

CHAPTER 8 – ENGINEERING DESIGN AND UTILITIES

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Section 800. ~~Section 907. -- General Standards~~ Subdivision Requirements.

800.1. ~~907.1~~ Conformity with Other Regulations.

~~all~~All land subdivided shall conform to the other applicable requirements of:

- A. ~~907.1.1.~~This Code, ~~the~~The Manatee County Comprehensive Plan, ~~Manatee County Development Standards~~ Manatee County Public Works Standards, and any other applicable ordinance, as officially adopted by Manatee County.
- B. ~~907.1.2.~~The applicable requirements of the ~~HRS/Manatee County Public Health Unit~~Manatee County Health Department, Environmental Health Services.
- C. ~~907.1.3.~~The environmental and other applicable regulations of the State of Florida.
- D. ~~907.1.4.~~The rules of the Florida Department of Transportation, if the subdivision abuts a state highway.
- E. ~~907.1.5.~~All other federal, state, and County laws and regulations applicable to the subdivision, of land.
- F. ~~907.1.6.~~All ~~model~~ forms as provided by the County shall be used as required by this Code, except as may be otherwise required by state law.

Commented [LDI1]: Change Reflects new Department name

800.2. ~~907.2~~ Self-Imposed Restrictions.

If the owner of a parcel of property being subdivided places restrictions on any part of the land contained in the subdivision that are greater than those required by this Code, such restrictions or reference thereto by book and page where recorded, ~~and~~ shall be required to be indicated on the final plat or in other appropriate form. These restrictions and covenants shall be recorded with the Clerk of the Circuit Court.

800.3. ~~907.3~~ Site Suitability.

No subdivision shall be approved for a site unsuitable for development due to flood hazard, poor drainage, unstable soil, utility easements, slopes, rock formation and such other condition which may constitute a danger to life, health, or property or aggravate erosion or flood hazards, unless adequate measures acceptable to the ~~applicable department~~DRC, to mitigate any risks related to such conditions, are included in the subdivision proposal.

800.4. ~~907.4~~ Adequate Public Facilities.

The adequacy of the necessary public or private facilities services, such as: vehicular traffic and pedestrian circulation; sanitation; potable water; drainage and stormwater management facilities; evacuation facilities, police, fire services, and emergency medical services; education; recreation; and similar facilities and services, potential adverse impacts on adjacent lands uses and facilities, shall be thoroughly considered in the review of subdivision ~~s~~ plats under this Code, and adequately provided for.

800.5. ~~Hurricane Evacuation Plan~~.

~~All new development~~ For subdivision plats located within the Category 1, 2, or 3 areas of the Hurricane Vulnerability Area-Coastal Planning Area as identified on ~~Map 4-B~~the Coastal Planning Area Map in of the comprehensive plan, shall obtain County approval of a hurricane evacuation plan. The plan shall be prepared in coordination with the Manatee County Public Safety Department and submitted by the developer within one (1) year of ~~Final Plat~~ approval, or before any development approvals are issued for all other development.

Commented [LDI2]: STAFF: is this consistent with CP definition?

Commented [LDI3]: Changed to be consistent with new terminology

Commented [LDI4]: Combined sections 716.6 and 907.4. Staff to verify applicability.

800.6. ~~907.5~~ Protection of Significant Features.

In all subdivisions, to the maximum extent practicable, efforts shall be made to preserve and enhance historic and archaeological sites, scenic vistas, large trees and other desirable natural or cultural amenities worthy of preservation, either as portions of recreation and open spaces, or in other such forms, as to provide amenities to the community.

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~~Ponds and watercourses of natural origin within the subdivision shall be protected from damage caused by the subdivision construction work. Siltation measures and construction details to prevent damage to the environment and natural resource management shall be indicated on the subdivision plan.~~

Commented [LD15]: Covered under construction practices

Historical sites and similar community assets known or suspected to be within the subdivision identified through the efforts of the County shall be located, identified or described on subdivision plans in the vicinity of said items. When located, adequate measures shall be taken by the developer to protect the finding until determination of the find and property disposition is made.

800.7. ~~907.6.~~Subdivision Name.

Every subdivision shall be given a name by which it shall be legally known. Such name shall not be the same, phonetically, or visually similar to any name appearing on any recorded plat in the County so as to confuse the records or to mislead the public as to the identity of the subdivision. The exception is when the subdivision is subdivided as an additional unit or section by the same developer or his successors in title. The name of the subdivision shall be ~~determined, and~~ subject to review by the County Departments and appropriate reviewing agencies.

If at any time, the developer intends to change the name of the subdivision, the developer shall request the name change in writing. All correspondence regarding a name change shall be sent to the County Administrator or designee for approval. After review and approval by the County Administrator or designee, it shall be the responsibility of the developer to make the appropriate changes to all applicable documents and reference the previous subdivision name on all correspondence for three (3) months following the name change.

800.8. ~~907.7.~~Lot Requirements.

- A. ~~907.7.1.~~Arrangement.** Lot area, width, depth, shape, orientation, and minimum building setback lines shall be appropriate for the location of the subdivision and type of development contemplated, as provided by this Code, public safety, and health regulations. Where existing utility or other easements are involved, lot lines shall be so arranged with respect to such easements and access thereto, as to permit efficient installation of the utilities and maintenance, without unnecessary irregularities in alignment; and as necessary to permit securing building permits to build in compliance with this Code and applicable health regulations.
- B. ~~907.7.2.~~Dimensions.** ~~The All~~ lots shall meet all the dimensional requirements of the applicable zoning district. The minimum lot width permitted for Ccorner lots shall be platted not less than fifteen (15) percent wider on both front yards than the minimum width required in the district for which the property is zoned, except where both front yards equal or exceed one hundred fifty (150) feet each in width. The minimum front lot line shall also meet the requirements of Section 702.4.4401.3.B.4.
- C. ~~907.7.3.~~Shape.** Generally, side lot lines shall be as close as practical to right angles with the street line, ~~and i~~n no case shall the side lot line deviate more than twenty two and one-half (22.5) degrees from the side lot line drawn perpendicular to the street line or radial to curving street lines for a minimum distance of hundred (100) feet from the right-of-way line.
- D. ~~907.7.4.~~Double and Reverse Frontage Lots.** Reverse frontage lots shall be provided adjacent to thoroughfare streets. Double frontage and reverse frontage lots shall be avoided when not adjacent to major thoroughfares. When reverse frontage lots are not practical due to the proposal of a minor subdivision with no new streets to be constructed, the applicant shall provide joint access driveways onto the thoroughfare to reduce the number of additional driveways onto the thoroughfare. Joint access easements shall be shown on the preliminary and final plats and recorded.

A buffer shall be provided along rear property lines abutting right-of-way, across which there shall be noted "non-vehicular, ingress or egress" on the plat. Additional lot depth of twenty (20) feet shall be provided to accommodate such buffer when adjacent to major thoroughfares, and ten (10) feet when adjacent to a local street, ~~the minimum buffer width shall be ten (10) feet.~~ The landscaping requirements along such buffer shall conform to the type and quantity standards specified in Section 745.3.2701. Adequate provisions for maintenance of such buffer shall also be shown, ~~including compliance with Section 722 of this Code,~~ where applicable.

800.9. ~~907.8.~~Blocks.

- A. ~~907.8.1.~~Arrangement.** Block width, depth, shape, and orientation shall be appropriate for the location of the

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subdivision and type of development contemplated, considering, among other things, the need for convenient access, horizontal and vertical sight distance, circulation, control and safety of vehicular and pedestrian traffic; and turning radii.

- B. 907.8.2.Width.** Block width shall be sufficient to provide for two (2) tiers of lots with minimum depths as required in the district for which the property is zoned. Exceptions to the two (2) tiered block width shall be permitted in blocks abutting major streets, railroads, waterways, golf course boundary, or exterior property lines of the development.
- C. 907.8.3.Length.** Block lengths in residential areas shall not exceed two thousand (2,000) feet, or be less than four hundred (400) feet in length, except where necessary to intersect with an existing street. Wherever practicable, blocks along thoroughfares and arterials, shall not be less than eight hundred (800) feet in length.
- D. 907.8.4.Lot and Block Numbers.** All lots shall be numbered either by progressive numbers or, if in blocks, progressively numbered in each block, and the blocks progressively numbered or lettered, except that blocks in numbered additions bearing the same name may be numbered consecutively throughout the several additions. However, in no instance shall there be a lot and block designation repeating itself on the same plat.

800.10. 907.13.Nonresidential Subdivisions.

- A. 907.13.2.Standards.** A non-residential subdivision plat shall conform to all applicable design requirements set forth herein for subdivisions generally and, in addition, shall satisfy the following requirements:
 - ~~1. 907.13.2.1.~~The subdivision layout shall ~~be such as to~~ ensure compatibility of the proposed improvements and intended uses with the adjacent existing and proposed land improvements and uses.
 - ~~2. 907.13.2.2.~~All proposed lots shall be of sufficient size and configuration to adequately accommodate the intended use in full compliance with applicable zoning requirements and other regulations of the County.
 - ~~3. 907.13.2.3.~~The proposed street system shall ~~be such as to~~ provide for a smooth flow of internal traffic circulation; adequate provision for loading and unloading of goods and equipment; and proper connections with the external road and highway system, including turning radii and deceleration lanes.
 - ~~4. 907.13.2.4.~~Adequate provision, as required by the Manatee County Public Works Standards, shall be made for all necessary public utilities, services, and easements where applicable.
 - ~~5. 907.13.2.5.~~Unless specifically requested by the County, no streets except utilities shall be extended to the boundaries of said subdivisions so as to connect with others to provide future connections with adjacent streets within existing or future residential areas. However, easements for utilities and storm water lines shall be provided to the boundaries of adjacent property to provide connection or extension of utilities.
 - ~~— 907.13.2.6.~~Where any said subdivision will adjoin an existing or future residential area, additional depth shall be provided within all applicable lots or parcels so as to accommodate permanent landscaped buffer area and other applicable screening devices required by Section 715 of this Code.
 - ~~6. 907.13.2.7.~~The subdivision shall be designed so as to satisfy all other requirements deemed necessary by the County to ensure proper development and to satisfy the intent and purpose of these regulations.
- B. 907.13.1.General.** If a proposed subdivision includes land that is zoned for non-residential purposes, the design of the subdivision shall incorporate any provisions the County may reasonably require to accommodate such purposes. Conditional use approval and nonresidential subdivision plat approval may, at the option of the developer, proceed simultaneously; provided that no conditional use shall be approved prior to the associated final subdivision plat.

Commented [LDI6]: This provision is unnecessary and provides no enumeration as to the actual depth required. The code already requires sufficient buffers between residential and non-residential uses.

~~[Section 706. Access and Drainage Regulations]~~

~~706.1. Purpose and Intent.~~

~~The Transportation Department administers and regulates requirements for rights-of-way and construction elements including lot access—Section 712, driveways—Section 711, sidewalks—Section 722.1.4, handicap ramps—Section 727, within rights-of-way; visibility triangles—Section 713, on-site drainage—Section 717, rights-of-way drainage—Section 717, and stormwater management structures—Section 717, and all construction within the rights-of-way.~~

Commented [LDI7]: Purpose and intent of 706 already in chapter 10; permit requirements moved to later in this section. Driveway standards moved to chapter 10

~~706.2. Administration.~~~~The Transportation Department shall be responsible for the administration of these regulations.~~~~706.3. Permit Required.~~~~The Transportation Department shall receive, review and issue a comprehensive permit entitled "Access and Drainage Permit" which shall encompass where applicable, any or all elements mentioned in Section 706.1, above.~~~~706.4. Final Approval.~~~~Final approval by the Transportation Department for construction work required by this section and complete repairing of any damage to the rights-of-way shall be a prerequisite for an occupancy permit or final approval issued by the Building Department.~~~~706.5. Required Zoning.~~~~The construction elements delineated in Section 706.3, must be considered as accessory uses for which they serve.~~~~706.6. Procedure.~~~~706.6.1. Required Submissions. Applicants for an Access and Drainage Permit shall submit a written application in a form as deemed necessary by the Transportation Department and a site plan. The application may be included as part of any site plan required by this Code. In addition to the specifics required to clearly describe the entire scope of work to be constructed, the general requirements to include as part of the application submission are:~~~~706.6.1.1. Property address, parcel identification number, and zoning classification.~~~~706.6.1.2. Boundary survey including lot area, easements, and date of survey.~~~~706.6.1.3. Location of all existing and proposed buildings, structures, and driveways on the property.~~~~706.6.1.4. Design for all work required by Section 706.1.~~~~706.6.1.5. The location of the proposed driveway(s), referenced to readily identifiable physical landmarks or survey markers, with dimensions that accurately indicate driveway width, material, and thickness.~~~~706.6.1.6. Elevation of the first floor slab (reference Section 702.9 and Section 718).~~~~706.6.1.7. For all property except single family and duplex residential lots, indicate the location of all stormwater management facilities required under Section 717. For single family and duplex residential lots, indicate the direction of surface water flow; and location of swales and all drainage structures.~~~~706.6.1.8. Site plan, sections, details and elevations; and existing and finish grades as per approved construction plans and in accordance with Manatee County lot drainage standards.~~~~706.6.1.9. Location of above ground utilities (if information is readily available).~~~~706.6.2. Approval. The Transportation Department shall review the application and shall approve, or deny the application, stating in writing, the reasons for any denial.~~

Commented [LD18]: 706.6.3 moved to Ch 10

Section 801. ~~Section 717.~~ Stormwater Management.**801.1. ~~717.1.~~ Purpose and Intent.**

It is the intent of this Section to impose reasonable guidelines-standards to control stormwater runoff, to conserve ~~the~~ water resources ~~of Manatee County~~, to pursue a non-structural approach to stormwater management and to minimize the construction of drainage facilities designed to increase conveyance. It is the further intent ~~to [off]~~ of this Section to:

A. ~~717.1.1. To p~~Protect the quantity and quality of ground and surface waters;

B. ~~717.1.2. To p~~Promote recharge into the groundwater system;

C. ~~717.1.3. To p~~Prevent and reduce salt water intrusion;

D. ~~717.1.4. To m~~Minimize the production of disease carrying mosquitoes;

E. ~~717.1.5. To p~~Prevent erosion and loss of valuable topsoils and subsequent sedimentation of surface water bodies;

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F. ~~717.4.6. To p~~Prevent adverse impact on adjacent property caused by diverting or blocking ~~the~~ surface water flow; and

G. ~~717.4.7. To p~~Prevent flood hazards, prevent loss of life and property damage, and reduce the capital expenditures associated with floodproofing and the installation and maintenance of storm drainage systems.

~~717.2. Applicability. This Section shall apply to all development and shall be administered by the Planning Department.~~

801.2. ~~717.4. Stormwater Management Plan Required~~Procedures.

