

**CITY OF BONITA SPRINGS, FLORIDA**

**ORDINANCE NO. 19-12**

**AN ORDINANCE OF THE CITY OF BONITA SPRINGS AMENDING THE BONITA SPRINGS LAND DEVELOPMENT CODE CHAPTER 3 (DEVELOPMENT STANDARDS) AND (ZONING); RELATING TO DEVELOPMENT AND CONSTRUCTION, SURFACE WATER MANAGEMENT, AND DRAINAGE; AMENDING SECTION 3-136. – ADDITIONAL REQUIRED SUBMITTALS; AMENDING SECTION 3-193. – FINAL INSPECTION AND CERTIFICATE OF COMPLIANCE; AMENDING SECTION 4-2224 CLEARING, GRADING, OR FILLING OR LAND; PROVIDE FOR CONFLICTS OF LAW, SEVERABILITY, CODIFICATION AND SCRIVENER'S ERRORS, MODIFICATIONS THAT MAY ARISE FROM CONSIDERATION AT PUBLIC HEARING AND AN EFFECTIVE DATE.**

**WHEREAS**, Florida Statutes §166.021 authorizes the City of Bonita Springs to establish, coordinate and enforce laws that are necessary for the protection of the public; and

**WHEREAS**, protection of the public health, safety and welfare is a legitimate public purpose recognized by the courts of Florida; and

**WHEREAS**, on July 17, 2019, the Bonita Springs City Council directed City Staff to prepare amendments to the land development code implementing the City's strategic priorities of stormwater management and environmental protection; and

**WHEREAS**, the City Council hereby desires to implement new regulations relating to development within the City including to provide for as-built record drawings, stormwater modeling, and additional documentation at time of building permit.

**THE CITY OF BONITA SPRINGS HEREBY ORDAINS:**

**SECTION ONE: AMENDMENTS:**

The City of Bonita Springs is hereby amended, which amendments consist of changes to Chapter 3 of the Land Development Code, Chapter 4 of the Land Development Code which are further described in exhibit "A" attached which are attached hereto and incorporated herein by reference as are the recitals above.

**SECTION TWO: CONFLICTS:**

All sections or parts of sections of the City of Bonita Springs Code of Ordinances in conflict herewith are intended to be repealed to the extent of the conflict. Whenever the requirements or provisions of this amending ordinance are

in conflict with the requirements or provisions of any other lawfully adopted ordinance or statutes, the most restrictive requirement shall apply.

**SECTION THREE: SEVERABILITY:**

If any section, subsection, clause or provision of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, the remainder shall not be affected by such invalidity.

**SECTION FOUR: MODIFICATION, SCRIVENER'S ERRORS, AND CODIFICATION:**

The provisions of this Ordinance may be modified as a result of consideration that may arise during the public hearing considering its adoption to be incorporated into its final form. The provisions of this Ordinance may be corrected for typographical errors that do not effect the intent without the need for additional public hearings upon the filing of a corrected version with the City Clerk. Furthermore, the provisions of this Ordinance shall be made part of the Bonita Springs Code and its provisions may be renumbered or relettered or rephrased to accomplish such codification.

**SECTION FIVE: EFFECTIVE DATE:**

The effective date of this ordinances shall be thirty days from its adoption date.

**DULY PASSED AND ENACTED** by the Council of the City of Bonita Springs, Lee County, Florida, this 4<sup>th</sup> day of December, 2019.

AUTHENTICATION:

  
\_\_\_\_\_  
Mayor

  
\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:   
\_\_\_\_\_  
City Attorney

Vote:

Carr	<u>Aye</u>	Gibson	<u>Aye</u>
Forbes	<u>Aye</u>	Quaremba	<u>Aye</u>
		Simmons	<u>Aye</u>

Date filed with City Clerk: 12/10/19

**Sec. 3-136. - Additional required submittals.**

The following must be submitted with an application for development order approval:

