

CHAPTER VI. DESIGN STANDARDS

- 6.1. Applicability.
- 6.2. Drainage.
- 6.3. Roads.
- 6.4. Water and sewer.
- 6.5. Parking and loading areas.
- 6.6. Landscaping and buffers.
- 6.7. Signs.
- 6.8. Floodprone areas.
- 6.9. Wetlands.
- 6.10. Concurrency management and consistency determination.
- 6.11. Architectural guidelines.
- 6.12. Commercial architectural and site design requirements.
- 6.13. Aquatic vegetation
- 6.14. Easements

6.1. Applicability.

These standards shall apply to regulate development allowed by this code. The intent of this chapter is to promote development that is aesthetically pleasing, compatible with the community character of Crescent City, properly served with necessary public facilities and services and compatible with neighboring uses. Design requirements are included for the following categories:

- 1. Drainage.
- 2. Roads and sidewalks.
- 3. Water and sewer.
- 4. Parking.
- 5. Landscaping and buffers.
- 6. Signs.
- 7. Performance standards.
- 8. Floodprone areas.
- 9. Wetlands.
- 10. Architectural standards.

6.1.1. *General requirements.*

- 1. *Phased development.* Each phase of any development shall be designed and improvements installed so that the phase can stand on its own if subsequent phases are not developed.
- 2. *Maintenance.* Maintenance of all improvements shall be the responsibility of the developer until such time as the city explicitly accepts maintenance responsibility. Should the developer fail to properly maintain any improvements, the city may, with notice, undertake the necessary maintenance and recover the cost of such maintenance from the developer.



6.2. Drainage.

6.2.1. *General requirements.* Protection of the water resources in Crescent City is critical to the public health, safety and welfare. Innovative approaches to stormwater management is encouraged and the concurrent control of erosion, sedimentation and flooding is mandatory.

6.2.2. *Policies.*

1. Development projects must be properly designed and engineered to handle drainage retention so as not to adversely impact off-site conditions in terms of both water quality and quantity. The following level of service standards are hereby adopted for drainage for new development and redevelopment: Stormwater facilities shall be designed to accommodate the 25-year/24-hour storm design event and to meet the following water quality and quantity standards:

- a. Water quantity: Peak post-development runoff shall not exceed peak predevelopment runoff rates.
- b. Water quality: Treatment of stormwater runoff shall be required of all development and redevelopment areas. The stormwater treatment system or systems can be project specific, serve subareas within the city or be a system to serve the entire city. Regardless of the area served, the stormwater treatment systems must provide a level of treatment which meets the requirements of Chapter 40C-42, in particular Section 40C-42.025, Florida Administrative Code (FAC) to ensure that the receiving water quality standards of Chapter 17-302, FAC are met and to ensure that the receiving water bodies and their water quality are not degraded below the minimum conditions necessary to maintain their classification as established in Chapter 17-302, FAC.

Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this land development code must ensure that its post-development stormwater runoff will not contribute to pollutants which cause the runoff from the entire improved area or subdivision to degrade receiving water quality and their quality as stated above.

Development and redevelopment projects which are not exempt from the St. Johns River Water Management District (SJRWMD) permitting requirements must also meet the requirements of Chapter 40C-4 and 40C-40, FAC



It is intended that all standards are to apply to all development and redevelopment and that the exemptions, exceptions and thresholds of the SJRWMD, including project size thresholds, are not applicable.

A stormwater management system shall be designed and installed for the development that will contain features to provide for pollution abatement; recharge, where possible; and protection from flooding. The intent of these design standards is to encourage environmentally sound stormwater management practices; they should go beyond simply providing drainage facilities. Emphasis should be placed on the use of upland facilities for stormwater control and groundwater recharge. Developments that sacrifice recharge and upland controls in order to maximize numbers of lots will not be allowed. The city's stormwater management perspective includes the control of both water quantity and water quality.

6.2.3. *Pollution abatement.* Pollution abatement is required and shall be accomplished by:

1. Retention with percolation, or detention with filtration, of the greater of:
 - a. One-half inch of runoff from developed sites which consist of less than 50 percent impervious surface with drainage area of less than 100 acres; or,
 - b. Runoff from the first one inch of rainfall (systems using detention with filtration will be limited to tributary areas of less than ten acres); or,
2. Detention without filtration (wet detention) of the first inch of runoff or 2.5 inches times the impervious area, whichever is greater; or
3. Providing an additional level of treatment equal to 50 percent more than described above and providing for off-line retention or detention of the greater of:
 - a. One-half inch of runoff from developed sites which consist of less than 50 percent impervious surface with drainage area less than 100 acres; or,
 - b. Runoff from the first one inch of rainfall for any areas that discharge to Class I, Class II, or Outstanding Florida Waters (OFW); or,
4. Providing for the same level of treatment as required above for Class I waters for any areas that discharge to stream-to-sinkhole or to drainage wells which are directly connected to the Floridan Aquifer. Monitoring may be required by the city in any drainage system in order to provide assurance that the stormwater management facilities are



functioning as designed and are not having adverse impacts on the water quantity or quality of receiving water bodies or water courses.

6.2.4. *Recharge.* (Reserved)

6.2.5. *Protection from flooding.* Protection from flooding is required and must be accomplished by a design that will provide the following:

1. Areas contributory to land-locked areas with no positive outlet shall provide extended dry detention or retention of the difference in pre- and post-development stormwater runoff volume from the 25-year, 96-hour storm event.
2. Areas that are not contributory to land-locked areas shall have their post-developed peak rate of discharge less than or equal to the pre-developed peak rate of discharge during a 10-, and 25-year frequency, 24-hour duration storm event for each contributing subbasin within the site. For areas tributary to small depressional areas, upstream infiltration is encouraged. Use of these depressional areas often causes groundwater mounding at the depression. If these depressions are used for stormwater management, applicants shall demonstrate that groundwater mounding effects will not adversely affect the quantity or quality of ground and surface waters for build-out conditions.
3. All proposed commercial, industrial, and residential structures are to be flood free during a 100-year frequency, 24-hour duration storm event.
4. All defined evacuation routes or roads which provide the sole ingress or egress to buildings or houses shall be designed and constructed to be passable (less than six inches of flooding) for the 100-year frequency, 24-hour duration storm event.