A. ~~717.4.1. Generally. A stormwater management plan shall be prepared and submitted for all new construction, redevelopment, filling, excavating, earthmoving or where other topographic changes occur as part of a development. All developments~~The plan, which shall be submitted in conjunction with construction drawings for subdivision plats or site plans, as applicable, shall be reviewed for compliance with this Section ~~in conjunction with construction drawings for all subdivision plats, site plans, or development plans, as applicable. The regulations of this Section shall be administered by the Planning Department. The regulations of this Section shall be administered by the Public Works Department. Any improvement specified in an adopted master drainage plan for the proposed development shall be installed by the developer.~~

Commented [LDI9]: Consolidated sections A and B and reworded to read easier

Commented [LDI10]: Added language as part of revisions requested by public works

Commented [LDI11]: Added language from section 722.1.8.6

B. ~~717.4.2. Submittal~~ssions. The application for stormwater management plan approval shall be prepared and submitted for all developmental applications involving land being developed, redeveloped, filling, excavating, earthmoving or where other topographic changes occur. ~~Stormwater Management Plans, which All such plans shall be prepared by an professional engineer unless exempted by Chapter 471, Florida Statutes. The shall include requirements found in the Manatee County Public Works Standards, following information shall be provided:~~

Commented [LDI12]: Stormwater Management Plan requirements moved to PW manual

~~717.4.2.1. Existing Hydrologic Conditions. The pre-development rate of discharge from the site, shall be identified by field review and computation. The location, elevations, seasonal fluctuation regimes, and nature of all existing watercourses, water bodies, and wetlands on or adjacent to the site of the proposed development shall be shown. Seasonal high water table elevations shall be provided specifically for the site and for all proposed pond locations. The tailwater elevation for the Twenty-Five Year Design Storm shall be calculated or used directly from existing Twenty-Five Year Floodplain Maps, flood profiles or from another best existing source of information available, and shall be used in the design of the stormwater management facilities. Twenty-five year tailwater information is available from the Stormwater Division of the Transportation Department. The down stream conditions including culvert, ditch and channels sizes must be identified which may restrict capacity of the outfall~~

~~717.4.2.2. Topography. Final site topography surveyed by a land surveyor at one (1) foot contours based on U.S.C.G.S. 1929 Datum, as amended, shall be provided for a minimum distance of fifty (50) feet beyond the lot lines, excluding the rights-of-way. Contours may be mapped by an architect, engineer or land surveyor.~~

~~717.4.2.3. Facilities. The design shall include the location, elevation, slope, cross sections, materials and capacity of all prospective stormwater retention or detention facilities, control structures, culverts, lakes, canals, ditches, swales, vegetative buffers, and any other necessary facilities. Typical profiles are required at property lines which will indicate that stormwater is not being diverted onto adjacent property.~~

~~717.4.2.4. Drainage Characteristics. The location, area, permeability, and land cover (existing and proposed), of all proposed drainage basins within the site and the general location, including the area and drainage contribution or surface conditions of all drainage basins related to the project both on and off site, shall be shown. Flow paths, volumes and rates, including those for potential failures or retention/detention facilities shall be indicated throughout the proposed system. In addition, the storage volumes, surface areas, depths, duration, and identification of the final outfall locations and rates shall be indicated.~~

~~717.4.2.5. Computations. The applicant shall provide all necessary computations, hydrographs, and hydraulic analysis prepared by an engineer, which shall include the total project size in acres, acreage by general type of land use, tabulations of the area and percent of impermeable surface by projected type of land use and identification of the frequency and duration of the design storm, including predevelopment and post development runoff rates using an acceptable pond routing procedure or program.~~

~~717.4.2.6. Water Quality Parameters. The design shall provide calculations showing compliance with Sections 717.3.7 or 717.3.9, if appropriate, with identification of the discharge points from the project, the receiving bodies of water, the conveyance routes thereto and presentation of the method of derivation. The design and construction shall~~

~~be subject to the regulations under Chapters 62-3, 62-4, 62-25, 40D-4, 40D-45, 40D-400, and other applicable chapters of the Florida Administrative Code.~~

~~717.4.2.7. Construction Practices. The design shall include the description of the construction and maintenance practices to be used during and after construction which will minimize erosion, siltation of wetlands and watercourses, water pollution, and off-site flooding. All swales shall be either sodded or have an equivalent stand of grass prior to approval.~~

~~717.4.2.8. Other Information. Such other information as may be required to demonstrate compliance with the requirements of this Code.~~

801.3. ~~717.3.~~ Stormwater Management Standards.

The following requirements and the requirements of Chapter 373, Florida Statutes, and the Manatee County ~~Development~~ Public Works Standards Manual shall apply to all development.:

A. ~~717.3.1.~~ Preservation of Watercourses. In accordance with Title 44, Code of Federal Regulations (C.F.R.), and the Comprehensive Plan, the alteration of watercourses and floodways shall be prohibited unless part of an overall drainage basin plan.

This prohibition may be waived if a finding of overriding public interest is made by the Board. The prohibition shall not apply to irrigation and drainage ditches constructed in the uplands which are not more than thirty-five (35) square feet in total cross section area and which normally ~~has~~ have a water depth of no more than three (3) feet, provided they are not in and do not directly connect to Outstanding Florida Waters, Class I Waters or Class II Waters.

Any alteration shall be in accordance with this Section; Section 802718, Floodplain Management; Section 706719, Wetland Protection; other applicable sections of this Code; and Chapter 373, Florida Statutes. The flood carrying capacity within the altered or relocated portion of the watercourses shall be maintained or improved.

~~717.3.2. Requirements Within the 25 or 100-Year Floodplain. Activities within the 25 or 100-year floodplain shall meet the provisions of Section 718, Floodplain Management, and the Manatee County Floodplain Management Code.~~

B. ~~717.3.3.~~ Stormwater Management Permits ~~W~~within the Watershed Protection Overlay WPE and, WPM Districts. All proposed stormwater management permits required under Chapters 62-4, 62-25, 40D-4, 40D-40 or 40D-400 of the Florida Administrative Code for development within the WPE and WPM shall be required to comply with all requirements contained in Sections 604.1403.10 and 604.2, of this Code.

C. ~~717.3.7.~~ Development within the WPE, and WPM Watersheds. All developments located within the WPE and WPM watersheds shall meet Florida Department of Environmental Protection Stormwater System Design Standards for discharge into Outstanding Florida Waters, (OFW) as provided by Chapter 403, Florida Statutes, and Chapters 62-4, 62-25, 62-40 and 62-302, and other applicable chapters of the Florida Administrative Code.

At minimum, development within the WPE, or WPM Overlay Districts shall provide 150% water quality treatment and shall be designed and constructed to detain, and permit the filtration of, the runoff from the first one and one-half (1.5) inches of rainfall.

The Board may allow system designs different from the FDEP Stormwater System Standards if the applicant demonstrates that the development will utilize a stormwater management system which provides for equivalent, or greater, levels of stormwater treatment, providing that overall existing ground water hydrology characteristics are not altered, impacted or changed from the existing predevelopment condition. Equivalent stormwater treatment shall utilize a combination of treatment practices so as to ensure that the construction, alteration, or operation of the system will not discharge, emit, or cause pollution in contravention of applicable state Outstanding Florida Water quality standards of the Florida Administrative Code. To demonstrate compliance with the OFW Standards, the water quality in the receiving water body will be monitored in the receiving water body in an area adjacent to the point of discharge. Acceptable treatment practices may include but are not limited to:

1. ~~717.3.7.1.~~ Retreatment/pretreatment detention systems shall be designed to provide detention times that exceed detention times normally required, and providing repetitive water quality treatment. These systems include those providing pretreatment/retreatment using natural or artificial wetland systems, without adverse impact on the biocharacter of the wetlands. Use of the natural wetland systems for retreatment can be considered when no adverse impacts to the wetlands, fish, and wildlife and other resources can be demonstrated.

Commented [LDI13]: Covered in floodplain management section

Commented [LDI14]: Added based on previous discussions with Public Works staff.

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- ~~2. 717.3.7.2. Off-line treatment systems using retention/percolation shall be designed to retain at least the first three-quarter (¾) inch of stormwater runoff, without release of pollutants out of the retention area.~~
- ~~3. 717.3.7.3. Stormwater system designs that significantly increase the time of concentration (i.e., time taken for stormwater runoff to reach the detention/retention areas), or increase the percentage of post-treatment discharge to greenspace suited for additional water quality treatment (i.e., swales or buffer areas). Increased times of concentration may, for example, be achieved through the use of swales in major drainage ways to convey stormwater to detention/retention areas. Times of concentration shall be determined to be the point of ultimate outfall to a receiving watercourse~~
- ~~4. 717.3.7.4. Mechanical treatment systems shall be designed to reduce the amount of directly connected impervious surface (e.g., limits on downspout locations, trench drains). Mechanical systems that irrigate, function as exfiltration systems or provide groundwater recharge or stormwater reuse.~~
- ~~5. 717.3.7.5. Other systems which can be demonstrated to provide additional stormwater treatment equivalent, in effect, to treatment criteria associated with discharge into Outstanding Florida Waters.~~
- D. 717.3.9. Development Outside the WPE and WPM Watersheds.** All development ~~not within~~ outside the WPE or WPM Overlay Districts shall be designed and constructed to detain, and permit the filtration of, the runoff from the first one (1) inch of rainfall, unless required to detain additional volume pursuant to State regulations. When the watershed drainage areas are less than one hundred (100) acres, the alternative design criteria allowed by Chapter 62-25, 40D-4, or 40D-40, Florida Administrative Code, is allowed. This alternative allows the treatment of the first one-half (½) inch of runoff. Biological filtration and sand filtration shall be in accordance with SWFWMD design criteria and ~~Manatee County Stormwater Design Manual~~ [Manatee County Public Works Standards](#).
- E. 717.3.4. Stormwater Discharge from New Development.** The rate of stormwater discharge from new development ~~to shall~~ be equal to, or less than, the rate of discharge that existed prior to development, based on a twenty-five (25) year frequency twenty-four (24) hour duration storm event, or as prescribed in the ~~Manatee County Stormwater Design Manual~~ [Manatee County Public Works Standards](#). The post-development point(s) of discharge shall be the same as the pre-development point(s) of discharge for the project site. ~~An analysis using accepted computer modeling software shall be performed to determine pre and post development flows. In certain watersheds in Manatee County which are known to flood, the rate of runoff shall be reduced by 50%, or as determined by Public Works staff.~~
- F. 717.3.5. Storm Sewers and Drainage Channels.** Trunk storm sewers and major drainage channels shall accommodate the stormwater runoff resulting from a design storm of twenty-five (25) year frequency twenty-four (24) hour duration, consistent with the requirements of Chapter 62-4, 62-25, and 62-40, Florida Administrative Code.
- G. 717.3.6. Internal and On-site Drainage Facilities.** All internal, and on-site, drainage facilities on any project shall accommodate the stormwater runoff resulting from a design storm of ten (10) year frequency ~~twenty-four (critical 24) hour~~ duration based on the project site's time of concentration, consistent with the requirements of Chapter 62-4, 62-25, and 62-40, Florida Administrative Code and this Code, ~~unless located within the 100-year floodplain or floodway.~~
- H. 717.3.12. Diverting Stormwater to Adjacent Property.** A stormwater management system shall be designed for all areas to be developed or redeveloped such that any filling or other topography changes within a site will not divert stormwater to any adjacent property or lot. Existing and new swales along property lines shall be maintained by each property owner, ~~Homeowners Association or other maintenance entity~~ to insure positive flow to a detention basin, retention basin or to a primary drainage facility.
- I. 717.3.13. Increasing the Impact of Stormwater Discharge.** All development that increases the impact of stormwater discharge from the site, either in terms of volume of water or any pollutant, shall provide for on-site detention and filtration of stormwater runoff to remove oils, floatables, silt, sediment, nutrients, and heavy metals at levels required by applicable federal, state, and regional regulations. ~~Design criteria for developing a Stormwater Management Plan are contained in the Manatee County Public Works Standards Manual.~~
- ~~717.3.13.1. Stormwater Management Plans shall be prepared under the direction of a Florida registered professional engineer and all drawings shall be so certified.~~
- ~~717.3.13.2. Project Area Design Criteria: The criteria below shall be used as minimum design elements of a Stormwater Plan. For projects using the criteria below, a copy of the approved Environmental Resource Permit~~

Commented [LDI15]: Added based on previous discussions with Public Works staff. Will look into further during phase 2.

Commented [LDI16]: Added language to clarify

Commented [LDI17]: clarified ownership responsibilities

Commented [LDI18]: Moved to PW Manual

Commented [LEA19]: Modified per Ord. 09-055 (provided by staff on 1/20/15). Moved to PW Manual (SW).

~~including the site plans and technical supporting data from applicable State Water Management agencies shall be provided prior to approval by the Manatee County Stormwater Management Division of the Public Works Department. The criteria below shall only be used for approval of a single submittal to Manatee County on a particular piece of land. The criteria below shall not be used on land or lots located within a master drainage system or a subdivision in which each lot is required to provide dedicated stormwater facilities. The criteria below shall not be used for more than one administrative approval on a single piece of property unless otherwise approved by Manatee Stormwater Management or Public Works staff. Regardless of the criteria below, stormwater runoff shall discharge to the historical point(s) of discharge. Drainage runoff which flows from offsite areas shall be conveyed through or bypassed around the development. The criteria below are based upon General Permit for Minor Activities, Section 40D-400.475, 1d, F.A.C., and subject to conformity with any amendments made on this section. The criteria are applicable to all existing platted lots or platted lots of record prior to 1985 with existing improvements and structures that can be claimed as impervious area:~~

~~A. For any project, no additional stormwater facilities will be required for proposed impervious areas less than or equal to 1,000 square feet. However, floodplain and floodway requirements of Sections 717 and 718 continue to apply if the project lies within the FEMA 1-00-year floodplain or floodway or the 25-year floodplain.~~

~~B. For projects with less than 4,000 square feet of impervious vehicular use areas (roadways, driveways, drive aisles, loading areas, etc.) and less than 9,000 square feet of total impervious area: i. Attenuation is not required. ii. Water quality treatment is required.~~

~~C. For projects with less than 4,000 square feet of impervious vehicular use areas (roadways, driveways, drive aisles, loading areas, etc.) and less than 9,000 square feet of total impervious area located within a Watershed Overlay Protection District or discharge into an Outstanding Florida Waters:~~

~~i. Attenuation is not required.~~

~~ii. 150% Water quality treatment is required.~~

~~D. For projects with less than 4,000 square feet of impervious vehicular use areas (roadways, driveways, drive aisles, loading areas, etc.) and less than 9,000 square feet of total impervious area located within the 1-00-year floodplain or floodway or the 25-year floodplain:~~

~~i. Attenuation is required and not subject to flow reduction where necessary.~~

~~ii. Water quality treatment is required.~~

~~iii. Floodplain Compensation is required.~~

~~iv. No rise permit is required where necessary.~~

~~E. For projects with over 4,000 square feet of impervious vehicular use areas (roadways, driveways, drive aisles, loading areas, etc.) and/or greater than 9,000 square feet of total impervious area:~~

~~i. Attenuation is required and subject to flow reduction where necessary.~~

~~ii. Water quality treatment is required and subject to 150 % requirement where necessary.~~

~~iii. Floodplain Compensation is required where necessary.~~

~~iv. No rise permit is required where necessary.~~

~~**J. 717.3.14- Design Storm.** Design storm requirements for drainages systems are contained in the Manatee County Public Works Standards~~

~~717.3.14.1. Hydraulic Requirements. The discharge rate for a given site shall not exceed the predevelopment discharge rate based on not less than a twenty-five (25) year frequency storm. This requirement may be waived when discharge occurs directly into coastal or tidal waters of the State and where State permits have been obtained; provided that it can be demonstrated that there are no adverse effects.~~

~~717.3.14.2. Internal Drainage. Internal drainage systems within any site shall be designed for the ten (10) year frequency storm, unless the retention areas are provided according to the specifications of Section 717.3.14.4, below.~~

~~717.3.14.3. Major Drainage Ways. New major drainage ways receiving stormwater runoff from any site shall be designed to maintain positive outfall from the site for the twenty-five (25) year frequency storm, with one (1) foot of free board mandatory. Specific conditions may require more restrictive discharges. This will be determined by the~~

Commented [LD120]: Moved 717.3.14.1 thru 717.3.14.5 to PW Manual

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~~County Stormwater Engineer in accordance with the Manatee County Stormwater Design Manual. New major drainage ways shall not appreciably drawdown the surficial aquifer; or impact wetlands in contravention of Chapter 40D-4, or 62-312, Florida Administrative Code.~~

~~717.3.14.4. Retention Areas. Retention areas with outlets shall be designed for a twenty-five (25) year frequency storm or as required by the Public Works Stormwater Design Manual. Retention areas with no outlets shall be designed for a one hundred (100) year frequency storm. A retention/detention basin shall not be excavated to a depth which causes the direct exposure of the Floridian aquifer to stormwater retained/detained in any such basin. A retention/detention excavation shall not breach an aquiclude; or adversely affect the adjacent wetlands.~~

~~717.3.14.5 Streets. New streets shall be designed with traffic lanes a minimum of six (6) inches freeboard above the design storm base flood elevation measured to the crown of the road. New bridges and culverts shall be designed to convey the design storm without any adverse impacts such as increased flooding, flow, velocity or erosion. The design storm for new streets shall have a twenty-four (24) hour duration and return frequencies as follows:~~

- ~~1. For all streets, bridges and culverts within the published FEMA 100 Year Floodplain, the design storm shall be one hundred (100) year return frequency.~~
- ~~2. For streets, bridges and culverts of arterial and collector facilities not in the published 100 Year Floodplain, the design storm shall be fifty (50) year return frequency.~~
- ~~3. For local streets, bridges and culverts not in the published one hundred (100) Year Floodplain, the design storm shall be twenty-five (25) year frequency.~~
- ~~4. The design storm for internal street drainage systems shall be as required by Section 717.3.14.2; however, internal roadway lane elevations shall be designed for the twenty-five (25) year return frequency design storm.~~

~~K. 717.3.8. Detention/Retention Basins Slopes. All detention or retention basins shall be designed utilizing side slopes not greater than 4:1, from the top of the bank to three (3) feet below the normal water level. Side slopes may be as steep as 2:1 for that area of the drainage basin which will have a normal water level depth greater than six (6) feet. the Manatee County Public Works Standards.~~

Commented [LDI21]: Moved standards to PW manual

~~L. 717.3.10. Floodplain Requirements within 25- and 100- year Floodplain. All fill within the twenty-five (25) year or one hundred (100) year floodplains shall be compensated by creation of storage or of an equal or greater volume, credited above the seasonal high water table, with such compensatory storage also located within the 25 year and 100 year floodplains. Stormwater retention/detention areas-volumes below the seasonal high water table shall not be used to compensate for the placement of fill within the one hundred (100) year floodplain. Areas within the one hundred (100) year floodplain adjacent to a tidal influenced water body shall not be subject to this level of service performance standard.~~

Commented [LDI22]: Added 25-year floodplain based on previous discussions with public works.