- (1) *Letter of authorization.* If the applicant is not the owner, a notarized letter signed by the owner of the property authorizing the applicant to submit and be responsible for the application.
- (2) *Ownership and unified control.* A notarized statement of ownership or unified control document.
- (3) *Legal description.* A legal description for the property shall be submitted.
- (4) *Title assurance.* Title assurance in the form of either a title certification by an attorney or a title insurance policy shall be required.
- (5) *Boundary survey.* A boundary survey prepared by a surveyor, meeting the minimum technical standards for land surveying in the state, as set out in F.A.C. ch. 61G-17-6, shall be submitted. Boundaries must be clearly marked with a heavy line. The boundary line shall include the entire area to be developed. The Federal Emergency Management Agency flood zone and required finished floor elevations shall be shown.
- (6) *Plat.* If the development is a subdivision, a plat meeting the requirements of F.S. ch. 177 shall be submitted.
- (7) *Zoning ordinance.* A copy of the most recent zoning ordinance for the subject property, and any other pertinent zoning ordinances, prior county zoning resolutions, special exceptions or variance documents, shall be submitted.
- (8) *Existing conditions and improvements drawing.* An existing conditions and improvements drawing showing at a minimum the following:
  - a. An area location map showing the location of the property to be developed in relation to arterial and collector streets.
  - b. Coastal construction control lines, if applicable.
  - c. The location and name of abutting streets together with the number of lanes, the widths of rights-of-way and easements, and the location and purpose of abutting utility easements. The established centerline of streets on or abutting the property shall be shown.
  - d. Existing elevations based on the North American Vertical Datum (NAVD) 1988. Sufficient spot elevations based on the North American Vertical Datum (NAVD) 1988 shall be shown to indicate the slope of the land and any rises, depressions, ditches, etc., that occur, but in no case shall spot elevations be shown at a spacing greater than 200 feet. Spot elevations shall be shown beyond the development boundary extending a minimum of 25 feet. The city manager or designee may direct a closer grid pattern or elevations more than 25 feet beyond the development boundary to provide sufficient satisfactory information. For developments of 40 acres or more, contours at one-foot intervals shall be shown.

- e. Identification of wetlands as defined in chapter 9. The applicant may be required to flag these areas for site inspection by the city manager or designee.
  - f. Vegetation associations (not land use category) on the site as listed in the Florida Land Use, Cover and Forms Classification System, mapped at the same scale as the site plan. The map shall include significant areas of rare and unique upland habitats as defined in the city comprehensive plan.
  - g. The location of all existing buildings and structures on the property. If buildings or structures are to be moved or razed, this should be noted.
  - h. The location and size of all public water and sewage systems, private wells, irrigation and flowing wells, bikeways, pedestrian ways, curbs, gutters, storm drains and manholes on or abutting the property.
  - i. The zoning classifications for the subject property, as well as the zoning and actual use of all abutting properties.
  - j. The fire district in which the proposed development is located.
  - k. The nature and location of any known or recorded historical or archaeological sites as listed on the Florida Master Site File, and the location of any part of the property which is located within level 1 or level 2 zones of archaeological sensitivity pursuant to chapter 5. A description of proposed improvements that may impact archaeological resources shall also be provided.
  - l. The location of existing and proposed public transit service areas, and bus routes and stops, including passenger amenities, e.g., shelters, lighting, benches, bikeways, pedestrian ways, passenger parking, bicycle racks, etc.
  - m. A diagram depicting the existing surface hydrology of the property.
- (9) *Proposed development plan drawings.* Proposed development plan drawings showing at a minimum the following:
- a. If the development is a subdivision, all lot lines and lot numbers.
  - b. Phasing plan. Where a large development is proposed, the applicant must submit a master phasing plan with the stages numbered in sequence. It is understood that, for long-term projects, the details of a given phase may change as the economic, environmental, social, and legal elements of the proposed development change. For such phased developments, each phase will be issued a separate development order, but each phase will be considered in relation to the rest of the overall project. The phasing plan must show how each phase fits into the master plan for the continuance of streets, bike facilities, pedestrian facilities, drainage, stormwater management, potable water, fire protection, sewage collection, landscaping, and buffers. Specific requirements for phased projects are specified in section 3-95.
  - c. Proposed buildings or proposed structures. The building envelope, that is, the perimeter of the area within which the building will be built, the height of all buildings and structures, the minimum elevation of the top of the

lowest floor relative to the base flood elevation (BFE) consistent with the state building code, the maximum number of dwelling units or gross floor area, and no less than the minimum number of required parking spaces, including the number of spaces for the handicapped, shall be shown.

