DeKalb County
GEORGIA

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DeKalbCountyGa.gov

178 Sams Street
Decatur, GA 30030

Lorraine Cochran-Johnson
Chief Executive Officer

DEPARTMENT OF PLANNING & SUSTAINABILITY

Cedric Hudson
Interim Director

SINGLE FAMILY RESIDENTIAL - WATER QUALITY REVIEW LIST

Site Address_____

Reviewed by_____Date_____

- ❑ Show "Required" total water quality volume (WQv). Use the Georgia Stormwater Management Manual Volume 2 Equation 2.1.21 to determine the required volume or use the simplified version below:
  - o WQv (cuft) = 0.1 x Square Feet of Impervious Area (roof area, driveways, patios, and etc.)
  - o WQv (gallons) = 0.1 x Square Feet of Impervious Area x 7.5

- ❑ Show "Provided" total water quality volume ("provided" volume must exceed "required" volume) (Keep units the same (cubic feet or gallons)

- ❑ Show on site plan:
  - o Proposed location of each water quality device.
  - o Show how much volume each water quality device provides.
  - o Construction detail(s) with all pertinent information required for proper installation for water quality devices.
  - o Water quality devices drawn to scale.

- ❑ Design:
  - o Water quality devices installed on the proposed site (no off site treatment)
  - o Overflow from water quality devices not to adversely affect adjacent properties
  - o Flow from water quality devices to have positive drainage away from all foundations

- ❑ Location limitations – <u>Not allowed in:</u>
  - o In the County's 75 foot stream buffer
  - o In a tree save / critical room zone
  - o In the Special Flood Hazard Area shown on the Flood Insurance Rate Maps (FIRM),
  - o Within 10 feet of the property line (unless an above ground rain barrel),
  - o Within 10 feet of a building foundation, and
  - o Within the backfill zone of a retaining wall (without a Professional Engineer's structural certification).

- ❑ Place these notes on the site plan:
  - o "As-built water quality certification or lot as-built survey (including water quality devices) is required prior to certificate of occupancy."
  - o "Water quality devices to be installed at the time of final landscaping."
  - o "All collected water shall be directed to the water quality devices."

- ❑ Specific Requirements for below ground infiltration measures:
  - o All stone / gravel washed (having no fines). Maximum allowable void ratio is 40%,
    - ▪ Simple equation for determining total gravel volume – WQv (cuft) x 0.093 = Gravel Volume (cubic yards).
  - o Distribute runoff within a linear gravel deice using a slotted / perforated flex pipe. For downspout connections to the device, use solid walled PVC (schedule 20 minimum)

- Provide a cleanout and an emergency bypass for excess flows installed on the piping system prior to piping reaching the infiltration device.
- Infiltration devices placed on a 0% grade.
- A non-woven filter fabric placed between the soil and the device or gravel.
- Location restrictions:
  - Devices below lowest floor elevation (including unfinished basements and crawl spaces) shall be a minimum of 10' from the foundation.
  - Devices above the lowest floor elevation (including unfinished basements and crawl spaces) shall be a distance of 2 times the elevation difference between the top of the device and the bottom of the lowest floor or 25' whichever is greater,
  - Distance from private well – 10 feet
  - Distance from septic system / leach field – 100 feet
  - Distance from surface drinking water sources – 400 feet
  - Distance from other surface waters – 100 feet

- May be placed beneath patios or driveways, but shall support vehicle loads for a 25 year design life without any subsidence or deformation. Use either County standard design details, manufacturers design details or provide professional engineer stamped drawings.

❑ Other_____

_____ _____

PLEASE RETURN THIS CHECKLIST ALONG WITH THE REDLINED PLANS AND CORRECTED COPIES.

Examples of Allowed Water Quality Devices

- ❑ Underground infiltration
- ❑ Rain tanks with above ground slow discharge rates
- ❑ Rain tanks with underground infiltration
- ❑ Rainwater harvesting
- ❑ Rain gardens with underground storage chambers
- ❑ Rain gardens with below ground infiltration
- ❑ Permeable pavement with underground storage / infiltration
- ❑ Modular Wetlands and Tree wells

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Available Commercial Products

Type	Product	Company
Underground Infiltration ❑ **Plastic arch chambers surround gravel**	Storm Tech Cultec Infiltrator StormChamber	ADS, Inc Cultec Infiltrator Systems Contech Construction Products
❑ Plastic box-like chambers	RainStore EcoRain Modular Rain Tank DeepRoot Silva Cells	Invisible Structures EcoRain Deep Root Partners
❑ Other chambers	Flo-Well Dry Wall	NDS
Permeable Pavement	Concrete Pavers FilterPave GeoBlock GeoPave FirmaPave NetPave50 DuoBlock EcoGrid EZ Roll Grassroad Pavers Tufftrack GrassPave2 GravelPave2 Grassy Pavers TurfStone	PaveStone Presto Geosystems Presto Geosystems Presto Geosystems Presto Geosystems Contech Construction Products Geosynthetics TerraFirm Enterprises NDS NDS Invisible Structures Invisible Structures Equiterr Bend Industries