

# Stormwater Requirements for New Development and Redevelopment in Henderson, Kentucky



## ***Stormwater Detention***

### *New Development Standards for Detention:*

Ponds shall be designed to reduce post-development peak flows to 30% below pristine conditions for the 25-year 6-hour storm and the 100-year 24-hour storm. The emergency spillway shall be designed to pass the 100-year 24-hour storm. [Tech. Stormwater Standards 5.3.1.1]

Exemptions: [Tech. Stormwater Standards 1.4.1]

1. Sites served by a regional detention system or master plan for which a fee-in-lieu has been established.
2. Sites for which on-site detention would have insignificant effects on reducing downstream flood levels.
3. Sites where detention is not needed to protect downstream property and the downstream drainage system has sufficient capacity to receive an increase in the 100-year storm.
4. Constructing a detention basin would increase flood levels at some point downstream.
5. Installing a detention system would not be in the best interest of the City or HWU.

### *Redevelopment Standards for Detention:*

Detention shall be designed and constructed to reduce peak flows, after redevelopment, to 80% of the peak flows before redevelopment. Design storms are the same as for new development.

[Tech. Stormwater Standards 1.7.3]

Exemptions:

1. Exempt if the imperviousness of the original site is reduced by at least 20%.  
[Tech. Stormwater Standards 1.7.2]

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## ***Stormwater Treatment***

### *New Development Standards for Treatment:*

The Water Quality Volume (WQV – Volume of water to be treated for stormwater quality) is 0.60 inches times the entire impervious surface area proposed for a development project. [City Code No. 23-27.3 (b)]

1. Treat at least 50% of site with bioretention or infiltration unless approved by HWU, and
2. Treat all rooftop and parking lot runoff with bioretention, infiltration, sand filter or manufactured device. [Tech. Stormwater Standards 1.5.2]

### *Redevelopment Standards for Treatment:*

The WQV for redevelopment projects shall be 20% of the existing impervious area plus 100% of the new/proposed impervious area times 0.60 inches. [Tech. Stormwater Standards 1.7.4] A project that reduces the existing impervious area by at least 20% is not required to provide any other stormwater treatment (Existing impervious area is defined as any impervious surface area appearing on the Henderson City/County GIS orthophotography taken in 2003). [Tech. Stormwater Standards 1.7.2]

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## ***Maintenance of Private Stormwater Improvements***

Property owner shall be responsible for maintenance. Perpetual maintenance shall be specified in a note on the face of the plat. If property is not platted, a land use restriction shall be recorded requiring perpetual maintenance of all stormwater structures or devices. [City Code No. 23-27.5 (i)]

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## ***Erosion Control During Construction***

### *Sites Disturbing More than 1 Acre:*

For sites disturbing more than one acre, or for sites that are part of a common plan of development that is more than one acre total, the following items are required:

1. An NOI (Notice of Intent) must be filed with the Kentucky Division of Water (KDOW), and
2. An application must be made to HWU for coverage under their local general permit.  
[City Code No. 7-202 (c)]

Links to the appropriate applications can be found at:

<http://tinyurl.com/HWU-MS4-Permits>

### *Sites Disturbing 1 Acre or Less of Soil:*

For small construction sites of 1 acre or less, the following items are required. [City Code No. 7-203 (h)]

1. An approved construction entrance;
2. Perimeter control, if there is potential for disturbed soil to be deposited onto or in streets, storm sewers, drainage channels or streams;
3. Contained washout facility for concrete trucks;
4. Trash control;
5. Prompt cleanup of any sediment, mud, or other debris discharged to streets, gutters, storm sewers or streams.