- d. Open space, parks, and recreation. All proposed open space, parks, and recreation areas and facilities shall be shown and identified as either public or private. If common facilities, including but not limited to, recreation areas or facilities, and common open space, are proposed, a statement shall be included explaining how the area or facilities shall be permanently operated and maintained, and identifying who will be responsible for such maintenance. A list of the facilities to be constructed within each park or recreational area shall be provided or shown on the drawings.
- e. Proposed vehicular ingress and egress for the development.
- f. Proposed streets within the development.
- g. Proposed location of on-site and off-site bike facilities and pedestrian facilities, with ingress to and egress from the development, as well as to or from common open space areas.
- h. Where applicable, the proposed location and type of public transit amenities to be provided.
- i. Parking and service areas. All off-street parking areas and all landscaped areas to be reserved for future parking spaces pursuant to section 4-1729, and all service areas for delivery of goods or services, shall be shown for all developments that are not subdivisions.
- j. Utilities. A statement indicating the proposed method intended to provide water, sewer, electricity, telephone, refuse collection, and street lighting, including, but not limited to:
  - 1. The names and addresses of all utilities, public or private, intended to supply the service.
  - 2. The names and addresses of the owners of all existing water and sewage systems within one-quarter mile of the proposed development.
  - 3. A plan showing the location and size of all water mains and services, fire hydrants, sewer mains and services, treatment plants, and pumping stations, together with plan and profile drawings showing the depth of utility lines and points where utility lines cross one another or cross storm drain or water management facilities. The location of services shall be shown.
- k. Drainage and stormwater management plan. A drawing showing the location of all curbs and gutters, inlets, culverts, swales, ditches, water control structures, water retention or detention areas, and other drainage or water management structures or facilities shall be submitted. Sufficient elevations shall be shown to adequately show the direction of flow of stormwater runoff from all portions of the site. A copy of all drawings and calculations submitted to the South Florida Water Management District

shall also be submitted. The plan shall also identify the U.S. Department of Agriculture Soil Conservation Service soils classifications of the site to determine the feasibility of the proposed pollution control and drainage plans.

- l. Landscaping and buffering. A landscaping plan shall be submitted showing not less than the required open space and buffer areas, and including:
  1. A tree location map or aerial photographic overlay which depicts the preservation of existing trees and the planting of any new trees required by city regulations.
  2. All proposed landscaping, fencing, screening and buffering.
  3. The size, variety, species, and number of all trees and shrubs, with site-specific location, used in landscaping, open space and buffer areas.
  4. All proposed signs and exterior lighting.
  5. The calculations to determine the minimum open space and other landscaping calculations.
- m. Historical and archaeological resources. The plan shall show the outline of historic buildings and approximate extent of archaeological sites. Where this information is not available from published sources, a professionally conducted archaeological survey may be required.
- n. Excavations. Where applicable, the location of all excavations must be shown, including the outline or boundaries of the excavation, both the outline of the top of the bank and the outline when the lake is at its maintained elevations, the depth of all excavations, the controlled water depth, and the slopes of all excavations.
- o. Groundwater and surface water impacts. A description of potential impacts to groundwater and surface water. The applicant is required to demonstrate no adverse offsite stormwater impacts by incorporating the project into the appropriate City of Bonita Springs Interconnected Pond and Channel Routing (ICPR) Model. The 100-year 24 hour storm event is the primary storm used to evaluate the proposed design. The City reserves the right to request the modeling of other storm events in certain circumstances. All data submitted shall be provided and formatted for inclusion into the city's Interconnected Pond Routing (ICPR) Model. Prior to application and during the development review process, the applicant is encouraged to include a pre-submittal meeting with staff to introduce the project, discuss which watershed model should be used, and discuss which criteria will be applied for judging whether there are adverse offsite impacts. Once the stormwater model is agreed upon, the Engineer of Record should run the 100-year 24 hour simulation or other simulations requested by staff and compare the results to the City's published flood stages in the ICPR Model. A construction plan stormwater review checklist and construction plan stormwater design summary will be required for all developments which are not a part of a previously City approved stormwater management system.

