

Chapter 154 - SITE DEVELOPMENT AND PLATTING⁽¹⁾

Footnotes:

--- (1) ---

Cross reference— Buildings and building regulations, ch. 22; zoning, ch. 138; notification of school board as prerequisite to approval of plat site development plans and request for zoning changes pertaining to residential zoning of five or more acres, § 170-2.

State Law reference— Subdivision regulations required, F.S. § 163.3202(2)(a); plats, F.S. ch. 177.

ARTICLE I. - IN GENERAL

Sec. 154-1. - Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Arterial streets means main traffic thoroughfares, as indicated on the Pinellas County Sector Plan Right-of-Way Requirements and Traffic Corridors Plan, and defined as roads consisting of connecting links between municipalities and/or state roads.

Block length means the length between centerlines of intersecting streets.

Collector street means a route providing service which is of relatively moderate average traffic volume, moderately average trip length, and moderately average operating speed, and allows the distribution of traffic between arterial roads and local roads. Average daily traffic usually ranges from 1,000 to 4,000 vehicle trips per day.

~~*Compensatory excavation* means that excavation within or directly contiguous to a floodplain for the purpose of restoring flood storage capacity lost by fill within the floodplain. Compensatory excavation shall become part of the floodplain and shall not be separated from it by either an open channel or closed conduit, such as culvert pipe. Compensatory excavation must be above the seasonal high surface water elevation and seasonal high groundwater elevation.~~

County administrator means the chief executive officer of the county, responsible to the board of county commissioners for the execution of this chapter and the delegation of responsibilities for the individual tasks contained in this chapter.

County engineer or director means the county administrator if certified and licensed as a professional engineer in the State of Florida, or his or her authorized designee(s), certified and licensed as a professional engineer in the State of Florida.

~~*Detention* means the temporary storage of stormwater runoff to limit the rate of discharge into receiving water bodies.~~

Developer means the owner, his agent or employee engaged in the process of development.

Development means any manmade material change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations. [HR1] Included in this definition is the following:

- a) The construction, installation, alteration, and demolition or removal of a structure or an impervious surface.

b) Clearing, scraping, grubbing or otherwise removing, altering or destroying the vegetation of a site.

c) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging, or otherwise significantly disturbing the soils or altering the natural topographic elevations of the site.

d) The maintenance of a lawn and its ancillary vegetation, excluding uplands as required in sections 166-50 and 166-51, is exempted.

Easement means a right to use the land of another for specific purposes.

Elevation means the vertical distance of a point above the established 1929 National Geodetic Vertical Datum (NGVD) or the established North American Vertical Datum of 1988 (NAVD 88), expressed in feet above mean sea level (MSL).

File of record means a permanent file which contains all pertinent data, correspondence, calculations, drawings, plats, etc., used to review site plans and/or plats of submitted developments.

Final stabilization means that all soil disturbing activities at the site have been completed, and that a uniform (evenly distributed, without large bare areas) perennial vegetative cover, with a density of at least 70 percent for all unpaved areas and areas not covered by permanent structure, has been established, or equivalent permanent stabilization measures have been employed.

~~*Floodplain* means the lateral extent of inundation by an event of given statistical frequency, such as "25-year floodplain," as designated in the county stormwater management plan (SWMP).~~

~~*Floodway* means the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the 25-year flood or 100-year flood (base flood), as stipulated, without cumulatively increasing the water surface elevation more than one-tenth of a foot.~~

Impervious means surface which has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water, including surfaces such as compacted sand, limerock, shell or clay, as well as most conventionally surfaced streets, roofs, sidewalks, parking lots and other similar structures.

~~*Lowest floor* means the floor of any portion of a building structure as defined in chapter 158, with the exception that basements shall not be included as part of the definition for the purpose of this chapter.~~

~~*Major drainage system* means a system of natural or manmade drainageways such as streams, ditches or canals that collect stormwater runoff from water sheds identified by name or number in the county stormwater management plan (SWMP).~~

Natural area means a preservation area which is to remain in its natural state.

Natural drainageways means those watercourses that are either natural or have not been substantially excavated, graded or otherwise altered or improved by man.

NOT or notice of termination" means elimination of the stormwater discharges associated with construction activities authorized by the NOI.

NPDES or national pollutant discharge elimination system means the permitting process by which technology based and water quality based controls are implemented.

Plat means a map or delineated representation of the subdivision of lands, being a complete exact representation of the subdivision, and other information in compliance with the requirement of all applicable sections of this chapter, state statutes and of any local ordinances, and may include the terms "replat" and "amended plat."

Receiving water bodies means those water bodies and drainageways, either natural or manmade, that lie downstream of the site in question and which are susceptible to degradation of water quality due to activity at the upstream site.

Redevelopment means any manmade material change to improved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

Registered engineer or land surveyor shall be as defined by F.S. chs. 471 and 472.

~~*Retention* means the prevention of direct discharge of stormwater runoff into receiving waters; included as examples are systems which discharge through percolation, exfiltration, and evaporation processes and which generally have residence times less than three days.~~

Right-of-way means a strip of land used or intended to be used for vehicular or pedestrian travel, whether public or private.

~~*Seasonal high water level* means the elevation to which the groundwater or surface water can be expected to rise due to a normal wet season.~~

Site means any tract, lot or parcel or combination of lots or parcels of land where development or redevelopment can occur and which is subject to site plan requirements as defined in chapter 138, article II, division 5.

Subdivision means the division of a parcel of land into two or more lots or parcels for the purpose of transfer of ownership or building development; or, if a new street is involved, any division of a parcel of land. However, division of land for agricultural purposes into lots or parcels of five acres or more, and not involving a new street, shall not be deemed a subdivision. The term includes resubdivision and, when appropriate to the context, shall relate to the process of subdividing or to the land subdivided. The word "subdivision" includes the words "resubdivision," "plot," "plat" and "replat."

Subdivision street means a street within a subdivision defined as a local street in the county sector plan right-of-way requirements and traffic corridor plan as a very low level, direct access street which provides access to individual properties and connections to the collector street system.

Substantial site improvement means any manmade change to a site which discharges the surface water runoff from the site at a faster rate.

Variance means a grant of relief to a person or entity from the requirements of this chapter, which permits construction in a manner otherwise limited or prohibited by this chapter where specific enforcement would result in inequitable hardship.

Waiver means a grant of relief, in the form of no longer requiring the person or entity to meet the requirements of this chapter, which permits construction in a manner otherwise limited or prohibited by this chapter where specific enforcement would result in inequitable hardship.

Water body means any lake, reservoir, pond or other containment of surface water occupying a bed or depression in the earth's surface and having a discernible shoreline.

(Ord. No. 92-62, § I, 10-27-92; Ord. No. 03-24, § 15, 4-15-03; Ord. No. 15-32, §§ 14, 15, 8-18-15)

Cross reference— Definitions generally, § 134-2.

Sec. 154-2. - Penalties for violation; inspections and enforcement.

- (a) Any person committing any act declared unlawful by the provisions of this chapter or F.S. ch. 177 shall be punished as provided in section 134-8.
- (b) No certificate of occupancy will be issued for any structures within the parameter of the approved site plan and/or construction plan (including all single-family homes) unless all conditions of the plan have been addressed and satisfied. This statement also applies to all county issued right-of-way utilization permits associated with the aforementioned plans.
- (c) Inspections.
 - (1) The county may conduct inspections to determine compliance with the provisions of this chapter.

- (2) The county may have recourse to such remedies in law and equity as may be necessary to ensure compliance with the provisions of this chapter, including, but not limited to, the following:
 - a. Where it is determined that a violation of this chapter exists, the codes inspector shall attempt to contact the violator and direct compliance with this chapter. With or without such notice, the codes inspector may refer the matter to the county attorney for proper legal action;
 - b. Injunctive relief to enjoin and restrain any person from violating the provisions of this chapter;
 - c. An action to recover any and all damages that may result from a violation of this chapter, including an action to recover fines imposed by state law;
 - d. Revocation, suspension, or modification of any approvals issued under this chapter; and
 - e. Withholding the issuance of certificate of occupancy for structures belonging to the same person or other legal entity, either individually or through its agents, employees, or independent contractors.

The county may elect any or all of these remedies concurrently, and the pursuance of one shall not preclude the pursuance of another.

- (3) Codes inspectors are to be designated by the board of county commissioners. These inspectors' authority is to enforce the provisions of this chapter and to initiate enforcement proceedings. Codes inspectors shall have the authority to issue citations in accordance with F.S. § 125.69. The county administrator also has the authority to initiate the above actions.
- (4) *State inspections.* As part of the NPDES program, FDEP officials may conduct inspections to determine compliance with any applicable NPDES permits, including but not limited to the county's NPDES permit.

(Ord. No. 92-62, § XIX, 10-27-92; Ord. No. 03-24, § 16, 4-15-03)

Sec. 154-3. - Areas embraced.

The areas embraced by this chapter shall be all lands within the unincorporated area of the county and properties of countywide importance as defined in article VII of chapter 170 of the Pinellas County Land Development Code.

(Ord. No. 92-62, § XVII, 10-27-92; Ord. No. 15-32, § 16, 8-18-15)

Sec. 154-4. - Waivers and variances.

Written request for variance must be made by the applicant to the county administrator and must include detailed plans and written justification for the variance. If the county administrator or his designee determines that strict compliance with this chapter would impose an unnecessary hardship on the applicant due to unusual circumstances peculiar to the property of the applicant, he may vary or waive requirements of this chapter provided that such variance or waiver will be consistent with the intent and purpose of this chapter. In granting such variances or waivers, the county may impose such reasonable conditions as will ensure that the objectives of this chapter are met.

