8500 Normandale Lake Boulevard
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# MEMORANDUM



TO: Civil engineers & site designers
FROM: Minnesota Concrete Pipe Association
DATE: September 14, 2011
SUBJECT: Minnesota Plumbing Code – Clarification

## Do You Know How Minnesota Plumbing Code Applies to Storm Sewer Projects and How It Affects What You Should Be Specifying?

### Background

Plumbing Code, more formally known as Minnesota Rules, Chapter 4715, is a set of regulations governing the design and installation of plumbing and drainage systems. These requirements are not typical of municipal storm sewer drainage projects and need to be addressed in project specifications to ensure that the materials supplied and the installation of these materials are in accordance with plumbing code requirements. The goal of this memo is to provide the reader with the information necessary to properly specify commercial storm sewer projects.

### MN Plumbing Code -- Storm Sewer Discussion

*Q1. When, and under what conditions, does the MN Plumbing Code apply to storm drainage projects?*

A1. The plumbing code applies to all new plumbing and drainage systems located on commercial, public and private site development projects, which includes all storm sewers within the property boundaries, or up to the point of disposal, whichever occurs first. The point of disposal may be above-grade discharge to pavement (excluding public sidewalks), storm water retention ponds, storm sewers owned and maintained by the municipality, seepage ponds, or waters of the State of Minnesota.

*Q2. What are the MN Plumbing Code requirements for pipe, pipe joints and pipe-to-manhole connections?*

A2. All pipe, joints and manholes supplied on site development projects must be constructed with code approved materials in accordance with part 4715.0540. All storm sewer joints must be certified by the manufacturer to be able to pass the air test or an internal hydrostatic pressure of ten pounds per square inch for ten minutes with no leakage as specified in part 4715.0700.

*Q3. Is precast gasket joint concrete pipe meeting ASTM C76 considered an acceptable pipe material for storm water and yard drainage outside of building foundation walls?*

A3. Yes

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*Q4. What types of pipe-to-manhole connections are considered acceptable for concrete pipe, manholes and inlets?*

A4. The MN Plumbing Code allows "Resilient Rubber Connectors" for connecting pipe to manholes and inlets. ASTM C923 “Standard Specification for Resilient Connectors between Reinforced Concrete Manhole Structures, Pipes, and Laterals”, describes minimum performance and joint material requirements for such connectors. Accepted pipe to manhole connectors include, but are not limited to the following.

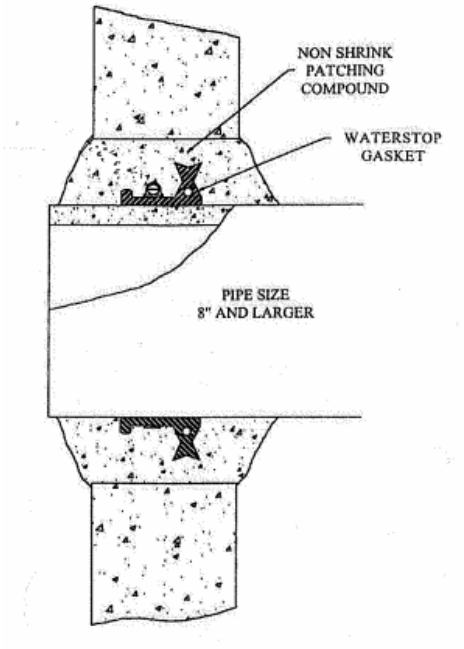
1. Resilient water-stop grouting ring
2. Resilient rubber manhole boot

*Q5. Which portions of a storm sewer system require jobsite vacuum or pressure testing?*

A5. All portions of the storm sewer system, except outside leaders and perforated drain tile, (concrete or otherwise) within ten feet of a water service line or building, within fifty feet of a well, or passing through contaminated soils or water require jobsite testing. See part 4715.2820, sub-part 2 for background information.

# Typical Plan Details

Example of a water-stop grouting ring schematic




Example of a plan identifying storm sewer lines that require jobsite testing 10’ either side of water service line and 10’ from the building