must be accompanied by copies of any published standards, the results of testing, and copies of any product listings, as documentation of the health, sanitation and safety performance of any materials, methods, fixtures, and/or appurtenances. If none are available, please explain:

International Code Council - International Plumbing Code 2018 Table 1102.4 Building Storm Sewer

ASTM International Standard Specification: F2306, F2648, F2881, C76, D3212, C1628

Candian Standards Association: B182.13, A257.2M

United Facilities Guide Specifications 33 40 00 Storm Drainage Utilities

Please attach electronic scanned copies of any literature, standards and product approvals or listings. Printed or copyrighted materials, ***along with written permission from the publisher to distribute the materials at meetings***, should be sent to the Plumbing Board, c/o Department of Labor and Industry, 443 Lafayette Road No., St. Paul, MN 55155-4344.

Primary reason for change: (check only one)

- Protect public, health, safety, welfare, or security
- Lower construction costs
- Encourage new methods and materials
- Change made at national level
- Other (describe) _____
- Mandated by legislature
- Provide uniform application
- Clarify provisions
- Situation unique to Minnesota

Anticipated benefits: (check all that apply)

- Save lives/reduce injuries
- Improve uniform application
- Improve health of indoor environment
- Provide more construction alternatives
- Reduce regulation
- Other (describe) _____
- Provide more affordable construction
- Provide building property
- Drinking water quality protection
- Decrease cost of enforcement

Economic impact: (explain all answers marked "yes")

1. Does the proposed change increase or decrease the cost of enforcement? Yes No If yes, explain
Decreases cost of enforcement with a significant reduction in alternate material requests.

2. Does the proposed change increase or decrease the cost of compliance? Yes No If yes, explain
Include the estimated cost increase or decrease, and who will bear the cost increase or experience the cost decrease:

3. Are there less costly or intrusive methods to achieve the proposed change? Yes No If yes, explain

4. Were alternative methods considered? Yes No If no, why not? If yes, explain what alternative methods were considered and why they were rejected.

Strict adherence to the materials currently listed in Table 701.2 for private building sewer is common practice. Request per 301.2 have been denied in certain regions of the state consistently for this and other materials.

5. If there is a fiscal impact, try to explain any benefit that will offset the cost of the change. If there is no impact, mark "N/A." The fiscal impact will be positive and more cost efficient for projects in the State especially where larger diameter piping is utilized >15". This will save state institutional developments and more significant money while still maintaining performance required for sanitary drainage.

6. Provide a description of the classes of persons affected by a proposed change, who will bear the cost, and who will benefit. State and regional inspectors and plan reviewers will be affected in that they will have to know the updated Table and listings. Developers and institutions will benefit by having multiple high performing material options to bid and utilize on projects. In addition, developers and institutions will be able to minimize construction delays due to availability of materials with more qualified options to select. Pipe manufacturers will benefit as they will be able to supply materials meeting these specifications.

7. Does the proposed rule affect farming operations? (Agricultural buildings are exempt from the Minnesota Building Code under Minnesota Statutes, Section 326B.121.) Yes No If yes, explain

Are there any existing Federal Standards? Yes No If yes, list:

United Facilities Guide Specifications 33 40 00 Storm Drainage Utilities

Are there any differences between the proposed change and existing federal regulations? Yes No

Not applicable Unknown If yes, describe each difference & explain why each difference is needed & reasonable.

Minnesota Statutes, section 14.127, requires the Board to determine if the cost of complying with proposed rule changes in the first year after the changes take effect will exceed \$25,000 for any small business or small city. A small business is defined as a business (either for profit or nonprofit) with less than 50 full-time employees and a small city is defined as a city with less than ten full-time employees.

During the first year after the proposed changes go into effect, will it cost more than \$25,000 for any small business or small city of comply with the change? Yes No If yes, identify by name the small business(es) or small city(ies).

Will this proposed plumbing code amendment require any local government to adopt or amend an ordinance or other regulation in order to comply with the proposed plumbing code amendment? Yes No, If yes, identify by name the government(s) and ordinances(s) that will need to be amended in order to comply with the proposed plumbing code amendment.

Additional supporting documentation may also be attached to this form. Are there any additional comments you feel the Committee/Board may need to consider? If so, please state them here:

The supporting documentation is attached alongside this RFA. We have obtained permission to mail two copyrighted photocopies of the ASTM standards which will be mailed directly to the Board. We would be very grateful for the opportunity to present and discuss this topic in front of the Plumbing Board.

ICC-IPC Links

<https://codes.iccsafe.org/content/IPC2018/chapter-11-storm-drainage>
<https://codes.iccsafe.org/content/IPC2018/chapter-15-referenced-standards>

Information regarding submitting this form:

- Submissions are received and heard by the Committee on an "as received" basis. **Any missing documentation will delay the process, and your proposal will be listed as the date it was received "Complete."**
- **Submit any supporting documentation to be considered**, such as manufacturer's literature, approvals by other states, and engineering data electronically to DLI.CCLDBOARDS@state.mn.us. Once your Request For Action form has been received, it will be assigned a file number. Please reference this file number on any correspondence and supplemental submissions.
- **For copyrighted materials that must be purchased from publishers, such as published standards, product approvals or testing data, listings by agencies (IAPMO, ASSE, ASTM, etc.) you may send just 2 copies, along with written permission from the publisher to distribute the materials at meetings**, via U.S. Mail to: Plumbing Board, c/o Department of Labor and Industry, 443 Lafayette Road No., St. Paul, MN 55155-4344.
- **For materials that must be submitted by U.S. Mail, please include a copy of your "Request For Action" form originally submitted and reference your assigned RFA file number.**


Information for presentation to the Committee and/or Board:

- Limit presentations to 5 minutes or less.
- Be prepared to answer questions regarding the proposal and any documentation.