(Ord. No. 92-62, § XIV, 10-27-92)

Sec. 154-5. - Consistency with other ordinances.

It is the intent of this chapter to provide for harmonious development within the county. In addition to this chapter, development is subject to other county ordinances and regulations, including but not limited to the following: building, zoning, water, sewer, habitat, access, floodplain, flood damage prevention,

surface water, wellhead protection, water and navigation, health, air quality, as well as state and federal statutes and regulations. This chapter is intended to supersede and prevail over previous ordinances regulating the same subject matter.

(Ord. No. 92-62, § XV, 10-27-92)

Sec. 154-6. - Appeals.

Any person adversely affected by a decision of the county administrator in the permitting, enforcement or interpretation of any of the terms or provisions of this chapter may appeal such decision to the board of county commissioners. Such appeal shall be taken by filing written notice with the county administrator with a copy to the clerk of the board within 20 days after the decision of the county administrator. Each such appeal shall be accompanied by a payment in sufficient amount to cover the cost of publishing and mailing notices of hearing(s). Failure to file such appeal constitutes acceptance of the permit and any conditions thereof or the denial of the application.

(Ord. No. 92-62, § XVI, 10-27-92)

Sec. 154-7. - Site plan review.

Uses which require site plan review shall be in accord with the requirements of section 138-176.

(Ord. No. 92-62, § II, 10-27-92)

Sec. 154-8. - Platting required.

Platting is required for the following conditions:

- (1) Land which is intended to be subdivided into two or more lots is required to be platted prior to sale of any interest in the land.
- (2) Land which is being developed in such a manner that it is apparent from the documents submitted that subdivision of the land for sale will result.

(Ord. No. 92-62, § III, 10-27-92; Ord. No. 94-37, § 1, 4-19-94; Ord. No. 99-67, 7-20-99)

Sec. 154-9. - Preliminary site plans.

Preliminary site plan submittals shall be in accord with the requirements of section 138-178(a).

(Ord. No. 92-62, § IV, 10-27-92)

Sec. 154-10. - Final site plan requirements.

- (a) The final site plan shall be in accord with section 138-178(b) of this Code.
- (b) In addition to the general requirements outlined in subsection (a) of this section, the following specific information shall be furnished by the developer and prepared by a state registered engineer, signed, sealed and dated for final site plan review and approval:
 - (1) An index of all plan sheets included in the subdivision plans with drawing number references.

- (2) Street and lot layout together with street profiles and cross sections, details and street names meeting all minimum standards of this chapter and such other ordinances as may be applicable. A complete street and lot plan shall be provided.
 - (3) Lot numbers in consecutive order per phase for platting.
 - (4) Side lot lines shall be substantially at right angles or radial to street lines.
 - (5) Narrow reserved strips shall not be allowed except where dedicated as public land or of sufficient size and area to be of some practical use to the party or parties reserving such areas.
 - (6) A topographic map of the development, with contours shown at not greater than one-foot intervals. The topographic map should be current and represent present conditions and include date, north point and scale. Bar scale must be provided on all sheets; not to scale (NTS) will not be permitted. The existing and proposed lot and street grading is to be shown. Lot grading is to be shown on all lot corners and breakpoints.
- (c) The contents of plans and specifications to be submitted with the final site plan shall be as follows:
- (1) All design and construction must conform to the minimum standards set down in all applicable county ordinances.
 - (2) The number assigned to this site plan upon preliminary review must appear on all site plan submittals, utility permits, plats, or any other correspondence dealing with the site.
 - (3) The Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highway (Green Book) (latest edition), and the Roadway and Traffic Design Standards (latest edition), and the Standard Specifications for Road and Bridge Construction (latest edition) are by reference incorporated into this chapter except where modified by this chapter. In case of conflict, the following standards set out in this section shall apply.
 - (4) Asphaltic concrete surface courses shall be mixed, placed, and compacted in accordance with Pinellas County Specifications for Hot Bituminous Material, Plant Methods, Equipment and Construction Methods.
 - (5) Specifications to cover construction of all the work proposed, providing for good workmanship and standard practices of construction to achieve the desired finished product as designed by the engineer and accepted by the director. These specifications shall meet or exceed specifications as referenced in this chapter.
 - (6) Plans will be no less than a scale of one inch equals 30 feet. Larger projects will be permitted to be no less than one inch equals 50 feet. All public right-of-way drawings will be no less than one inch equals 30 feet. All lettering must be a minimum one-tenth inch with white background for microfilming purposes.
 - (7) Plans, profiles, and cross section of all proposed roads. Where proposed roads intersect existing roads, elevations and other pertinent details shall be shown. Design shall meet the requirements of this chapter.
 - ~~(8) All public drainage systems will be in pipe, except for major canals or natural streams or where specifically approved by the county engineer.~~
 - ~~(9) Hydraulics of curb and gutter construction:
a.—The minimum grade for curb and gutter road construction shall be 0.4 percent.
b.—Length of curb run from any high point to a drainage inlet shall not exceed 400 feet.~~
 - ~~(10) Hydraulics of underground drainage and drainage structures:
a.—Underground drainage through storm sewers, where employed, shall conform to good accepted engineering practice. Coefficients of friction suitable for the type of pipe or structure shall be applied. Minimum pipe diameters shall be 15 inches for side drains and 18 inches for cross drains,~~

~~for swale drainage; 15-inch minimum pipe diameter for closed hydraulic design. Inverted siphons shall not be accepted.~~

- ~~b. Drainage structures such as bridges, box culverts, headwalls, dams, weirs, spillways, bulkheads and other structures shall be designed hydraulically and structurally in accordance with good accepted engineering practice. The effects on adjacent channels and structures shall be considered. Foundations or other supports or anchoring methods shall be adequate. Erosion shall be minimized by energy dissipators or other means of reducing flow velocity. Erosion control shall be state department of transportation approved concrete ditch pavement per Index No. 281 or approved equal.~~

~~(11) Culvert pipe:~~

- ~~a. Culvert pipe shall be reinforced concrete pipe, PVC or ADS N-12 or equal. Corrugated metal pipe shall not be used between structures. Culvert pipe within right of way shall be reinforced concrete pipe. Easements for pipe outside of right-of-way shall be large enough to permit access, maintenance and protection.~~
- ~~b. Maximum length of culvert pipe between structures shall not exceed 400 feet.~~

~~(12) All backfill over any pipe (storm sewer, water line, sanitary sewer) that is to be installed under roadways or within the embankment, etc., of the roadway is to be compacted per department of transportation specifications, section 125.8.3, 1986 edition (or latest edition). This particular section specifies compaction to 100 percent of maximum density as determined by AASHTO T-99. This must be indicated on the plans.~~

~~(13) Curb end transitions to meet department of transportation Index No. 300.~~

~~(14) Endwalls shall be made of 3000 psi concrete per department of transportation Index No. 250 and shall be used only outside the roadway recovery area.~~

~~(15) Inlets:~~

- ~~a. *Curb type.* All inlets shall be constructed of reinforced concrete. They shall have a minimum inside area of ten square feet, with straight walls and suitable access through manhole covers. Inlets used also as junction boxes will be required to have formed inverts to one half the pipe diameter. See Florida Department of Transportation Roadway and Traffic Design Standards Index Nos. 200 and 210 (latest edition). Bottomless inlets will not be allowed. County RC-3 and RC-4 inlets may be used in lieu of department of transportation Index No. 210. Curb inlets shall not be placed within curb return radii.~~
- ~~b. *Ditch bottom type.* Will be constructed per subsection (c)(15)a, above, with the exception that department of transportation Index No. 232 type D or greater shall be used. A department of transportation index type F "modified" may be used and details obtained from the county land development/permitting division.~~

~~(16) Manholes and junction boxes:~~

- ~~a. All manholes or junction boxes shall be constructed of reinforced concrete. They shall be a minimum of four feet inside diameter at the base with straight walls or corbelled a maximum of four inches in one foot, with a manhole rim cast in place for access. Inverts are to be formed to a minimum of one-half the pipe diameter. Department of transportation Index Nos. 200 and 201 shall be used with a maximum corbell height of four feet and a vertical chimney height of no more than 18 inches including ring and cover.~~
- ~~b. The use of conflict boxes must be approved by the director. If approved, they must be constructed per subsections (c)(15)a or (c)(16)a of this section. The lowest portion of the conflict cannot be lower than the top one-third of the proposed storm sewer pipe.~~

~~(17) Mitered end sections:~~

- ~~a. All culverts under roadways or driveways shall have mitered end sections made of reinforced concrete meeting state department of transportation standards. Where shallow swales intersect~~

~~deeper drainage ditches, erosion control shall be provided by use of culvert pipes, concrete swales, mitered end section with spillways, or other suitable means. Cover material over culverts in swales shall be stabilized, compacted and seeded to prevent erosion.~~

~~b. Vertical curb and gutter shall conform to department of transportation Index No. 300 type F.~~

~~c. Vertical curb without gutters shall be constructed using 3,000 p.s.i. concrete and be per department of transportation Index No. 300 type D and may be used on high side of road only.~~

~~d. All curbs shall conform to the Americans with Disabilities Act where necessary, i.e., sidewalks at intersections.~~

~~(18) The design of valley crossings in streets shall be submitted for approval. In no case shall concrete valley gutters be less than 36 inches wide.~~

~~(19) Curbs: Valley curb shall be 24 inches wide with a minimum thickness of six inches at the center, with a three inch rise to the back of the curb and a one inch rise to the pavement edge, 3,000 p.s.i. concrete used throughout.~~

(8) Stormwater drainage and design plans in accordance with Article II – Drainage Requirements.[SSM2]

~~(209)~~ Details of all construction items: All details must be to scale or completely dimensioned. Not to scale (NTS, without dimensions) is not acceptable.