6.2.6. *Erosion control.* No grading, cutting, or filling shall be commenced until erosion and sedimentation control devices have been installed between the disturbed area and water bodies, watercourses, and wetlands. Vegetated buffer strips shall be created or, where practicable, retained in their natural state along the banks of all watercourses, water bodies, or wetlands. The width of the buffer shall be a minimum of 25 feet on previously developed or platted lots and 50 feet on undeveloped or unplatted lots to prevent erosion, trap the sediment in overland runoff, provide access to the water body, and allow for periodic flooding without damage to structures.

6.2.7. *Disposition of stormwater runoff.* All developments must treat the required pollution abatement volume prior to discharge to receiving waters. When pollution abatement volumes and detention volumes to reduce the peak rate of discharge are incorporated into one facility, the volume of water impounded to



reduce peak discharges in excess of the pollution abatement volume must be discharged by a positive, nonfiltering system. Off-site easements for stormwater management facilities will be required when either of the following conditions exist:

1. The discharge is into any manmade facility for which the city does not have either a drainage easement or right-of-way.
2. The discharge into a natural system is such that the rate or character (i.e., sheet flow vs. concentrated flow) of the flow at the property line has been changed. The easement will be required to a point at which natural conditions are duplicated, and where no adverse impact outside the easement occur. In a situation where an easement already exists, engineering devices (such as skimmers) which are used to minimize the transport of floating debris, oil, and grease remaining in the detention volumes to reduce peak discharges will be incorporated into the design of the outlet control structure. The design of the system will make adequate provision to minimize erosion.

6.2.8. *Development within floodprone areas (100-year flood).* All development within floodprone areas as delineated on the Official National Flood Insurance Program, Flood Insurance Rate Maps, or the latest and best information available, or as determined by the director of public works or city engineer shall comply with the following requirements:

1. Establish, to the satisfaction of the city, the elevation of the 100-year flood.
2. Set the minimum finished floor elevation at 18 inches, or more, above the elevation of the 100-year flood.
3. Provide compensating storage for all flood water displaced by development below the elevation of the 100-year flood. Compensating storage is to be accomplished between the seasonal high water elevation and the estimated 100-year flood elevation. All developments within riverine flood hazard areas shall be designed to maintain the flood carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream.

6.2.9. *Design criteria.*

1. *Methods of computing runoff volume and peak rate discharge.* The design method used to establish runoff volume and peak rates of discharge must be by acceptable engineering techniques approved by the city engineer.
2. *Design storm (minimum).*

TABLE INSET:



Facility	Frequency (Year)	Duration (Hours)
Bridges	50	24
Principal arterial bridges and evacuation routes	100	24
Canals, ditches, swales or culverts for drainage external to the development	25	24
Canals, ditches, swales or culverts for drainage internal to the development	10	24
Detention and retention basins contributory to land-locked areas with no positive outlet	100	24
Major detention/retention structures with a positive outlet. The probable maximum precipitation (PMP) as required by the SJRWMD shall be evaluated PMP	25	24
Minor detention/retention structures with a positive outlet	25	24
Houses/buildings first floor elevation must be 18" or above the 100-year flood elevation	100	24

Major (hazard classification B&C)/minor (hazard classification A) detention/retention structures are based on A, B, C, hazard classification for dams and impoundments as defined by the SJRWMD's applicant's handbook.

Storm sewers shall be designed for the 10-year storm. If SWMM methodology is used, the duration of the storm shall be 24 hours and the rainfall time increment shall be six minutes. If Rational Formula methodology is used, rainfall intensities are to be obtained from the Florida Department of Transportation Rainfall Curves for Zone 7, and time of concentration values are to be obtained from the Federal Highway Administration Kinetic Wave Formula for sheet or overland flows, and from the Manning Equation for concentrated flows (e.g., gutter flow, ditch flow, pipe flow, etc.)

The design frequency for major drainage systems must be increased if deemed necessary by the city engineer or director of public works to protect upstream or downstream properties or to comply with other regulations.

3. *Storm distribution.* Rainfall distribution for stormwater managementsystems is to be in accordance with Soil Conservation Service Type III Rainfall



Distribution. This is also referred to as the SCS Type II Florida Modified contained in the SJRWMD applicant's handbook.

4. *Detention/retention pond criteria.*

- a. *Design criteria for pollution abatement utilizing retention with percolation.* Ponds used for the required retention with percolation may be designed as a separate facility, or pollution abatement may be combined into the design of the retention pond. Ponds shall be designed to reduce the peak rate of flow from the developed site to the peak rate of flow prior to the development of the site. All retention ponds will be designed as dry bottom ponds. The volume of stormwater impounded for pollution abatement will be recovered within a 72-hour time period. The bottom of a required retention pond shall be a minimum of three-feet above the seasonal high water table. Final design infiltration rates will be determined by a Geotechnical Engineer or Professional Geologist. All necessary calculations to support the above shall be submitted to the city.
- b. *Design criteria for pollution abatement utilizing detention ponds without filtration (wet detention).* Ponds shall be designed for the required detention without filtration may be designed as a separate facility, or pollution abatement may be combined into the design of the detention pond required. Ponds shall be designed to reduce the peak rate of flow from the developed site to the peak rate of flow prior to the development of the site.

