



To: John McDonough

From: Michelle M. Alexander, Director of Community Development

Date: August 8, 2016 for Submission onto the August 16, 2016 City Council Regular Meeting Agenda

Subject: Ordinance to Amend the Sandy Springs Post Development Stormwater Regulations

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***Department of Community Recommendation:***

Adopt amendments to the city stormwater regulations to:

- Specify the current Georgia Stormwater Management Manual as 2016 edition
- Clarify and improve application submittals and further, align submittals with the updated manual requirements

***Background:***

The Atlanta Regional Commission and partners spent 2014-2015 updating the Georgia Stormwater Management Manual (the “Blue Book”), with stakeholders, technical teams and public input. The update includes the guidance and preference for green infrastructure methods that the City Council and Mayor directed Staff to achieve internally in the spring of 2015. **Staff came to Council in April** to review the improvements made to the manual. Staff returned in June to present additional research on how to supplement gaps in the manual. Council provided Staff policy guidance regarding additional study about individual single family residential projects and additions. **Council further directed Staff to proceed with amendments to align City land development regulations with the updated manual.**

***Discussion:***

The updated manual includes new calculations and provides for a series of options for stormwater management technologies. To ensure compliance, application submittals must include more detailed plan specifications. Staff will continue to prepare recommendations for supplementing and strengthening development codes related to stormwater management and water quality.

***Attachments:***

Ordinance to adopt amendments to the Land Development Regulations

**COMMUNITY DEVELOPMENT**

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ORDINANCE # \_\_\_\_\_

Mayor and Council Date: August 16, 2016

STATE OF GEORGIA  
COUNTY OF FULTON

**AN ORDINANCE TO AMEND THE SANDY SPRINGS: LAND DEVELOPMENT REGULATIONS, CHAPTER 109 SECTIONS RELATED TO POST DEVELOPMENT STORMWATER**

**WHEREAS**, the Mayor and City Council of the City of Sandy Springs find that from time to time it is necessary to amend sections of the Land Development Regulations to correct, clarify, and update the provisions of the Ordinance; and

**WHEREAS**, the Atlanta Regional Commission (ARC), Georgia Environmental Protection Division, Georgia Environmental Finance Authority, a Technical Advisory Group, and a consultant team led by AECOM have worked to update the Georgia Stormwater Management Manual (the Blue Book) since October 2014 and the new edition was released in January 2016; and

**WHEREAS**, this update requires clarifications for application submittals as provided for in the City of Sandy Springs Chapter 109, *Natural Resources and Environmental Protection* regulations to reflect the updated aforementioned Manual;

**NOW, THEREFORE**, to accomplish the foregoing, the Mayor and City Council of the City of Sandy Springs, Georgia, pursuant to their authority, do hereby adopt the following Ordinance:

**1.**

Chapter 109, *Natural Resources and Environmental Protection*, Section 109 Sec. 109-187. - *Stormwater design manual* is hereby amended as follows:

**Section 109-187**

The city will utilize the policy, criteria and information including technical specifications and standards in the latest edition of the Georgia Stormwater Management Manual [2016 update, including any future amendments therof](#), and any relevant city addenda (or equivalent city stormwater management design manual) for the proper implementation of the requirements of this article. The manual may be updated and expanded periodically, based on improvements in science, engineering, monitoring and local maintenance experience.

**2.**

Chapter 109, *Natural Resources and Environmental Protection*, Section 109-191., *Stormwater management plan requirements* of the City of Sandy Springs Land Development Regulations are hereby amended as follows:

1 **Sec. 109-191. - Stormwater management plan requirements.**

2 (a) The stormwater management plan shall detail how postdevelopment stormwater  
3 runoff will be controlled or managed and how the proposed project will meet the  
4 requirements of this article, including the performance criteria set forth in section  
5 109-195

6 (b) This plan is in accordance with the criteria established in this section and must be  
7 submitted with the stamp and signature of a design professional licensed in the state,  
8 who must verify that the design of all stormwater management facilities and  
9 practices meet the submittal requirements outlined in the current Georgia Stormwater  
10 Management Manual 2016 Edition (here and henceforth all references to this manual  
11 assume the 2016 edition, including all amendments as may be forthcoming from time  
12 to time) and the City's submittal requirements for commercial and single-family  
13 residential development.

14 (c) The stormwater management plan must ensure that the requirements and criteria in  
15 this article are being complied with and that opportunities are being taken to  
16 minimize adverse postdevelopment stormwater runoff impacts from the  
17 development. The plan shall consist of maps, narrative, and supporting design  
18 calculations (hydrologic and hydraulic) for the proposed stormwater management  
19 system. The plan shall include all of the applicable design requirements and forms  
20 found in the Georgia Stormwater Management Manual and the City's submittal  
21 requirement for commercial and single-family residential development. This includes  
22 but is not limited to:

23 (1) The common address and legal description of the site.

24 (2) Vicinity map.