- p. A description of impacts on wetlands and mitigation measures.
  - q. A description of impacts on floodplains or riverine areas and mitigation measures.
  - r. Benchmarks. There shall be a minimum of one benchmark per 40 acres or portion thereof. Each benchmark shall be shown and described on the plans.
  - s. A plan demonstrating multi-modal connectivity. At a minimum, the plan must include the following:
    - 1. Pedestrian connectivity/circulation internal and external to the site;
    - 2. Bicycle parking internal to the site;
    - 3. Bicycle connectivity and circulation
    - 4. The location of infrastructure, including but not limited to stormwater management, buffer yards, off-street parking spaces and buildings in a manner that upholds the intent for multi-modal access to and from the development.
- (10) *Aerial photograph.* A recent aerial photograph of the property and all properties within 660 feet of the perimeter of the property, with a scale of one inch equals 300 feet, shall be submitted.
- (11) *Traffic impact statement.* A traffic impact statement (TIS) shall be submitted, which shall survey current and anticipated traffic conditions and public transportation in order to identify potential traffic problems posed by the proposed development. Adverse traffic impacts created by the development, both on-site and off-site, shall be mitigated by the applicant as specified in the traffic impact mitigation plan and development order. Criteria for traffic impact statements are specified in article III, division 2, of this chapter.
- (12) *Traffic impact mitigation plan.* A traffic impact mitigation plan shall be submitted, which shall be based on the approved traffic impact statement and shall identify in detail those on- and off-site road and intersection improvements necessary to mitigate the proposed development's adverse impacts by maintaining or restoring adopted levels of service on the public roads providing immediate access to the site, including any collector or arterial to which the adjacent street is tributary. Criteria for traffic impact mitigation plans are specified in article III, division 2, of this chapter.
- (13) *Protected species survey.* A species survey shall be submitted, if applicable, as required by article III, division 8, of this chapter.
- (14) *Protected species habitat management plan.* A management plan for protected species habitat shall be submitted, if applicable, as required by article III, division 8, of this chapter.
- (15) *Certificate to dig; historic preservation forms and reports.* When applicable, an archaeological/historic resources certificate to dig shall be obtained from the city and submitted to the city manager or designee. Florida Master Site File forms for historical or archaeological resources, facade or other historic or scenic easements related to the subject property or reports prepared by a

professional archaeologist as may be required by chapter 5 shall be submitted to the city manager or designee.

- (16) *Historical/archaeological impact assessment.* An impact assessment for historical or archaeological resources describing the following treatments: demolition, relocation, reconstruction, rehabilitation, adaptive use, excavation, filling, digging, or no impact, shall be submitted to the city manager or designee.
- (17) *Exotic vegetation removal plan.* An exotic vegetation removal plan, as specified in article III, division 6, of this chapter, shall be submitted to the city manager or designee.
- (18) *Calculations and other pertinent materials.* The city manager or designee may also require submission of calculations in support of all proposed drawings, plans and specifications. Calculations, data and reports to substantiate engineering designs, soil condition, flood hazards, compensation of floodplain storage (see section 3-260), wet season water table, etc., may be required. Prior to the release of the drawings approved by the city manager or designee, construction of the development shall be limited to clearing and grubbing for construction of accessways to and within the site and to pollution control facilities required during the construction phase. If such work is done prior to approval of construction plans, a tree removal permit will be required.
- (19) *Emergency preparedness plan.* An emergency preparedness plan, approved by emergency management, is required prior to final approval of a development order for:
  - a. A hospital, nursing home, assisted living facility (ALF) or developmentally disabled housing project. To be approved by emergency management, an emergency preparedness plan for these types of development must comply with the applicable criteria in Florida Administrative Rule Chapters 58A-5, 59A-3, 59A-4, and 59A-5, as they may be amended.
  - b. A marina, multi-slip dock facility, or any residential development of 50 or more units. To be approved by emergency management, an emergency preparedness plan for these types of development must comply with the applicable criteria in the applicable administrative codes for emergency preparedness plans.
- (20) *State permits.* Prior to final approval of a development order, copies of permits issued by the South Florida Water Management District or the Florida Department of Environmental Protection must be submitted. Copies of all other necessary state land development permits must be submitted prior to the commencement of construction work on the site.
- (21) *Operation and maintenance covenants.* Where applicable, a copy of the covenants used for the maintenance and operation of the improvements required by this chapter must be submitted, including but not limited to, private streets and adjacent drainage, drainage and stormwater management systems, utilities, public water and sewage systems, on-site bikeways, on-site pedestrian ways, open space, parks, recreation areas, and buffers.



