



PLUMBING DRAINS AND SEWERS

Why are drains and sewers inspected?

The building sanitary and storm drains and sewers are inspected to ensure that they will operate properly and to ensure that cross connections are not created between the storm and sanitary drains or sewers. Inspections provide Markham residents with a healthy and safe living environment and natural environment.

When must an inspection be requested?

The site supervisor or owner in co-ordination with the plumbing contractor must request a plumbing system inspection once the work is completed and the systems are ready for testing. While 48 hours notice is required prior to the date of inspection, we strive to provide the best service possible and a next day service can usually be achieved to facilitate your construction schedule.

Are Drains Required to be Colour Coded?

Yes! Colour coding of drainage piping will be required to conform with Markham's engineering design standards. 'All PVC storm sewer and drain pipe shall be white in colour. All PVC sanitary sewer and drain pipe shall be any colour but white'.

What is involved during an inspection?

A Provincially qualified building inspector reviews the assembly of the plumbing system components for compliance with the Ontario Building Code. The following is a list of the major areas that are inspected.

- Materials and equipment
- Testing of drainage systems (water or air)
- Testing of water service pipe (water or air)
- Protection of piping (frost and spatial separation)
- Support of piping
- Traps
- Arrangement of drainage piping (colour coding of storm and sanitary drain pipes)
- Cleanouts
- Slope and length drainage pipes
- Arrangement and size of venting pipes (floor drains)

The construction progress, including Building Code deficiencies, are documented on a Field Inspection Report issued by the building inspector immediately after the site inspection.

What can I do before the inspection?

Your involvement in the inspection process is critical. A review of the building drains and sewers prior to the inspector's arrival can help to ensure a smooth flow in the construction of your project. To help you, we have assembled a checklist of the most common Building Code deficiencies found while performing inspections. Please refer to the reverse side of this Information Sheet to complete the checklist.

How do I request an inspection?

Permit Inspection Request Line (PIRL)

PIRL is an interactive voice response system for builders, contractors, owners, owner's representatives, and permit holders, to schedule, cancel, reschedule, and obtain building inspection results 24 hours a day, 7 days a week.

Access the PIRL system 24 hours a day, 7 days a week on any touch-tone phone. Call 905-475-4850 and follow the simple instructions. For a detailed overview of what the system offers, please visit www.markham.ca/building. When requesting an inspection you will need the following information with you:

1. Building permit no.
2. Project address
3. Date inspection required
4. Contact name and phone no.
5. Provide further comments (optional)

Looking ahead ➡

The next inspection may be the foundation. Ask your building inspector for the Foundation Information Sheet or call us at (905) 477-7000 ext. 2307 and we will gladly send it to you.

'This is one in a series of Information Sheets published specifically for homeowners and builders, for use as a guide to residential building inspections'

PLUMBING DRAIN AND SEWER INSPECTIONS

This checklist identifies the most common Ontario Building Code deficiencies found while performing plumbing drain and sewer inspections. Use this checklist as a guide during construction, and reduce your costs associated with the repair of Building Code deficiencies. Not all Building Code requirements could be included in this checklist.

Prior to calling for an inspection, verify that the relevant items have been completed satisfactorily. While some items may not apply to your project, please consider each one carefully. Indicate '☑' as completed or '☒' as not applicable.

Materials and Equipment

- Improper pipe fittings in drainage or venting systems are not being used.
- One-quarter bends with 4 inch size or less drainage piping is not installed on building drains.
- A double Y, double TY, double T or double waste fitting is not installed in a nominally horizontal soil or waste pipe.
- Plastic pipe conforms to B181.1, B181.2, B182.1 or B182.2 when used underground outside a building, under a building for a drainage system or inside a building for a storm drainage system.
- Plastic pipe conforms to B181.1 or B181.2 when used under a building or inside a building for a venting system.
- PE/AL/PE pipe and fittings has not been used in a hot water potable water system.
- PEX/AL/PEX pipe and fittings for use with potable water systems complies with B137.10.
- Galvanized pipe has not been used in a water distribution system, except for repairs.
- Solder joint fittings for drainage systems, lead waste pipe and aluminum DWV pipe have not been used in a water system. Lead free solder being used.
- Type M soft copper tube not being used in the potable water system.

Piping

- Cast iron, galvanized steel pipe and aluminum DWV pipe is not welded.
- Slip joints have not been used in the venting or drainage system.

- Connection of pipes with an increaser or reducer will permit drainage of system.
- Allowance made for expansion of piping.
- Piping protected against freezing temperatures.
- Continuous support of piping.
- Storm building drain and sewer is white in colour.
- Sanitary building drain and sewer is any other colour but white.

Testing of Drainage, Venting and Potable Water Systems

- Systems are ready for inspection prior to the inspectors arrival with water or air pressurized.
- No leaks in drainage, venting or water distribution systems.

Traps

- Floor drains have trap seal primers and are vented.

Cleanouts

- Cleanout for the building drain is accessible
- Cleanout located at base of stacks

Slope and Length of Drainage Pipe

- Minimum slope of 1 in 50 for pipe 3 inch or less.

Vent Pipes

- Vent pipe of at least 1 ½" on each storey.
- Sewage ejector is vented at the top.
- Vent pipe installed without sag and no open or unused ends.