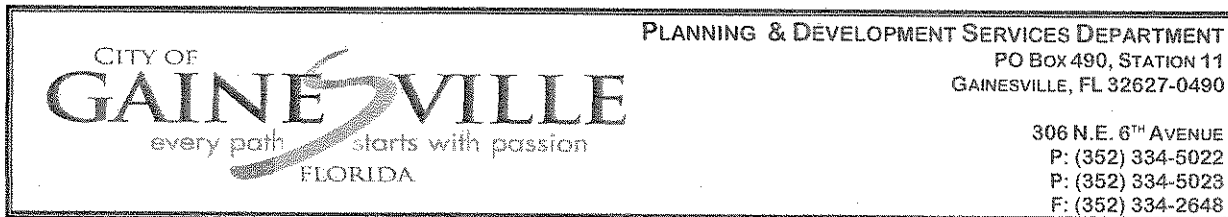


LEGISLATIVE #

110864B



TO: City Plan Board **Item Number: 4**

FROM: Planning & Development Services Department **DATE: March 22, 2012**
 Staff

SUBJECT: Petition PB-12-20 TCH. City Plan Board. Amend the Land Development Code Section 30-270 Stormwater management for consistency with the Stormwater Management Element of the City of Gainesville Comprehensive Plan.

Recommendation

Staff recommends approval of Petition PB-12-20 TCH.

Discussion

This petition proposes to amend Land Development Code (LDC) Sec. 30-270 – Stormwater management generally; erosion and sedimentation control; design and maintenance of facilities, for consistency with the Stormwater Management Element of the Comprehensive Plan. The updated Stormwater Management Element was adopted on January 19, 2012 by Ordinance 110172.

In reviewing LDC Sec. 30-270, Staff noted several areas that needed to be updated for consistency. These include:

- Remove references to the 25-year, critical duration storm in Sec. 30-270(b)(2)a and Sec. 30-270(b)(2)f.1 and replace with the 100-year, critical duration storm;
- Add a new general standard to Sec. 30-270(b)(2)a that regulates stormwater facilities and treatment of stormwater runoff from the Cabot-Koppers Superfund site with a reference to the Record of Decision finalized by the U.S. Environmental Protection Agency (EPA) and the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit issued by the Florida Department of Environmental Protection;
- Add a new general standard to Sec. 30-270(b)(2)a, to reference the state Water Management Districts, the Florida Department of Environmental Protection, and the Public Works Department for stormwater design requirements related to Low Impact Development (LID) techniques;
- Amend Sec. 30-270(b)(2)e to allow for the use of off-site stormwater facilities to meet stormwater quality treatment standards with approval from the City and Water Management Districts;

Petition PB-12-20 TCH
March 22, 2012

- Add a new construction design requirement to Sec. 30-270(d), to allow where feasible, opportunities for joint use of retention and detention basins for habitat, open space, passive recreation, and trails;
- Add a new construction design requirement to Sec. 30-270(d), stipulating that the design of stormwater management facilities should minimize the need for maintenance.

The relevant Stormwater Management Element policies are included for reference in Appendix A-1, along with a corresponding citation to Land Development Code Sec. 30-270 where amendments are proposed.

Recommended Changes: Sec. 30-270(b)(2)a General Standards

The recommended changes are shown below in underline and ~~strike-through~~.

(2) *Design standards.*

a. *General standards.*

1. All drainage facilities shall provide a positive outfall to existing watercourses, water bodies, wetlands or storm sewer systems unless it can be proven that it is a closed system.
2. The property owner is fully responsible for compliance with all rules, regulations and requirements of the county, the applicable water management district, the state department of environmental protection, the U.S. Army Corps of Engineers, and the United States Environmental Protection Agency.
3. All basins designed to be dry shall drain completely within 72 hours of the storm event. Designs providing for longer drainage periods require approval by the city manager or designee.
4. All development must provide on-site stormwater quality treatment for the first one inch of stormwater runoff, except as provided in subsection e. of this section. Infill residential development within improved residential areas or subdivisions existing prior to November 18, 1991, must ensure that its post-development runoff will not contribute pollutants which will cause the runoff from the entire improved area or subdivision to degrade receiving water bodies and their water quality.
5. All development must have on-site stormwater quantity control designed for the 25~~100~~-year critical duration storm, except as provided in subsections (b)(2)d. and e. of this section. A detention

Petition PB-12-20 TCH
March 22, 2012

system shall be provided which will permit a controlled outlet to receiving watercourses. The system shall be designed so that the peak flow of stormwater off of the site, assuming full development, shall not exceed the natural flow from the lands prior to the subdivision and/or any development, based on the ~~25~~100-year critical duration storm.

6. The type, intensity and structural design of any development proposed for a site shall be appropriate to the existing natural topographic characteristics of the site, while recognizing that minimal grade changes are essential to site development. Avoid disturbing steep slopes. Use terracing and diversions when disturbance of slopes is unavoidable. Slopes created by fill for other than landscape or buffering purposes shall be not steeper than three to one and must be stabilized by vegetation or other approved methods. Excessive erosion of any cut or fill slope shall require remediation by the property owner.
7. Drainage facilities designed within a closed system shall be evaluated on a site-specific basis with the minimum design criteria being the 100-year critical duration storm event.
8. All stormwater facilities and runoff discharges from the Cabot-Koppers Superfund site shall be in conformance with the Record of Decision finalized by the U.S. Environmental Protection Agency and the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit issued by the Florida Department of Environmental Protection.
9. Low Impact Development (LID) concepts shall be incorporated into the design of stormwater management facilities to the greatest extent feasible. LID techniques shall be consistent with the state Water Management Districts, the Florida Department of Environmental Protection, and Public Works Department policies.