1. The maximum depth of the pond shall not exceed 12 feet, and as shown in the table below, the percent area of the pond shall be limited by the depth of the pond, i.e., the depth to area relationship of the detention pond without filtration shall be as follows:

TABLE INSET:

Percent Area of Pond	Ponds Depth (feet)
>10	>8
50--70	4--8
25--50	0--4



2. The pond's water storage volume below the outlet structure's control elevation, or the low season water table, shall provide a minimum residence time of 14 days.
3. The pond shall be designed with a littoral shelf in accordance with the following:
 - a. The littoral zone shall be gently sloped, 6:1 (horizontal:vertical) or flatter. At least 25 percent of the wet detention system surface area shall consist of a littoral zone. The percentage of littoral zone is based on the ratio of vegetated littoral zone to surface area of the pond at the control elevation. Above the outlet structure's control elevation, the steepest side slopes shall be 4:1 (horizontal:vertical).
 - b. The pollution abatement volume should not cause the pond level to rise more than 18 inches above the control elevation unless it is demonstrated that the littoral zone vegetation can survive at greater depths.
 - c. Eighty percent coverage of the littoral zone by suitable aquatic plants is required within the first 24 months of completion of the system.
 - d. To meet the 80 percent coverage requirement, planting of the littoral zone is recommended. As an alternative, portions of the littoral zone may be established by placement of wetland top soils (at least a four-inch depth) containing a seed source of desirable native plants. When utilizing this alternative, the littoral zone must be stabilized by mulching or other means and at least the portion of the littoral zone within 25 feet of the inlet and outlet structures must be planted.
4. In lieu of the requirements above, the applicant may provide either of the following:
 - a. At least 50 percent additional permanent pool volume over that specified above; or
 - b. Pretreatment of the stormwater pursuant to subsection 6.2.3 (1 and 2) of the pollution abatement section.
5. The flow path through the pond must have an average length to width ratio of at least 2:1. The alignment and location of inlets and outlets should be designed to maximize flow paths in the pond. If short flow paths are unavoidable, the effective flow path should be increased by adding diversion barriers such as islands, peninsulas, or baffles to the pond. Inlet structures shall be designed to dissipate the energy of water entering the pond.
6. The bleed down structure invert elevations must be at or above the estimated post development wet season water table elevation.



7. Permanent maintenance easements or other acceptable legal instruments to allow for access to and maintenance of the system, including the pond, littoral zone, inlets, and outlets must be provided by the developer.

8. Outlet structures shall be designed with a V-notch weir, or an orifice, for release of the pollution abatement volume such that no more than half of this volume is discharged in the first 60 hours following a storm event. Outlet structures shall be designed to skim floating debris, oil, and grease from an elevation six inches below the control elevation of the outlet structure to an elevation six inches above the design high water level of the pond.

c. *Design criteria for pollution abatement utilizing detention ponds with filtration.* Ponds for the required detention with filtration may be designed as a separate facility, or pollution abatement may be combined into the design of the detention pond. Ponds shall be designed to reduce the peak rate of flow from the developed site to the peak rate of flow prior to the development of the site. All detention ponds with filtration will be designed as dry bottom ponds unless specifically approved otherwise by the city. There will be a minimum of two feet of filter media required for filtering the pollution abatement volume. The volume of stormwater impounded for pollution abatement will be recovered through the filter media within a 72-hour time period. The bottom of a required detention pond with filtration shall be a minimum of three feet above the estimated seasonal high water table. Where this is not possible due to a high water table, the city encourages the use of detention ponds without filtration. Only if a detention pond without filtration cannot be used may the director of public works or city engineer allow under drains to be installed with a minimum invert elevation of one foot below the pond bottom. When placed in the side slope, the under drain shall be installed along the entire perimeter of the pond unless a geotechnical engineer can show to the satisfaction of the city that a lesser amount of under drain can adequately control the high water table and the draw down of the pond. For detention ponds with filtration that are designed to continuously contain water below the under drain, a minimum of six feet of depth below the design low water or "normal" water level shall be designed into the facility.

Final design seepage rates will be determined by a geotechnical engineer or professional geologist. All necessary calculations to support the above shall be submitted to the city.

1. Filtration systems shall:

- a. Provide the capacity for the specified pollution abatement volume of stormwater within 72 hours following a storm event.
- b. Have pore spaces large enough to provide sufficient flow capacity so that the permeability of the filter is equal to or greater than the surrounding soil. The design shall ensure that the particles within the filter do not move. When sand or other fine textured aggregate other than natural soil is used for filtration, the filter material should be of quality sufficient to satisfy the following requirement:



1. Filter material should be washed (less than one percent silt, clay and organic matter); and
 2. Filter material should have a uniformity coefficient of 1.5 or greater but not more than 4.0; and
 3. Filter material should have an effective grain size of 0.20 to 0.55 millimeters in diameter. These criteria are not intended to preclude the use of multi-layered filters nor the use of materials to increase ion exchange, precipitation or the pollutant absorption capacity of the filter.
- c. Include, at a minimum, capped and sealed inspection and cleanout ports which extend to the surface of the ground at the following locations for each drainage pipe:
 1. The terminus;
 2. Every 400 feet; and
 3. At any change in direction greater than 45 degrees.
 - d. Utilize filter fabric or other means to prevent the filter material from moving or being washed out through the under drain pipe.
 - e. Be designed with a safety factor of at least two unless the project engineer affirmatively demonstrates based on plans, test results, calculations or other information that a lower safety factor is appropriate for the specific site conditions. Examples of how to apply this factor include but are not limited to the following:
 1. Reducing the design percolation rate by half,
 2. Doubling the length of the filtration system, or
 3. Designing for the required draw down within 36 hours instead of 72 hours.
 - f. Be designed so that the invert elevation of the perforated pipe is above the seasonal high water table elevation or separated by structural means from the hydraulic contribution of the surrounding water table unless the project engineer demonstrates based on plans, test results, calculations or other information that an alternative design is appropriate for the specific site conditions.
2. Under drain stormwater systems shall:
 - a. Provide the capacity for the specified pollution abatement volume of stormwater within 72 hours following a storm event. The storage volume must be provided by a decrease of stored water caused only by percolation through soil with subsequent transport through the under drain pipes, evaporation or evapotranspiration;