Commented [LDI23]: Covered in Section O below

~~M. Floodplain Compensation. Developments within a project area greater than one hundred (100) acres shall provide sole use floodplain compensation. This shall include projects that may be less than one hundred (100) acres but are part of a larger project area (i.e. DRIs, multi-phased projects, etc.).~~

Commented [LDI24]: Added based on previous discussions with public works staff.

~~N. Excavation. Within any twenty-five (25) year floodplain, it shall be a condition of any permit to provide equal excavation on the same lot to compensate for any filling. ThisThe prohibition of habitable structure applies only to areas where the mapping of the twenty-five (25) year floodplain has been completed, or where existing water surface profiles can permit the identification of the twenty-five (25) year floodplain.~~

~~O. Substantiate Engineering Data. It shall be the responsibility of the applicant to provide engineering data to substantiate compliance with this Section. The Department Director Planning Department shall administer and approve development plans only after verifying compliance with this Section for each development. Areas within the one hundred (100) year floodplain along or -adjacent to a tidal influenced water body shall not be subject to this level of service performance standard.~~

~~P. 717.3.11. Limitation of Habitable Structures within Twenty-Five (25) Year Floodplain. For parcels within the twenty-five (25) year floodplain, new habitable structures shall be located outside of the twenty-five (25) year floodplain, if reasonably possible. and all residential lots shall be located outside of the post development twenty-five (25) year floodplain. If the property owner cannot locate the structure outside of the twenty-five (25) year floodplain, then the property owner shall obtain an Administrative P permit. An Administrative P permit for such uses shall be granted upon a finding that the proposed structure is located and designed to minimize possible~~

Commented [LDI25]: Added 25-year floodplain based on previous discussions with public works.

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property damage in the event of a twenty-five (25) year storm event.

This limitation shall not preclude the development of water dependent uses, stormwater management facilities, or non-habitable structure, where appropriate. This limitation of habitable structures applies only to areas where the mapping of the twenty-five (25) year floodplain has been completed and adopted as part of the Code. It shall be the responsibility of the applicant to provide engineering data to substantiate compliance with this Section. The ~~Department Director~~ ~~County Building Official~~ shall administer and approve development plans only after verifying compliance with this Section for each development.

Q. ~~717.3.15-~~ Wetlands Protection. Stormwater management systems shall be designed to protect against harmful siltation and adverse impacts of wetlands that are to be left undisturbed and that could result in the reduction of their natural flood control and water quality control capacity, based upon the twenty-five (25) year frequency storm for flood control and the one (1) year storm for water quality control. Development shall not impede or divert the naturally occurring flow in wetlands. The new drainage facilities shall maintain groundwater levels sufficient to protect and maintain pre-existing wetland vegetation, habitat and hydroperiod, ~~that is~~ proposed to be preserved, through the use of weirs, filtration berms, or other means. Wetlands may be incorporated into a stormwater management system subject to the requirements of the State, SWFWMD and the ~~Manatee County Stormwater Design Manual~~ ~~Manatee County Public Works Standards~~ and this Code. The developer shall show that the requirements set out in this Section can be met without significantly altering the existing natural wetlands. See also ~~Section 706~~ ~~719~~, Wetland Protection.

R. ~~717.3.16-~~ Swale Lake and Pond Design. ~~Lakes, ponds and similar waterbodies shall be of sufficient permanent depth (minimum six (6) feet), unless in conflict with Section 717.3.14.4 above, and design to maintain beneficial flora and fauna for mosquito control and to preclude extensive growth of cattails or similar bottom rooted emergent vegetation over a central area of the lake. Swales shall allow the positive flow of water without any obstruction. Refer to Section 701 for landscaping specifications. Swales, and similar open drainage facilities shall be designed in accordance with the Environmental Management Development Standards, Manatee County Public Works Standards - to minimize the creation of mosquito breeding habitat.~~ Swales shall allow the positive flow of water without any obstruction. Refer to Section 701 for landscaping specifications. Swales, and similar open drainage facilities shall be designed in accordance with the ~~Environmental Management Development Standards~~ ~~Manatee County Public Works Standards~~ - to minimize the creation of mosquito breeding habitat.

Commented [LDI26]: Lakes and pond requirements moved to PW Manual

S. ~~717.3.18-~~ Design Principles and Practices. The design of stormwater management systems shall be based upon current and reliable ~~engineering principles and best management~~ practices. All analyses shall be performed using the best available data and such other information (i.e. the adopted watershed studies. See the ~~Manatee County Public Works Standards~~) as may be required to assure compliance with the requirements of this Section and ~~Manatee County Development Standards~~ ~~Manatee County Public Works Standards~~. Except for single family detached, single family attached dwellings, and duplex dwellings the driveway entrances shall not be utilized to discharge stormwater from on-site to off-site. Swales shall not be constructed across roadways to convey stormwater.

Any stormwater management system shall address the existing total hydrology and water budget for the proposed development. Continuance of existing overall hydrology in the proposed development is required in order to prevent or minimize impacts to the natural components of surface and groundwater hydrology. Stormwater reuse, groundwater recharge, pollutant removal rates, volume and discharge attenuation are some of the required elements that shall be considered in review and approval of any stormwater management plan as appropriate based on the size and nature of the project and included in the proposed stormwater management plan. The extent to which the hydrology design specifically outlined in this paragraph is considered for any development shall be determined by the ~~County~~ Engineer; provided the design is in compliance with the Southwest Florida Water Management District (SWFWMD), the ~~Public Works Stormwater Design Manual~~ ~~Manatee County Public Works Standards~~ and the other provisions of ~~this~~ Section ~~717~~.

T. Finished Floor Elevations. The finished floor elevation for each habitable structure shall comply with this section and section 802 (Floodplain Management).

U. Roadway Drainage. Where a developer constructs or widens a public roadway immediately adjacent to the development the drainages shall comply with the Manatee County Public Works ~~Standards~~.

V. Drainage Easements. When a public drainage easement is required, the easement shall be dedicated to ~~Manatee County and shown on the final subdivision plans and the final plat for the project. In addition, all public drainage easements shall be accessible from public right-of-way or dedicated ingress/egress easement. All drainage easements and ingress/egress easements shall be on clear and level ground, free of obstructions, including landscaping. Manatee County is responsible for maintaining only the free flow of drainage through~~

Commented [LDI27]: Added to Code as per discussions with PW. Not currently referenced in this chapter.

these easements.

W. 717.3.17. Erosion Control. The development shall include sedimentation facilities and other erosion control measures to protect against erosion and sediment discharges during clearing and construction and to protect against erosion and sedimentation of drainage facilities during the life of the development. No grading, or clearing, except brush removal for surveying, or filling shall be commenced until an inspection is conducted by the Department Director Planning Department to insure that all erosion and sedimentation measures have been applied to all the disturbed areas and specifically around any water bodies, watercourses, or wetlands.

Sediment and erosion control measures will be required to control and minimize damage to downstream and adjacent property, the conveyance system, and to preserve water quality. The method for sediment and erosion control shall be indicated and shown on all plans being submitted to the Building and Development Services Planning Department for approval, and the control measures installed prior to any construction. All swales shall be either sodded or have an equivalent stand of grass prior to approval.

~~717.3.17.1. Building Division of the Planning Department Review.~~ The Building and Development Services Division of the Planning Department shall, ~~in addition to other duties,~~ be responsible for the following:

1. ~~A.~~ The review of topographic data submitted for construction approval for sinkhole activity and limiting, where necessary, development to achieve compliance with Comprehensive Plan policies and other regulation[s];
2. ~~B.~~ The review, at time of construction drawing submittal on any project, that the proposed use or alteration of any slope that is equal to or greater than twenty-six and one-half (26.5) degrees, complies with the Comprehensive Plan policies and other regulations; and
3. ~~C.~~ Conditioning all ~~B~~building ~~P~~permits that compliance with soil stabilization, soil erosion and transport policies and regulations is required.

801.4. ~~717.5. Ownership and Maintenance.~~

The ownership and maintenance of stormwater management systems shall be clearly indicated on subdivision plans and comply with the Manatee County Public Works Standards.

~~717.5.1. Lakes and Ponds. When lakes and ponds are incorporated within a subdivision as part of the stormwater management system, the maintenance responsibility shall be provided in either individual or common ownership; or easement stipulating same. Further a drainage easement for such lakes or ponds shall be granted to the County along with access easements as provided in Section 717.5.6, below, [and] the owner shall be held legally responsible for the continued maintenance and operation of the stormwater management system. Such owner shall have an address of record, and shall represent the interest of all property owners for which the stormwater system has been designed.~~

~~717.5.2. Streets and Other Common Areas. Stormwater management facilities shall be incorporated into rights-of-way, easements, open space areas, retention/detention areas and similar common facilities.~~

~~717.5.3. Private Ownership. Swales and other drainage facilities not in common areas, shall be maintained in private ownership, with appropriate public drainage easements granted to the County.~~

~~717.5.4. Common Ownership. Stormwater management systems in private streets and other common areas shall be provided for in common ownership with all lot owners within the development.~~

~~717.5.5. Major Drainage Facilities. All major drainage facilities servicing any site shall be dedicated to the County together with necessary access easements to said drainage ways.~~

~~717.5.6. Easement Specifications. All easements provided for above shall be required as specified in the Manatee County Development Standards. All access easements shall be on level ground at the top of the bank and shall be designed and maintained sufficiently free and clear of vegetation or other obstruction for vehicular access to permit inspection and maintenance operations, except that clearing shall not be required for access easements to existing major drainage facilities.~~

~~717.5.7. Off-Site Stormwater Management Facilities. An off-site stormwater management facility may be considered if a developer can demonstrate that specific off-site stormwater management facilities, including facilities shared by more than one development, is designed to accommodate the discharge from the development at a twenty-five (25) year frequency storm and that the requirements of paragraph 717.3 above, can be fully achieved for such discharge~~

Commented [LDI28]: Added to Code as per discussions with PW. This is current practice, but not officially in the Code.

Commented [LDI29]: Ownership and Maintenance requirements moved to PW Manual

~~prior to the discharge entering waters of the State. When the off-site stormwater management facility is requested in lieu of on-site facilities; the applicant shall submit for approval a plan indicating the entire contributory area for the off-site facility and written engineering data substantiating the conveyance to the off-site location. Such off-site facilities shall be subject to the approval of the County Engineer. Such facilities may only be utilized, however, where adequate ownership and maintenance methods can be shown to provide for their continued functioning. If the developer selects the use of an off-site stormwater management facility, the developer shall be required to pay a pro-rata cost of the design and construction of said facility based on the quantity of stormwater discharging into any retention/detention facilities that the County develops. All costs associated with upgrading, improving the conveyance system and drainage channels and/or constructing new conveyance systems from the subject development to the off-site retention/detention system shall be borne by the developer.~~

~~717.6. Construction Inspections and Approvals. All work required under this Section, in accordance with the approved construction plans, shall be subject to the approval of the Planning Department and shall serve as a prerequisite for any subsequent permit required at the site or for occupancy thereof.~~

~~717.7. Violations. Any development or activity that proceeds in violation of this Section shall be subject to the provisions of Chapter 12, of this Code. Restoration of land to pre-existing drainage conditions or other corrective actions shall be required where a violation is determined to have occurred.~~

Section 802. ~~718~~ Floodplain Management.

802.1. ~~718.1~~ Purpose and Intent.

The objectives of these ~~se~~ floodplain management regulations are to: (1) protect human life and health; (2) minimize the potential for property damage and personal injury from flooding; (3) minimize expenditure of public money for costly flood control projects; (4) minimize the need for rescue and relief efforts associated with flooding, which are generally undertaken at the expense of the general public; (5) minimize damage to public facilities and utilities located in the one hundred (100) year floodplain; (6) maintain a stable tax base by providing for the sound use of flood prone areas in such a manner as to minimize future flood blight areas; (7) restrict adverse interference with the normal movement of surface waters; (8) maintain the natural hydrological and ecological functions of wetlands and other flood prone lands; and (9) enable Manatee County to qualify for participation in the National Flood Insurance Program.

802.2. ~~718.2~~ Applicability.

All new construction, development, or substantial improvements proposed within the limits of the one hundred (100) year floodplain as identified by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study with the accompanied maps, shall comply with the requirements of this Section, the Manatee County Floodplain Management Code, Ordinance 89-10, as amended, and this Section in addition to the applicable standards identified elsewhere in this code and the Manatee County Public Works Standards Manual. Areas seaward of the five (5) foot mean sea level ~~T~~ topographic contour, shall also meet additional requirements of Section ~~604.3403.8, CH~~ Coastal High Hazard Area Overlay District (CH). ~~The provisions of this Section apply to all zoning districts.~~

802.3. ~~718.5~~ Administration.

~~The Building Official shall be responsible for the administration and coordination of the provisions of this Section, with other appropriate County departments. The Department Director Building Official shall perform the following specific duties:~~

- ~~A. 718.5.1. Determine any additional information that must be submitted for review before the approval of a development within the one hundred (100) year floodplain.~~
- ~~B. 718.5.2. Where interpretation is needed as to the exact location of the boundaries of the area of the one hundred (100) year floodplain (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), or required floor elevations, the Department Director Building Official shall make the necessary interpretation. The person contesting the location of a boundary may request an interpretation as provided in Section ~~515311~~ Interpretations of this Code.~~
- ~~C. 718.5.3. Obtain and utilize Base Flood Elevations by obtaining available data from a Federal, State or other source (USGS, SWFWMD, Army Corps, DEP) to determine the Flood Protection Elevation for undetermined zones.~~

Commented [LD130]: Last sentence not needed. First sentence already says ALL development.

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- ~~D. 718.5.4.~~ Maintain a record of all variances, including justifications for their issuance, and submit a copy annually to the Federal Insurance Administrator.
- ~~E. 718.5.5.~~ Upon the submission of any construction or development proposal, review the location of the subject property on the Flood Insurance Rate Maps (FIRM), ~~and the Flood Boundary and Floodway Map (floodway).~~ and determine the applicable zone, minimum floor elevations and development standards.
- ~~F. 718.5.6.~~ ~~Assign a designee to R~~review all Floodplain Management Permits and Building Permits and other applicable development orders and approvals to assure that the permit requirements of this Section have been satisfied.
- ~~G. 718.5.7.~~ Advise permittee that additional federal or state permits may be required, if specific federal or state permit requirements are known, and require copies to be submitted before issuance of a permit.
- ~~H. 718.5.8.~~ Notify the adjacent communities, the Federal Emergency Management Agency, and the State of Florida Department of Community Affairs prior to any alteration or relocation of a watercourse; and submit evidence of such notification to the Federal Emergency Management Agency and the State of Florida, Department of Community Affairs.
- ~~I. 718.5.9.~~ Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) for new and substantially improved structures.

802.4. ~~718.3.~~ Floodplain Management Permit Required.

A ~~F~~floodplain ~~M~~management ~~P~~permit shall be required from the ~~County Building Division of the Planning Department~~ prior to the application for a ~~B~~building ~~P~~permit related to any development activity within the ~~One Hundred (100) Year Floodplain.~~ ~~No structure or land shall be located, extended, converted or structurally altered within the one hundred (100) [year] floodplain without full compliance with the terms of this Section and any other applicable regulations.~~ Floodplain ~~M~~management permits shall ~~not be~~ ~~neither be~~ transferrable, ~~nor shall~~ run with the land.