(22) *Articles of incorporation or other legal documents for assignment of maintenance.* The developer must submit a copy of the legal documents creating the legal mechanism to ensure that the drainage system, on-site bikeways, on-site pedestrian ways, roadways, and rights-of-way are continuously maintained.

(23) *Opinion of probable construction costs.* The developer's consultant must prepare and submit the estimated cost of installing all streets, drainage systems, water management systems, potable water treatment and distribution systems, sewage collection and treatment systems, bikeways, pedestrian ways, park and recreation improvements, landscaping, and buffers as follows:

- a. Subdivisions. On-site and off-site improvements.
- b. All other developments. Off-site improvements.

The opinion of probable cost must include an estimated date of completion for the work.

(24) *Assurance of completion of improvements.* Assurance of completion of the development improvements as specified in subsection (24)a and b of this section will be required for all off-site improvements prior to commencing any off-site or on-site development. Assurance of completion of the development improvements for on-site subdivision improvements will be required prior to the acceptance of the subdivision plat. Those on-site subdivision improvements which have been constructed, inspected and approved by the city manager or designee may be excluded from the requirements of subsection (24)a and b of this section.

- a. Surety or cash performance bond. Security in the form of a surety or cash performance bond must be posted with the council and made payable to the city in an amount equal to 110 percent of the full cost of installing the required improvements approved by the city. If the proposed improvement will not be constructed within one year of issuance of the final development order, the amount of the surety or cash performance bond must be increased by ten percent compounded for each year of the life of the surety or bond. Alternatively, the surety or cash performance bond may be renewed annually at 110 percent of the cost of completing the remaining required improvements if approved by the city manager or designee. Prior to acceptance, bonds must be reviewed and approved by the city attorney or designee.
- b. Other types of security. The council may accept letters of credit or escrow account agreements or other forms of security; provided that the reasons for not obtaining the bond are stated and the city attorney or designee approves the document.

(Ord. No. 05-03, § 1(3-154), 1-19-2005; Ord. No. 12-11, § 1(3-154), 8-1-2012; Ord. No. 18-05, § 1, 5-16-2018)

**Sec. 3-193. - Final inspection and certificate of compliance.**

- (a) Upon completion of all development required under the approved development order, or phase thereof, an inspection shall be performed by the developer's engineer or his designated representative. Upon finding the development to be completed and in substantial compliance with the approved development order documents, the engineer shall submit a signed and sealed letter of substantial compliance to the city manager or designee along with a final inspection request. No final inspection will be performed by the city until the letter of substantial compliance has been accepted. The letter of substantial compliance may include a submittal for a minor change with highlighted plans showing minor changes which do not substantially affect the technical requirements of this chapter as described in section 3-98. Letters of substantial compliance shall be in a form approved by the city manager or designee or city attorney or designee. Substantial compliance means that the development, as determined by an on-site inspection by a professional engineer or his designated representative, is completed to all the specifications of the approved development order plans and that any deviation between the approved development order plans and actual as-built construction is so inconsequential that, on the basis of accepted engineering practices, it is not significant enough to be shown on the development site plans.
- (b) ~~Substantial compliance means that the development, as determined by an on-site inspection by a professional engineer or his designated representative, is completed to all the specifications of the approved development order plans and that any deviation between the approved development order plans and actual as-built construction is so inconsequential that, on the basis of accepted engineering practices, it is not significant enough to be shown on the development site plans.~~ When required by the approved Development Order, as-built record drawings shall be provided to the City, in hard copy and electronically, at the time of Substantial Compliance. If submitted, the as-built drawings are to be based on the permitted construction drawings revised to reflect any substantial deviations made during construction. Both the original design and constructed condition must be clearly shown. The plans need to be clearly labeled as "as-built" or "record" drawings and clearly highlight any substantial construction deviations. As required by law, all surveyed dimensions and elevations required shall be verified and signed, dated and sealed by the appropriate registered professional
- (c) Upon acceptance of the letter of substantial compliance and a request for final inspection, the city manager or designee shall perform the final inspection. If the final inspection reveals that the development or phase thereof is in substantial compliance with the approved development order, a certificate of compliance will be issued. A certificate of compliance is required prior to the issuance of a certificate of occupancy from the city. If the final inspection reveals that the development or phase thereof is not in substantial compliance with the approved development order, a list of all deviations shall be forwarded to the engineer. All deviations must be corrected per the amendment and minor change procedure and a new letter of substantial compliance submitted and accepted prior to a reinspection by the city manager or designee. Applications for amendments, minor changes, inspections and reinspections shall be charged a fee in accordance with the adopted fee schedule.