- b. Provide at least two feet of indigenous soil between the bottom of the stormwater holding area and the top of the under drain pipe(s);
 - c. Be designed with a safety factor of at least two. Examples of how to apply this factor include but are not limited to reducing the design percolation rate by half or designing for the required draw down within 36 hours instead of 72 hours;
 - d. Contain areas of standing water only following a rainfall;
 - e. Be stabilized with pervious material or permanent vegetative cover;
 - f. Include, at a minimum, a capped and sealed inspection and clean out ports which extend to the surface of the ground at the following locations of each drainage lateral:
 - 1. The terminus;
 - 2. Every 400 feet; and
 - 3. At any change in direction greater than 45 degrees.
 - g. Utilize filter fabric or other means used to prevent the soil from moving and being washed out through the under drain pipe.
3. Design criteria of detention facilities to protect from flooding. If the site has multiple drainage basins, each developed drainage basin in the site shall limit its peak rate of discharge, or its volume of runoff, to that discharge rate or volume generated from that site's drainage basin prior to development. Supporting calculations shall be submitted and will contain, as a minimum, a runoff hydrograph for the undeveloped and developed site, stage-storage calculations for the detention facility, stage-discharge calculations for the outlet structure, and a runoff hydrograph after routing through the proposed detention facility. All routing calculations shall account for tail water conditions of the receiving facility, and shall be submitted to the city. Credit for seepage through the pond bottom to further reduce the peak rate of discharge, or runoff volume, will not be allowed unless accompanied by supporting documentation prepared by a geotechnical engineer or professional geologist. A minimum of 80 percent of the total volume of water required to attenuate the peak discharge from the facility in excess of the pollution abatement volume must be recovered within ten days after the passage of the design storm. The remaining 20 percent must be recovered within an additional four days. All storage recovery from detention facilities in excess of the pollution abatement volume will be accomplished by a positive, nonfiltering discharge structure only. The use of under drains is prohibited to accomplish the nonpollution abatement volume recovery. The primary outlet structure shall be designed to skim floating debris, oil, and grease from an elevation



six inches below the surface of the pollution abatement volume to an elevation six inches above the design high water level of the pond.

4. *Open channels or retention/detention ponds.*

a. Rights-of-way/easements. Outfall ditches and canals shall have sufficient right-of-way/easements for the facility plus an unobstructed maintenance berm on one or both sides. Said right-of-way/easement shall be contiguous to a public right-of-way/easement and shall allow for suitable access by maintenance equipment. Where the rights-of-way/easement is provided for access only, the minimum width shall be 20 feet. Maintenance berms shall be sloped no steeper than 1/4-inch per foot. Ponds shall have a sufficient right-of-way/easement to allow for installation plus an unobstructed maintenance berm all around the perimeter of the pond.

b. The minimum requirement for maintenance berms is as follows:

TABLE INSET:

Ditch or Canal Top of Bank Width	Minimum Maintenance Berm Required
Less than 16 feet	20 feet one side
16 feet to 32 feet	20 feet both sides
32 feet to 55 feet	20 feet one side and 30 feet on the other side
Over 55 feet	30 feet both sides
<i>Minimum Maintenance Ponds</i>	<i>Berm Required</i>
With fencing perimeter	20 feet all around
Without fencing	10 feet



- c. Areas adjacent to open channels and ponds shall be graded to preclude the entrance of stormwater except at planned locations. Where retention/detention areas are located on the project periphery, the developer may be required to provide additional landscaping or screening to adequately protect abutting properties.

- d. Maximum side slopes:

TABLE INSET:

Open Channels	Maximum Side Slopes Horizontal: Vertical
Less than four feet deep	4:1
Ponds	4:1

- e. Minimum bottom width: The minimum bottom width for ponds and open channels shall be four feet.

- f. *Erosion protection:*

TABLE INSET:

Open Channels	Protection Required
<i>Grade:</i>	
Less than one percent	Grassing and mulch
One to three percent	Sodding
Greater than three percent	Paving (with exception of swales on local roads which must be sodded).
<i>Ponds:</i>	



Side slopes and berms	Sod
Bottom	Grass and mulch

A dense stand of grass is required to be established within all dedicated rights-of-way and easements.

- g. Fencing: Fenced stormwater facilities are discouraged within the city and shall only be allowed if approved by the director of public works. Stormwater facilities require fencing due to steep side slopes which potentially endanger human life. Steep slopes and, therefore, fences are discouraged. If a fence is the only option, then it must be designed as per the following: six-foot-high vinylcoated chain link fence, or better, (e.g., brick wall) along right-of-way around entire perimeter including maintenance berms with an access for maintenance vehicles.
- h. Freeboard--Open channels and ponds: One-foot minimum above design storm high water elevation.
- i. Open channels: With the exception of roadside swales and natural watercourses, open channels shall not be permitted within 100 feet of residential lots or school sites, unless the open channel is fenced, or approved by the director of public works.
- j. Berms constructed on fill: Where fill berms are proposed, calculations supporting the stability of the fill berms are to be submitted by a geotechnical engineer. The applicant shall design all raised bermed stormwater ponds according to SJRWMD criteria (reference Section 17.0 of the SJRWMD Management and Storage of Surface Water Applicant's Handbook).