Recommended Changes: Sec. 30-270(b)(2)e General Standards

- e. *Design standards for redevelopment of vehicular use area or building.* For the purposes of this section, redevelopment is any demolition and/or reconstruction of the vehicular use area (excluding resurfacing and restriping) or building. Any proposal for a site on which the proposed redevelopment of building(s) or vehicular use area involves the demolition and reconstruction of more than 80 percent of the area devoted to existing building and vehicular use area shall be considered new development, and

Petition PB-12-20 TCH
March 22, 2012

shall be required to meet the standards for new development. This determination shall be made by the city manager or designee.

Redevelopment shall conform to the following standards with regard to required facilities:

1. Any redevelopment of existing impervious surfaces of a site, of less than 4,000 square feet, shall only require the continued maintenance of existing facilities, including natural areas that provide storage. No additional stormwater management shall be required, except that all development must be in compliance with all state and water management district requirements. All redevelopment of a particular lot or site governed by a final development order shall be cumulative from June 10, 1992, and shall not exceed 4,000 square feet unless the provisions of subsection (b)(2)e.2. of this section are met.
2. Any redevelopment of existing impervious surface of 4,000 square feet or more shall be designed to accommodate stormwater quality treatment for the first one-half inch of runoff from the proposed improvements in the disturbed area. The city manager or designee may allow the design engineer to retain the first one-half inch of runoff from an area of equal size as the disturbed area provided that it can be proven that there would be greater water quality benefits to the receiving surface water of equal size. Stormwater management facilities, including natural areas that provide storage, shall continue to be provided. All development must be in compliance with all state and water management district requirements.
3. If a development uses an off-site stormwater management facility to meet the required stormwater quality treatment standards, the applicable provisions of the Code of Ordinances will be considered satisfied upon approval by the City Manager or designee and issuance of a Water Management District permit for the development.

Recommended Changes: Sec. 30-270(b)(2)f.1 Design standards for the subdivision of property

- f. *Design standards for the subdivision of property.*
1. *Generally.* A complete stormwater system in conformance with the flood control provisions of this article shall be provided for all areas of the subdivision for managing stormwater runoff and

Petition PB-12-20 TCH
March 22, 2012

providing water quality treatment within or across subdivision lands. Soil borings shall be taken to establish soil type and percolation rate. The design manual shall provide guidelines for determining the appropriate number and location of soil borings. Full development shall be assumed for selection of proper runoff coefficients. The system shall be designed in accordance with the design manual of the public works department, to accomplish the following results:

- i. *Closed conduits.* A system of closed conduits (except where open ditches are specifically permitted by the city commission) shall be provided to collect and channel stormwater in such a fashion as to permit the unimpeded use of public roads during a rainstorm of the maximum intensity predicted for the city area at ten-year intervals.
- ii. *Flood routing.* A route for stormwater runoff shall also be provided which will function, when the system designed to handle the ten-year, 24-hour storm has reached its capacity, so as to prevent flooding (water over the curb level) and ensure access for emergency vehicles during a ten-year, 24-hour storm event.
- iii. *Detention/retention system.* A detention/retention system shall be provided which will permit a controlled outlet to receiving watercourses. The system shall be designed so that the peak flow of stormwater from the subdivided lands, assuming full development, shall not exceed the natural flow from the lands prior to the subdivision and any associated development based on the ~~25~~100-year critical duration storm.

Recommended Changes: Sec. 30-270(d) Construction design requirements

- (d) *Construction design requirements.*
- (1) The public works design manual shall contain all construction design requirements.
 - (2) All stormwater basins shall be landscaped in such a manner as to promote safety and to integrate the basin with the overall design of the site.
 - (3) Insofar as possible, the contour of retention and detention basins should promote aesthetically pleasing site design and increased wildlife habitat.
 - (4) The public works design manual shall include guidelines for the design and

Petition PB-12-20 TCH
March 22, 2012

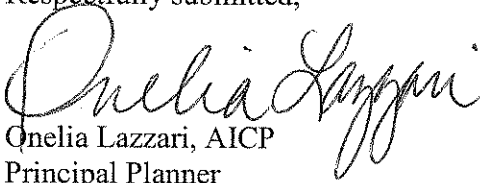
operation of facilities that discourage the breeding of mosquitoes.

- (5) To the greatest extent feasible, the design of retention and detention basins shall accommodate opportunities for habitat, open space, passive recreational activities, and the establishment and integration of trails.
- (6) Stormwater management facilities shall be designed to minimize the need for maintenance.

Impact on Affordable Housing

There are no specific impacts to affordable housing from this petition.

Respectfully submitted,


Onelia Lazzari, AICP
Principal Planner

Prepared by: 
Andrew Persons

Petition PB-12-20 TCH
March 22, 2012

List of Appendices

Appendix A Comprehensive Plan GOPs

Exhibit A-1 Stormwater Management Element – Relevant Policies with proposed Land Development Code Sec. 30-270 revision citation.

Appendix B Application

Exhibit B-1 Application