25 (3) Existing conditions and proposed site plans. Existing conditions and proposed  
26 site layout plans which illustrate at a minimum; existing and proposed  
27 topography, perennial and intermittent streams; mapping of predominate soils  
28 from soil surveys, boundaries of existing predominant vegetation and proposed  
29 limits of clearing and grading, and location of existing and proposed roads,  
30 building parking area and other impervious surfaces.

31 (4) Infiltration rates. Infiltration rates shall be determined by soil surveys, on-site  
32 soil analysis or a percolation test. If the site has been previously developed or  
33 graded or contains urban soil types, a percolation test is required.

34 (5) Natural resources inventory. A written or graphic inventory of the natural  
35 resources in existence prior to the commencement of the project. This inventory  
36 shall address resources both on the site and in the surrounding area that are or  
37 may be impacted by the project. This inventory shall also include a description  
38 of the soil conditions, forest cover, topography, wetlands, and other native  
39 vegetative areas on the site, as well as the location and boundaries of other  
40 natural features protection and conservation areas such as wetlands, lakes,  
41 ponds, floodplains, stream buffers and other setbacks, including but not limited  
42 to drinking water well setbacks and septic setbacks. Particular attention should  
43 be paid to environmentally sensitive features that present constraints for  
44 development.

45 (6) Existing conditions hydrologic analysis. The existing condition hydrologic  
46 analysis for stormwater runoff rates, volumes, and velocities in accordance with

1 the current Georgia Stormwater Management Manual, which shall include: a  
2 topographic map of existing site conditions with the drainage basin boundaries  
3 indicated; acreage, soil types and land cover of areas for each subbasin affected  
4 by the project; all perennial and intermittent streams and other surface water  
5 features; all existing stormwater conveyances and structural control facilities;  
6 direction of flow and exits from the site; analysis of runoff provided by off-site  
7 areas upstream of the project site; and methodologies, assumptions, site  
8 parameters and supporting design calculations used in analyzing the existing  
9 conditions site hydrology. For redevelopment sites, predevelopment conditions  
10 are modeled using guidelines established by the director for the portion of the  
11 site undergoing land development activities.

12 (7) Postdevelopment hydrologic analysis. The postdevelopment hydrologic analysis  
13 for stormwater runoff rates, volumes, and velocities, which shall be calculated [in](#)  
14 [accordance with the Georgia Stormwater Management Manual](#) and include: a  
15 topographic map of developed site conditions with the postdevelopment  
16 drainage basin boundaries indicated; total area of postdevelopment impervious  
17 surfaces and other land cover areas for each subbasin affected by the project;  
18 calculations for determining the runoff volumes that need to be addressed for  
19 each subbasin for the development project to meet the postdevelopment  
20 stormwater management performance criteria in section 109-195; location and  
21 boundaries of proposed natural feature protection and conservation areas;  
22 documentation and calculations for any applicable site design credits that are  
23 being utilized; methodologies, assumptions, site parameters and supporting  
24 design calculations used in analyzing the existing conditions site hydrology. If  
25 the land development activity on a redevelopment site constitutes more than 50  
26 percent of the site area for the entire site, then the performance criteria in section  
27 109-195 must be met for the stormwater runoff from the entire site. [For a](#)  
28 [subdivision of land or planned development, post-development runoff volumes,](#)  
29 [rates, and velocities shall be calculated based on the built-out conditions of the](#)  
30 [entire parcel to be subdivided, regardless of future ownership of individual lots.](#)  
31 [Estimates of impervious surfaces shall be made based on maximum allowable](#)  
32 [lot coverage in accordance with the City's Zoning Ordinance when meeting the](#)  
33 [performance criteria. The developer of said subdivided parcel may provide](#)  
34 [runoff reduction and water quality measures for individual lots which must be](#)  
35 [reflected accordingly on the final plat.](#)

36 (8) Stormwater management system. The description, scaled drawings and design  
37 calculations for the proposed postdevelopment stormwater management system,  
38 which shall include: A map and/or drawing or sketch of the stormwater  
39 management facilities, including the location of nonstructural site design  
40 features and the placement of existing and proposed structural stormwater  
41 controls, including design water surface elevations, storage volumes available  
42 from zero to maximum head, location of inlet and outlets, location of bypass and  
43 discharge systems, and all orifice/restrictor sizes; a narrative describing how the  
44 selected structural stormwater controls will be appropriate and effective; cross  
45 section and profile drawings and design details for each of the structural  
46 stormwater controls in the system, including supporting calculations to show  
47 that the facility is designed according to the applicable design criteria; a  
48 hydrologic and hydraulic analysis of the stormwater management system for all