6.2.10. Hydraulic design criteria.

1. Roadway (pavement) design.

- a. *General.* Good pavement drainage design consists of the proper selection of grades, cross slopes, curb types, inlet locations, etc., to remove the design storm rainfall from the pavement in a cost-effective manner while preserving the safety, traffic capacity, and integrity of the highway and street system. These factors are generally considered to be satisfactory, provided that excessive spreads of the water are removed from the vehicular traveled way and that siltation at pavement low points is not allowed to occur. The guidelines included herein will accomplish these objectives.
- b. *Minimum groundwater and high water clearances.* All streets must be designed to provide a minimum clearance of one foot between the bottom of the base and the seasonal high groundwater table as established by a



geotechnical engineer or professional geologist, or the artificial water table induced by a road underdrain system. Swales will be permitted only when the seasonal high groundwater table, as established by a geotechnical engineer or professional geologist, is a minimum of two feet below the invert of the swale. Swales shall be constructed to allow positive drainage from the pavement to the invert of the swale (i.e., no ponding of water at the edge of pavement).

c. *Curbs and gutters--Types.* All roadway drainage not considered suitable for swale and/or ditch type drainage shall be designed as one of the following:

- a. Miami curb and gutter section; or
- b. Standard curb and gutter section.
- c. Design storm frequency. The design storm frequency to be utilized for the design of pavement drainage shall be as follows:
Arterial streets 10-year, hydraulic gradient line 1.0 feet below the gutter
Collector and local 10-year, hydraulic streets gradient line 0.5 feet below the gutter line

e. *Runoff determination.* The peak rates of runoff for which the pavement drainage system must be designed, shall be determined by the rational method or hydrograph methodology. The time of concentration, individual drainage areas, and rainfall intensity amounts shall be submitted as part of the drainage plans. Minimum time of concentration shall be according to Florida Department of Transportation (FDOT) acceptable methods.

f. *Stormwater spread into traveled lanes.* Inlets shall be spaced at all low points, intersections, and along continuous grades to prevent the spread of water from exceeding tolerable limits. The acceptable limits for arterial and collector roadways are defined as approximately one-half the traveled lane width. Acceptable limits for local subdivision roadways are defined as below the crown of the local road.

g. *Maximum inlet interception rates.* FDOT single type curb inlets shall be located such that a maximum of five cubic feet per second (cfs) is intercepted. FDOT full curb inlets shall be located such that a maximum of nine cfs is intercepted. Bypass flow is limited to a maximum of one cfs. Off-site flows from impervious areas more than 0.5-acre shall be intercepted prior to the right-of-way line.

h. *Inlet types.* Inlet types to be used shall be the latest version of the FDOT, or others approved by the director of public works or city engineer.



i. *Low point inlets.* All inlets at low points (bumps) shall be designed to intercept 100 percent of the design flow without exceeding the allowable spread of water onto the traveled lanes as defined above. On arterial roadways, in order to prevent siltation and to provide for a safety factor against the clogging of single inlets in a bump location, it is required to construct multiple inlets at all bump locations. Preferably, three inlets should be constructed on each side of the roadway, one at the low point and one on each side at a point 0.2 feet higher than the low point.

2. *Storm sewer design.*

a. *Easements.* A 20-foot easement centered on the storm sewer shall be conveyed to the city when the storm sewer is not located within dedicated rights-of-way. Easements shall be contiguous to public rights-of-way and shall allow for suitable access by maintenance equipment.

b. *Design discharges.* Storm sewer system design is to be based upon a ten-year frequency event as referenced in design storm section B of the design criteria. The system shall be designed to handle the flows from the contributory area within the proposed subdivision. Then, the system shall be analyzed a second time to insure that any off-site flows can also be accommodated. This second analysis shall consider the relative timing of the on-site and off-site flows in determining the adequacy of the designed system.

c. *Minimum pipe size.* The minimum size of pipe to be used in storm sewer systems is 18 inches.

d. *Pipe grade.* All storm sewers shall be designed and constructed to produce a minimum velocity of 2.0 feet per second (fps) when flowing full. No storm sewer system or portion thereof shall be designed to produce velocities in excess of ten fps for reinforced concrete pipe, and ten fps for metal pipe, providing that the outlet ends have sufficient energy dissipaters and erosion protection.

e. *Maximum lengths of pipe.* The following maximum lengths of pipe shall be used when spacing access structures of any type.

TABLE INSET:

Pipe Size Maximum Spacing	Structure Access
18 inches	300 feet



24 to 36 inches	400 feet
42 inches and larger	500 feet

f. *Design tail water.* All storm sewer systems shall be designed taking into consideration the tail water of the receiving facility or water body. The tail water elevation used shall be based on the design storm frequency.

g. *Hydraulic gradient line computations.* The hydraulic gradient line for the storm sewer system shall be computed taking into consideration the design tail water on the system and the energy losses associated with entrance into and exit from the system, friction through the system, and turbulence in the individual manholes, catch basins, and junctions within the system.

h. *Allowable materials.* Allowable material for storm sewers and structures shall be in accordance with Florida Department of Transportation standards and specifications, others approved by the director of public works or city engineer, and all other applicable city codes. However, all storm sewers constructed underneath city streets shall be reinforced concrete pipe.