A ~~F~~floodplain ~~M~~management ~~P~~permit shall remain valid unless:

- ~~A. 1.~~ ~~The Floodplain Management standards Section is are~~ adversely amended; ~~;~~ or
- ~~2.~~ ~~The Floodplain Management Code, Ordinance 89-10 is adversely amended, or~~
- ~~B. 3.~~ ~~The development deviates from that authorized by the permit.~~

802.5. ~~718.4.~~ Floodplain Management Permit Procedures.

Application for a ~~F~~floodplain ~~M~~management ~~P~~permit shall be made to the ~~Department Director~~ ~~Building Official~~ on forms furnished, prior to the application for any ~~B~~building ~~P~~permit. The application may require, among other things, pertinent plans prepared by an engineer, drawn to scale, showing the nature, location dimensions, and elevations of the area in question; existing or proposed structures; fill; storage of materials; drainage facilities; delineation of the flood insurance zones and floodways with their respective boundaries and elevations; elevations of the lowest floor; and type of building materials. In case of a conflict between a ~~F~~floodplain ~~M~~management ~~P~~permit requirement and a requirement from another development ~~approval~~ ~~standard~~, the ~~F~~floodplain ~~M~~management ~~P~~permit shall govern in regards to ~~F~~floodplain ~~M~~management requirements.

802.6. ~~718.6.~~ Floodplain Management Standards.

~~A. 718.6.1.~~ **General Standards.** All proposed development and construction activities in the one hundred (100) year floodplain shall meet the following requirements, in addition to the applicable standards identified elsewhere in this code ~~and the Manatee County Floodplain Management Code 89-10 as amended.~~

- ~~1. 718.6.1.1.~~ All new construction including above ground and buried storage tanks, shall be anchored as necessary to prevent flotation, collapse or lateral movement of the structure.
- ~~2. 718.6.1.2.~~ All new construction shall use materials and utility equipment resistant to flood damage.
- ~~3. 718.6.1.3.~~ All new development shall use methods and practices that minimize flood damage, collapse or infiltration.
- ~~4. 718.6.1.4.~~ All new and replacement water supply, sewerage, and waste disposal systems shall be located

Commented [LDI31]: Redundant language

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and designed to:

- a. ~~(a)~~ avoid impairment to them;
- b. ~~(b)~~ minimize contamination from or to them;
- c. ~~(c)~~ eliminate infiltration of flood waters into the systems; and
- d. ~~(d)~~ have a backflow prevention device required for all systems connected to the Manatee County Public Water Supply, or any private or public water well.

5. ~~718.6.1.5.~~ Adequate assurance shall be provided that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

6. ~~718.6.1.6.~~ Improvements to or construction on a given property shall not increase the rate of runoff so as to adversely impact adjacent property owners.

7. ~~718.6.1.7.~~ All development, substantial improvements and new construction shall meet the lowest floor elevation and other requirements of this Code ~~and the Manatee County Floodplain Management Code, Ordinance 89-10.~~ The lowest floor elevation for floodplain management purposes shall be one of the following:

- a. ~~A.~~ All existing structures and additions to them that meet or exceed the Base Flood Elevation shall be considered conforming for floodplain management elevation provisions.
- b. ~~B.~~ All Pre-Firm Structures that are substantially damaged or substantially improved structures must meet or exceed the Base Flood Elevation.
- c. ~~C.~~ All new construction must meet or exceed the Flood Protection Elevation.

8. ~~718.6.1.7.1.~~ Small, detached, accessory structures, such as sheds, garages, which are resistant to flood damage, containing no habitable space, and ~~have having~~ a maximum fair market value of ten thousand (10,000) dollars may be granted an exemption for the elevation requirements by the ~~Building Official~~ Department Director in accordance with the Federal Emergency Management Agency (FEMA) rules, policy, and interpretations. These exempted structures shall be firmly anchored and constructed and placed on the lot so as to offer the minimum resistance to the flow of flood waters and not cause damage to other structures. This exemption does not apply to services such as electrical, plumbing and mechanical, ~~however they may be designed per Manatee County Building Codes and Floodplain Management Code, Ordinance 89-10 as amended.~~

9. ~~718.6.1.8.~~ All fill within the ~~One H~~undred (100) ~~Y~~ear ~~F~~loodplain shall be compensated by creation of stormwater storage of an equal or greater volume, credited above the seasonal high water table, with such compensatory storage also located within the one hundred (100) year floodplain. Stormwater retention and detention volumes below the seasonal high water table shall not be used to compensate for the placement of fill within the one hundred (100) year floodplain. Stormwater retention and detention facilities within the one hundred (100) year floodplain adjacent to a tidally influenced water body shall not be subject to this performance standard. All fill and earthmoving shall comply with all provisions of this Code and Section ~~732~~702, Earthmoving.

10. ~~718.6.1.9. Limitation of Habitable Structures Within the Twenty-five (25) Year Floodplain.~~ For parcels within the ~~T~~wenty-five (25) ~~Y~~ear ~~F~~loodplain, new habitable structures shall be located outside of the twenty-five (25) year floodplain, if reasonably possible. If the property owner cannot locate the structure outside of the twenty-five (25) year floodplain, then the property owner shall make application for an Administrative Permit. An Administrative Permit for such uses shall be granted upon finding that the proposed structure is located and designed to minimize and mitigate possible property damage in the event of a Twenty-five (25) Year Storm Event.

This limitation shall not preclude the development of water dependent uses, stormwater management facilities, or non-habitable structures, where appropriate, and applies only to areas where the mapping of the twenty-five (25) year floodplain has been completed and adopted as part of this Code or where existing water surface profiles can be used to identify the twenty-five (25) year floodplain. In any case, the best available source of information for the twenty-five (25) year floodplain shall be used. It shall be the responsibility of the applicant to provide engineering data to substantiate compliance with this Section. The ~~Planning Department~~

Commented [LDI32]: Subsection D moved to floodplain variances.

Commented [LDI33]: This provision doesn't make sense.

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Director shall administer and approve development plans only after verifying compliance with this Section for each development.

~~718.6.1.10. Hazardous Material and Hazard Waste Material.~~

Commented [LDI34]: Already stated in Chapter 4

~~718.6.1.10.1. Watershed Protection Overlay Districts. No storage areas for hazardous or acutely hazardous waste material may be located with any one hundred (100) year Floodplain or Floodway that is contained within the Watershed Protection Overlay Districts (Section 604.1.2.6 and 604.2.2.5).~~

Commented [LDI35]: Deleted as it repeats Section 604.1.2.6.(2)

~~718.6.1.10.2. Coastal High Hazard Area Overlay District. Uses which generate, store or dispose of hazardous or acutely hazardous waste material shall comply with Section 604.3.3 of this Code.~~

Commented [LDI36]: Already addressed in 604.3.3(3).

~~11. 718.6.1.10.3. Floodway. No storage area for hazardous or acutely hazardous waste material and no other hazardous substance material including fuel storage tanks may be located within a Floodway.~~

~~12. 718.6.1.11. Non-residential buildings may be floodproofed as allowed by Ordinance 89-10, Manatee County Floodplain Management Code as amended, this Code and FEMA's "Design Manual for Flood-Proofing Non-Residential Structures Buildings." guide~~

B. 718.6.2. Specific Standards. In addition to the standards of the Manatee County Floodplain Management Code, Ordinance 89-10 as amended and this Code, the following additional standards shall apply to new and expanded development and new and substantially improved structures:

1. ~~718.6.2.1. Standards for Waters without Established Base Flood Elevations and/or Floodways.~~ Structures located within the one hundred (100) year floodplain where no basic flood data has been provided, or where no floodways have been provided, are subject to the following provisions ~~shall apply:~~

a. ~~718.6.2.1.1. No encroachments, including fill material or structures shall be located within thirty (30) feet horizontally from each side at the top of the shoreline unless more restrictive setbacks are required elsewhere. Projects which have exemption-Special Exception status under Section 103.2 are exempted from this thirty (30) foot setback as it applies to wetlands; and~~

b. ~~718.6.2.1.2. New construction or substantial improvements of structures shall be constructed to the elevation and other floodplain management standards of Section 718.5.3, Section 718.6.2.4 and the Manatee County Floodplain Management Code 89-10 as amended this Code.~~

2. ~~718.6.2.2. Coastal High Hazard Areas (VE, VI-30, V-zones and the first sub area of the CH district).~~ The following provisions shall apply in the Coastal High Hazard Area; unless more restrictive standards are found elsewhere in this Code.

Commented [LDI37]: already defined in Chapter 2.

a. ~~718.6.2.2.1. Unless specified greater elsewhere, a~~ All buildings or structures shall be located a minimum of twenty five (25) feet landward of the reach of the shoreline. ~~(See also Section 702).~~ Swimming pools and screened pool cages located at grade level may be located within five (5) feet of a vertical seawall of adequate design to support the surcharge load. Swimming pools located above existing grade level are considered impermissible obstructions unless they meet the performance standards of the Federal Emergency Management Agency's Technical Bulletin No. ~~88-3-5-93 (Free-of-Obstruction Requirements for Buildings Located in Coastal High Hazard Areas)~~ or when located landward of the principal structure and meets the following requirements:

i. Engineering and certification shall be provided for all structures including swimming pools and pool cages to prevent the flotation, collapse or lateral movement of the structure. The design shall be adequate to withstand flow surge and backflow; ~~and~~

ii. Water dependent uses, ~~manufactured mobile~~ homes and recreational vehicles, are exempted from the twenty-five (25) foot setback above, however they are subject to other setback provisions of this Code or any other applicable local, state or federal regulation.

b. ~~718.6.2.2.2.~~ There shall be no fill used as structural support. Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, (therefore rendering the building free of obstruction) prior to generating excessive loading forces, ramping effects, or wave deflection. The ~~Building Official~~ Department Director shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, or soil scientist which demonstrates that the following factors have been fully considered;

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- i. ~~718.6.2.2.2.1~~ Particle composition of fill material does not have a tendency for excessive natural compaction;
 - ii. ~~718.6.2.2.2.2~~ Volume and distribution of fill will not cause wave deflection to adjacent properties;
 - iii. ~~718.6.2.2.2.3~~ Slope of fill will not cause wave run-up or ramping;
 - iv. ~~718.6.2.2.2.4~~ The ultimate impact of landscaping and ground cover at maturity; ~~and~~
 - v. ~~718.6.2.2.2.5~~ There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage;
 - vi. ~~718.6.2.2.2.6~~ The impact on saline wetlands and coastal marshes;
 - vii. ~~718.6.2.2.2.7~~ All fill shall meet the requirements of ~~this~~ Section ~~718.6~~ and other applicable regulations;
 - viii. ~~718.6.2.2.2.8~~ Substantially damaged habitable structures shall be relocated to a new location that is outside of the Coastal High Hazard Area Overlay ~~when if~~ sufficient land is available on the parcel; ~~and~~
 - ix. ~~718.6.2.2.2.9~~ All development within the Coastal High Hazard Overlay District shall comply with the provisions of Section ~~604.3~~ ~~403.8~~, Coastal High Hazard Area Overlay.
3. ~~718.6.2.3~~ *Floodways*. The following provisions shall apply: to all floodways unless more restrictive elsewhere.
- a. ~~718.6.2.3.1~~ Prohibit encroachments, including fill, new construction, substantial improvements, lateral additions, waterfront structures and other developments within the floodway unless a "no-rise certification" (with supporting technical data) prepared by an engineer is provided demonstrating that the encroachments ~~shall will~~ not cause any of the following:
 - i. ~~1~~. Any increase in flood levels during occurrence of the base flood discharge; or
 - ii. ~~2~~. An adverse impact on adjacent properties caused by increase of flow, velocity of flood waters, or increased erosion.
 - b. ~~718.6.2.3.2~~ Prohibit the placement of ~~manufactured mobile~~ homes and park trailers except in pre-FIRM and existing ~~Manufactured mobile~~ Home or R-V: park or subdivision.
4. ~~718.6.2.4~~ *Standards for a Areas of shallow flooding (AO and AH Zones)*. These areas have base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:
- a. ~~718.6.2.4.1~~ All new construction and substantial improvements of structures shall have the lowest floor, including basement, elevated to three (3) feet above existing grade where no base flood elevation is specified;
 - b. ~~718.6.2.4.2~~ Nonresidential buildings may be floodproofed ~~as allowed by Ordinance 89-10, The Manatee County Floodplain Management Code~~;
 - c. ~~718.6.2.4.3~~ All new subdivision proposals and other proposed non-agriculture developments, (including proposals for ~~manufactured mobile~~ home parks and subdivisions) greater than fifty (50) lots or five (5) acres, whichever is the lesser, shall include within such proposals base flood elevation data. This data shall include Base Flood Elevations (BFE) and Flood Protection Elevations (FPE) for each lot; ~~and~~
 - d. All developments subject to this Section ~~718.6.2.4~~ c shall also obtain Federal Emergency Management Agency (FEMA) approval.
5. ~~718.6.2.5~~ *Multi-Zone Lots*.
- a. ~~718.6.2.5.1~~ If part of the structure is located in the A Zone and the remaining portion is located in the B, C or X Zone, then the entire structure must be elevated to the A Zone required lowest floor elevation and must conform ~~with to~~ the standards of this Code and the Manatee County Floodplain Management Code.
 - b. ~~718.6.2.5.2~~ If part of a parcel is located in the Floodway, then any structure on the parcel, if within fifty (50) feet of the floodway, must be elevated to the required lowest floor elevation for the floodway and

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conform ~~with to~~ the construction standards for floodways in the Manatee County Floodplain Management Code 89-10. An applicant may seek relief from this requirement by submitting detailed, engineering data describing any natural features and existing structures which may have a mitigating effect on the hazards of swift flowing waters normally associated with the floodway. All submitted data shall be signed and bear a raised seal affixed by an engineer. This shall be reviewed and the appropriate elevation and construction standards shall be determined by the ~~Building Official~~ Department Director. This study shall be done in accordance with procedures and guidelines established by the Federal Emergency Management Agency (F.E.M.A.).

c. ~~718.6.2.5.3.~~ If part of a parcel is located in the Velocity Zone then any structure on the parcel within fifty (50) feet of the velocity zone, must be elevated to the V Zone required lowest floor elevation and conform ~~with to~~ the standards for velocity zones in the Manatee County Floodplain Management Code. An applicant may seek relief from this requirement by submitting detailed engineering data describing any natural features and existing structures which may have a mitigating effect on the wave action normally associated with the V Zone. This shall be reviewed and the appropriate elevation and construction standards shall be determined by the Building Official Department Director. This study shall be done in accord with procedures and guidelines established by Federal Emergency Management Agency (F.E.M.A.).

6. ~~718.6.2.6.~~ *Development.*

- a. ~~718.6.2.6.1.~~ In a new or expanded development, each lot located in the one hundred (100) year floodplain must include a site suitable for constructing the building in conformity with the ~~applicable standards of this Code and the~~ Manatee County ~~Floodplain Management Code~~ regulations.
- b. ~~718.6.2.6.2.~~ All development proposals shall be consistent with the need to minimize flood damage and shall not increase rate of runoff so as to adversely impact adjacent properties.
- c. ~~718.6.2.6.3.~~ Flood Protection Elevation data shall be provided for subdivision proposals, lots and other proposed development (including mobile home parks and subdivisions).