~~(2410)~~ Street signs on public streets: Street name signs shall be placed at each intersection. Street name signs shall be fabricated and installed by the county's staff on all proposed public rights-of-way, based upon a plat submitted for recording. County staff will prepare a cost estimate for the developer. Funds sufficient to cover this cost must be received by the county before the proposed plat will be submitted to the board of county commissioners for approval.

~~(2211)~~ Street signs on private streets: All street name and regulatory signs are to be installed by the developer in accordance with the M.U.T.C.D. with a performance bond or other acceptable surety prior to platting.

~~(2312)~~ Composition of street name signs: The following criteria apply to both public and private subdivisions:

- a. Street names shall be no longer than 14 characters (including spaces and abbreviated suffix) and shall conform to the following:
 - 1. Each street shall have one correct name. Avoid the use of directional or suffixes to distinguish separate, noncontinuous streets (e.g., Palm Ct., Palm Ave., Palm St., N. Palm Ct.).
 - 2. Avoid the assignment of a primary street name which is also used as a suffix or directional (e.g., Court St., or Southeast Blvd.).
 - 3. Avoid sound-alike street names (e.g., Beach and Beech, Main and Maine).
 - 4. Avoid special characters (e.g., hyphens, apostrophes, periods, decimals).
- b. Acceptable suffix abbreviations that will appear on the sign are as follows:
 - 1. Drive: Dr.
 - 2. Avenue: Ave.
 - 3. Court: Ct.
 - 4. Place: Pl.
 - 5. Street: St.
 - 6. Boulevard: Blvd.
 - 7. Parkway: Pkwy.

8. Circle: Cir.
 9. Lane: Ln.
 10. Road: Rd.
 11. Terrace: Terr.
 12. Way: Way
 13. Causeway: Cswy.
- c. Street name signs shall be fabricated from 0.080 gauge aluminum alloy 6061-T6 with reflective sheeting on both sides. The aluminum blank shall be anodized or etched before application of facing material. The reflective sheeting shall conform to the physical and photometric requirements in ASTM D 4956, Type IX Prismatic. The signs shall be nine inches high, have series "C" (bureau of public roads standards), five-inch upper case letters and numbers and 3¾-inch lower case letters. The length of the sign shall be increments of six inches, depending upon the requirements for the proper spacing of letters. The sign shall also have a ½-inch wide ASTM D 4956 Type IX white outside border along the perimeter of the street name sign.
 - d. The facing of the sign shall be green on white. The facing material shall be a green transparent electric cut sheeting material, and letters shall conform to ASTM D 4956, Type IX sheeting material.
- (2413) Where warranted by the Federal Highway Administration's Manual on Uniform Traffic Control Devices and specified by the department, regulatory signs must be installed. Regulatory signs must be paid for by the developer and, by law, be installed by the county. On private subdivisions these signs must be installed by the developer. The sheeting material for all regulatory and warning signs shall conform to ASTM D 4956, Type IX.
- (2514) Whether on public streets or in private subdivisions, where street signs are maintained by the county through contract with the private subdivision's homeowners' association (HOA), or as part of a neighborhood grant, or other Pinellas County program:
- a. A HOA that chooses to replace original standard sign material with decorative posts and signs will return the standard material to the Sign Shop at 22211 US 19 N, Building #5, Clearwater, FL, 33765.
 - b. The Pinellas County Sign Shop will not maintain these decorative posts and signs, but will replace with standard equipment if damaged. If the HOA subsequently chooses to change out this standard equipment with decorative materials the HOA will return the standard equipment to the sign shop at the address listed above.
 - c. Any foundations that exceed 36-inch deep into the soil shall be called into the Florida State Sunshine One Call System (Candy).
- (2615) Utility easements shall be provided.
- (2716) Underground installation of all public utility facilities including lines, wires and related appurtenances will be required in all subdivisions, with the exception of major transmission lines. Where public utility companies can show that underground service creates a hardship, a variance to permit overhead installation may be granted by the county administrator.
- (d) No construction plans will be approved until proof of submittal of vacation procedures has been received for proposed vacation of existing easements or rights-of-way. No plat will be recorded until all required public rights-of-way or easements have been officially vacated. Petitions for vacations are available from the real estate division of public works.
 - (e) Copies of required permits, department of transportation drainage and Southwest Florida Water Management District permit approvals, and other necessary documents, shall be provided to the director prior to site plan approval.

(Ord. No. 92-62, § VI, 10-27-92; Ord. No. 94-37, §§ 2, 3, 4-19-94; Ord. No. 97-52, §§ 1—4, 7-1-97; Ord. No. 2007-04, § I, 1-09-07; Ord. No. 15-32, § 18, 8-18-15)

Sec. 154-11. - Easements. [SSM3][HR4]

- ~~(a) Development abutting a 25-year floodway (or 25-year floodplain if no floodway is designated) as shown in the county's stormwater management plan (SWMP), or abutting a 100-year floodway as shown on the Federal Emergency Management Agency (FEMA) maps, or abutting a drainage channel of a major drainage system, as defined in this chapter, shall dedicate, as a minimum, 25 feet of public drainage easement contiguous to such floodway or top of bank of channel.~~
- ~~(b) Any wetland portions of a site to be developed that also lie within a 25-year floodplain and/or a 100-year floodway, as designated by the Federal Emergency Management Agency, shall be dedicated as a public conservation and/or drainage easement, whichever is applicable.~~
- ~~(ea) Conservation easements:
 - (1) Areas shown on site plans as preservation areas which are to remain in their natural state are to be shown on the plat as a conservation easement and dedicated to the county.
 - (2) Areas shown on site plans as preservation areas which are a portion of the drainage system are to be shown on the plat as drainage easements and dedicated to the county.~~
- ~~(d) All easements for canals and major waterways shall conform to recommendations of stormwater management plan or they shall include sufficient width for the ultimate design canal top-of-bank width plus a minimum 25-foot level area on one side of the proposed canal and five feet on the other side for top-of-bank dimensions under 40 feet, and a minimum 25-foot berm on both sides of the proposed canal for top-of-bank dimensions of 40 feet and over.~~
- ~~(e) Where lakes or detention ponds that accept drainage are included as a part of the drainage system of the development, a drainage easement covering the entire lake area and extending between 15 feet to 25 feet (depending upon pond configuration) beyond the top of the bank on all sides will be dedicated to the county. One 20-foot drainage easement in and one 20-foot drainage easement out will be provided for maintenance access.~~
- ~~(f) Drainage easements:
 - (1) Easements for swales shall be from top of bank to top of bank for the ultimate size swale required, with a minimum width of ten feet.
 - (2) Easements for structures shall be large enough to permit access, maintenance, and protection. A minimum easement of 15 feet width shall be provided over all culvert pipe that is not placed within street rights-of-way.
 - (3) A minimum easement of 15 feet width shall be provided for access to structures not placed within street rights-of-way. Such easement shall be along the nearest lot lines from the structure to the street rights-of-way.~~
- ~~(g) Where an easement is to be used for two or more uses such as storm sewer and water lines, the minimum width shall be 15 feet. The director may require wider easements due to depth or size of structure.~~
- ~~(h) Utility easements shall be provided.~~
- ~~(i) All easements must be fully dimensioned on the final site plan and the plat.~~

(Ord. No. 92-62, § VIII, 10-27-92; Ord. No. 94-37, § 4, 4-19-94; Ord. No. 97-52, § 5, 7-1-97)

Sec. 154-12. - Construction phase.

- (a) Before construction is authorized to begin, the contractor must have final site plan approval as well as approved permits for all work within the public right-of-way. If platting is required, the preliminary submittal of the record plat must be submitted for review prior to final administrative approval of the site plan.
- (b) Before a certificate of occupancy will be issued, the final plat for any site development which requires platting must have been approved by staff. Also, a copy of the NOT issued by the FDEP for activities regulated under the NPDES program shall be provided to staff.
- (c) After construction, the owner shall provide to the county a certification by a state licensed professional engineer that the design, intent and functionality of the project conform to the approved construction plans. If authorized field changes are made, the owner shall provide an as-built survey as defined in chapter 61G17, Florida Administrative Code, or record drawings signed and sealed by a state registered professional engineer depicting the locations and elevations of the items so changed.
- (d) If construction of the infrastructure needed for development ceases for a period of one year or if the infrastructure of the development has not been completely developed within five years of plan approval, the plan shall require review and re-approval. Plans thus submitted for review and re-approval shall comply with all current regulations.
- (e) All lots shall be graded in accordance with drainage plans with fill of good clean acceptable material. No clay, muck, or other such materials shall be used for fill except in areas where construction is prohibited. Temporary ground cover, sod or seed and mulch will be planted and maintained on all disturbed areas.
- (f) It is the developer's responsibility to keep the county informed at all times of the development's progress and it is the developer's responsibility to notify the consulting engineers so that inspection and testing can be properly performed.
- (g) Expense and responsibility for testing.
 - (1) The expense of testing materials and construction will be paid for by the developer.
 - (2) Upon completion of all improvements required, the developer's engineer shall submit a statement certifying that all work has been constructed according to the plans and specifications originally approved by the county engineer.