3. *Culvert design.*

a. *Minimum pipe size.* The minimum size of pipes to be used for culvert installations under roadways shall be 18 inches. The minimum size of pipes to be used for driveway crossings shall be 15 inches.

b. *Maximum pipe grade.* The maximum slope allowable shall be a slope that produces a 10.0-fps velocity within the culvert barrel. Erosion protection and/or energy dissipaters shall be required to properly control entrance and outlet velocities.

c. *Maximum lengths of structure.* The maximum length of culvert conveyance structure without access shall be as allowed in the hydraulic design criteria.

d. *Design tail water.* All culvert installations shall be designed taking into consideration the tail water of the receiving facility or water body. The tail water elevation used shall be based on the design storm frequency.

e. *Allowable head water.* The allowable head water of a culvert installation should be set by the designer for an economical installation. When end walls are used, the head water should not exceed the top of the



end wall at the entrance. If the top of the end wall is inundated, special protection of the roadway embankment and/or ditch slope may be necessary for erosion protection.

f. *Design procedure.* The determination of the required size of a culvert installation can be accomplished by mathematical analysis or by the use of design nomographs.

g. *Headwalls requirement.* Headwalls shall be required at all storm sewer or culvert inlets or outlets to and from open channels or lakes.

6.2.11. *Stormwater management plan requirements.*

1. *Stormwater management map.* The project engineer or landscape architect shall include in the construction plans a master stormwater management map showing all existing and proposed features. The map is to be prepared on a 24-inch by 36-inch sheet on a scale not to exceed 1" = 400'. Listed below are the features that are to be included on the map:

- a. Hydrologic boundaries, including all areas flowing to the proposed project.
- b. Project's boundaries and area.
- c. Sufficient topographical information with elevations to verify the location of all ridges, streams, etc. (one-foot contour intervals within the project's boundaries and for proposed off-site improvements).
- d. High water data or critical flood elevations on existing structures upstream of, within, and downstream of the project.
- e. Notes indicating sources of high water data and critical flood elevations.
- f. Notes pertaining to existing standing water, areas of heavy seepage, springs, wetlands, streams, hydrologically sensitive areas, etc.
- g. Existing stormwater management features (ditches, roadways, ponds, etc.).
Existing stormwater management features are to be shown a minimum of 1,000 feet downstream of the proposed development unless the ultimate outfall system is a lesser distance.
- h. Subdivision layouts with horizontal and vertical controls.
- i. Stormwater management features, including locations of inlets, swales, ponding areas, and all works, etc.



- j. Delineation and area of pre-development and post-development subbasins.
 - k. Delineate retention/detention areas and ingress/egress areas for facilities maintenance.
 - l. General type of soils by subbasin (obtain from soil survey of Putnam County), and location of soil borings.
 - m. Ten-, 25- and 100-year flood elevations for any areas in or within 100 feet of the property. The source of these elevations shall also be shown on the plans.
 - n. Description of current ground cover, land use, and imperviousness by subbasin.
2. *Subsoil investigation.* A subsoil report shall be prepared by a geotechnical engineer or professional geologist experienced in the preparation of this type of report. The contents of the subsoil report will be in accordance with design criteria, item D, and as a minimum shall include, but not be limited to, soil borings which indicate American Association of State Highway and Transportation Officials (AASHTO) soil classifications, gradation, determination of existing (24-hour test) and wet season water table, field determined vertical and horizontal soils permeability rates, soils porosity values, and the depth of the relative impermeable soil layer for determining the duration of the vertical infiltration. A minimum of two borings will be taken per retention/detention area. Soil boring locations shall be included in the report.
3. *Stormwater calculations.* Stormwater calculations, sealed by a professional engineer or landscape architect, for all stormwater works, including design high water elevations for all applicable storm events shall include the following:
- a. Pre- and post-development stormwater flows and stages for the site and retention/detention ponds including, but not limited to the following:
 - 1. Pre-development hydrograph, post-development runoff hydrograph to the stormwater pond, and the routed post development hydrograph discharged from the stormwater pond.
 - 2. Pre-development and post-development runoff volumes.
 - 3. Stage-area-storage calculations for the stormwater pond.
 - 4. Stage-discharge calculations for the outfall control structure, including tail water assumptions.
 - 5. Treatment volume and recovery calculations for the stormwater pond and associated swales or works.



6. Soil storage or curve number calculations per subbasin, including impervious calculations.
 7. Time of concentration calculations per subbasin.
 8. 100-year floodplain compensating calculations, if applicable.
 9. Recharge demonstration where required for SCS hydrologic group A soils.
- b. Storm sewer, culvert, and open channel tabulations including, but not limited to, the following:
1. Location and type of structures.
 2. Length of facility and dimensions including diameter, height, and/or width for pipes. Cross-sections for open channels.
 3. Subbasin areas tributary to each structure.
 4. Runoff coefficient or curve number per subbasin.
 5. Time of concentration to the inlet of each structure.
 6. Each stormwater flow to and from the stormwater structure or junction point.
 7. Hydraulic gradient for the applicable storm event, including losses through structures with friction and local loss coefficients.
 8. Estimated receiving water elevation with sources of information, if available.
 9. Velocities for all facilities and details for provisions to control erosion.
- c. Construction plans including, but not limited to, the following:
1. Overall project plan of roads, lots, and retention or detention facilities.
 2. Cross-section of retention/detention facilities.
 3. Typical swale, ditch, or canal sections.
 4. Drainage rights-of-way.
 5. Road plan and profile with groundwater elevation shown in profile.
 6. An erosion control plan.
 7. Overall project grading plan (at one-foot contours) and individual lot grading plans.
 8. Density of the project.

6.2.12. *Proof of legal/operation entity eligibility to satisfy this requirement, the permittee must provide written documentation.* If the entity is a governmental unit, the Permittee must supply written proof in the appropriate form, by resolution, that the governmental entity will accept the operation and maintenance of all of the stormwater management system, including lakes, easements, etc., prior to staff report approval.

1. *Homeowners, property owners, or master associations.* If a homeowners, property owners, or master association is proposed, the permittee must submit the articles of incorporation for the association, and declaration of protective covenants or deed restrictions, as well as a reference map if



referred to in documents. After these are approved, the permittee must furnish the certificate of incorporation and the recording information (official book and page number) for the declaration.