7. ~~718.6.2.8.~~ *Manufactured-Mobile Home, Park Trailer, and Recreational Vehicle.*

- a. ~~718.6.2.8.1.~~ No ~~manufactured mobile~~ home or park trailers shall be placed in a ~~Floodway, Hurricane Vulnerability Zone Coastal Planning Area~~ (see ~~Coastal Planning Area map 4-B of in~~ the Comprehensive Plan), or Coastal High Hazard Area except in an existing and pre-FIRM ~~manufactured mobile~~ home and recreational vehicle parks ~~and or~~ subdivisions.
- b. ~~718.6.2.8.2.~~ All ~~manufactured mobile~~ homes and park trailers located within the one hundred (100) year floodplain shall be anchored to resist flotation, collapse or lateral movement as required by ~~this Code the Manatee County Floodplain Management Code, Ordinance 89-10, as amended.~~
- c. ~~718.6.2.8.3.~~ ~~Any of the following: (1) all n~~ New Manufactured-mobile H home P parks or S subdivisions, ~~(2) all-new Planned Development Recreational Vehicle (PDRV) P parks or S subdivisions,~~ ~~(3) all-expansions or substantial improvements to existing parks or subdivisions any of the above,~~ ~~(4) any repair, reconstruction or improvement of the streets, utilities and pads which equals or exceed fifty (50) percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement,~~ ~~commences,~~ and ~~(5) all new, individual manufactured mobile homes allowed elsewhere,~~ shall meet the following additional requirements.
- i. ~~718.6.2.8.3.1.~~ Shall not be located in the Coastal High Hazard Area, ~~Hurricane Vulnerability Zone (map 4B of the Comprehensive Plan)~~ Coastal Planning Area, Coastal High Hazard Area Overlay district or ~~Floodway~~.
- ii. ~~718.6.2.8.3.2.~~ ~~Manufactured-Mobile~~ home and park trailer spaces (pad) in new and expanded parks and subdivisions, shall be no more than twenty-four (24) inches below the Flood Protection Elevation (F.P.E.). ~~Manufactured-Mobile~~ home units shall be elevated so that the lowest floor of the unit will be at or above the Flood Protection Elevation (F.P.E.).
- iii. ~~718.6.2.8.3.3.~~ Adequate surface drainage and access for a ~~manufactured mobile~~ home hauler shall be provided; and
- iv. ~~718.6.2.8.3.4.~~ These restrictions shall not apply to sites, lots, spaces or pads which are designed for

Commented [LDI38]: 718.6.2.7 moved to environmental chapter, earthmoving section.

Commented [LDI39]: Changed the name from Hurricane Vulnerability to Coastal Planning Area & updated Map reference as requested by Sandy Tudor in 3rd Round Comments.

and allow only ready for highway use recreational vehicles.

d. ~~718.6.2.8.4.~~ Pre-FIRM ~~manufactured-mobile~~ home and pre-FIRM recreational vehicle parks and subdivisions.

i. ~~1.~~ ~~Manufactured-Mobile~~ homes and park trailers when placed on a site in a pre-FIRM ~~manufactured mobile~~ home, pre-FIRM recreational vehicle park or subdivision shall be elevated so that their lowest floor is at or above the Base Flood Elevation (B.F.E.), when the existing ~~manufactured-mobile~~ home or park trailer has incurred substantial damage as a result of a flood.

ii. ~~2.~~ ~~Manufactured-Mobile~~ homes and park trailers that are placed or substantially improved on sites in pre-FIRM ~~manufactured-mobile~~ home or pre-FIRM recreational vehicle parks or subdivision in the one hundred (100) year floodplain shall be elevated and supported by reinforced piers (or other equivalent strength foundation) that are a minimum of thirty-six (36) inches in height above the existing grade. The piers may be less than thirty-six (36) inches and a regular set-up used, provided that the lowest floor is at or above the required Base Flood Elevation (B.F.E.).

All footings shall be adequate to support the weight of the ~~manufactured-mobile~~ home or park trailer under saturated soil conditions.

iii. ~~3.~~ All recreational vehicles in recreational vehicle parks or subdivisions are exempted from the Floodplain Management Section of this Code provided that the vehicles ~~is-are~~ in the park or subdivision less than one hundred eighty (180) days, ~~is-are~~ fully licensed, ready for highway use and ~~has-have~~ no additions.

iv. ~~4.~~ Recreational vehicles which are currently on sites, in recreational parks or subdivisions, on the effective date of this Code and which are not fully licensed or not ready for highway use or have additions, are exempted from the Floodplain Management Section of this Code, until they are substantially improved, substantially damaged, enlarged or replaced.

v. ~~5.~~ Recreational vehicles installed or erected after the effective date of this Code in new or expanded parks and subdivisions may remain on site for no more than one hundred eighty (180) consecutive days.

vi. ~~6.~~ No additions shall be allowed to any new or existing recreational vehicle in the one hundred (100) year floodplain.

8. ~~718.6.2.0.~~ *Standards for Subdivision Proposals. In addition to the requirements for development listed above, subdivision proposals shall meet the following:*

a. ~~718.6.2.0.1.~~ All subdivision proposals shall be consistent with the need to minimize flood damage, and shall not increase runoff so as to adversely impact adjacent properties.

b. ~~718.6.2.0.2.~~ Each lot of the subdivision located in the floodplain, must include a site suitable for constructing the building in conformity with the applicable standards of this Code ~~and the Manatee County Floodplain Management Code.~~

c. ~~718.6.2.0.3.~~ All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

d. ~~718.6.2.0.4.~~ All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.

e. ~~718.6.2.0.5.~~ No net loss of stormwater storage within the one hundred (100) year floodplain will be permitted.

~~718.6.2.0.6. See Section 718.6.2.6 Development.~~

9. ~~B.~~ *Minimum Floor Elevation.* In all situations, the finished floor elevation shall be a minimum of eight (8) inches above the immediate surrounding grade on all sides of the building and the required finished floor elevation shall be determined as follows:

a. ~~4.~~ Single-family detached dwellings, duplexes and multi-family dwellings shall be a minimum of twenty-one (21) inches above the highest elevation of the street or crown of the street, whichever is greater; as measured along the entire frontage of the lot on which the building is located and in accordance with

Commented [LDI40]: 718.6.2.10 moved to chapter 5 (Water Dependent Uses)

Commented [LDI41]: Moved here from 702.9.

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adopted Transportation Highway and Drainage Standards.

- b. ~~2.~~ In special conditions and for non-residential sites, a professional engineer may submit a storm drainage plan to be approved by the ~~County Transportation Department~~ Director ~~or his designee.~~ The storm drainage plan shall provide:
- i. ~~(a)~~ Sufficient relative or actual spot elevations to include: all necessary elevations at property lines or within two hundred (200) feet of the structure, whichever is less; street crown; right-of-way lines; inverts at culverts; existing and proposed finished floor elevations at all buildings;
 - ii. ~~(b)~~ Positive drainage away from buildings to a swale located in an easement or storm drainage system with minimum slopes per Transportation Highway and Drainage Standards;
 - iii. ~~(c)~~ No flow onto adjacent property without a recorded drainage flowage easement;
 - iv. ~~(d)~~ Finished floor elevation of at least eighteen (18) inches above the average grade of the top of bank of either the swale or drainage facility;
 - v. ~~(e)~~ Drainage flow arrows specifically indicating the direction of flow to all drainage outfalls; and
 - vi. ~~(f)~~ Construction details and cross sections in accordance with the Stormwater Management Design Manual and Highway and Drainage Standards for lot drainage.

In addition to the permit fee, any costs associated with the County Engineering staff verifying the accuracy of the plan and the drainage conditions shall be borne by the applicant.

- c. ~~3.~~ In all new subdivisions, the Engineer of Record shall show the finished floor elevation for each lot on the construction drawing for the subdivision, prior to approval.

- d. ~~4.~~ Applicability of Finished Floor Elevation Requirements:

- i. *Approved Plans:* Structures in developments for which either construction plans or final site plans containing minimum finished floor elevations were approved prior to April 1, 2006, shall be exempt from the drainage regulations ~~enacted by Ordinance 06-16~~ and shall comply with the minimum finished floor elevation requirement of eighteen (18) inches above the highest elevation of the street or crown of the street, whichever is greater; as measured on the entire frontage of the lot on which the building is located.
- ii. *Pending Plans:* Structures in developments for which either construction plans or final site plans containing minimum finished floor elevations was submitted but not yet approved prior to April 1, 2006, shall be exempt from the drainage regulations ~~enacted by Ordinance No. 06-16~~ and shall comply with the minimum finished floor elevation of eighteen (18) inches above the highest elevation of the street or crown of the street, whichever is greater; as measured on the entire frontage of the lot on which the building is located. In the event such an application for construction plan or final site plan approval has been withdrawn after April 1, 2006, any resubmitted construction plan or final site plan shall not be exempt from ~~Ordinance No. 06-16~~ [the elevation requirements contained in this code.](#)

- e. ~~702.9.3. Exclusions.~~ The minimum floor elevations of this Section shall not apply to:

- i. ~~1.~~ Non-habitable residential attached or detached accessory structures;
- ii. ~~2.~~ Signs;
- iii. ~~3.~~ Less than one thousand (1,000) square feet of nonresidential floor area as either a whole building or an addition;
- iv. ~~4.~~ Additions to existing residential structures; and
- v. ~~5.~~ Agricultural uses.

However, no such freestanding structure shall be located [on a site](#) except in accordance with the applicable provisions of Section [747801](#), Stormwater Management, and Section [748302](#), Floodplain Management.

~~802.7.~~ ~~748.7.~~ Designation of Maps and Procedures for Amendment.

~~A. 718.7.1. Floodplain Management Maps.~~ The ~~One Hundred (100) Year Floodplain and Floodways~~ shall be those identified in the Flood Insurance Study for Manatee County with its accompanying Flood Insurance Rate Maps (FIRM), Flood Boundary and Floodway Maps (Floodway), and their respective map indexes, which are prepared by the Federal Emergency Management Agency (FEMA), and bear the common Community Number 120153.

Commented [LDI42]: moved from below

~~This study and maps are prepared by the Federal Emergency Management Agency (FEMA). These documents bear the Community Number 120153. The study is dated September 15, 1983, while the maps are dated March 15, 1984.~~

The current and latest editions of the FEMA studies, maps and indexes are hereby adopted and shall be updated as necessary by an ordinance of the Board. The maps and ~~study studies~~ shall be maintained and available for public inspection at the Planning Building and Development Services Department.

~~B. 718.7.2. Procedure for Map Amendment.~~ If an applicant has reason to believe that the boundary lines of the ~~One Hundred (100) Year Floodplain~~ or the designated limits of the ~~Floodway~~ or Coastal High Hazard Areas (V-Zones) are incorrect, then a request for a "Letter of Map Amendment" must be submitted to the Federal Emergency Management Agency in accordance with the requirements established by that Agency. To be approved, the request along with accompanying engineering, computer program, etc. must be approved by the Federal Emergency Management Agency and the appropriate State and County departments. Site specific map amendments when approved shall not require the approval of the Board.

~~718.9. Violations.~~

Commented [LDI43]: Violations section moved to chapter 1

~~802.8. 718.10. Floodplain Variances.~~

~~A. 718.10.1.3. Purpose.~~ Variances from the Floodplain elevation standards may be issued for new construction and substantial improvements to be erected on a lot ~~of one-half (1/2) acre or less lot area that is~~ contiguous to and surrounded by lots with existing structures constructed below the base flood level. The granting of floodplain variances is ~~usually~~ limited to a lot sites with a lot area of less than one-half (1/2) acre; ~~however,~~ deviations from that limitation may occur. When the lot area increases beyond one-half (1/2) acre, the technical justification required for issuing a variance increases.

Commented [LDI44]: STAFF: How much can the lot size deviate? Is the size limitation needed if it can be modified? Is it true that the technical justification increases? Are the additional requirements stated anywhere in the code to that effect?

~~718.10.2.14.~~ Variances shall not be issued within any designated floodway if any increases would result in flood levels during the base flood discharge ~~would result.~~ and

~~718.10.2.15.~~ Variances shall only be issued upon a determination that the granting of a variance will not result in increased flood heights.

~~B. 509.5.1. Sufficiency Review Review of Variances From Floodplain Management Standards.~~

Commented [LDI45]: Brought in from Chapter 5.

~~As part of the required sufficiency review, a~~ Any ~~V~~variance from floodplain management standards requested pursuant to this Ssection ~~718,~~ shall be reviewed by the Department Director~~Building Official,~~ who shall determine whether the application is consistent with this Ssection ~~718.~~ The ~~Building Director~~Department Director shall issue a determination of consistency prior to the scheduling of the ~~V~~variance for public hearing, and shall submit the report. ~~Such report shall be included in the report submitted to the Hearing Officer or Historic Preservation Board, as applicable~~appropriate official or board by the Planning Director.

~~The Manatee County Construction Code Board of Appeals shall consider and rule upon appeals of a determination of consistency by the Building Director regarding floodplain management Variance applications. Decisions of the Construction Code Board of Appeals may be appealed within thirty (30) days of the date of action taken.~~

Commented [LDI46]: Inconsistent with 718.10.1, which states that the HO reviews appeals on administrative determinations.

~~C. D-Administrative Waivers.~~ Administrative waivers of the Flood Protection Elevation may be approved by the Building Official upon demonstration of just cause, ~~by the Building Official.~~ These waivers shall not result in a lowering of the required Flood Protection Elevation of more than two (2.0) inches.

Commented [LDI47]: Moved here from Section .

~~D. 718.10.1. Hearing Officer Review.~~ The Hearing Officer shall hear ~~and decide appeals on administrative determinations and~~ requests for a variance from the floodplain elevation standards ~~of this section, except as indicated below,~~ according to the ~~procedure and standards of review as established in Section 509 Variances and the following additional~~ criteria listed below.

Commented [LDI48]: STAFF: Are there any floodplain variances that the Director can approve? Not sure why this section says that the HO would hear appeals.

~~E. 718.10.5. Historic Preservation Board Review Elevation Consistent with Historical Integrity of Historic~~

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Structures and Neighborhoods. Appropriate additions to existing historic structures within the Cortez Fishing Village HA Overlay, excluding signs, which require a floodplain variance pursuant to this section ~~of the Code~~ shall be reviewed and approved by the Manatee County Historic Preservation Board in lieu of the Hearing Officer.

1. ~~718.10.5.1.~~ The proposed work must first be granted a Certificate of Appropriateness by the Manatee County Historic Preservation Board in accordance with the requirements of ~~Section 514.347~~ of this Code; ~~and,~~

2. ~~718.10.5.2.~~ The proposed lowest habitable floor of the renovation/addition must be equal to or higher than the elevation of the existing historical structure without the use of fill.

~~718.10.5.3. The Historic Preservation Board shall be authorized to review and approve any variance regarding proposed floodplain elevation of structures within the Cortez Fishing Village Historical and Archaeological Overlay District using the criteria found in 718.10.1 and 718.10.2.~~

F. ~~718.10.2.~~ **Review Criteria.** When reviewing floodplain variance requests, ~~the~~ Hearing Officer ~~and the Historic Preservation Board~~ shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ~~ordinance~~ chapter and the Public Works Standards Manual, and the following criteria:

1. ~~718.10.1.1.~~ Variances shall only be issued upon a determination that a unique and unnecessary hardship would result and the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical structure, a determination that the variance is the minimum necessary so as not to destroy the historic character and design or designation of the building.

2. ~~718.10.2.1.~~ The ability to evacuate a person in time of an impending flood ~~and safety of access to the property in times of flood for ordinary and emergency vehicles;~~

3. ~~718.10.2.2.~~ The necessity of a water dependent use facility to a waterfront location provided that: the structure or other development is protected by methods that minimize flood development is protected by methods that minimize flood damage during the base flood; no additional threats to public safety are created and the other factors of this section are considered; ~~;~~

4. ~~718.10.2.3.~~ The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

5. ~~718.10.2.4.~~ The compatibility of the proposed use with existing and anticipated development;

6. ~~718.10.2.5.~~ The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

~~718.10.2.6. The safety of access to the property in times of flood for ordinary and emergency vehicles;~~

7. ~~718.10.2.7.~~ The danger that materials may be swept onto other lands that may cause injury to others;

8. ~~718.10.2.8.~~ The danger of life and property due to flooding or to erosion damage;

9. ~~718.10.2.9.~~ The susceptibility of the proposed facility and its contents to flood ~~and erosion~~ damage and the effect of such damage on the individual owner's ~~life and property;~~

10. ~~718.10.2.10.~~ The importance of the services provided by the proposed facility to the community;

11. ~~718.10.2.11.~~ The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and

12. ~~718.10.2.12.~~ The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

G. ~~718.10.2.13.~~ **Conditions.** Upon consideration of the factors listed above, ~~and the purposes of this Section,~~ ~~the~~ Hearing Officer ~~approving authority~~ may attach ~~such~~ conditions to the granting of variances as it deems necessary to further the purposes of this Code.

H. ~~718.10.1.2.~~ **Notice of Disclaimer.** Any applicant to whom a floodplain variance ~~from Section 718 or the Floodplain Management Code, Ordinance 89-10~~ is granted shall be given a written Notice of Disclaimer signed by the Building Official. This Notice of Disclaimer shall be recorded by the applicant in the Clerk of the Circuit Court's office so that the Notice of Disclaimer runs with the land. This notice shall state the following: The variance does not run with the land and applies only to the current structure and use. Any change in the structure (substantial

Commented [LD149]: Repeats other provisions. Not needed.

