



DEPARTMENT OF PERMITTING SERVICES

Douglas M. Duncan
County Executive

Robert C. Hubbard
Director

WATER RESOURCES TECHNICAL POLICY
ACCESS REQUIREMENTS FOR UNDERGROUND STORMWATER
MANAGEMENT FACILITIES IN MONTGOMERY COUNTY

July 1, 2005

1. At all access points to underground stormwater structures where more than nine inches of adjustment rings are required to match final grade, a concrete riser that is a minimum of forty eight inches in diameter must be used. Corrugated metal pipe (CMP) storage systems may have a CMP riser with a minimum of forty eight inches inside diameter.
2. The top of underground stormwater management structures cannot be located more than four feet below proposed grade.
3. All manhole openings must be a minimum of thirty inches in diameter.
4. The following will apply when a concrete riser is required for access. The manhole riser must be pre-cast concrete and may be square or round. It must be at least forty eight inches in diameter. If a round manhole riser is used it must be forty eight inches inside diameter for the entire height, it cannot be necked down to accommodate the manhole frame. A top slab must be used. The opening in the top of the underground structure must match the inside dimensions of the riser.
5. Solid concrete adjustment rings may be used to raise the manhole a maximum of nine inches to match the final grade.
6. Steps in the manhole risers and structures must comply with Standard Details No. MC-520.01 for spacing and No. MD-383.92 for the step material requirements.
7. When the depth from the surface to the bottom of the structure exceeds twelve feet a ladder must be installed. See WSSC Standard Details: Aluminum Ladder M/16.0 and Ladder Extension M/16.1.
8. In addition there should be access openings in each chamber. The openings must provide safe access to all valves and other control devices. Ladders and steps must be located outside of water flows from orifices and valves and must allow inspection and maintenance to the structure without having to cross the water flow paths.



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**WATER RESOURCES TECHNICAL POLICY
SAFETY STORM CRITERIA FOR PERMANENT
PONDS USED AS SEDIMENT BASINS**

January 21, 1997

The new 3600 cf sediment control storage requirement often exceeds the stormwater management storage requirements for permanent ponds used temporarily as sediment basins. To meet the storage requirement, the engineers often propose raising the riser crest via bricking it up and leaving the top slab off. This is acceptable only if the following items are carried out:

1. The sediment basin safety storm criteria (pass 10-year storm with one foot of freeboard) shall be checked and met.
2. The "temporary" safety storm (10-year) will be computed using the proposed post-developed T_c and RCN's related to "Newly Graded Areas" (i.e., A=77, B=86, C=91, D=94), or the post development RCN's, whichever is greater. This provides for proper safety passage while the pond is in the temporary sediment control phase.
3. If desired, the 10-year WSE can be determined by flood routing. However in doing so only the safety storm storage above the riser crest should be utilized. The pond shall be considered as "full" up to the riser crest.
4. An appropriately sized standard basin type CMP trash rack/anti-vortex device shall be used on top of the temporary modified riser which has had its top slab temporarily removed.

Any stormwater management pond being temporarily used as a sediment basin (with or without riser modifications) should comply with the following:

1. Meet the criteria listed in item #1 through #3 listed above.
2. A separate page(s) of computations shall be submitted detailing how all the appropriate criteria above and the sediment control storage are met.
3. Any pond not meeting the above criteria should have additional sediment control storage provided by the creation of sediment trapping structures upstream of the pond.

Original signed for Richard Brush by Jay Beatty 1/21/97

Signed

Date

Division of Land Development Services

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WATER RESOURCES TECHNICAL POLICY
HEIGHT OF EMBANKMENT FOR
WATER QUALITY STRUCTURES
October 2, 2003

1. These structures are designed to collect and treat runoff to meet stormwater management water quality requirements only. Runoff that exceeds this amount is diverted away from the structure using flow splitters within the storm drain system.
2. These structures contain some sort of filter media (sand, specific soil mixes, etc.). The filter media is not used in the design of the structure to determine water quality volume. The structure must be designed such that the required water quality volume is contained above the filter media.
3. One foot of freeboard is provided above the ten-year water surface elevation in the structure.
4. There is no emergency spillway or principal spillway. There is only a 6-inch PVC underdrain.
5. For compliance with MD-378, the height of the embankment is measured from the top of the filter media to the top of the berm.
6. When site conditions warrant, Montgomery County Department of Permitting Services (MCDPS) can require the structure to be designed in accordance with MD-378 standards regardless of the height of the berm.
7. MCDPS currently uses the standard "Construction Specifications for Shallow Facilities" for the design and construction of these structures. The standard includes construction inspection, site preparation, earth fill and backfill requirements, and specifications for the underdrain.



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WATER RESOURCES TECHNICAL POLICY
REDEVELOPMENT
September 18, 2003

1. Redevelopment is defined as a proposed land disturbing activity where the existing land use is commercial, industrial, institutional, multifamily residential, or public right of way; and either:
 - a. the existing development covers 50% or more of the lot area; or,
 - b. the land disturbing activity is limited to the previously developed portion of the property.

2. A sediment control permit is required for redevelopment sites when land disturbance is equal to or greater than 5000 square feet or the total amount of earth movement totals 100 cubic yards or more.

3. Except for maintenance activities, stormwater management is required when a sediment control permit is required. Maintenance activities include the milling and repaving of existing parking lots and sidewalks with no change in grade.

4. Water quality requirements for redevelopment
 - a. Infiltration/filtration is given priority. Unlike new development, there is no requirement for additional storage for flow-through type filtration bmp's.
 - b. Hydrodynamic structures may be used when infiltration/filtration bmp's are found to be infeasible.

5. Channel Protection requirement for redevelopment is the same as for new development. The following are special conditions:
 - a. Normally, water quality volume requirements cannot be used to reduce the volume requirements for channel protection. However, for redevelopment this may be waived by DPS when no feasible alternative exists on a particular site.
 - b. If the volume in a water quality facility is used to reduce the volume of a separate channel protection structure, the water quality facility must outfall into the channel protection structure.
 - c. By executive policy, channel protection requirements are waived for sites within Central Business Districts when there is less than a 10% increase in impervious surface and the site is two acres or less.

6. Recharge is not required for sites meeting the definition of redevelopment.