- (d) If more than one building is covered by the development order, a certificate of compliance for streets, utilities, parking areas, and drainage serving each building shall be required prior to receiving a certificate of occupancy from the city manager or designee. If a final inspection is requested for only a portion of a development, that portion must be an approved phase of the development in accordance with the development order plans.
- (e) A development project must remain in compliance with the development order, including all conditions, after a letter of substantial compliance, certificate of compliance or certificate of occupancy has been issued by the city. This requirement applies to any property covered by the development order, whether or not it continues to be owned by the original developer. For purposes of determining compliance, the terms of the development order as issued, or subsequently amended in accordance with this chapter, will control. The standards applicable to review for compliance purposes will be based upon the regulations in effect at the time the development order, or any applicable amendment, was issued.
- (f) Improvements constructed pursuant to a development order may not be placed into service or otherwise utilized until the required certificate of compliance has been issued for the development order.

(Ord. No. 05-03, § 1(3-183), 1-19-2005; Ord. No. 12-11, § 1(3-183), 8-1-2012)

**Sec. 4-2224. - Clearing, grading or filling of land.**

- (a) The purpose of this subsection is to manage stormwater runoff and establish site grading and water management standards for single-family, two-family attached, and duplex residential lots in order to prevent detrimental impacts on site or to adjacent properties and/or waterbodies.
- (b) No land may be cleared, graded, excavated or filled, or otherwise altered, except in conformity with the regulations contained in this chapter and all other applicable ordinances.
- (c) Applicability. A Stormwater Drainage Plan shall be required at time of building permit for all new residential structures, additions, pools, accessory structures, and decks on single-family, two-family attached, and duplex residential lots with the following exceptions:
  - 1. Open wooden decks, nonroofed, 500 square feet or less.
  - 2. Structural additions 500 square feet or less, and more than 10 feet from property line.
  - 3. Accessory structures 200 square feet or less, and more than 10 feet from property line.
  - 4. Any other impervious area 200 square feet or less. For the purposes of this section, the term impervious area shall include roofed buildings, concrete and asphalt pads, pool deck (e.g. spraycrete), pavers with limerock base and swimming pools.
  - 5. Replacement mobile homes.
- (d) Stormwater Drainage Plan Criteria
  - 1. Drainage Plan required for all new residential structures, additions, pools, accessory structures, and decks.
    - i. A drainage plan prepared by a professional engineer, architect or land surveyor shall be submitted as part of an application for building permit for a single family, two family attached and duplex dwelling. Said drainage plan shall include the following:
      - 1. Method of erosion control, such as, but not limited to, silt fences, turbidity barriers, and filter fabric as outlined in the Florida Stormwater Sedimentation Control Inspector's Manual or a similar quality guidance manual.
      - 2. Gutters and Downspouts shall be required when roof overhang is less than 10' from the property line. Said gutters and downspouts, shall be properly sized and direct stormwater away from adjacent properties and into swales or retention/detention areas. When the set back to the roof overhang is greater than 10', gutters and downspouts will be required when needed to prevent or mitigate increased drainage impacts onto adjacent properties .
      - 3. Dimensions and details of all existing and proposed drainage solutions including but not limited to:
        - a. Swales and Berms. Show location and elevation.