Accompanying this statement shall be a construction report showing where tests were made, who made them, when they were made and what the results were. Testing shall be in accordance with the Pinellas County Minimum Testing Frequency Requirements, as prepared by the county department of public works and operations. Copies of all test reports shall be furnished to the county highway department as soon as each test has been completed. Where test reports show noncompliance with specifications, corrective work shall be started immediately.
- (h) Miscellaneous requirements for completion of site developments.
 - (1) Irrigation systems shall utilize low volume design such as low trajectory heads or soaker hoses to provide direct application and low evaporation and must have a rain sensor device or switch which will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred. Water supply shall be piped to each individual planter island, and in no case shall any planted vegetation area required pursuant to chapter 166, article II be more than 50 feet from a water supply hose bib. Shallow wells, open surface water bodies or reclaimed water shall be used unless unavailable as a source of irrigation water.
 - (2) Inspection of storm sewers is required by the county, and will be requested in writing by the owner or engineer accompanied by the required inspection fee. Such inspection shall include verification of final stabilization.
 - (3) Mailboxes shall be installed in conformance with the Florida Department of Transportation Roadway and Traffic Design Standards Index 532, latest edition, or as required by the U.S. Postal Service.

- (4) All proposed swales requiring excavation from existing conditions shall be graded and sodded by the developer prior to acceptance of any subdivision for platting.
- (5) All proposed retaining walls shall be constructed by the developer prior to acceptance of the subdivision for platting.
- (6) Access for fire apparatus shall be as follows:
 - a. All developments shall be designed and constructed to provide access for firefighting equipment in conformance with the standards of the Fire Prevention Code of the National Fire Protection Association, Inc., latest edition.
 - b. All premises which the fire department may be called upon to protect in case of fire and which are not readily accessible from public roads shall be provided with suitable gates, access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus.
 - c. Fire lanes shall be provided for all buildings which are set back more than 150 feet (45.75m) from a public road or which exceed 30 feet (9.14m) in height and are set back over 50 feet (15.25m) from a public road.
 - d. Fire lanes shall be at least 20 feet (6.1m) in width with the road edge closest to the building at least ten feet (3.05m) from the building. Any dead-end road more than 300 feet (91.5m) long shall be provided with a turnaround at the closed end at least 90 feet (27.45m) in diameter.
 - e. The designation, use, and maintenance of fire lanes on private property shall be accomplished as specified by the fire marshal.
 - f. It shall be unlawful for any person to park motor vehicles on, or otherwise obstruct, any fire lane.
 - g. Exception: When any combination of private fire protection facilities, including, but not limited to, fire resistive roofs, fire separation walls, space separation and automatic fire extinguishing systems, are provided and approved by the fire marshal as an acceptable alternate, subsections (7)f.2 through (7)f.4 of this section shall not apply.
- (7) Street lighting generally.
 - a. Proposed lighting improvements within dedicated or proposed rights-of-way, including private streets, shall be submitted to and approved by the county prior to construction.
 - b. Proposed roadway lighting for use within the public right-of-way in the unincorporated areas of the county must meet the minimum illumination levels and spacing requirements as described below. This criterion will be applied to all proposed lighting designs to be installed in subdivisions. The lighting plan will be prepared by Florida Power Corporation or by an approved engineering company, and will utilize the most efficient roadway lighting system.
- (8) Design standards for street lighting.
 - a. The Illuminating Engineering Society of North America's (IESNA) Lighting Handbook, 1987 application volume; the latest edition of the Florida Department of Transportation's Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (the Green Book); and the American National Standard Institute (ANSI) manuals on roadway lighting.
 - b. Luminaire type lighting will contain the necessary equipment, including refractors and reflectors, to distribute a lighting pattern over the roadway, so as to meet minimum average maintained footcandles over the class of roadway surface.
 - c. Mounting height of luminaire and pole setbacks will not be installed less than 20 feet above the ground and will create a lighting pattern with a uniformity ratio of not more than six-to-one. Lighting pole setbacks shall meet or exceed Green Book standards. Location shall be

staked by the developer's surveyor to eliminate conflict with sidewalk and meet Green Book standards.

- d. Below is the criterion used for determining minimum average maintained footcandles and uniformity ratios for street lighting extracted from the IESNA Lighting Handbook, 1987 application volume, section 2-14:

General Application for Roadways
(Average minimum footcandles/minimum uniformity ratio)

	<i>Commercial</i>	<i>Intermediate</i>	<i>Residential</i>
Freeway, major urban	0.84 (3:1)	0.84 (3:1)	0.84 (3:1)
Freeway, all other	0.56 (3:1)	0.56 (3:1)	0.56 (3:1)
Divided highway	1.30 (3:1)	1.12 (3:1)	0.84 (3:1)
Major	1.58 (3:1)	1.21 (3:1)	0.84 (3:1)
Collector	1.12 (4:1)	0.84 (4:1)	0.56 (3:1)
Local	0.84 (6:1)	0.65 (6:1)	0.37 (6:1)

- e. Definitions for this subsection are as follows:

1. *Luminaire*: A complete lighting unit.
2. *Pole*: Luminaire support.
3. *Footcandle*: Equal to an incident flux density of one lumen per square foot.
4. *Uniformity ratio*: The ratio (average to minimum) of various illumination levels along the lighting system.
5. *Maximum uniform ratio*: Defined as one-to-one (1:1).

- (i) Duty and authority of county inspector.

- (1) The director's county inspectors may inspect all construction, all materials, and may inspect preparation, fabrication or manufacture of supplies. The county inspector is not authorized to revoke, alter or waive any requirements of the specifications, but he is authorized to call to the attention of the developer any failure of work or materials to conform to the plans or specifications.
- (2) The county inspector shall in no case act as foreman or perform other duties for the developer, nor interfere with the management of the work, and any advice which the county inspector may

give to the developer shall in no way be construed as binding to the director or releasing the developer from carrying out the intent of the plans and specifications.

- (3) The director or his inspectors, at any time they perceive a hazard or noncompliance with approved plans, may stop any work within a public right-of-way.

(Ord. No. 92-62, § IX, 10-27-92; Ord. No. 94-37, § 5, 4-19-94; Ord. No. 02-58, § 1, 7-23-02; Ord. No. 03-24, §§ 17, 18, 4-15-03)

Sec. 154-13. - Platting requirements and information.

(a) General requirements for platting are as follows:

- (1) For platting purposes, the owner of the land shall cause a record plat to be made. Such plat must be prepared by a registered land surveyor, made with permanent black drawing ink on a stable base film, a minimum of 0.003 inches thick, coated upon completion with a suitable plastic material to prevent flaking and to assure permanent legibility; or a photographic fixed line mylar. Plat and photographic fixed line mylars must both be of an overall size of 22 by 28 inches with a three-inch border on the left, a one-inch border on remaining sides, one inch equals 100 feet minimum scale of drawing, all lettering to be a minimum of one-tenth inch high for microfilming purposes. The plat will conform to the requirements of F.S. ch. 177, part 1, platting (latest amendment) and the current platting standards as presented by the examples and requirements package available from the county plat review services.
- (2) Developers must submit the required number of copies of the plat along with the check for the engineering fee as established by resolution of the board of county commissioners. Such check shall be made payable to the board of county commissioners.
- (3) There shall be a dedication to the public of such streets, easements or other public areas necessary for the safe access, drainage and utility location on the plat, or as established by resolution of the board of county commissioners. Such dedication shall be duly executed by the owner or owners, in the same manner as deeds conveying lands are required to be executed for recordation.
- (4) Lots shall be numbered consecutively or, if in blocks, consecutively numbered in each block, and the blocks progressively lettered or numbered.
- (5) In order to provide an acceptable level of service relative to the development platting procedure, the county staff requires sufficient time to process the final application to plat in an orderly fashion. To ensure sufficient time is allotted, the following goals have been made a part of the existing procedure:
 - a. Within 30 calendar days after the required copies of the plat and the review fee are received, the developer/engineer/surveyor will be sent a letter stating any required changes to the plat and listing any additional information that must be submitted prior to the request for placement on a board agenda.
 - b. Once revised prints are received and approved, and all of the fees have been paid, all applicable department releases received and all required information submitted, the developer/engineer/surveyor will be notified that the plat original can be executed and submitted along with one set of photographic fixed line mylars and prints of the proposed plat with a request to be placed on the next available board of county commissioners agenda.
 - c. The plat original, photographic fixed line mylars and prints must be submitted no later than the date stated in the letter of notification outlined above.
- (6) The clerk of the circuit court requires:
 - a. All additions after initial drafting of plat be executed in permanent black ink.