Commented [LD150]: moved to section 1 above

Commented [LD151]: unnecessary language

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damage, etc.) or use may invalidate this variance. The issuance of a variance to construct a structure below the required elevation will result in increased insurance premium rates for flood insurance ~~up to or exceeding twenty-five dollars (\$25.00) for every one hundred dollars (\$100.00) of coverage~~ and such construction below the required elevation increases the risks to life and property.

Commented [LDI52]: Should not reference dollar amount not controlled by the County.

~~718.10.3. The variance shall not run with the land.~~

I. 718.10.4. Submittal to FEMA. All variances issued for floodplain purposes shall be submitted to the Federal Insurance Administrator.

Commented [LDI53]: Already stated in the Notice of Disclaimer section.

802.9. ~~718.8.~~ **Warning and Disclaimer of Liability.**

~~718.8.1.~~ The degree of flood protection required by ~~this Section~~ Manatee County is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on occasions. Flood heights can be increased by man-made or natural causes. This ~~S~~section does not imply that land outside the areas of the floodplain or uses permitted within such areas will be free from flooding or flood damages. This ~~S~~section shall not create liability on the part of Manatee County or by an officer or employee thereof for any flood damages that result from reliance on this ~~S~~section or any administrative decision lawfully made thereunder.

802.10. ~~718.11.~~ **Appeals.**

See Chapter 2, Part X ~~Section 516~~ Appeals.

Commented [LDI54]: Section 519 (Erosion and Sediment Control) moved to Chapter 3.

Section 803. 722.1.8. ~~Utilities~~ **Service Requirements.**

803.1. ~~722.1.8.1.~~ **Sanitary Sewerage.**

Every development shall have a sanitary sewerage system adequate for the type of development proposed and related to existing or potential surrounding development. The sanitary sewerage system shall form a logical part of a coordinated system minimizing potential sanitary sewerage problems for the general area, as designated by service areas under the respective Sanitary Sewerage Service Area Master Plan. All sanitary sewerage systems shall conform to the requirements of the ~~Manatee County Public Works Standards~~ Manatee County Public Works Standards and the Manatee County Health Department, Environmental Health Services ~~HRS/Manatee County Public Health Unit~~. Each lot shall be connected to the sewer main by a single individual sewer service connection.

A. 722.1.8.1.1. Mandatory Connection. ~~All costs associated with the installation and connection to a public sanitary sewer system shall be borne by the developer.~~ Connection to a public sanitary sewer system is mandatory for the wastewater collection areas shown on the Water/Wastewater Service Areas Map 9-A of the Comprehensive Plan, unless specifically exempted by Chapter 2-31 Ordinance 89-02, Mandatory Sewer Connections of the Code of Ordinances, or through Special Approval as provided for in subsection B, below.

Commented [LEA55]: Moved below.

~~722.1.8.1.3. Connection to the Manatee County public wastewater system is mandatory for any development within the wastewater collection areas shown on Map 9-A of the Comprehensive Plan, unless Special is granted Approval.~~

B. Exemption through Special Approval.

1. Administrative Approval. Special Approval to not connect to the public sanitary sewer system may be granted administratively in conjunction with a Final Site Plan, subdivision plat, Administrative Permit or other approval process if the following criteria are met:

- a. ~~—~~ The project contains five (5) lots or less;
- b. ~~—~~ The applicant provides a cost estimate acceptable to Manatee County demonstrating the cost to connect to public sewer is sixty thousand dollars (\$60,000.00) more than the cost to provide a septic tank;
- c. ~~—~~ The proposed level of treatment for the septic system meets or exceeds minimum Health Department standards;
- d. ~~—~~ The proposed septic tank is setback a minimum of four hundred (400) feet from an Outstanding Florida Water body;
- e. ~~—~~ The septic tank is located a minimum of two hundred (200) feet from any jurisdictional wetland (in WPE/WPM Overlays); and

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f. —The proposed project is not within an area of known flooding.

2. Board Approval. If the Planning Department Director determines that either the above described criteria or those in Section ~~605.5~~345.5 of this Code cannot be met, or the Planning Department Director determines that approving the request administratively would not be in conformance with the Comprehensive Plan, then the Special Approval request shall be heard by the Board of County Commissioners after consideration of the following factors at an advertised public hearing:

- a. —Proposed wastewater impacts,
- b. —Accessibility of the central system,
- c. —Proposed infrastructure improvements,
- d. —Environmental sensitivity,
- e. —Development trends and timing,
- f. —Compatibility of development,
- g. —Proposed mitigation measures,
- h. —Telecommunication facilities, and
- i. —Location in areas subject to flooding.

C. 722.1.8.1.2—Interim Wastewater Treatment Plants. The use of any interim wastewater treatment plant to provide for sanitary sewer service for any development located within the wastewater treatment collection areas shown on the Water/Wastewater Service Areas Map ~~9-A~~ of the Comprehensive Plan, is prohibited unless approval by the Board is granted to not connect to the public sanitary sewer system and analysis of the following factors has been completed:

~~The following factors shall be included in any analysis submitted for approval of an interim wastewater treatment plant:~~

- 1. Analysis from individual on-site systems, versus an interim treatment plant.
- 2. Level of treatment proposed.
- 3. Possible connection to other municipal wastewater treatment systems.
- 4. Location within or adjacent to environmentally sensitive areas.
- 5. Location within areas subject to flooding, and
- 6. Consideration of the appropriate timing and type of proposed development.

~~722.1.8.1.3.1 Dry Lines.~~ Septic tanks or ~~an~~ interim wastewater treatment plants approved pursuant to this Section, ~~and~~ shall be constructed with dry-lines consistent with Policy 9.2.4.5 of the Comprehensive Plan, so as to readily permit connection to the public sanitary sewer system. Dry-lines are required to be installed on all residential developments equal to or greater than one (1) dwelling unit per acre and all non-residential development within the wastewater treatment collection area. Dry-lines for sewerage shall be extended to the appropriate project boundary or boundaries. Within two (2) years of the availability of a sanitary sewer line with adequate capacity to accommodate wastewater flows from the developed portions of the project, all dry-lines for the project shall be connected to the available sanitary sewer line(s).

D. 722.1.8.1.4.—Projects outside the EPA 201 Facilities Service Area shall generally be exempted from this policy, unless a requirement for installation of dry-lines in any such project is adopted as a condition of development order approval.

E. 722.1.8.1.5.—Costs. All costs associated with the installation and connection to a public sanitary sewer system shall be borne by the developer. Any connection or extension to a public sewerage system in advance of the availability of the public sewerage system contiguous to the development shall be at the developer's expense.

~~722.1.8.1.6. General and individual sewerage systems including septic systems where allowed outside the defined EPA 201 service area or exempted by Ordinance 89-02 and Resolution 89-70 shall be approved by the HRS/Manatee County Public Health Unit and the Public Works Department. On-site sewerage systems shall be constructed in~~

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~~accordance with the HRS/Manatee County Public Health Unit regulations in such a manner as to facilitate later connection to a public collection facility including design and installation of septic systems so as to provide for eventual connection of this system to a public sewage collection system.~~

Commented [LEA56]: Moved to Utilities Manual.

~~722.1.8.1.7. The coordination and sharing of any portion of the sewerage system between developments shall be preferred, including installation of over size facilities to serve a natural tributary area, with such oversizing paid for where appropriate, by the Manatee County Public Works Department when designed to serve property other than that owned by the developer. All major sewer collection lines provided by a developer, shall be dedicated to Manatee County, together with necessary easements for access and maintenance.~~

Commented [LEA57]: Moved to Utilities Manual.

~~722.1.8.1.8. In the Twenty five (25) year and One Hundred (100) Year Floodplain, in addition to the requirements of Section 718, all new and replacement sewerage and waste disposal systems shall be located and designed to:~~

Commented [LEA58]: Moved to Utilities Manual.

~~Avoid impairment to the floodplain;~~

~~Minimize contamination to the floodplain;~~

~~Eliminate infiltration of flood waters; and prevent contamination of the aquifers.~~

~~722.1.8.1.9. In the 25 year and 100 year floodplain, in addition to the requirements of Section 717 and 718, all new construction, including buried storage tanks, must be anchored as necessary to prevent flotation, collapse, or lateral movement of the structure.~~

Commented [LEA59]: Moved to Utilities Manual.

~~722.1.8.1.10. All industrial or commercial land uses which generate a wastewater load of a character not permitted for disposal in the County's system, pursuant to Ordinance 88-01, the property owner and facility operator shall pretreat wastewater to achieve compliance with standards required by that Ordinance. This pretreatment shall occur prior to discharge of wastewater into any public or on-site sewage system.~~

Commented [LEA60]: Moved to Utilities Manual.

~~722.1.8.1.11. All satellite lift stations shall be landscaped in accordance with the Landscaping Tree and Shrub requirements for Satellite Lift Stations of the Manatee County Public Works Standards.~~

Commented [LEA61]: Moved to Utilities Manual.

F. ~~722.1.8.1.12. Evers Reservoir.~~ Require ~~e~~Connection to the County sanitary sewer system is required for all new commercial and residential structures located in the Evers Reservoir portion of the Watershed Overlay District, when located within one (1) mile of a sanitary sewer system. The exception shall be for structures located on single-family lots of record for which it has been determined by Manatee County that such a connection is not economically feasible.

803.2. ~~722.1.8.2. Water.~~

Every development shall have a potable water supply system adequate for the type of development proposed and related to existing or potential surrounding development so as to form a logical part of a coordinated system minimizing potential water supply problems for the general area. Potable water may not be required for Antenna Structures at the ~~Planning Director~~Department Director's discretion. No water service shall be furnished to any person by a public or private utility or water well unless such person agrees to accept all the provisions of the Water Shortage Plan and the Water Shortage Emergency, as defined in the Code of Ordinances. ~~722.1.8.2.4. All water supply systems shall be planned and constructed by the developer in accordance with the Manatee County Public Works Standards.~~

A. Mandatory Connection. New development shall connect to the County potable water system when water supply and service to the site are reasonably available, except for single-family homes on lots of record. If a public water supply is not available, an individual private well water supply system may be allowed, if approved by the HRS/Manatee County Public Health Unit/Manatee County Natural Resources Division.

B. ~~722.1.8.2.1. Cost.~~ The applicant for every development shall pay the full cost of installation of all water distribution system components which are needed on and off the development site to effectuate potable water service to the site regardless of distance. ~~New development shall connect to the County potable water system when water supply and service to the site are reasonably available, except for single family homes on lots of record. If a public water supply is not available, an individual private well water supply system may be allowed, if approved by the HRS/Manatee County Public Health Unit.~~

~~722.1.8.2.2. Individual Private water distribution systems supplied by individual wells shall be constructed to facilitate~~

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~~independent connections to a public water distribution facility. All water wells constructed in Manatee County shall conform to Chapter 373 F.S., the requirements of the Southwest Florida Water Management District and the HRS/Manatee County Public Health Unit, including all provisions in the interlocal agreement between Manatee County and the Southwest Florida Water Management District.~~

Commented [LEA62]: Moved to Utilities Manual

~~722.1.8.2.3. The coordination and sharing of any water distribution system excluding individual private well water supply systems, between development shall be preferred, including installation of oversize facilities to serve a logical area, with such oversizing paid for, where appropriate, by the Public Works Department when designed to serve property other than that owned by the developers.~~

Commented [LEA63]: Moved to Utilities Manual

~~722.1.8.2.4. All water supply systems shall be planned and constructed by the developer in accordance with the Manatee County Public Works Standards.~~

~~722.1.8.2.5. In the Twenty-five (25) Year and One Hundred (100) Year Floodplain, in addition to the requirements of Section 717 and 718, all new and replacement water supply systems shall be located and designed to:~~

Commented [LEA64]: Moved to Utilities Manual

- ~~Avoid impairment to the floodplain;~~
- ~~Minimize contamination to the floodplain;~~
- ~~Eliminate infiltration of flood waters; and~~
- ~~Prevent contamination of the aquifers.~~

~~722.1.8.2.6. In addition to the requirements of Section 717 and 718, all new construction, additions, including buried storage tanks which are in the Twenty-Five (25) Year or the One Hundred (100) Year Floodplain, must be anchored as necessary to prevent flotation, collapse, or lateral movement of the structure.~~

~~803.3. — Section 728 Solid Waste Regulations.~~

Commented [LDI65]: Moved to Code of Ordinances and PW Manual

~~See Chapter 2-16 of the Manatee County Code of Ordinances for solid waste collection and disposal requirements, and the Manatee County Public Works Standards for waste storage facility standards.~~

~~803.4. 722.1.8.3. Irrigation.~~

~~A. Requirements. The irrigation system shall comply with Section 715701, The Manatee County Comprehensive Plan, and the Manatee County Cross Connection and Back Flow Prevention Code, Manatee County Plumbing Code and the Manatee County Irrigation Code. All required landscaping shall meet the irrigation requirements of Section 715701 and the Manatee County Public Works Standards.~~

Commented [LDI66]: Irrigation standards moved to PW Manual

~~When a suitable water supply other than public potable water is available, irrigation shall be from the non-public water source. A suitable water supply, may be, but is not limited to, lakes, ponds, stormwater retention areas, and approved reuse systems. Design and use of wet stormwater facilities as sources of water for irrigation shall be required, as long as the use for irrigation does not adversely impact normal water levels in such a way that it impairs the viability of the biological treatment system. Suction lines from individual lots shall not be connected to or extend to sewer, stormwater drains, or catch basins to provide irrigation or non-potable water for any lot.~~

Commented [LDI67]: moved to PW manual

~~B. The Planning Director may require the use of drought resistant species and may specify operational schedules and practices for irrigation for water conservation. No water service shall be furnished to any person by a public or private utility or water well unless such person agrees to accept all the provisions of the Water Shortage Plan and the Water Shortage Emergency. The acceptance of water service shall be in itself the acceptance of the above provisions. Alternative Water Source. The use of reclaimed water or other alternative sources shall be required for sites located outside of the Watershed Overlay Districts and located in an area that either has the distribution system for reclaimed water or is programmed to have such system installed.~~

Commented [LDI68]: moved to PW manual

~~Potable water shall not be used for landscape irrigation unless the cost to extend reclaimed water lines is prohibitive and there is no access to alternative sources, such as shallow wells and wet retention/detention ponds.~~

Commented [LDI69]: 722.1.8.3.1 thru 722.1.8.3.5 moved to PW manual

~~722.1.8.3.1. Dual distribution systems for irrigation purposes may be required on all sites within a EPA-201 service area which are identified by the Public Works Director as being economically feasible for the Public Works Department to provide a connection to a public re-use water system at the periphery of the development. Such~~

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~~systems shall be connected to the approved reuse system when available. The determination of when the dual distribution system will be required will be made at the time the applicant submits the initial development application.~~

~~722.1.8.3.2. Dual distribution systems with supplemental source or irrigation water is required, whenever a development covenant running with the land requires all lots to install irrigation systems.~~

~~722.1.8.3.3. Dual distribution systems serving residential developments shall be installed in accordance with the Manatee County Public Works Department standards.~~

~~722.1.8.3.4. No private irrigation sprinkler line or sprinkler head shall be installed within the rights-of-way without the written approval of the Public Works Department. Sprinkler heads shall be installed so as not to distribute water onto the sidewalks and travel lanes or effect the safety of pedestrian and motorists safety. (Also refer to Section 715.11.2.)~~

~~722.1.8.3.5. All piping and outlets conveying re-use water shall be adequately and durably identified by a distinctive color coding so that it is readily distinguished from piping carrying potable water. The color coding shall comply with the American National Standards Institute ANSI Z53.1 and identified in accordance with ANSI A13.1.~~

803.5. ~~722.1.8.4.~~ Fire Protection.

~~A. 722.1.8.4.1. Fire District Approval.~~ In all developments, the adequacy of the protection services, water supply pressure, hydrant locations, fire lanes and maneuvering areas shall be subject to the approval of the appropriate Fire District, and the ~~Planning Department~~ [Department Director](#).

~~B. 722.1.8.4.2. Hydrants.~~ All fire hydrants shall be installed in accordance with the [Manatee County Public Works Standards](#) ~~Manatee County Public Works Department Development standards~~, and dedicated to Manatee County when they are connected to a water distribution system operated by the Manatee County Public Works Department.