2. *Condominium association.* If a condominium association is proposed, the permittee must supply the articles of incorporation for the condominium association, and declaration of condominium. After the documents are approved, it will be necessary for the permittee to forward a copy of the letter from the department of business regulation, bureau of condominiums stating that the documents are proper for filing.
3. *Association requirements.* The association, be it either a nonprofit association or a condominium association, must comply with the applicable provisions of Florida laws, specifically F.S. chs. 617 or 718.
 - a. *General powers.* The association must have the following general powers which are reflected in the articles of incorporation:
 1. Own and convey property.
 2. Operate and maintain common property; specifically the stormwater management system as permitted by the City of Crescent City and the Water Management District, if required; including all lakes, retention areas, culverts, and related appurtenances.
 3. Establish rules and regulations to include the establishment of a reserve fund for repairs.
 4. Assess members and enforce said assessments.
 5. Sue and be sued.
 6. Contract for services (if the association contemplates employing a maintenance company) to provide the services for operation and maintenance.
 7. The association must have as members all the homeowners, lot owners, property owners, or unit owners.
 8. The association shall exist in perpetuity; however, if the association is dissolved, the articles of incorporation must provide that the property consisting of the stormwater management system shall be conveyed to an appropriate agency of local government. If it is not accepted, then the stormwater management system must be dedicated to a similar nonprofit corporation.
 9. All other powers necessary for the purposes for which the association is organized.
 - b. *Required association stipulations.* The declaration of protective covenants, deed restrictions, or declaration of condominium must set forth the following:
 1. That it is the responsibility of the association to operate and maintain the stormwater management system.



2. The stormwater management system is owned by the association or described therein as common property.
3. That there be a method of assessing and collecting the assessment for operation and maintenance of the stormwater management system.
4. That any amendment which would affect the stormwater management system, including the water management portions of the common areas, must have the prior approval of Crescent City and the water management district, if required.
5. That the declaration of covenants be in effect for at least 25 years with automatic renewal periods thereafter.

c. *Phased projects.*

1. If a property owner's association is proposed for a project which will be constructed in phases, and subsequent phases will utilize the stormwater management system for the initial phase or phases, the association should be created with the ability to accept future phases into the association.
2. If the development scheme contemplates independent associations for different phases, a master association should be formed to include all of the various associations with the master association having the responsibility to operate and maintain the stormwater management system for the entire project.

6.3. Roads.

6.3.1. *General requirements.* Adequate paved access must be provided to all development and must be designed to sufficient standards so as to not become an undue burden on city maintenance. The function of arterial and collector roads to move traffic must be preserved. The character, width, grade and location of all streets and bridges shall conform to the standards in this section and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.

6.3.2. *Arrangement of streets.* The arrangement of streets in any development shall:

1. Provide efficient and orderly hierarchy of streets;
2. Conform with official plans and maps of Crescent City;
3. Be integrated with the street system of the surrounding area in a manner which is not detrimental to existing neighborhoods;
4. Be sure that the use of local streets by through traffic is prevented;
5. When necessary, as determined by the city, provide two separate and remote entrances to the development unless other provisions, such as easements, are made for emergency ingress and egress, and



provided that such entrances will not adversely affect the overall street system;

6. Facilitate and coordinate with the desirable future development of adjoining property of a similar character and provide for local circulation and convenient access to neighborhood facilities.

6.3.3. *Intersections.* Street intersections shall be laid out as follows:

1. Streets shall intersect as nearly as possible at right angles and no street shall intersect at less than 60 degrees.
2. Intersections with an arterial street or highway shall be at least 800 feet apart measured from centerline to centerline.
3. Property lines at street intersections shall be rounded with a minimum radius of 25 feet. At an angle of intersection of less than 75 degrees, a greater radius shall be required.
4. On any arterial street within 150 feet of its intersection with another arterial street or thoroughfare, the right-of-way width shall be increased by at least ten feet on both sides to permit proper intersection design. This additional right-of-way shall be dedicated or conveyed as a public right-of-way easement.
5. Intersections shall be designed to avoid the connection of more than two streets.

6.3.4. *Minimum right-of-way and pavement widths.* Street minimum rights-of-way and pavement widths shall be as follows unless otherwise indicated or required:

TABLE INSET:

	Right-of-Way in Feet		Pavement in Feet	
	Curb and Gutter	Rural	Between Curb and Gutter	Rural
4-lane arterial	100	200*	12'/lane**	12'/travel lane
Arterial	80	100	30	24
Collector	60	80	24	24
Local	50	70	24	24



Cul-de-sac (radius)	44	50	36	36
Service drive	50	70	24	24

*Or as approved by the public works director.

**Left-turn lanes, acceleration, deceleration lanes, etc., may be required by the public works director.

6.3.5. *Additional right-of-way or pavement width.* Additional right-of-way or pavement width may be required to promote public safety and convenience or to ensure adequate access, circulation and parking. Whenever any street shows future need for improvement within the area to be developed, the appropriate right-of-way and pavement shall be required. Where a subdivision or site abuts or contains an existing street of inadequate right-of-way or pavement width, additional right-of-way and pavement in conformance with minimum city standards shall be required.

Half streets shall be prohibited and where a previously dedicated half street, improved or unimproved, abuts or is within a tract to be developed, the second half of the street shall be dedicated and improved according to city standards. On divided two-lane roads (boulevards), minimum pavement width for each lane shall be 20 feet, exclusive of curbs, if any. On undivided or divided four-lane roads, minimum lane widths shall be 12 feet each, with provisions for left-turn storage, acceleration, deceleration, tapers or channels as may be required by the public works director and/or the department of transportation.