- 1 applicable design storms (including stage-storage or outlet rating curves, and  
2 inflow and outflow hydrographs); documentation and supporting calculations to  
3 show that the stormwater management system adequately meets the  
4 postdevelopment stormwater management performance criteria in section 109-  
5 195; drawings, design calculations, elevations and hydraulic grade lines for all  
6 existing and proposed stormwater conveyance elements including stormwater  
7 drains, pipes, culverts, catchbasins, channels, swales and areas of overland flow;  
8 and where applicable, a narrative describing how the stormwater management  
9 system corresponds with any watershed protection plans and/or local greenspace  
10 protection plan.
- 11 (9) Postdevelopment downstream analysis. A downstream peak flow analysis that  
12 includes the assumptions, results and supporting calculations to show safe  
13 passage of postdevelopment design flows downstream. The analysis of  
14 downstream conditions in the report shall address each and every point or area  
15 along the project site's boundaries at which runoff will exit the property. The  
16 analysis shall focus on the portion of the drainage channel or watercourse  
17 immediately downstream from the project. This area shall extend downstream  
18 from the project to a point in the drainage basin where the project area is ten  
19 percent of the total basin area. In calculating runoff volumes and discharge rates,  
20 consideration may need to be given to any planned future upstream land use  
21 changes. The analysis is in accordance with the stormwater design manual.
- 22 (10) Construction-phase erosion and sedimentation control plan. An erosion and  
23 sedimentation control plan in accordance with the Georgia Erosion and  
24 Sedimentation Control Act of 1975 (O.C.G.A. § 12-7-1 et seq.) or NPDES  
25 permit for construction activities. The plan shall also include information on the  
26 sequence/phasing of construction and temporary stabilization measures and  
27 temporary structures that will be converted into permanent stormwater controls.  
28 Prior to the approval of the stormwater management plan, the applicant or  
29 responsible party shall submit a proposed staged construction and inspection  
30 control schedule for approval; otherwise, the construction and inspection control  
31 schedule will be for the entire drainage system. No stage work related to the  
32 construction of stormwater management facilities or BMPs shall proceed until  
33 the next proceeding stage of work, according to the sequence specified in the  
34 approved stage construction and inspection control schedule, as inspected and  
35 approved. Runoff reduction and water quality measures shall be installed in the  
36 final phase of construction to prevent clogging.
- 37 (11) Landscaping and open space plan. A detailed landscaping and vegetation plan  
38 describing the woody and herbaceous vegetation that will be used within and  
39 adjacent to stormwater management facilities and practices. The landscaping  
40 plan must also include: the arrangement of planted areas, natural and greenspace  
41 areas and other landscaped features on the site plan; information necessary to  
42 construct the landscaping elements shown on the plan drawings; descriptions  
43 and standards for the methods, materials and vegetation that are to be used in the  
44 construction; density of plantings; descriptions of the stabilization and  
45 management techniques used to establish vegetation; and a description of who  
46 will be responsible for ongoing maintenance of vegetation for the stormwater  
47 management facility and what practices will be employed to ensure that  
48 adequate vegetative cover is preserved.

- 1 (12) Operations and maintenance plan. Detailed description of ongoing operations  
2 and maintenance procedures for stormwater management facilities and practices  
3 to ensure their continued function as designed and constructed or preserved.  
4 These plans will identify the parts or components of a stormwater management  
5 facility or practice that need to be regularly or periodically inspected and  
6 maintained, and the equipment and skills or training necessary. The plan shall  
7 include a narrative describing how the stormwater management system is  
8 designed to function, including capture, runoff control, water quality treatment,  
9 channel and flood protection, and ongoing operations and maintenance  
10 procedures for all stormwater management facilities and practices shown on the  
11 Stormwater Management Site Plan. The plan shall include an inspection and  
12 maintenance schedule, maintenance tasks, responsible parties for maintenance,  
13 funding, access and safety issues. Provisions for the periodic review and  
14 evaluation of the effectiveness of the maintenance program and the need for  
15 revisions or additional maintenance procedures are included in the plan.
- 16 (13) Maintenance access easements. The applicant must ensure access from public  
17 right-of-way to stormwater management facilities and practices requiring regular  
18 maintenance at the site for the purpose of inspection and repair by securing all  
19 the maintenance access easements needed on a permanent basis. Such access is  
20 sufficient for all necessary equipment for maintenance activities. Upon final  
21 inspection and approval, a plat or document indicating that such easements exist  
22 is recorded and shall remain in effect even with the transfer of title of the  
23 property.
- 24 (14) Inspection and maintenance agreements. Unless an on-site stormwater  
25 management facility or practice is dedicated to and accepted by the city  
26 community development department as provided in section 109-192, the  
27 applicant must execute an easement and an inspection and maintenance  
28 agreement binding on all subsequent owners of land served by an on-site  
29 stormwater management facility or practice in accordance section 109-192
- 30 (15) Evidence of acquisition of applicable local and nonlocal permits. The applicant  
31 shall certify and provide documentation to the city community development  
32 department that all other applicable environmental permits have been acquired  
33 for the site prior to approval of the stormwater management plan.

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37 **3.**  
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40 All ordinances, parts of ordinances, or regulations in conflict herewith are repealed.

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42 **4.**  
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44 *Severability.* Should any court of competent jurisdiction declare any section of this  
45 Ordinance invalid or unconstitutional, such declaration shall not affect the validity of the  
46 Ordinance as a whole or any part thereof, which is not specifically declared to be invalid or  
47 unconstitutional.  
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