

RESOLUTION NO. _____

**A RESOLUTION TO AMEND THE CITY OF FAIRHOPE,
ALABAMA SUBDIVISION REGULATIONS**

WHEREAS, the City of Fairhope Planning Commission (the “Planning Commission”) adopted the current Subdivision Regulations for the City of Fairhope, Alabama on March 8, 2007 (the “Subdivision Regulations”); and

WHEREAS, the Planning Commission desires to amend the Subdivision Regulations as hereinafter provided.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF FAIRHOPE, ALABAMA, AS FOLLOWS:

1. Article V, Section F Stormwater Standards of the Subdivision Regulations is hereby amended by adding to said Article V, Section F, the text of which shall provide as follows:

A new subsection 10 Required Use of Low Impact Development (LID) Techniques:

- a. The use of the below LID techniques is required and is to be determined from an entire site development perspective by the engineer of record for the project. The design and integration of the below LID techniques shall promote the health, safety, and general welfare of the community and shall be designed to work in a complimentary fashion with the drainage plan for the proposed development. The LID techniques are required within the municipal limits of the City of Fairhope and the planning jurisdiction of the City of Fairhope based on the rain events experienced in the area, geology, slopes, and other natural features. The design engineer is encouraged to submit additional LID based techniques to be utilized in the proposed development.
- b. At a minimum the use of 10 (ten) of the below LID techniques is required in any and all proposed developments where the stormwater regulations apply. The design engineer shall rely on verifiable professional engineering judgment on which LID techniques to deploy in each proposed development based on the particular characteristics of the subject property. A proposed development may use more than 10 (ten) LID techniques as appropriate.
- c. If a project, due to the natural characteristics of the property, cannot successfully implement 10 (ten) of the LID techniques below the applicant may submit a waiver request for consideration. The waiver request shall be submitted at the time of the application and provide verifiable engineering documentation that 10 (ten) LID techniques cannot be used. The City shall have the right, but not the obligation, to engage such third party engineers, consultants and other professionals as necessary

and appropriate to advise the City as to whether a particular application complies with and is otherwise in concert with this subsection 10 (a “Third Party Professional”). In the event the City engages a Third Party Professional in connection with a particular application, the City will forward all application materials to the Third Party Professional along with a request for a cost estimate from the Third Party Professional for his/her role in the review of such application. Upon presentation by the Third Party Professional of a cost estimate to the City, the City shall provide same to the applicant, and the applicant shall deposit with the City a cash sum equal in amount to the cost estimate of the Third Party Professional (the “Cash Deposit”). Upon completion of all work by the Third Party Professional relative to such application and payment by the City of all fees and expenses of the Third Party Professional from the Cash Deposit, if any portion of the Cash Deposit remains, the City shall refund it to the applicant. If the Cash Deposit is insufficient to pay the fees and costs of the Third Party Professional, the applicant shall immediately remit to the City such funds as are necessary to make up any shortfall.

- d. The Third Party Professional shall submit a finding report to the City Planning Department. The City Planning Department shall forward a copy of the finding to the applicant or the applicant’s agent. The City Planning Department shall include, as part of the application materials to the Planning Commission a recommendation regarding the waiver.
- e. The Planning Commission shall consider the waiver, the applicant’s documentation, and Third Part Professional finding and City Planning Department recommendation and make a final determination as to the waiver request.
- f. The following LID techniques are available for use by applicants given the particular circumstances and characteristics of the proposed subdivision:
 - (1.) Wet Basins: The City finds the potential benefits of wet basins are, among other items, allowing sedimentation to fall out of stormwater, attenuating flows, assisting in evapotranspiration, and improving the stormwater quality.

Special design considerations are: groundwater elevations, large surface areas are encouraged, special attention should be given in pervious soil, surface area of the basin should take into account nutrient loading from lawns for example in order to treat and improve stormwater quality to the maximum extent possible, ensuring that an adequate base flow is provided to maintain water levels, they are not recommended to be constructed in an in-line facility, utilize low slopes, the use of forbays are recommended, upstream and downstream areas shall be considered in the design in accordance with Fairhope standards.