- b. Every plat submitted to the board of county commissioners must be accompanied by a title opinion of an attorney at law licensed in Florida or a certification by an abstractor or a title company showing that record title to the land as described and shown on the plat is in the name of the person, persons, corporation, or entity executing the dedication as it is shown on the plat. The title opinion or certification shall also show all mortgages not satisfied or released of record nor otherwise terminated by law.
 - c. Every subdivision shall be given a name by which it shall be legally known. Such name shall not be the same or in any way similar to any name appearing on any recorded plat in the same county as to confuse the records or to mislead the public as to the identity of the subdivision, except when the subdivision is subdivided as an additional unit or section by the same developer or his succession in title. Every subdivision's name shall have legible lettering of the same size and type, including the words "section," "unit," "replat," "amended," etc. The name of the subdivision shall be shown in the dedication and shall coincide exactly with the subdivision name.
- (7) The board of county commissioners shall establish fee schedules by board resolution for plat review, final inspection and reinspections for release of surety. Checks for these fees shall be made out to the county board of commissioners.
- (8) The board of county commissioners shall establish fee schedules by board resolution for filing fees for plats and for recording consents to plat if mortgagee(s) did not sign the plat itself. Checks for these fees shall be made out to the clerk of the circuit court.
- (b) The following information shall appear on the record plat:
- (1) In the title: Name of development (must agree with the final site plan), section, township, range and Pinellas County, Florida. If a replat, the lot and block numbers being replatted must be included in the title area.
 - (2) Both a numerical and bar scale and a north arrow.
 - (3) Each plat shall show a description of the lands subdivided, and the description shall be the same in the title certification. The description must be so complete that from it, without reference to the plat, the starting point and boundary can be determined. The description must be tied to a section corner or quarter corner either within the description or by a graphic tie on the plat.
 - (4) Surveyor's certificate, dedication and its acknowledgement, grant and its acknowledgement, approval of the chairman, board of county commissioners, director of public works and approval of county clerk.
 - (5) Block corner radii dimensions shall be shown.
 - (6) Sufficient survey data shall be shown to positively describe the bounds of every lot, block, street easement, and all other areas shown on the plat. When any lot or portion of the subdivision is bounded by an irregular line, the major portion of that lot or subdivision shall be enclosed by a witness line showing complete data, with distances along all lines extended beyond the enclosure to the irregular boundary shown with as much certainty as can be determined or as "more or less," if variable. Lot, block, street, and all other dimensions except to irregular boundaries, shall be shown to a minimum of hundredths of feet. All measurements shall refer to horizontal plane and in accordance with the definition of the U.S. Survey foot or meter adopted by the National Institute of Standards and Technology. All measurements shall use the $39.37/12=3.28083333333$ equation for conversion from a U.S. foot to a metric foot.
 - (7) Curvilinear lots shall show the radii, arc distances, central angles, chord, and chord bearing, or both. Radial lines will be so designated. Direction of nonradial lines shall be indicated.
 - (8) Sufficient angles, bearing, or azimuth to show direction of all lines shall be shown, and all bearings, angles, or azimuth shall be shown to the nearest second of arc.

- (9) The centerlines of all streets shall be shown with distances, angles, bearings or azimuth, "P.C.s," "P.T.s," "P.R.C.s." "P.C.C.s." arc distance, central angles, tangents, radii, chord, and chord bearing or azimuth, or both.
 - (10) Name and right-of-way width of each street or other right-of-way. Location, dimensions and purposes of all easements and whether the right-of-way or easement is to be public or private. All easements must be fully dimensioned and tied to the plat or lot corner.
 - (11) Reference to recorded subdivision plats of adjoining platted land by record name, plat book and page and the O.R. book and page number of all existing easements and rights-of-way.
 - (12) All abutting property ownership lines and lot numbers to be shown by dashed or dotted lines.
 - (13) All land within the boundaries of the plat must be accounted for, either by blocks, lots, parks, streets, or expected parcels. Unusable strips will not be permitted.
 - (14) Location and description of permanent reference monuments.
 - (15) The plat shall include in a prominent place the following statement: NOTICE: There may be additional restrictions that are not recorded on this plat that may be found in the public records of this county.
- (c) The following shall be submitted with the record plat:
- (1) Required plat review fee.
 - (2) Proof that vacations of existing right-of-way and easements within the proposed boundaries of the development have been completed.
 - (3) Letter from utility companies (i.e., water, sewer, power, phone, gas, etc.) stating that the easements shown are sufficient for their needs.
 - (4) Developer's sidewalk completion guarantee. Sidewalks adjacent to common areas must be constructed as a portion of the development construction.
 - (5) An engineer's certification on design.
 - (6) A letter from the postal service indicating that there are no duplicate street names. The street names on the plans and on the plat must be the same.
 - (7) The fee for installation of street signs shall be per quote from the county traffic department. If the streets are private, street signs must have been installed or a private street sign installation guaranty submitted.
 - (8) In the event improvements have been made prior to the plat being submitted for recording, an engineer's certification of completion, a subdivider's affidavit that all bills have been paid, a letter from the water, sewer and highway departments that all their requirements have been met and they are accepting their respective systems, and a maintenance surety are required prior to the plat being recorded.
 - (9) Subdivisions where the infrastructure is not to be public must be completed before the filing of the plat or a payment and escrow agreement must be submitted and approved.
 - (10) Repealed.
- (d) It is the responsibility of the project engineer to request in writing to the Highway Department, 22211 U.S. Hwy. 19 North, Clearwater, Florida 34625, that the final inspection of the street, drainage, and related grading improvements be made. This request should be made at the earliest possible date to allow sufficient time to complete incidental construction items prior to surety expirations or to meet deadlines mentioned.
- (e) Completion and maintenance security:
- (1) The board of county commissioners, as a condition to the approval of the plat, shall require the developer who is seeking to have the plat approved provide a completion security in the form of

a surety bond, letter of credit or other acceptable guaranty as the board shall determine adequate to guarantee construction and installation of all roads, streets, sidewalks, drainage, and water and sewerage disposal facilities as are required in accordance with this chapter and other applicable ordinances, statutes and regulations. Security shall be in the amount of 110 percent of the estimated cost of required improvements based on a certificate of cost estimate prepared, signed, sealed and dated by a registered professional engineer.

- (2) Upon satisfactory completion of all improvements within areas to be dedicated to the public, the board of county commissioners may, at its discretion, accept those dedicated areas, by resolution, on behalf of the public. As a condition of acceptance, the developer shall provide a maintenance security in the form of a surety bond, letter of credit, or other acceptable guaranty in such amount and for such duration as the board deems sufficient to indemnify the board against latent defects in the improvements within the dedicated areas. Minimum security shall be 20 percent of the estimated cost of required improvements, to be fully effective for 18 months from acceptance by the board. Upon acceptance and receipt of the maintenance surety, the board shall release the completion security. A bill for the cost of work may be used to calculate the amount for the 20 percent maintenance bond.
 - (3) A separate security may be required for construction to be performed and/or maintained within existing county rights-of-way and other public property.
- (f) Procedure of acceptance of improvements and release of surety:
- (1) Sixty days before the expiration date, the county inspector will inspect the development and prepare an inspection report. This report will be sent to the principal of the bond (owner/developer or contractor) by certified mail, return receipt requested. Copies will also be forwarded to the project engineer, the surety agent, either the owner/developer or contractor and the director.
 - (2) Thirty days before the expiration date, the highway division shall reinspect the development to determine whether defects in the above referenced 60-day report have been corrected satisfactorily. If defects still exist within the development, the highway division shall prepare a final letter stating that the contractor or developer has failed to repair certain defects within the development. Such letter of defects shall be specific and shall give exact locations within the development.
 - a. Completion surety: If the inspection shows that all defects have been corrected, and a maintenance surety has been submitted and approved, the release of the completion surety will be placed on the next board of county commissioners agenda.
 - b. Maintenance surety: If the inspection shows that all defects have been corrected, the request for release of the maintenance surety will be placed on the board of county commissioners agenda.
 - (3) Eighteen days before the expiration date, correspondence will be prepared that will enable the county to collect on the completion surety or maintenance surety. In the case of a bond, a letter will be sent directly to the bonding company. In the case of a letter of credit, a sight draft will be prepared to be drawn upon the bank or lending institution. Necessary signatures on the sight draft will be obtained and will be sent by certified mail, return receipt requested, to the respective surety representative.
 - (4) A request to release a surety (completion or maintenance) must be made in writing to the public works land development permitting division no later than 5:00 p.m. on Monday of the week previous to the scheduled board meeting. At this time the board of county commissioners must have a written release from the highway and utility departments stating that the work is accepted and a maintenance surety has been received and approved or the project has been accepted for county maintenance after the maintenance surety has expired or been released.
 - (5) Should a surety have to be extended beyond the expiration date, in order that requirements of the surety are met, then the time of extension shall not exceed six months. If it is deemed necessary to further extend the time of surety, a new certificate of cost estimate shall be

submitted, signed, sealed and dated by a state registered engineer. The new surety shall be in the amount of the cost estimate but not less than the amount of the original surety. The new sureties shall not be extended.

(Ord. No. 92-62, § X, 10-27-92; Ord. No. 94-37, §§ 6—11, 4-19-94; Ord. No. 97-52, §§ 6—29, 7-1-97; Ord. No. 02-58, § 2, 7-23-02)

Sec. 154-14. - Correcting or changing street names.

- (a) As provided in the following subsections, there are three ways to correct or change a street name that has become official either by a recorded subdivision, by resolution, or just by years of use.
- (1) The first way to correct a street name would be by filing an affidavit confirming an error on a recorded plat. This can be done only by the surveyor of the plat and it is filed in the clerk of the circuit court's office. However, this can only be done provided there are no residents presently receiving mail on that street.
 - (2) The second way to change a street name is by having a resolution adopted by the board of county commissioners. It is required that all property owners have to be in 60 percent agreement to the name change. The procedure is as follows:
 - a. Submit a request by letter along with the processing fee as established by resolution of the board, with a check to be made payable to the board of county commissioners.
 - b. The county will send a petition package to the person requesting the name change to get the owners' signatures on the street name change petition.
 - c. Once the 25 days have elapsed, and if all property owners are in agreement, a resolution changing the subject street name shall be prepared for review by the county attorney's office.
 - d. When the above steps are accomplished, the subject street is scheduled for a board of county commission meeting.
 - e. After board approval, all homeowners affected as well as all required agencies shall be notified in writing of the name change.
 - (3) The third way to change a street name is if it is deemed in the interest of the post office or 911 (emergency response). The procedure is as follows:
 - a. The post office or 911 suggests a name change on a street.
 - b. The board of county commissioners sends the resolution to the county attorney's office for review.
 - c. The subject street is scheduled for a board of county commission meeting.
 - d. After board approval, all homeowners affected as well as all required agencies shall be notified in writing of the name change.