- b. Gutters and downspouts
  - c. Yard drain/bubblers
  - d. Stem walls
  - e. Rain gardens
  - f. Inlets. If inlets are proposed, provide details showing grate and pipe elevations.
  - g. Retaining walls. Retaining walls shall not be placed closer than 1 (one) foot from the property line and per LDC Sec. 7-385 for waterbody setbacks. For height restrictions reference LDC Sec 4-1467(b).
  - h. French drains. The stone in french drains shall provide a minimum void ratio of 40 percent.
4. Cross-sections of the development from the area of construction to the property line in all directions (North, South, East and West), matching the existing elevations.
- a. Show the location and elevation of all existing and proposed drainage solutions mentioned in 4-2224(d)1(i)3.
  - b. Graded slopes shall not be any steeper than 5:1, unless otherwise approved by the City during the drainage review process.
5. Existing and proposed elevations
- a. A minimum of a 50 foot by 50 foot grid.
  - b. A minimum of 5 feet on to the adjacent property.
  - c. Existing elevation of crown of roadway.
  - d. Elevations to establish the transition to existing grades at adjacent property lines and/or any waterbody.
6. Sidewalks. Label and provide the dimensions, elevations, and cross-sections of all sidewalks, if applicable pursuant to LDC Sec. 4-870(2).
7. Pools. Show the location of overflow; a french drain may be required at this location.
8. Closed drainage may be required along the property frontage adjacent to all City owned rights-of-way pursuant to LDC Sec. 3-302 and 3-303.
9. Drainage arrows clearly delineating the direction of flow.
10. All materials used for ground cover, such as, but not limited to, sod, mulch, rock, artificial turf grass, and shell.
- ii. During the review of the drainage plan, the City reserves the right to require water quantity calculations by a professional engineer for lots that exceed 30 inches above the grade of existing adjacent

lots. Calculations must demonstrate the ability to accommodate the runoff from a 5-year 1-day storm.

2. *Site grading during construction activities.* The building site must be graded and maintained during construction to:

- i. Prevent erosion of soil onto adjacent and abutting properties, street rights-of-way/easements, waterbodies or improved drainage conveyances;
- ii. Ensure erosion control devices are being maintained as outlined in the Florida Stormwater Sedimentation Control Inspector's Manual or a similar quality guidance manual.
- iii. Control surface water runoff to ensure that no surface water in excess of the preconstruction discharge flows onto developed adjacent or abutting properties and waterbodies; and
- iv. Maintain the flow capacity and function of existing drainage conveyances on or abutting the site including adjacent street rights-of-way/easements or improved drainage conveyances.

3. *Final site grading.*

- i. An "as-built" of the constructed drainage plan prepared and certified by a professional engineer, architect or land surveyor shall be submitted prior to Certificate of Completion or Certificate of Occupancy of the dwelling. This "as-built" shall be reviewed to determine if the work completed is in substantial compliance with approved plan.
- ii. Items not in compliance with the approved drainage plan will be noted by the City and brought to the attention of the property owner or his representative for correction. Any revisions to an approved drainage plan must be submitted for review and approved prior to certificate of occupancy or certificate of completion.
- iii. The City reserves the right to inspect the site during construction and/or prior to issuance of a certificate of occupancy or certificate of completion to ensure consistency with the approved drainage plan pursuant to LDC Sec 4-2224(d)1
- iv. Final grading of a lot must:
  1. Control and direct surface water runoff to ensure that surface water discharge is directed into an existing surface water management system or other offsite drainage conveyance; and
  2. Preserve or relocate existing drainage conveyances necessary to maintain preconstruction flow capacity and function.

3. Final site grading plan features must be maintained in perpetuity by the property owner. A property owner may not alter or modify the lot grading in a manner that will prevent continued drainage of the site in accordance with the lot grading Storm Water Drainage plan in effect at the time the certificate of occupancy or certificate of completion was issued.

*~~(3) Lot grading plan:~~*

- a. ~~Where the proposed final grade on any part of a lot is greater than 18 inches above the centerline elevation of the adjacent street or the elevation of any adjacent developed lot as measured at the property line, a grading and drainage plan demonstrating compliance with the performance standards outlined in section 4-3-104(b)(1) and (2) must be submitted with the application for the building permit approval.~~
- b. ~~Prior to issuance of a certificate of occupancy, the building site must be graded in accordance with the grading and drainage plan and a final inspection must be approved by the City.~~
- (e) Modifications that alter the drainage flow and which may cause flooding of other properties, public or private, are a violation and are hereby declared a public nuisance and are prohibited. Violations will be referred to the Neighborhood Services Department.