Recommended characteristics are: The approach slopes should be 4:1 or less around the perimeter, side slopes 3:1 or less (below the water

level, beyond the safety bench), safety bench just below water elevation (4' wide, 6"-12" deep), energy is dissipated prior to entering the basin, can be excavated below the ground surface.

- (2.) Rain Gardens: The City finds the potential benefits of rain gardens are, among other items, small scale flow attenuation, infiltration, limited evapotranspiration, allowing sediments to be trapped, and water quality treatment.

Special design considerations are: Typically smaller areas and drainage areas are used for rain garden design, special attention should be given in pervious soils, recommended for use in hydrologic soil groups A and B, not recommended in high swell soils.

Recommended characteristics are: Small scale and frequent use in drainage areas, the choice of landscaping materials, soil mix, and other characteristics are crucial to the success of a rain garden. Rain gardens can be highly visible and utilized as a visual amenity in a proposed development.

- (3.) Permeable Pavement Systems: The City finds the potential benefits of permeable pavement systems are, among other items, flow attenuation, infiltration, and filtration of stormwater. There are many products and strategies that can be utilized and the City is open to the use of varied products in accordance with manufacture recommendations. Consultation with the city prior to design of the product to be utilized is suggested.

Special design consideration are: Use in areas with hydrologic soil groups A and B, special attention should be given in pervious conditions, not recommended in areas with high swell soils, ground water tables should not impact the ability of water to infiltrate, the technique works best in low slopes.

- (4.) Sand Filter: The City finds that the potential benefits of sand filters are, among other items, flow attenuation, infiltration, reducing sedimentation, and providing filtration of storm water.

Special design considerations are: Best used in small drainage areas, special attention should be given in pervious soils, recommended use in areas with soils with good permeability in hydrological soil groups A and B, not recommended in high swell soils.

- (5.) Grass Swales: The City finds that the potential benefits of grass swales are, among other items, in straining stormwater, providing

limited quality treatments, while providing some moderate flow attenuation.

Special design considerations are: Typically work best in smaller drainage areas where volumes are reduced, special consideration should be given in pervious soils, not recommended with high swell soils, should have low slopes, adjacent areas and layout should be considered in the design.

Suggested characteristics where topography, soils, and slope permit vegetated open channels and spaces should be considered as a significant or a primary means of stormwater conveyance.

- (6.) Grass Buffers: The City finds that the potential benefits of grass buffers are, among other items, in straining stormwater, providing limited quality treatments, while providing some moderate flow attenuation.

Special design considerations are: Typically work best in smaller drainage areas where volumes are reduced, special consideration should be given in pervious soils, not recommended with high swell soils, should have low slopes, adjacent areas and layout should be considered in the design.

Suggested characteristics where topography, soils, and slope permit vegetated open channels and spaces should be considered as a significant or a primary means of stormwater conveyance.

- (7.) Constructed wetland channels or wetlands: The City finds that the potential benefits of constructed wetland channels or wetlands are, among other items, flow attenuation, buffering of flooding events, evapotranspiration, sedimentation, and treatment of stormwater quality.

Special design considerations are: Not recommended in high swell soils, low slope, forebay is recommended, primary benefit of pollutant removal, not volume reduction, adjacent areas should be considered in the design.

- (8.) Step Pool Stormwater Conveyance Structures: The City finds that a step pool stormwater conveyance structure may attenuate stormwater flows, provides evapotranspiration, reduce sediment transport, and water quality treatment.

Special design considerations are: Not recommended in high swell soils. Adjacent areas should be taken into consideration in order to ensure long term viability of step pool structures and adjacent erosion.

- (9.) In-line stormwater storage: The City finds that in-line storage may provide for attenuation and limits sedimentation.

