



Storm Sewer Drainage Requirements and Criteria

The requirements of Chapter 1201 – Subdivision and Development Regulations, as adopted by Ordinance No. 92-78, in conjunction with the design requirements and criteria noted below shall govern the design of the storm water management system. The construction of the storm sewer system shall be in accordance with, as adopted by ordinance 2019-01, the 2018 edition of the City of Columbus Construction and Materials Specifications (COLS) where specified, including all supplements, shall govern all materials and workmanship involved in the improvements shown on this plan.

These storm water drainage requirements and criteria do not provide solutions to all drainage issues, nor is the engineer restricted to these designs or procedures exclusively. Although the guidelines as stated will hold true for most development work, the City realizes that there may be individual projects involving special or unusual drainage design problems that should be reviewed prior to completing the design. The City may grant exceptions to these requirements and criteria in such cases when engineering studies show the guidelines to be inapplicable or where the use of innovation or experimental post-construction storm water management technologies may be beneficial.

Storm water drainage shall meet the standards outlined in the current edition of the *City of Columbus Stormwater Drainage Manual*.

Copies of this manual may be obtained from:

City of Columbus Division of Sewerage and Drainage
910 Dublin Road
Columbus, Ohio 43215
(614) 645-7175

<https://www.columbus.gov/utilities/contractors/Stormwater-Drainage-Manual/>

Other additions and/or exceptions to the *City of Columbus Stormwater Drainage Manual* are as follows:

The following substitutions should be made when referencing this document:

<u>Reference</u>	<u>Substitute</u>
City of Columbus	City of Westerville
Division of Sewerage and Drainage	Engineering Division
Division of Engineering Construction	Engineering Division
Administrator	City Engineer
City of Columbus, Water Division	Engineering Division
Director of the Department of Public Utilities	City Engineer

Design Control Guidelines

- A Master Drainage Plan may be required and approved by the Engineering Division.

Roadway Culverts

- Maximum Allowable Headwater
Diameter or rise plus 4" or 2D, whichever is lower, in deep ravines
- Minimum Cover
30" to pavement subgrade, or as approved by the City Engineer
- End Protection
12" culverts – half-height headwall
15" through 36" culverts – full-height headwall

Storm Sewers

- All public storm sewer shall be reinforced concrete pipe conforming to ASTM designation C76 Class II (at a minimum, Wall B, unless otherwise approved by the City Engineer.
- Within the limits of existing or proposed rights-of-ways, where maximum cover during construction or proposed cover over the outside top of the pipe is 30" or less for pipe size 12" to 27" diameter inclusive, concrete encasement will be required. Trench backfill shall be as per the requirements of the *City of Columbus Construction and Materials Specifications* Item 912 as directed by the City Engineer.
- Storm Sewer Manhole castings shall be labeled "Storm Sewer".

Curb Inlets

- Pavement Spread calculations are required on all public streets on curb inlets with a maximum spacing of 400' maximum a part.
- Provide 1" performed expansion joint filler in curb and gutter 5' from each side of inlet.
- Double curb inlet; provide one frame casting and two gates.
- All catch basins and curb inlets casting shall be labeled/stamped with "No Dumping, Drains to Rivers".

Storm Water Runoff Quality Control

To ensure the receiving stream's chemical and biological characteristics are protected and stream functions are maintained, pre and post-construction storm water practices shall provide perpetual management of runoff quality. Detail drawings and maintenance plans must be provided for all pre and post-construction best management practices. Pre and Post-construction storm water management must meet or exceed the requirements described in the latest Ohio EPA's *NPDES Construction Storm Water General Permit*. A stand-alone SWP3 manual shall be per the Ohio EPA NPDES Construction General Permit. This permit applies statewide to disturbances of one acre or greater and can be viewed at the following website: <https://epa.ohio.gov/dsw/storm/index>

Stormwater Operations and Maintenance Plan

The stand-alone Stormwater Operations and Maintenance plan (8 ½ X 11 format) shall be per Ohio EPA and City of Columbus Stormwater Drainage Manual Section 4. A copy of the Maintenance Inspection Log for all BMP's shall be submitted annually by December 31st of each year to the City of Westerville Service Department:

City of Westerville
Department of Public Service
350 Park Meadow Road
Westerville, Ohio 43081