

## Carroll County Supplemental Materials Specifications for Sand Filters

Material	Specification	Size	Notes
<b>Plantings</b>	See Landscape Plan	N/A	Plantings are site specific and per approved landscape plan
<b>Seed Mix</b>	SHA Special Purpose Seed Mix Per MD Standards & Specifications §920.06.07b	200 lbs/Acre	Used with straw mulch in place of shredded hardwood mulch Incorporate seed evenly in top ½” of filter media
<b>Mulch</b>	Shredded Hardwood	N/A	Aged 6 months, minimum
<b>Straw Mulch</b>	MD Standards and Specifications §920.04	2 Tons/Acre	1” Straw mulch over seed bed. (Filter, slopes, and embankment).
<b>Geotextile</b>	Class “C” – Apparent opening size (ASTM-D-4751), Grab Tensile Strength (ASTM-D-4632), Puncture Resistance (ASTM-D-4833)	N/A	Sides only Not on bottom unless specified on the plans
<b>Underdrain and Reservoir Gravel</b>	AASHTO M-43 No. 8 Stone	¾” – 1⅛”	Stone must be clean and washed
<b>Underdrain and Observation Well Piping</b>	Slotted PVC or Slotted HDPE Type “SP” Pipes Solid: Scheduled 40 PVC or HDPE Type “S”	See Plan	Refer to the Carroll County SWM Supplement Pg. 87 All pipes must be double walled (smooth core) and slotted (no circular holes)
<b>Sand</b>	ASTM-C-33 (3 parts to 6 within Filter Media)	0.02” – 0.04”	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No “rock-dust” can be used for sand. Manufactured sand from approved sources may be used for filters. Manufactured sand may not be used in dams.
<b>Soil</b>	Engineer approved loam with 20% or less clay (1 part to 6 within Filter Media)	N/A	
<b>Wood Chips</b>	Untreated “Green” (2 parts to 6 within Filter Media)	N/A	Untreated “green” wood chips
<b>Filter/Planting Media</b>	Comprised of 3 parts sand, 2 parts wood chips, 1 part soil	2 ft Minimum	See individual material specifications
<b>Impervious Liner</b>	Polyvinyl Chloride (PVC) or approved equal	30 Mil Minimum Thickness	Bottom and Sides See Carroll County Standard details and notes