Special design considerations are: Designed to be self-cleaning where possible or suitable clean out access is provided and designed into the system, designed to surcharge non-sensitive areas with no flooding in parking lots, structures, or other typically occupied spaces.

- (10.) Site design for habitat, wetland, and water body conservation: The City finds that site design that incorporates the natural features of the property can help to minimize erosion and reduce stress on natural water conveyance and attenuation systems by preserving a natural vegetated state of native plants, water courses, and flood prone areas.

Suggested characteristics are: The technique may be used in conjunction with the City's planned unit development or village subdivision processes to propose alternative street layouts and design so that impervious areas and other improvements are sited with due regard to the natural elements of the property.

Special design considerations: To consider adjacent areas in the design since important natural features that utilize this LID technique often extend past property lines or the phases of proposed development.

- (11.) Restoration of Habitat or Wetlands and Water Bodies: The city finds that the restoration of habitat or wetland and water bodies can be productive to improve the environment by minimizing erosion and reducing stress on natural water conveyance and attenuation systems by preserving a natural vegetated state of native plants, water courses, and flood prone areas.

Suggested characteristics are: This technique may be used in conjunction with the City's planned unit development or village subdivision processes to propose alternative street layouts and design so that impervious areas and other improvements are sited with due regard to the natural elements of the property. Use only native plants in the development process and take special consideration to restore portions of the site to predevelopment native ecological communities, water bodies or wetlands with more than 10% of the development footprint.

Special design considerations: To consider adjacent areas in the design since important natural features that utilize this LID technique often extend past property lines or the phases of proposed development

- (12.) Greenways: The City finds that greenways provide for beneficial use of LID for potentially active and passive recreation opportunities and wildlife corridors. This technique allows for the creative integration into a development proposal that is frequently linked with other natural or recreation systems that extend past the property lines of the proposed development.

Suggested characteristics: Typically greenways are easier to integrate into a development proposal on larger acreages. They are frequently utilized as linear parks and often include sensitive wetland areas, steep slopes, gullies or other natural land forms, creeks, and unique wildlife habitat for protected species.

- (13.) Restoring Channel Morphology and Natural Function: The City finds that restoring channel morphology and natural function provides for flow attenuation, infiltration, and reduces sedimentation.

Special considerations are: Typically works most effectively in larger development proposals where a substantial linear footage of channel can be restored. It is important to consider the upstream and downstream current and future characteristics so conversation of land use in accounted for in the design.

- (14.) Bio-Retention: The City finds that bio-retention provides for flow attenuation, infiltration, limited evapotranspiration, reduced sedimentation, and stormwater quality treatment.

Suggested characteristics are: To be used as both a stormwater and aesthetic feature frequently throughout developments. Special attention should be given to plant and ground cover considerations given the volume and duration of the designed stormwater.

Special design considerations are: Typically work best in small drainage areas with frequent use and distribution, special attention is required in pervious soils and should be used in areas with high permeable soils (hydrologic soils groups A and B), not recommended in high swell soils.

- (15.) Level Spreader: The City finds that level spreaders can be an effective tool to evenly distribute flows and return volumes and

velocity to a predevelopment distribution pattern. There are limited stormwater straining and water quality improvements.

Suggested characteristics are: Level spreaders are intended to work in a complimentary fashion with other LID techniques such as, but not limited to, sand filters and grass buffers.

Special design considerations are: Typically level spreaders are used downstream of an outfall and have a low slope with stabilized and vegetated buffers both up and downstream. They typically are installed a suitable distance from the property line (30'-35' is suggested) so that flow energy is dissipated, and predevelopment sheet flow characteristics are generated. Special consideration should be given in areas with highly erodible soils.

2. Should any section, paragraph, sentence, clause or phrase of this Resolution, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by state or federal law or regulation, such decision or pre-exemption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.
3. This Resolution shall be effective from and after its adoption by the Planning Commission.

Adopted at a properly called meeting of the Planning Commission of the City of Fairhope, Alabama this _____ day of _____, 20____.

Lee Turner, Chairman