(Ord. No. 92-62, § XI, 10-27-92; Ord. No. 97-52, §§ 30, 31, 7-1-97)

Sec. 154-15. - Model home permit requirements.

The purpose of this section is to state county policy relative to permitting of model homes in unplatted subdivisions so that a thorough review can take place as the permit is processed. When issuing such permits, the following should be adhered to:

- (1) A maximum of four model homes may be permitted within a subdivision which has received final site plan approval and construction plan approval.

- (2) These model homes may be located on any of the proposed lots in the subdivision. The applicant will be required to provide a metes and bounds legal description of the parcel as well as the proposed lot number, block number (if applicable) and subdivision name.
- (3) All normal steps for obtaining permits will be followed. In addition, the applicant will be required to obtain approval from the public works land development permitting division to ensure that the proposed house will conform to subdivision and site plan requirements.

(Ord. No. 92-62, § XII, 10-27-92)

Sec. 154-16. - Unlawful acts.

It shall be unlawful for any person to convey or mortgage land in the county by reference to any plat unless and until such plat is recorded in the office of the clerk of the circuit court. It shall be unlawful also for any person to convey or mortgage by metes and bounds description any land in the county included within any plat recorded in the office of the clerk of the circuit court unless such description identifies the land with reference to such plat. It shall also be unlawful to fail to complete required improvements, in substantial compliance with site and/or construction plans approved in compliance with this chapter, within a timely manner. Cancellation or nonrenewal of the security required by section 154-13 shall be deemed a violation of this chapter.

(Ord. No. 92-62, § XIII, 10-27-92)

Secs. 154-17—154-50. - Reserved.

ARTICLE II. - DRAINAGE REQUIREMENTS²¹

Footnotes:

--- (2) ---

Cross reference— Stormwater pollution, § 58-236 et seq.

Sec. 154-51. - General requirements.

A complete drainage system shall be provided. All areas within the proposed development, including lots, streets and other areas, must be adequately drained. In addition, where drainage runoff from outside the development passes over or through the areas of the development, such runoff shall be included in the drainage system design [and shall not increase flood stages or flow rates upstream and downstream](#). The system shall be designed for long life and shall be suitable for low cost maintenance by normal maintenance methods. [The design standards shall be in accordance with the County's Stormwater Manual.](#)

(Ord. No. 92-62, § V(1), 10-27-92)

Sec. 154-52. — ~~Reserved~~[Pinellas County Stormwater Manual](#).

[The Pinellas County Stormwater Manual is intended to provide detailed drainage requirements and guidelines for the construction of physical improvements in the unincorporated limits of the County](#)

and on Pinellas County owned infrastructure in the incorporated limits of Pinellas County. However, to the extent this article conflicts with a municipal ordinance, the more stringent criteria shall be met. The Pinellas County Stormwater Manual shall be adopted by ordinance of the County Commission and kept on file in the Development Review Services and Public Works Departments.

Sec. 154-53. - Plans and design.

Plans showing the proposed design features and typical sections of canals, swales and all other open channels, storm sewers, all drainage structures, retention/detention ponds, other stormwater management facilities, roads and curbs and other proposed development construction shall be filed with the county. Design shall meet the requirements of this chapter.

(Ord. No. 92-62, § V(3), 10-27-92)

Sec. 154-54. - Connections.

Drainage connections to drainageways, and intersecting or converging drainageways, shall be suitably designed and aligned to provide effective control of erosion and siltation.

(Ord. No. 92-62, § V(4), 10-27-92)

Sec. 154-55. - ~~Floodplains-Reserved~~

- ~~(a) Where lands are or have been subject to periodic flooding and minimum building elevations have not been established by the county and or the Federal Emergency Management Agency, the developer shall establish 100-year flood elevations at design flood conditions.~~
- ~~(b) On-site stormwater detention areas may be excavated within the 100-year floodplain as long as perimeter berms are not constructed above existing ground level.~~
- ~~(c) All public utilities and facilities such as sewer, gas, electrical, and water systems, telephone and cable television must be located and constructed to minimize or eliminate flood damage. Adequate drainage must be provided to reduce exposure to flood hazards.~~
- ~~(d) All new construction or substantial improvement to existing construction shall conform to all general and specific standards and all provisions of chapters 158 and 170, article III.~~

(Ord. No. 92-62, § V(5), 10-27-92)

Sec. 154-56. - Compliance with other specifications.

Drainage plans, profiles, cross sections, and details, including detention facilities and underdrains, shall meet all minimum standards of this chapter, the County's Stormwater Manual and other ordinances and regulations with the preliminary plat. A master lot grading plan shall be included. Drainage calculations will be furnished. Hydraulic calculations for all closed storm sewer systems shall be prepared and submitted utilizing the standard county engineering department storm sewer tabulation form.

(Ord. No. 92-62, § V(6), 10-27-92)

Sec. 154-57. - Drainage plan.

Every application for new construction or substantial improvement to existing construction, including single-family homes, subdivided lands and unplatted lands, must include a drainage plan demonstrating that [the application is in accordance with the requirements set forth in the Pinellas County Stormwater Manual](#):-

- ~~(1) All runoff entering the site from adjacent lands is carried through the site and discharged to a positive and adequate outfall. A sinkhole shall not be considered a positive or adequate outfall.~~
- ~~(2) On-site detention and/or retention is provided as required.~~
- ~~(3) Existing surface water drainage systems are not blocked or diverted onto adjacent property.~~
- ~~(4) The drainage system can be maintained; that the planting will be limited to ground cover (sodding); that drainage easement areas will not be built upon and that the system will continue to function.~~

(Ord. No. 92-62, § V(7), 10-27-92)

Sec. 154-58. - [Reserved](#) Diversion of surface runoff.

~~Surface water runoff shall not be diverted across the major drainage basin boundaries as depicted in the county stormwater management plan (SWMP).~~

(Ord. No. 92-62, § V(8), 10-27-92)

Sec. 154-59. - [Reserved](#) Basin map.

~~A drainage map of the basin or basins within which the development lies, inclusive of immediate off-site drainage, must be provided. This map may be combined with the topographic map required in this article, but in any event must include suitable topographic data acceptable to the director. All ridges outlining the basins and the sizes of the basins in acres must be shown. The outlines and sizes in acres of all existing and proposed drainage areas within the basin shall be shown and related to corresponding points of flow concentration. Flow paths shall be indicated throughout, including final outfalls from the subdivision and basins.~~

(Ord. No. 92-62, § V(9), 10-27-92)

Sec. 154-60. - [Reserved](#) Drainage data.

~~Drainage data, assumed criteria and hydrologic and hydraulic calculations shall be provided to the county and shall meet the requirements of this chapter.~~

(Ord. No. 92-62, § V(10), 10-27-92)

Sec. 154-61. - [Reserved](#) Calculation of runoff rates.

~~Weighted runoff coefficients shall be used where different coefficients apply within the areas comprising the basin. The rational formula may be used to determine peak runoff rates for projects with total drainage areas of ten acres or less. Other more precise methods acceptable to the county engineer shall be employed for developments with larger drainage areas.~~

~~Where infrastructures exist and later proposed changes in the building structures increase the weighted coefficient, appropriate changes will be required in the infrastructure.~~

(Ord. No. 92-62, § V(11), 10-27-92)

Sec. 154-62. - ~~Rainfall and runoff criteria.~~ Reserved

- ~~(a) Rainfall intensity factors shall be from state department of transportation zone 6 as contained in Florida Department of Transportation Drainage Manual (latest edition) or accepted meteorological and rainfall sources as applicable to the county.~~
- ~~(b) The drainage system shall be designed for design floods resulting from design storm events of the following frequencies or greater:
 - ~~(1) The system shall be designed for design floods resulting from 25-year frequency, 24-hour duration design storm event (9.0 inches).~~
 - ~~(2) The 100-year, 24-hour design storm event generates 12 inches of rainfall.~~~~

(Ord. No. 92-62, § V(12), 10-27-92)

Sec. 154-63. - ~~Reserved~~ Design criteria.

~~The following criteria are for design of drainage conveyance systems exclusive of retention/detention ponds:~~

- ~~(1) Design of drainage systems serving less than 200 acres (ditches, inlets and pipe culverts) shall be based on a ten-year storm or greater return frequency, subject to criterion C.~~
- ~~(2) Design of drainage systems serving more than 200 acres shall be based on a 25-year storm or greater return frequency, subject to criterion C.~~
- ~~(3) The design objective for drainage systems shall be to contain the 25-year storm runoff within the confines of the major drainage system or designated floodplain and to prevent the flooding of existing buildings during the 100-year return frequency flood.~~

(Ord. No. 92-62, § V(13), 10-27-92)

Sec. 154-64. - ~~Reserved~~ Retention/detention facilities.