~~C. 722.1.8.4.3. Additional Requirements.~~ In addition, fire hydrants shall be provided in all new developments which meet the following criteria:

- ~~1. All developments which require an extension of the water distribution system.~~
- ~~2. All developments which require the submission of a preliminary site plan [development concept plan](#) as set forth in [Section 549.360, Certificate of Level of Service Compliance](#).~~
- ~~3. All non-residential developments which consist of a single building or group of buildings under one roof having greater than 10,000 square feet of floor area or a group of buildings under separate roofs separated less than ten (10) feet and having a sum total square footage greater than 10,000 square feet.~~

~~D. 722.1.8.4.4. Location.~~ Fire hydrants shall be located (1) no more than eight hundred (800) feet apart and (2) within four hundred (400) feet of the main entrance of all non-residential buildings in the development as measured along normal access routes, (3) at the end of any water line unless another hydrant is located within five hundred (500) feet.

~~E. 722.1.8.4.5. Sprinkler System.~~ All hydrants shall be in addition to any internal sprinkler or standpipe system serving the development and shall not be located on the "fire line" water main service.

~~F. 722.1.8.4.6. Right-of-Way.~~ Except for hydrants located within the rights-of-way, or within one story single family residential areas, all hydrants shall be located at least forty (40) feet from any building.

803.6. ~~722.1.8.5.~~ Electric and Communication Lines.

~~A. 722.1.8.5.1. Generally.~~ Except in agricultural, heavy commercial districts, non-planned industrial developments, or as expressly provided below, all utility lines to be installed for the development, including, but not limited to those required for electrical services, telephone, ~~telegraph~~, street lighting, and CATV, shall be installed underground. Appurtenances such as; transformer boxes, pedestal-mounted terminal boxes less than four (4) feet high, temporary electrical supply outlets, and meter cabinets, may be placed above ground, subject to the provisions of this Code and in particular:

- ~~1. Chapter 5, Part II [Section 703.510—Standards for Accessory Uses and Structures](#);~~

~~2. Section 709806—Outdoor Lighting;~~

~~3. Section 7431002—Visibility Triangles;~~

~~4. Section 745701—Landscaping; and~~

~~5. Section 748802—Floodplain Management;~~

~~6. Manatee County Public Works Standards; and~~ Manatee County Public Works Standards; and

~~7. Manatee County Electrical Code.~~

B. 722.1.8.5.2—Waiver. The requirement for underground utility lines may be waived by the ~~Planning Director~~ Department Director, if it can be shown by the developer, that due to available technology or unique site conditions, it would not be necessary to install underground utilities. In such cases, utility lines shall be located on back lot lines.

C. 722.1.8.5.3—Easements. For developments located on thoroughfares where utility lines currently are above ground and front the development, rear yard easements of ten (10) feet shall be provided for the installation of underground utility lines or relocating existing utility lines at a future date; provided, that such easements can be properly aligned.

~~722.1.8.6. Drainage. Every development shall have a drainage system that conforms to the requirements and standards of Section 717, Stormwater Management and the Manatee County Public Works Standards. No system or development shall take a form that creates potential or actual impoundment of water on, or discharges water onto, adjacent property in such a manner as to affect existing development, or increase problems of future development on adjacent property, except with recorded easements on the adjoining property affected. Plans and other documentation shall be submitted to and approved by the Planning Department, which will indicate how and where the runoff will be properly disposed. Any improvement specified in an adopted Master Drainage Plan for the proposed development shall be installed by the developer. Off-site improvements required to accommodate the increase of stormwater to a public drainage system shall be borne by the developer. Any damage to the existing public drainage system caused by the developer including siltation shall be corrected and restored as required by the Public Works Department.~~

Commented [LDI70]: Section 722.1.8.6. Deleted and applicable parts moved to section 702.2.

~~722.1.8.7. Landscaping Requirements.~~

~~Landscaping, screening and buffering shall be provided in accordance with Section 715, Landscaping as applicable.~~

~~Section 738, Groundwater/Wellhead Protection.~~

Commented [LDI71]: Doesn't belong in this section, which addresses the provision of public utilities- deleted

Commented [LDI72]: Moved section 738 to chapter 6, environmental protection

Section 804. Section 739. Recreational Open Space Requirements.

804.1. Open Space

A. Open Space Includes. Open space may include, but shall not be limited to:

- ~~1. 4~~ Lawns and other sodded areas, decorative plantings, and naturally vegetated areas, overflow grass or paver block parking areas;
- ~~2. 2~~ Walkways, recreation areas, playgrounds, swimming pools, and ornamental features such as fountains, statues, or similar natural or artificial objects;
- ~~3. 3~~ Natural or artificial water bodies below the shoreline such as lakes which are designed to adequately serve as open space; provided that all such areas comply with the Manatee County Development Standards and do not exceed seventy-five (75) percent of the open space calculation.
- ~~4. 4~~ Landscaped islands, medians and other landscaped areas of a minimum size of ninety (90) square feet, within parking lots.
- ~~5. 5~~ No more than twenty-five (25) percent of the required landscaped and pervious area shall be composed of permeable paving block.

Commented [LDI73]: Moved from definition of Open Space.

B. Open Space does not include. Open Space shall not be deemed to include:

- ~~1. 4~~ Driveways, parking lots made of an impervious surface, streets, sanitary systems, loading areas, or other motor vehicular use areas;

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2. ~~2~~ Any area occupied by a building, except as provided below, for recreational open space;
3. ~~3~~ Any area within an individual residentially zoned or used lot in any subdivision; ~~or~~
4. ~~4~~ Areas so located or so small, or so circumscribed by or interspersed with buildings, driveways, parking lots (with landscaped islands, medians, etc., under ninety (90) square feet in size), public streets or rights-of-way, or private access easements or streets, drainage areas, or similar facilities or structures, as to have no substantial value for the purpose stated in this definition as determined by the ~~Department Director~~ Planning Director; ~~or~~
5. ~~5~~ Natural or artificial water bodies, and wetlands, which may include wet detention/retention facilities which exceed seventy-five (75) percent of the total open space calculation.

C. Types of Open Space. Open space shall include and be qualified as Common Open Space, Landscaped Open Space, Dedicated Open Space, or Recreational Open Space.

804.2. Recreational Open Space

- A. ~~739.1--Intent.~~ It is the purpose of this ~~S~~section to promote the development of a well-integrated open space system of bikeways, pedestrian ways and other public recreational facilities; to assure adequate maintenance of recreational open space facilities; protect and enhance the natural resources and environment; and to implement the Recreation Element and the other applicable elements of the Comprehensive Plan.
- B. ~~739.2--Applicability.~~ The standards of this ~~S~~section shall apply to all applications for proposed residential subdivisions or ~~P~~lanned ~~R~~esidential ~~D~~evelopments which choose to provide recreational open space as part of their open space requirements. This ~~S~~section shall not apply to applications for individual residential ~~B~~uilding ~~P~~ermits, individual ~~manufactured~~ mobile homes or any residential care facility.

~~739.3--Credit~~

~~If an applicant for development approval provides usable recreational open space in meeting their open space requirements, they may receive credit towards any parks and recreation impact fees levied upon the project, subject to the provisions of Chapter 8.~~

C. 739.4--Location.

1. Open Space. Recreational open space, when provided, shall be located within the development or on an adjoining or nearby land which can adequately serve the development, and to the extent feasible shall be closely integrated with any adjoining or nearby existing or planned public park land recreational open space.
2. ~~--Horse Trails.~~ Provisions for linkage of horse trails to, through, and contiguous to adjacent property is encouraged to form a series of horse trails to be integrated with other existing, plan_ned or future open space possibilities. Land used for horse trails shall be kept clean and free of obstructions to assure safe passage of horse and rider. Fencing across horse trails shall not be allowed. The minimum width of horse trails shall be ten (10) feet.
- D. ~~739.5--Quality.~~ Lands designated for recreational open space shall be suitable for their intended purpose, taking into consideration such factors as topography, vegetation, drainage, size, access and relationship to surrounding uses and other factors as determined by the Parks and Recreation Department.
- E. ~~739.6--Dedication.~~ Recreational open space may be dedicated to Manatee County for public park and recreation purposes, if the ~~Director of Parks and Recreation~~ Department Director determines that the land and/or water body to be dedicated is of sufficient size and meets a public park need for the County. When land and/or the water body is dedicated in accordance with this ~~S~~section ~~739~~, the developer shall be eligible for Parks and Recreation impact fee credits in accordance with Chapter 811.
- F. ~~739.7--Dedication Not Required.~~ Where the residential development and recreation open space will be held under single ownership and management, such as for rental apartments; or the recreational open space will be held in common by residents through a homeowner's association, condominium association, cooperative or other legal entity, dedication will not be required with the exception of necessary lands to implement any County bikeway, horse-equestrian trail or pedestrian-way system. When horse-equestrian trails are not dedicated to the ~~e~~County, provisions for public use shall be so stated in the deed document under common open space.

Section 805. ~~907.10.~~-Easements.**805.1. ~~907.10.1.~~-Utility Easements.**

All new development shall provide a Utility easements, at least a minimum of five (5) feet in width, along all front, rear and side lot lines, and ten (10) feet along either the front or rear lot lines, for the express purpose of accommodating surface and underground drainage and overhead and underground utilities ~~shall be required. If all utilities are to be installed underground, then it shall be stated as such on the plat.~~ ~~The above mentioned ten (10) foot rear lot line easement may be reduced to five (5) feet if the contiguous adjoining lot has a minimum of five (5) foot existing public utility easement. All such easements shall be reserved for public use except where otherwise determined by this Code. The exact location and width of said easements relative to the lot lines may vary in certain pre-approved conditions so long as the intent and purpose of these regulations are satisfied. Grading of all utility easements shall be in accordance with the Manatee County Public Works Standards. If all utilities are to be installed underground, then it shall be stated as such on the site plan or subdivision plat.~~

Commented [LDI74]: Moved from above.

All platted utility easements shall provide that such easements shall also be easements for the construction, installation, maintenance, and operation of cable television services; provided, however, no such construction installation, maintenance, and operation of cable television services shall interfere with the facilities and services of an electric, telephone, gas, or other public utility. In the event a cable television company damages the facilities of a public utility, it shall be solely responsible for the damages. This section shall not apply to those private easements granted to or obtained by a particular electric, telephone, gas, or other public utility. Such construction, installation, maintenance, and operation shall comply with the National Electrical Safety Code as adopted by the Florida Public Service Commission.

- A. ~~907.10.1.1.~~-Utility Easements.** Easements for utilities across lots shall be provided where necessary and shall be at least ten (10) feet wide for electricity, telephone, drainage, sewerage, and water. Dimensions shall be provided on preliminary and final plats to adequately locate every easement. Utility and drainage easements, with the exception of easements for drainage outfalls, shall not be located within conservation easements for wetland buffers, ~~see (Section 719.5706.5.)~~
- B. ~~907.10.1.2.~~-Drainage Easements.** Where a subdivision is traversed by a watercourse, drainage way, channel, or stream there shall be provided public stormwater easements or drainage rights-of-way of adequate width to conform substantially to the lines of such watercourse, drainage way, channel, or stream and to provide for the possibility of flood, protection of banks, future maintenance or construction or other necessary purpose. Further, provided that the boundaries of any such easements or rights-of-way shall not be greater than twenty-five (25) feet nor closer than ten (10) feet horizontally from the shoreline, or greater than twenty-five (25) feet nor closer than ten (10) feet, measured horizontally from the top of the bank on each side; whichever is greater. Existing and proposed grades to all easements shall be shown on the construction plans.
- C. ~~907.10.1.3.~~-Slope Easements.** Slope easements shall be provided where necessary to ensure lateral support, protection of streets, adjoining property and other construction features.

805.2. ~~907.10.1.4.~~-Conservation Easements.

Subdivisions that contain wetlands and/or wetland buffers shall provide a Conservation Easement in accordance with Section ~~706.8719.11.1.3~~ of this Code and the Manatee County Public Works Standards.

Commented [LDI75]: Conservation easement requirements should be moved to a development review manual at a later phase

- A. ~~907.10.1.4.1.~~** Conservation Easements inclusive of the areas defined as wetlands and wetland buffers shall be depicted on the plan/plat. The Conservation Easement shall be delineated with a single line representing the most landward extent of the Conservation Easement. Where practicable, the Conservation Easement shall be given a separate tract designation, exclusive of other required easements. Legal descriptions of the Conservation Easement shall be included.
- B. ~~907.10.1.4.2.~~** A separate Conservation Easement document shall be required for each required Conservation Easement. The Conservation Easement document shall be reviewed and approved by the Environmental Management Department and the County Attorney's Office, and shall be submitted to the Land Acquisition Division for execution.
- C. ~~907.10.1.4.3.~~** Witness monuments, in accordance with Section 719.11.1.3.2 of this Code, shall be set at the intersection of any Conservation Easement and lot lines or property boundaries.

Commented [LDI76]: Deleted cross-reference because that section says exactly the same thing.

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~~D. 907.10.1.4.4. Signage.~~ The boundaries of all Conservation Easements, required by this Code, shall be physically identified with signage as approved by the ~~Department~~ Director of ~~Environmental Management~~, as required pursuant to Section 719.11.1.3.3 of this Code.

~~907.10.2. Easements for utilities across lots shall be provided where necessary and shall be at least ten (10) feet wide for electricity, telephone, drainage, sewerage, and water. Dimensions shall be provided on preliminary and final plats to adequately locate every easement. Utility and drainage easements, with the exception of easements for drainage outfalls, shall not be located within conservation easements for wetland buffers, see Section 719.5.~~

Commented [LD177]: 907.10.2.
Repeats old section 907.10.1.1, see above

~~907.10.3. Where a subdivision is traversed by a watercourse, drainage way, channel, or stream there shall be provided public stormwater easements or drainage rights-of-way of adequate width to conform substantially to the lines of such watercourse, drainage way, channel, or stream and to provide for the possibility of flood, protection of banks, future maintenance or construction or other necessary purpose. Further, provided that the boundaries of any such easements or rights-of-way shall not be greater than twenty-five (25) feet nor closer than ten (10) feet horizontally from the shoreline, or greater than twenty-five (25) feet nor closer than ten (10) feet, measured horizontally from the top of the bank on each side; whichever is greater. Existing and proposed grades to all easements shall be shown on the construction plans.~~

~~907.10.4. Slope easements shall be provided where necessary to ensure lateral support, protection of streets, adjoining property and other construction features.~~

Commented [LD178]: 907.10.4.
Repeats old section 907.10.1.3, see above

Section 806. ~~Section 709. Outdoor Lighting.~~

806.1. ~~709.1. Intent.~~

These outdoor lighting regulations intend to protect people and property values from the nuisance and harm of excessive outdoor lighting that:

- ~~A. Hinders or decreases visibility.~~
- ~~B. Glares into the eyes of drivers looking for safe nighttime visibility.~~
- ~~C. Creates a blinding brightness that leaves high-contrast, unsafely dark, shadowed areas.~~
- ~~D. Creates an artificial atmospheric glow that prevents residents from enjoying the night sky around their homes.~~
- ~~E. Spills into the yards, homes and streets of neighborhoods trying to maintain a visually calm residential character.~~

806.2. ~~709.2. Applicability.~~

Unless exempted in ~~Section 806.3-709.3~~, a lighting plan is required to meet these lighting regulations and shall apply to ~~and require a Lighting Plan for:~~

- ~~A. 709.2.1. Development and redevelopment of nonresidential projects, multi-family dwelling residential projects, and common improvements in other residential projects, e.g., recreational facilities.~~
- ~~B. 709.2.2. Outdoor lighting fixtures added to or intensified in nonresidential projects, multifamily projects, and common improvements in single-family residential projects, e.g., vehicle use areas and recreational facilities. Routine maintenance, e.g., cleaning and changing bulbs, ballast, starter, housing, lenses and other similar components, shall not constitute intensification provided such changes do not result in a higher lumen output compared to the fixture when new, i.e., a light brighter than the intensity of the original installation as determined by the lumen rating printed on the bulb, the shipping package, or the specification sheet.~~

806.3. ~~709.3. Exemptions.~~

The following types of lights are exempt from the provisions of this Section:

A. 709.3.1. Low Intensity. Lighting to safely illuminate street address numbers, residential building entries, residential driveways, and residential yards with light sources rated less than eight hundred (800) lumens or with fixtures shielded to block direct illumination beyond these areas.

