

CITY OF WILLOUGHBY

SEWER STANDARDS AND SPECIFICATIONS

GENERAL REQUIREMENTS

- Any contractor performing sewer work in the City must be registered as a sewer contractor
- All sewer work **MUST** have a permit and an APPROVED SITE PLAN prior to any work being done
- All sewer work **MUST** be inspected **PRIOR** to backfilling
- Call the Service Department @ (440) 953-4111 to schedule single family residential sewer lateral inspections; a minimum of 4 hr notification is required
- Call the City Engineer @ (440) 951-9000 to schedule all other sewer inspections; a minimum of 48 hr notification is required
- Basement Waterproofing and Foundation Drains are the responsibility of the Building Department

GENERAL INFORMATION (private or public work)

1. Bedding and Cover
 - #57 premium limestone is to be used
 - 4" (min) of limestone is required below the pipe
 - 12" (min) of limestone is required above the pipe
2. The pipe identification (lettering) is to be facing up.
3. All sewer pipe, from 3' outside the foundation, is to be gasketed. **NO EXCEPTIONS.**
4. No 90 degree fittings are to be used on either storm or sanitary laterals.
5. All taps made into the main line sewer must use a cut-in wye connection unless an alternate is approved by the Service Director.
6. Tee fittings (6"x6"x6") are required for clean-outs.
7. A **water test** is required if there is more than one (1) gasketed joint on a sanitary lateral. Use OEPA standards (100 GPD/in-mile or air test)
8. Adaptor fittings are acceptable to make transitions from one pipe to another. The adaptor must have the gasket and the stainless steel straps completely around the pipe.
9. Clean-outs:
 - Are required near the right-of-way if one does not exist or if the location is unavailable.
 - Cannot be located in or under the driveway or the sidewalk.
 - Are to be cut off no more than 6" below grade and clearly marked with a temporary stake.
 - On long runs; 1 cleanout per 75' of pipe length

PRIVATE PROPERTY

SANITARY LATERALS

- Size:** 6" diameter from the main to within 3' of the building foundation
- Materials:** SDR-26 gasketed PVC pipe
- Cleanout:** Required for every 1, 2 and 3 family residential facility.

PRIVATE PROPERTY (con't)

STORM LATERALS

- Size:** 6" diameter from the main to the rear corner of the house.
4" diameter pipe is allowed from the rear corner of the house to a single yard drain or the garage downspouts.
6" diameter pipe is required from the rear corner if multiple drains (yard and driveway) and downspouts are connected
- Materials:** SDR-35 gasketed PVC or Extra Strength VCP with premium joints

CULVERT PIPES

- Size:** 8" diameter minimum; ***Size to be determined by City Engineer***
- Materials:** Reinforced concrete pipe (RCP), Hancor Hi-Q [polyethylene smooth interior pipe], or corrugated metal pipe (CMP).
- Grades:** must be determined from both adjacent driveway culvert pipes to ensure proper elevation.

DRAINS

Yard drains

- Size:** 15" diameter minimum
- Materials:** Clay crock, casting, bedding stone
- Requirements:** The crock must have a clay stub extending no more than 2" into crock. The clay stub must be sealed inside & outside the crock with a waterplug type material. The clay stub shall have a rubber coupler to connect to other pipe material. The crock shall have a concrete bottom.

Driveway drains

- Size:** 12" diameter
- Materials:** Clay crock, manufactured driveway drain, casting, bedding stone
- Requirements:** Same as listed for yard drains. Manufactured driveway drains (i.e. track drain) are to use factory fittings designed for that drain.

*French drains**

- Size:** 6ft x 6ft x 6ft, the minimum excavation size of the hole
- Materials:** #57 stone, clay crock, and casting
- Requirements:** The excavation is to be filled with #57 stone to 8" below finished grade. The crock and casting placed in the center of the stone and topsoil spread and seeded over the stone.

**Used where storm sewers are not available for drainage typically in rear yards*

ROAD OPENINGS

1. A **Right-of-Way Permit** and deposit are required and can be obtained from the Building Department
2. Proper traffic control & signage is required
3. The roadway pavement is to be saw cut
4. The pipe is to be bedded & covered in # 57 premium limestone fill. (4" under 12" over, minimum)
5. The rest of the trench is to be filled in with either ODOT # 304 limestone & compacted properly in lifts or low strength mortar (LSM).
6. The road is to be restored in kind within a reasonable amount of time. Concrete roads must be replaced joint to joint and pinned with dowel bars. If the road settles within 2 years, the contractor is responsible for the repairs.

ROAD OPENINGS (con't)

7. Sidewalks and treelawns shall also be restored in kind within a reasonable amount of time. All disturbed earth shall be seeded and strawed and/or a silt fence installed as directed by the Service Department personnel to prevent runoff and erosion of soil into the City's storm sewer system.
8. Deposits will be returned upon final inspection and acceptance of restoration. Deposits may be forfeited if the City is forced to perform the restoration.

SEWER WORK ON MAINS & WITHIN THE RIGHT-OF-WAY

ALL SEWER MAIN WORK MUST BE APPROVED BY THE SERVICE DIRECTOR OR CITY ENGINEER PRIOR TO THE START OF WORK

ALL MAINLINE SEWER INSTALLATIONS (SANITARY AND STORM) SHALL BE TELEVISED UPON COMPLETION OF WORK

SANITARY SEWERS

Sizes

- 6" diameter minimum on lateral piping
- 8" diameter minimum on mainline piping

Materials

- R.C.P. is required for all pipe larger than 15". Sanitary pipe interior must be sealed with an approved waterproof coating
- PVC SDR-26 for all pipe 15" and smaller
- All pipe must be gasketed
- Fittings connecting main to a lateral MUST be ARC (Adjustable Repair Coupling) fittings with stainless steel bands or equivalent. (on large diameter mains, Cor-n-Seal or Inserta Tee fittings can be used)
- Mainline piping will be tested with either air pressure or water according to the Ohio EPA standards

Manholes

- Maximum distance between manholes is 300'
- Manholes are required at every junction, change in grade, change in direction, and the end of the sewer run.

STORM SEWERS

Sizes

- 6" minimum on all lateral piping
- 12" minimum on all mainline piping
- 8" minimum on all culvert pipes (***Size to be determined by City Engineer***)

Materials

- R.C.P. is required on all pipe larger than 15"
- PVC SDR-26 or RCP is required on all pipe 15" and smaller
- All pipe must be gasketed
- Fittings connecting main to a lateral MUST be ARC (Adjustable Repair Coupling) fittings with stainless steel bands or equivalent. (on large diameter mains, Cor-n-Seal or Inserta Tee fittings can be used)

Manholes

- Maximum distance between manholes is 300'
- Manhole is required at every junction, change in grade, change in direction, and at the end of the sewer.