~~The attenuation, treatment and habitat characteristics of constructed retention/detention facilities shall be retained or restored as follows:~~

- ~~(1) Side slopes of retention/detention facilities shall be constructed to a maximum slope of four feet horizontal to one foot vertical (4:1).~~
- ~~(2) Vertical walls shall not be permitted around more than 25 percent of the perimeter of wet detention ponds. Only 50 percent of the perimeter of a dry detention pond may be walled.~~

~~(3) — At least 50 percent of the surface area of a detention area must be open to sunlight.~~

(Ord. No. 92-62, § V(14), 10-27-92)

Sec. 154-65. - ~~Reserved Drainage outfalls.~~

~~(a) — Positive and adequate outfalls are required for all proposed or existing drainage systems. Studies may be required showing that existing outfalls are both positive and adequate.~~

~~(b) — Drainage walls, seepage basins, percolation, sinkholes or underdrains are not acceptable as positive outfalls. Percolation will be recognized as a water quality treatment method only. In some cases of severe hardship, the director may approve such an outfall with special site specific restrictions and requirements.~~

(Ord. No. 92-62, § V(15), 10-27-92)

Sec. 154-66. - ~~Reserved Hydraulics of minor streams, canals, ditches and swales.~~

~~(a) — "Open channels," other than major waterways, may be defined as minor streams, canals, ditches, and swales. Such open channels shall be designed in accordance with good accepted engineering practice adapted to local conditions. Cross-sectional areas and hydraulic gradients shall be such that design velocities shall not result in soil scouring for the soil and/or turf conditions reasonably anticipated. Mean velocities greater than three feet per second shall be considered excessive unless permanent channel lining or other suitable protection is employed.~~

~~(b) — The design of open channels described in this section shall provide that the channels will not overflow their banks at design flood conditions.~~

(Ord. No. 92-62, § V(16), 10-27-92)

Sec. 154-67. - ~~Reserved Major waterways.~~

~~Where development will impact an existing major waterway, the improvements to the waterway shall conform to the county stormwater management plan for the various drainage basins. Improvement or establishment of major canals is of such significance to the county that the design of each such improvement or establishment proposed shall be developed as a separate hydraulic problem. Any deviations from the construction shown on the stormwater management plan will require that engineering data, criteria and suitable calculations be submitted prior to approval of site and/or construction plans.~~

(Ord. No. 92-62, § V(17), 10-27-92)

Sec. 154-68. - ~~Reserved Canals, lakes, ponds, major waterways.~~

- (a) ~~Lakes and ponds shall have a maximum side slope of four to one to a point two feet below normal water level.~~
- (b) ~~Maximum use shall be made of lakes and retention and/or detention ponds. The stormwater runoff rate shall not exceed the runoff rate from the site in the undeveloped state.~~
- (c) ~~Where lakes and/or ponds are used for retention or detention, an identification of the seasonal high water table shall accompany design calculations.~~
- (d) ~~Where lakes are included as a part of the drainage system, detention time in these lakes may be considered in computing discharge by presentation of hydrographs developed with accepted engineering methods.~~
- (e) ~~Where the development abuts the centerline of the natural drainageway, natural area or water body it shall be used as a site plan property line. Where a natural drainageway, natural area or water body separates the same ownership and no project is to be submitted for the opposite side of the natural drainageway, natural area or water body then the centerline of the natural drainageway, natural area or water body shall be used as the site plan line.~~

(Ord. No. 92-62, § V(18), 10-27-92)

Sec. 154-69. - ~~Reserved Swale drainage.~~

- (a) ~~*Roadside swale geometry.* Roadways using roadside swale drainage will be subject to the approval of the county engineer. The maximum side slope of a roadside swale/ditch shall be three to one. The minimum shoulder width shall be eight feet. Swales and sidewalks shall be located within the road right-of-way. Minimum bottom width of swale shall be two feet, and minimum depth of swale shall be 18 inches below the edge of the pavement.~~
- (b) ~~*Yard swales.*~~
 - (1) ~~For local lot drainage, rear yard swales are not acceptable where traversing more than one lot. Yard drains and inlets are required where necessary for adequate drainage.~~
 - (2) ~~Where side yard swales and other swales are required, side slopes shall be not steeper than five to one for subdivisions and three to one for commercial sites. Minimum depth of swales will be six inches. Minimum gradients of yard swales shall be one eighth inch per foot (one percent). Vertical rise from high point of swale to lowest floor level shall be not less than eight inches.~~

(Ord. No. 92-62, § V(19), 10-27-92)

Sec. 154-70. - ~~Reserved Surface water management standards.~~

~~The water quality of receiving water bodies shall be maintained or improved as follows:~~

~~(1) — All new development or construction shall have provision for retention and treatment of surface waters as required by chapter 17-25, Florida Administrative Code.~~

~~(2) — All redevelopment which adds or exceeds a cumulative total of 3,000 square feet of additional impervious development or 25 percent of the lot or parcel shall meet surface water quality discharge standards for the entire site. If a site is completely razed, all current surface water management standard requirements shall apply.~~

~~(3) — During excavation and construction, downstream turbidity shall be maintained at or below 29 NTUs above background, i.e., the level of turbidity upstream of the site, or as existed prior to development; or conditions reasonable to assure maintenance of water quality to meet the conditions of chapter 17-25, Florida Administrative Code.~~

~~(4) — All ground surfaces disturbed by construction, which are subject to soil erosion, shall be sodded per state department of transportation design standards. Other areas can be stabilized by grass and mulch or other practical methods.~~

~~(5) — All site plans shall include on-site detention of surface water runoff such that the peak rate of runoff from a 25-year frequency, 24-hour duration rainfall (nine inches) shall be equal to or less than the undeveloped condition.~~

(Ord. No. 92-62, § V(20), 10-27-92)

Sec. 154-71. - Reserved ~~Swale erosion protection.~~

~~(a) — Swales shall be provided with permanent erosion protection. Such protection may be turf, using an approved type grass, or an approved type of pavement liner may be utilized. When turf protection is used, the swales shall be sodded a lateral distance extending from within one foot of the road pavement to the top of the swale backslope.~~

~~(b) — Driveways across swales shall have placed beneath them drainage pipes of adequate size for drainage, a minimum of 15 inches wide. The culvert pipes shall be long enough to provide a six-foot-wide shoulder on each side of the driveway pavement. The ends of the pipe shall be finished with mitered end sections per state department of transportation standards.~~

~~(c) — All slopes shall be stabilized to prevent erosion.~~

(Ord. No. 92-62, § V(21), 10-27-92)

Sec. 154-72. - Reserved ~~Erosion control methods.~~

~~All construction practices shall conform to accepted best management practices (BMP) for erosion control, such as straw bales, ground cover, slope stabilization, temporary vegetation, silt barriers and turbidity barriers.~~

(Ord. No. 92-62, § V(22), 10-27-92)

Sec. 154-73. - ~~Reserved Detention areas, grading.~~

~~Detention areas must be roughed out prior to other site grading as a means of erosion control.~~

(Ord. No. 92-62, § V(23), 10-27-92)

Sec. 154-74. -~~Reserved Use of water for on-site irrigation.~~

~~For on-site irrigation purposes, water quality treatment volume may be pumped onto land from which surface water runoff returns to the same detention area.~~

(Ord. No. 92-62, § V(24), 10-27-92)

Secs. 154-75—154-100. - Reserved.

ARTICLE III. - ROADS

Sec. 154-101. - Public and private roads.

All roads in new developments will be dedicated to the public, unless such development is part of an RPD master plan and private roads are clearly indicated as such on the plat. All private and/or privately maintained roads shall meet all land development ordinance requirements.

(Ord. No. 92-62, § VII(1), 10-27-92)

Sec. 154-102. - Proposed street system.

The proposed street shall recognize and extend the plan and profile of suitable existing streets, and shall make possible the future extension of streets into adjacent undeveloped land where feasible. Any subdivision with 50 or more lots shall have at least two accesses from a paved street. The proposed street system shall be so designed that the minimum floor elevation of all structures within the area of special flood hazards shall be ~~at or above the level of the 100-year flood, as indicated on the official FEMA flood hazard boundary map and/or the county stormwater management plan, whichever is more stringent. Where no FEMA flood elevation has been established, the engineer of record shall establish a 100-year flood elevation and set finish floor elevations accordingly. All calculations used to establish a 100-year elevation must be signed and sealed by a state registered engineer and shall become part of the file of record in accordance with the floodplain requirements set forth in Chapter 158.~~

(Ord. No. 92-62, § VII(2), 10-27-92)

Sec. 154-103. - Minimum elevation.

The minimum edge of pavement elevation for road construction is five feet above mean sea level (NAVD), or the lowest edge of pavement shall be above the 25-year storm event as indicated in the stormwater management plan, whichever is the more stringent.

(Ord. No. 92-62, § VII(3), 10-27-92; Ord. No. 15-32, § 17, 8-18-15)

Sec. 154-104. - Location and width.

The location and width of all streets shall conform to the comprehensive plan or shall be as established by resolution of the board of county commissioners. New subdivision streets shall not be allowed adjacent to the rear of existing lots of record unless no other practical alternative exists.

(Ord. No. 92-62, § VII(4), 10-27-92)

Sec. 154-105. - Collector and arterial streets.