B. 709.3.2. Streets. Lighting to safely illuminate streets, including but not limited to their driving lanes, sidewalks, roadside recovery shoulders, and emergency lanes. Such fixtures shall have *full horizontal shielding* to prevent direct illumination above the fixture and to minimize direct illumination of residences nearby (see Figure 8-1).

C. 709.3.3. Emergency. Lighting for emergency safety repairs or natural disaster recovery.

D. 709.3.4. Construction. Lighting for building or site construction not exceeding ten (10) days during any consecutive twelve (12) months.

E. 709.3.5. Road and Utility Repairs. Lighting for construction, renovation, or repair of roads and utilities.

F. 709.3.6. Signs. Lighting for signs permitted by this Land Development Code, under the following conditions:

1. **a.** Externally illuminated signs shall have *full oblique shielding* aiming the light down onto the sign (see Figure 8-2). The interior surface of the shield below the lens has a dull and dark finish to prevent reflection of light.

1-2. **b.** Internally illuminated signs shall comply with the Driver Vision Impairment requirements of this Section unless the signs serve only to provide driver directions without interfering with safe driver vision or traffic controls. Interpretation of sign lighting standards is intended to be a function of sign-types and should not be interpreted to regulate the content of signs.

3. **c.** The light from a sign shall not exceed the Measurable Spill Illumination Limits of this Section or violate the Driver Vision Impairment requirements of this Section.

~~d. The extensive illuminated area of the background shall count toward the maximum sign area permitted by sign regulations.~~

G. 709.3.7. Religious or National Symbols and Flags. Lighting for religious or national symbols and flags permitted by this Land Development Code, under the following conditions:

1. **a.** Symbols and flags that need illumination should have *full oblique shielding* but may have spot lights aimed up only to illuminate the symbol or flag.

2. **b.** Internally illuminated symbols shall comply with the Driver Vision Impairment requirements of this Section.

3. **c.** The light for a symbol or flag shall not exceed the Measurable Spill Illumination Limits of this Section or violate the Driver Vision Impairment requirements of this Section.

H. 709.3.8. Underwater Lamps. Underwater lamps in swimming pools and other water bodies for safety.

I. 709.3.9. Safety. Lighting required by government law for safety as follows:

1. **a.** Lamps for exit signs, traffic control, waterway navigation, and aviation navigation shall have no restriction.

2. **b.** Lamps for ramps, stairs, handicap access, boat dock decks, and other safety purposes shall have fully shielded fixtures aiming the light down onto the area requiring illumination by law.

Figure 8 - 1: Vertical cross section of fixture with full horizontal shielding

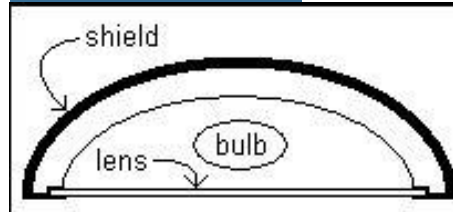
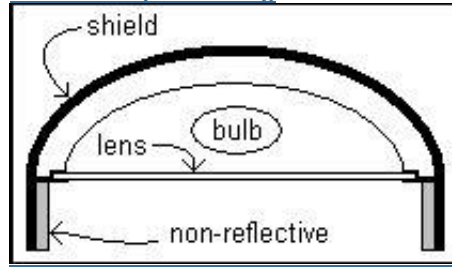


Figure 8 - 2: Vertical cross section of fixture with full oblique shielding



Commented [LD179]: Added intro sentence.

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806.4. ~~709.4.~~ Illumination Limits.

- A. ~~709.4.1.~~ Direct Illumination.** Unless otherwise exempted in **Section ~~806.3-709.3~~**, all outdoor lighting fixtures shall have full oblique shielding (see **Figure 8-2**) so that a property's light sources do not directly illuminate another property that has an outdoor lighting protected area.
- B. ~~709.4.2.~~ Driver Vision Impairment.** Lights shall not impair the vision of drivers and interfere with safe driving. A light source shall have shields to prevent it from glaring into the eyes of drivers where drivers need to see structures, signs, other vehicles, and overhead clearances to a height of sixteen (16) feet. Affected driving areas include streets, driveways, parking lots, and other vehicle use areas on-site or off-site.
- C. ~~709.4.3.~~ Measurable Spill Illumination Limits.** The total illumination caused by all of a property's outdoor lighting, including light sources, diffraction, and reflections from on-site objects, shall not illuminate another property in excess of the following limits:
- ~~a.~~ 0.2 foot-candles on property with outdoor lighting protected areas but not including the street rights-of-way.
 - ~~b.~~ 1.5 foot-candles on street rights-of-way because such limited coincidental illumination of a street will not constitute a nuisance to people using the street.

806.5. ~~709.5.~~ Fixture Height.

~~709.5.1.~~ Fixture height, measured from finished grade at ground level to the bottom of the light source, determines the vertical point from which the light projects downward. Regardless of **the following** height limits, ~~below~~, prevention of spill illumination may require lower heights according to calculations and plots in the **L**ighting **P**lan.

~~**709.5.2. Limits.**~~

- A. ~~709.5.2.1.~~** All light fixtures located within fifty (50) feet of any another property that has an outdoor lighting protected area shall not exceed sixteen (16) feet in height.
- B. ~~709.5.2.2.~~** All light fixtures located within one hundred (100) feet of any another property that has an outdoor lighting protected area shall not exceed twenty (20) feet in height.
- C. ~~709.5.2.3.~~** All other light fixtures elsewhere shall not exceed 30 feet in height.

806.6. ~~709.6.~~ Controllers, Timers and Sensors.

- A. ~~709.6.1.~~** Lights shall not illuminate when not needed. Unnecessary light constitutes a nuisance and a harm that timers, light sensors, switches, motion detectors, and occupancy sensors may prevent.
- B. ~~709.6.2.~~** All electrical circuits for outdoor lighting shall have manually controlled switches conveniently located for manual operation.
- C. ~~709.6.3.~~** Light sensors shall automatically turn off lights when they sense adequate daylight.
- D. ~~709.6.4.~~** Timers shall automatically turn off and turn on lights when their clocks arrive at pre-set times corresponding to the times needing the lights. Alternatively, the controller may dim lights or allow fewer lights to remain on for security and safety. Motion detectors and occupancy sensors may interrupt to turn on lights for timed durations.

806.7. ~~709.7.~~ Special Lights.

- A. ~~709.7.1.~~ Aerial Lights.** No fixture shall aim light upward to search, sweep, or move through the sky.
- B. ~~709.7.2.~~ Accent Lights.** Light used to accent architectural features, fascia, landscaping, art, or similar objects shall not directly illuminate outdoor lighting protected areas. All such light shall terminate on opaque surfaces within the property.
- C. ~~709.7.3.~~ Boat Dock and Marina Lights.**
- ~~709.7.3.1.~~ All lighting for boat docks and marinas, public or private, shall provide shields to prevent spill illumination beyond the property and beyond the permitted boat docking and turning areas.
 - ~~709.7.3.2.~~ If required by government law for safe navigation, then ~~red and green~~ navigation lights may mark channels **and navigational hazards** in the waterways.

Chapter 8. Engineering Design and Utilities

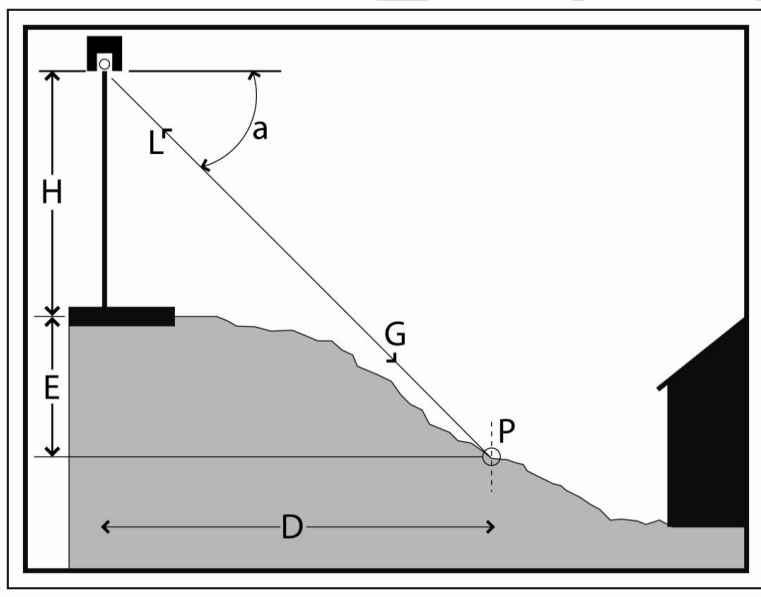
- ~~3. 709.7.3.3.~~ If required by government law for safety, then lamps for boat dock decks shall have fully shielded fixtures aiming the light down onto the area requiring illumination by law.
- D. 709.7.4. Canopy Lights.** An opaque canopy, soffit, or overhang may serve as the required horizontal cut off and fixture shielding for lights fully recessed into the underside of the canopy. Such shielding shall appear as part of the Fixture Detail required on a Lighting Plan.
- E. 709.7.5. Fascia Lights.** Fascia on a canopy shall not include fixtures for outdoor lighting of the site or buildings. A sign on the fascia may include lights to illuminate the sign, but the illuminated area of the fascia shall count toward the maximum sign area permitted by sign regulations.
- F. 709.7.6. Gas Pump, Convenience Business, Automatic Teller Machine, and other Required Security Lights.** Whenever state or federal law requires certain intense illumination levels for security, then the location, intensity, quantity, height, shielding, and aim of such lights shall satisfy such requirement while still complying with these regulations, e.g., preventing direct illumination off-site, to the maximum extent possible.
- G. 709.7.7. Outline Lights.** Illuminated tubing, strings of lights, back-lighted objects, or similar fixtures that outline structures, sales areas, roofs, doors, windows, plants, or similar areas shall not light upward.
- H. 709.7.8. Projection Lights.** All projected light, laser or otherwise, shall terminate on an opaque surface.
- I. 709.7.9. Required Lights.** Whenever state or federal law requires certain illumination, e.g., safe access, then the location, intensity, quantity, height, shielding, and aim of such lights shall satisfy such requirements while still complying with these regulations, e.g., preventing direct illumination off-site, to the maximum extent possible.
- J. 709.7.10. Stadium and Recreation Lights.**
1. ~~709.7.10.1.~~ Whenever players in sporting events and recreational activities require certain intense illumination levels for safety, then the location, intensity, quantity, height, shielding, and aim of such lights shall satisfy such requirement while still complying with these regulations, e.g., preventing direct illumination off-site, to the maximum extent possible.
 2. ~~709.7.10.2.~~ The illumination of outdoor recreational activities shall stop at 11:00 p.m. for the remainder of the night. An activity should not begin earlier if it will normally exceed this time limit. Regardless, an activity already in progress from an earlier starting time may continue with illumination until no later than 11:30 p.m. Other lower level illumination may remain for safe spectator departure and security.
- 806.8. 709.8. Lighting Plan.**
- A. 709.8.1. Purpose.** A lighting plan shall serve to prevent excessive lighting prior to installation of the fixtures and to avoid costly compliance remedies later.
- B. 709.8.2. Submittal.** A Lighting Plan shall accompany all applications for ~~Final Site Plans~~ site development plan approval of development and redevelopment of nonresidential projects, multi-family dwelling residential projects, and common improvements in other residential projects, e.g., recreational facilities. When these regulations require a Lighting Plan but the project does not require a ~~Final Site Plans~~ site development plan, then the plan shall accompany the application for a Building Permit for electrical fixtures. Lighting Plans shall provide enough information to determine the potential for direct illumination of outdoor lighting protected areas, spill illumination, and compliance with ~~this Section~~ the Manatee County Public Works Standards for all lighting not exempted in **Section 806.3.709.3.**
- C. Contents of Lighting Plan**
1. ~~709.8.3. Fixture Locations.~~ A lighting plan shall show the horizontal position of the fixtures on the site.
 2. ~~709.8.4. Fixture Detail.~~ An inset drawing of a typical fixture shall show the directional controls, e.g., shields, reflectors, refractors, and lenses, that will aim and limit the angle of illumination. The detail shall show the vertical angle of illumination that will determine the shielding angle.
 3. ~~709.8.5. Fixture Height and Mounts.~~ The plan shall show the height of the fixtures and describe the mounts, e.g., wall, pole, or canopy.
 4. ~~709.8.6. Direct Illumination Plots.~~ For each and every fixture, the lighting plan shall include a cross-section showing the following measurements (see Figure 8-3) ~~use the fixture shielding angle and fixture height in~~

Commented [LD181]: This section should be moved to a development review manual at a later phase.

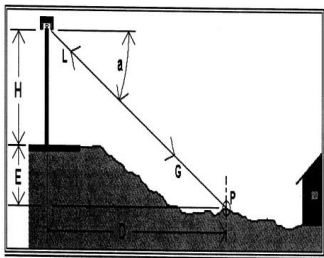
calculations to plot the edge of the projection of the expected direct illumination onto the areas, both on-site and off-site, shown on the plan. The calculations and horizontal plots for each and every fixture shall appear on the plan. The horizontal plotting shall result from the following calculations (Figure 7-2) based on the following illustration:

- a = shielding angle of fixture
- H = vertical distance from the ground to the bottom of the light source
- E = vertical elevation difference between the bottom of the light source and ground level at P
- LG = line along the oblique boundary between the illumination cone and the shielded area above it, i.e., the sight line between the light source and ground level at the edge of direct illumination
- P = projection of the line LG onto the ground level, i.e., also the edge of direct illumination
- D = horizontal distance from light source to P, calculated as follows:
 $D = (H + E) / \tan a$ (tan = trigonometric tangent function)

Figure 8 - 3. Cross section in the vertical plane through a light fixture, pole, and grade



Cross section in the vertical plane through a light fixture, pole, and grade



Calculation of the distance to the edge of direct illumination:

$$D = (H + E) / \tan a$$

Legend for symbols in illustration and calculation:

a	shielding angle of fixture
LG	line along the oblique boundary between the illumination cone and the shielded area above it, i.e., also the sight line between the light source and ground level at the edge of direct illumination
P	projection of the line LG onto the ground level, i.e., also the edge of direct illumination
D	distance horizontally from light source to P
H	height vertically from ground to bottom of light source
E	elevation difference vertically between ground level below light source and ground level at P
/	divided by
tan	trigonometric tangent function

~~5. 709.8.7. Photometric Diagram.~~

~~a. 709.8.7.1. Any of the following conditions require that the Lighting Plan shall also include a Photometric Diagram prepared by a lighting engineer:~~

- ~~i. a. A projection of direct illumination within ten (10) horizontal feet of the property line of outdoor lighting protected areas or a street.~~
- ~~ii. b. A fixture within eighty (80) horizontal feet of the property line of outdoor lighting protected areas or a street.~~
- ~~iii. c. A fixture higher than twenty (20) feet above ground level within six hundred (600) horizontal feet of the property line of outdoor lighting protected areas.~~

~~709.8.7.2. A lighting engineer shall prepare the diagram.~~

~~b. 709.8.7.3. The diagram shall plot foot-candles of illumination calculated:~~

- ~~i. a. For the direction of the most illumination from the light sources;~~
- ~~ii. b. For a height of five (5) feet above ground level;~~
- ~~iii. c. To the nearest tenth (0.1) foot-candle; and~~
- ~~iv. d. At horizontal grid intervals of ten (10) feet.~~

~~c. 709.8.7.4. The diagram shall cover a certain part of the affected street or property having the outdoor lighting protected area. Such part shall include the area within the circle formed with the light fixture at the center and the radius extending one hundred (100) feet into the affected street right-of-way or property of the protected area.~~

~~d. 709.8.7.5. The plotted levels of calculated illumination shall determine if the lighting will comply with the Measurable Spill Illumination Limits of this Section.~~

~~709.9. Review.~~

~~D. 709.9.1. The Planning Department Director of Manatee County shall review the Lighting Plan and determine compliance with this Section.~~

~~709.10. Inspection.~~

~~E. 709.10.1. The Planning Department of Manatee County Director shall inspect the installed lighting fixtures and determine compliance with this Section and the approved Lighting Plan.~~

~~(Ord. No. 91-29, § 3, 11-20-91; Ord. No. 95-19, § 2, 6-21-95; Ord. No. 05-37, § 6, 9-20-05)~~

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