Information regarding Committee and/or Board function:

- The Plumbing Board or designated Committee.

I understand that any action is a recommendation to the Plumbing Board and is not to be considered final action.

NAME AND E-MAIL ADDRESS		FIRM NAME	
Aaron Ganson aaron.ganson@ads-pipe.com		Advanced Drainage Systems, Inc.	
NAME, PHONE NUMBER AND E-MAIL ADDRESS OF PRESENTER TO THE COMMITTEE (if different):			
Bryan Miko, (630)945-7189, bryan.miko@ads-pipe.com			
ADDRESS	CITY	STAT E	ZIP CODE
6424 Vernon Avenue South	Edina	MN	55436
PHONE	SIGNATURE (original or electronic)	DATE	
(612)271-7026		12/17/2018	

For Assistance or questions on completing this form, contact Cathy Tran, Department of Labor and Industry at 651-284-5898.

For Office/Committee Use Only Proposal received completed? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Date Proposer notified of gaps:	Mode of notification (e.g., e-mail)	Date returned to Proposer:	Date materials re-received:

Proposed Changes
4714.1101 GENERAL.

1101.4.5

Building Storm Sewers. Building storm sewers shall comply with the applicable standards referenced in Table 701.2 for building sewer pipe or Table 1101.4.5 for building storm sewer pipe where located more than 2 feet (610 mm) from the building.

TABLE 1101.4.5
MATERIALS FOR BUILDING STORM SEWER PIPE

MATERIALS	REFERENCED STANDARD(S)
<u>Polyethylene</u>	<u>ASTM F2306/F2306M; ASTM F2648/F2648M</u>
<u>Polypropylene</u>	<u>ASTM F2881</u>
<u>Reinforced Concrete Pipe</u>	<u>ASTM C76</u>

1102.0 Joints and Connections.

1102.1 Copper and Copper Alloys. Joints and connections in copper and copper alloy pipe and tube shall be installed in accordance with Section 705.3.

1102.2 Reinforced Concrete Pipe and Joints. Joining methods for reinforced concrete pipe shall be installed in accordance with the manufacturer's installation instructions and shall comply with Section 1102.2.1.

1102.2.1 Mechanical Joints. Mechanical joints shall be designed to provide a permanent seal and shall be of the mechanical or push-on joint type. The push-on joint shall include an elastomeric gasket in accordance with ASTM C1628 and shall provide a compressive force against the spigot and socket after assembly to provide a permanent seal.

1102.3 Polypropylene Pipe and Joints. Joining methods for polypropylene pipe and fittings shall be installed in accordance with the manufacturer's installation instructions and shall comply with Section 1102.3.1.

1102.3.1 Mechanical Joints. Mechanical joints shall be designed to provide a permanent seal and shall be of the mechanical or push-on joint type. The push-on joint shall include an elastomeric gasket in accordance with ASTM D3212 and shall provide a compressive force against the spigot and socket after assembly to provide a permanent seal.

1102.4 Polyethylene Pipe and Joints. Joining methods for polypropylene pipe and fittings shall be installed in accordance with the manufacturer's installation instructions and shall comply with Section 1102.4.1.

1102.4.1 Mechanical Joints. Mechanical joints shall be designed to provide a permanent seal and shall be of the mechanical or push-on joint type. The push-on joint shall include an elastomeric gasket in accordance with ASTM D3212 and shall provide a compressive force against the spigot and socket after assembly to provide a permanent seal.

(renumber remaining sections)

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**TABLE 1701.1
REFERENCED STANDARDS**

STANDARD NUMBER	STANDARD TITLE	APPLICATION	REFERENCED SECTIONS
<u>ASTM C76-2019</u>	<u>Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe</u>	<u>Storm Sewer</u>	<u>Table 1101.4.5</u>
<u>ASTM C1628-2017^{e1}</u>	<u>Joints for Concrete Gravity Flow Sewer Pipe, Using Rubber Gaskets</u>	<u>Storm Sewer</u>	<u>1102.2.1</u>
<u>ASTM D3212-2007 (R2013)</u>	<u>Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals</u>	<u>Joints</u>	<u>705.1.1, 705.6.1, 1102.3.1, 1102.4.1</u>
<u>ASTM F2306/F2306M-2018</u>	<u>12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications</u>	<u>Piping, Plastic</u>	<u>Table 1101.4.5</u>
<u>ASTM F2648/F2648M-2017</u>	<u>2 to 60 in. [50 to 1500mm] Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Land Drainage Applications</u>	<u>Piping, Plastic</u>	<u>Table 1101.4.5</u>
<u>ASTM F2881/F2881M-2018a</u>	<u>12 to 60 in. [300 to 1500 mm] Polypropylene (PP) Dual Wall Pipe and Fittings for Non-Pressure Storm Sewer Applications</u>	<u>Storm Sewer</u>	<u>Table 1101.4.5</u>

(portion of table not shown remain unchanged)

**TABLE 1701.2
REFERENCED STANDARDS**

DOCUMENT NUMBER	DOCUMENT TITLE	APPLICATION
<u>ASTM F2306/F2306M-2014^{e1}</u>	<u>12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Gravity Flow Storm Sewer and Subsurface Drainage Applications</u>	<u>Piping, Plastic</u>

(portion of table not shown remain unchanged)

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