- (a) Collector and arterial streets shall have a minimum design speed as indicated in the Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways.
- (b) Arterial streets shall be designed to meet county requirements. Whenever a subdivision abuts or includes an arterial road, intersecting streets shall be designed with acceleration and deceleration lanes or left-turn lanes. When divided roadways exist or are proposed, median openings, if allowed, must conform to state department of transportation standards and/or chapter 170, article IV. Acceleration or deceleration lanes may be required on collector roads. Plans for such intersections must be approved by the engineering department's traffic section.

(Ord. No. 92-62, § VII(5), (6), 10-27-92)

Sec. 154-106. - General paving criteria.

- (a) Minimum pavement width, including width of curb or valley curb, for streets shall be as follows:
 - (1) Arterial street, 28 feet.
 - (2) Collector, commercial, or industrial street, 28 feet.
 - (3) Residential streets, 24 feet.
 - (4) Residential streets using department of transportation type F vertical curb, 28 feet.
 - (5) Distance between edge of paving and right-of-way shall be the same around a cul-de-sac as along a straight street.
- (b) Pavement cross-slope shall be one-fourth inch per foot or greater with no inverted crowns permitted. Finish pavement shall be one-fourth inch higher than the lip of any concrete gutter.

(Ord. No. 92-62, § VII(7), 10-27-92)

Sec. 154-107. - Layout design criteria.

Layout design criteria for street development shall be as follows:

- (1) Block lengths shall not exceed 1,500 feet.
- (2) Culs-de-sac shall have a maximum length of 600 feet.
- (3) Where offset streets on opposite sides of a common street intersect the common street, the minimum distance between the centerline of the offset streets shall be 100 feet measured along the centerline of the common street, except where the common street is arterial, in which case offsets will not be permitted.

- (4) Back of curb radius shall be a minimum of 25 feet at all intersections.
- (5) Intersections shall be substantially at right angles on all streets and meet all state department of transportation sight distance requirements.
- (6) At the intersection of any arterial road or collector road and another street, additional right-of-way in the form of a triangle 15 feet long on each leg shall be provided on all corners.
- (7) No trees are to be planted within the required clear zone from edge of pavement. For clear zone criteria see state department of transportation standards.
- (8) Pavement for nonpublic roads which are divided by a median isle will be at least 16 feet in width on both sides of the median isle. A minimum clear zone of 20 feet is required for access by fire apparatus, as per NFPA 1, Fire Prevention Code (latest edition).
- (9) No gatehouses are permitted on any public road. Entrance sign locations must be in accordance with county standards.

(Ord. No. 92-62, § VII(8), 10-27-92)

Sec. 154-108. - Right-of-way requirements.

Right-of-way requirements shall be as follows:

- (1) Streets shall meet the requirements for right-of-way widths as established by the comprehensive plan or by resolution of the board of county commissioners. Arterial and collector streets shall be located as shown on the comprehensive plan. Arterial streets shall have right-of-way widths ranging from 100 to 200 feet in width as indicated in the comprehensive plan. Major collector roads shall have a right-of-way width of 80 feet. Minor collector, commercial or industrial streets shall have a minimum right-of-way width of 60 feet.
- (2) Residential streets shall have a minimum of 80 feet right-of-way width when constructed with swale drainage.
- (3) Residential streets shall have a minimum of 50 feet of right-of-way width when constructed with curb.
- (4) Culs-de-sac shall have 50 feet of right-of-way approach to a 90-foot diameter right-of-way for a turnaround circle when constructed with curb.
- (5) Culs-de-sac shall have 80 feet of right-of-way approach to a 120-foot diameter right-of-way for a turnaround circle when constructed with swale drainage.

(Ord. No. 92-62, § VII(9), 10-27-92)

Sec. 154-109. - Residential subdivision streets.

- (a) Residential subdivision streets shall be planned so that residential lots will not have driveways entering directly onto arterial streets. Residential lot arrangements shall also be planned to have the least possible residential lot driveway connections to major collector streets.
- (b) Residential or subdivision streets shall be classed as "residential or subdivision—light traffic" or "residential or subdivision—medium traffic."
- (c) "Residential or subdivision—light traffic streets" are defined as those streets which end in a cul-de-sac or which form a loop, leaving and entering the same trunk road and which will serve less than 100 dwelling units; or which run between two trunk streets serving less than 50 dwelling units.
- (d) All residential or subdivision streets other than as defined in subsection (3) of this section shall be classed as "residential or subdivision—medium traffic," or identified on the comprehensive plan.

(Ord. No. 92-62, § VII(10), 10-27-92)

Sec. 154-110. - Flexible pavement standards.

- (a) Subbases shall be of good, clean, acceptable material with a limerock bearing ratio of no less than 40, compacted to 98 percent of the maximum density determined by AASHTO T-180. The subbase must extend six inches beyond the back-of-curb or, for rural road sections, six inches beyond the base. If utilities cuts are made after subbase stabilization, the trenches shall be backfilled, full depth, with base material compacted to 98 percent maximum density.
- (b) Minimum compacted thickness of subbases for residential light-traffic streets shall be nine inches. Minimum compacted thickness of subbases for all other streets shall be 12 inches.

(Ord. No. 92-62, § VII(11), 10-27-92)

Sec. 154-111. - Base materials.

Bases may be constructed of limerock, shell, cemented coquina shell, soil cement, or asphaltic concrete. Other materials may be proposed by the developer for approval by the director, subject to the following standards:

- (1) Cement-treated limerock is not an acceptable base material.
- (2) Bases of limerock, shell, or cemented coquina shell shall be compacted to 98 percent of the maximum density determined by AASHTO T-180.
- (3) Soil cement mixtures shall be designed by an engineering testing laboratory and approved by the director. Mixing and compaction shall be monitored by the testing laboratory. A minimum compressive strength of 300 pounds per square inch shall be achieved in seven days.
- (4) Asphaltic concrete base courses shall be mixed, placed, and compacted in accordance with Pinellas County Specifications for Hot Bituminous Material, Plant Methods, Equipment and Construction Methods.
- (5) For rural road sections the bases shall extend six inches beyond the surface course.
- (6) Minimum thickness of finished base shall be as follows:
 - a. Arterial streets, 10½ inches.
 - b. Collector, commercial, industrial and medium traffic streets, eight inches.
 - c. Residential light traffic streets, six inches.

(Ord. No. 92-62, § VII(12), 10-27-92)

Sec. 154-112. - Asphaltic concrete surface course standards.

Minimum thickness and types of asphaltic concrete surface courses shall be as follows:

- (1) Arterial streets, three inches of PC-1.
- (2) Collector, commercial, and industrial streets, two inches of PC-1.
- (3) Residential and medium traffic streets, 1½ inches of PC-1.

(Ord. No. 92-62, § VII(13), 10-27-92)

Sec. 154-113. - Pavement structural design.

- (a) The pavement section elements specified in this article are minimums. In some areas, due to soil conditions and/or traffic density, it may be required that the pavement structural section be designed in accordance with the Florida Department of Transportation's Flexible Pavement Design Manual.
- (b) Rigid (Portland cement concrete) pavement designs will be reviewed for approval by the director on a case-by-case basis.

(Ord. No. 92-62, § VII(14), (15), 10-27-92)

Sec. 154-114. - Underdrains.

Standards for underdrains are as follows:

- (1) Underdrains are required on both sides of curbed roads.
- (2) Underdrains outfalling to inlets are to have inverts at or above the treatment volume elevation of receiving retention/detention ponds and/or lakes, or, alternatively, a separate, positive and adequate outfall is to be provided.
- (3) If the bottom of roadside swale ditches is less than 24 inches below the edge of the road surface, underdrains shall be installed.
- (4) Underdrain installation shall be per county underdrain detail. Underdrain inspection boxes are required at the end of all runs that do not terminate in structures or maximum of 300-foot intervals.
- (5) If the storm sewer system is less than 30 inches below the edge of pavement, a separate underdrain system with cleanout/inspection boxes shall be installed to an outfall greater than 30 inches in depth.

(Ord. No. 92-62, § VII(16), 10-27-92)

Sec. 154-115. - Sidewalks.

- (a) Sidewalks shall be required on all arterial, collector, commercial and subdivision streets. This will apply on both sides of the street if the street lies wholly within the boundaries of the subdivision. All sidewalks shall be located so that the back of the sidewalk is 2.0 feet off the right-of-way line and/or future right-of-way line where applicable. All corner lot sidewalk constructions shall extend to the edge of curb, or pavement where no curb exists. A level recovery area, a minimum of two feet wide, will be provided adjacent to sidewalks. Where special circumstances warrant, the director may vary the requirement. All pedestrian pathways, including all roadway crossings and sidewalk ramps, shall be in accordance with the standards of the Americans with Disabilities Act and county ordinances.
- (b) Sidewalk construction:
 - (1) Sidewalks shall be constructed of 3,000 p.s.i. concrete at least five feet wide on arterial, collector, and residential streets, and four inches thick, except at driveways and along rural cross section roadways where the sidewalk can be crossed with vehicles. Sidewalks through driveways and along rural cross section roadways where vehicles can cross the sidewalk shall be six inches thick. Sidewalks through driveways shall include six-inch by six-inch no. 10 wire mesh reinforcing. All concrete driveways shall be six inches thick 3,000 p.s.i. concrete with six-inch by six-inch no. 10 wire mesh reinforcement, and shall extend from back of curb to property line.
 - (2) Subbases for sidewalks shall be of good, clean, acceptable material compacted to 95 percent of maximum density as determined by AASHTO T-180.
 - (3) Sidewalks are to be constructed across all driveways.

(Ord. No. 92-62, § VII(17), 10-27-92; Ord. No. 2007-04, § II, 1-09-07)