Whenever an island is proposed in the center of a cul-de-sac turnaround, the pavement shall be 20 feet, exclusive of curbs, if any.

Right-of-way requirements shall be based upon a twenty-year planning period according to the most current transportation plan as may be adopted. All rights-of-way shall be transferred to the governing agency by means of a recorded deed, subject to official acceptance by the governing agency.

6.3.6. *Reduced right-of-way and pavement widths.*

1. In certain situations the city may allow for reduced right-of-way and pavement widths. In order to qualify for consideration of these standards the following must be incorporated into site design.
 - a. Homes must be designed and constructed in conformance to the architectural standards contained in this chapter.
 - b. Two, 3 1/2-inch live oak trees must be planted at the edge of the right-of-way for each lot within the subdivision.
 - c. The subdivision plan must conform to the existing grid system of streets currently existing in the city if possible.
2. The following criteria shall be established for reduction in right-of-way and pavement widths:

TABLE INSET:



Number of Lots	ROW Width	Pavement Width	Travel Speed	Parking	Drainage
Up to 15	44 feet	18 feet	15 mph	None	Closed
15--30	46 feet	20 feet	20 mph	None	Closed
30--45	48 feet	22 feet	20 mph	One side	Closed

- a. This criteria may only be applied to local roads. Collectors and arterials must meet standard right-of-way and pavement width requirements.
- b. Hammer head turns and reduced cul-de-sac radii may be considered in the design.

6.3.7. *Access.* Access shall be provided as follows:

1. The minimum number of access points to adequately serve the development shall be provided.
2. In order to provide ease and convenience in ingress and egress to private property and the maximum safety with the least interference to the traffic flow on public streets classified major collector and above, the number and location of driveways shall be regulated by the dedication of access rights to the city.
3. Streets stubs cross-access easements to adjoining undeveloped areas shall be provided when required to give access to such areas, to limit access points, or to provide for proper traffic circulation. Streets stubs in excess of 250 feet shall be provided with a temporary cul-de-sac turnaround.
4. Tapers, deceleration lanes, acceleration lanes, left-turn lanes, bypass lanes, median modifications or other design features may be required to protect the safe and efficient operation of the access street.
5. Every lot or parcel shall be served from a publicly dedicated street; however, a developer may retain as private a local street if the following conditions are met:
 - a. Public right-of-way is not required in order to serve adjacent development that is existing or projected.
 - b. A permanent access easement is granted for service and emergency vehicles and for maintenance of public and semipublic utilities.
 - c. A reciprocal easement for ingress and egress is granted all residents of the development.
6. Pave to nearest paved public road. All lots shall front on a paved road. A development shall abut, or have as its primary access, a street paved to the



city standards of this code. The developer shall pave from the entrance of the development to the nearest public paved road. Additional paving may be necessary based upon site conditions and the nature of the use. The director of public works shall determine the extent of the paving necessary to serve the site.

7. Permits. Necessary roadwork permits from the department of transportation, county and city must be obtained prior to a building permit being issued.
8. Access limitations shall be as follows:
 - a. No new residential development shall create any parcels zoned for single-family or duplex residential uses having access on an arterial or collector.
 - b. Parcels fronting on arterial or collector roads shall gain access to the arterial by satisfying the following conditions as applicable:
 1. Access to the parcel is provided jointly through existing cut(s) of an adjacent property; cross-access easements shall be provided.
 2. Access to the parcel is to be provided from a frontage road paralleling the arterial which has been planned and officially approved by the city.
 3. For corner parcels, access will be provided to the collector facility where minimum arterial frontage requirements are not satisfied.
 - c. Access rights. All frontages along arterials and collectors exclusive of approved road cuts or driveway cuts shall have the access rights dedicated to the city to prevent future cuts.

6.3.8. *Commercial/industrial driveways and internal circulation.*

1. Vehicular circulation must be completely contained within the property and vehicles located within one portion of the development must have access to all other portions without using the adjacent street system.
2. Acceptable plans must illustrate that proper consideration has been given to the surrounding street plan, traffic volumes, proposed street improvements, vehicular street capacities, pedestrian movements and safety.
3. No driveway shall be constructed in the radius return of an intersection.

6.3.9. *Pavement (or curb) radii at intersections.* The minimum intersection radii of pavement edge, or back of curb, where used, at all typical intersections approximating a right angle shall be as follows:

TABLE INSET:

Category	Minimum
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	Radius (feet)
Two-lane access	25
Local to collector	30
Local or collector to arterial	40

A taper or deceleration lane may be required on roads with a functional classification of minor collector or higher or 35 miles per hour or greater. Appropriate special radii shall be designed, subject to approval by the city engineer, for other than right-angle intersections.

6.3.10. Service drives/frontage roads.

1. *Area of jurisdiction.* Service drives/frontage roads shall be provided along both sides of arterial and major collector roadways.
2. *Development criteria:*
 - a. Unless prohibited by natural or topographic limitations, or where it is deemed otherwise inappropriate, impractical, or infeasible, a 35-foot service drive/frontage road easement shall be provided along both sides of arterial roadways extending the entire length of all parcels of land proposed for development and fronting on the roadway.
 - b. In areas where development is isolated or where it is not feasible for the developer to install a service drive/frontage road at the time of development, the city shall require the developer to enter into an agreement to provide the service drive/frontage road at a time designated by the city. The developer shall post a performance bond in the amount of 110 percent of the total construction cost. The amount of the performance bond must be approved as adequate by the director of public works. Bonding requirements may also be met by, but not limited to the following:
 1. Escrow deposit, cashier check, or certified check, or
 2. Other obligations, as approved by the planning and zoning official, which may include developer/lender/city agreement for providing public improvements, assignment of interest bearing certificate of deposit, or developers agreement.
 - c. The service drive/frontage road easement shall be provided beginning at the DOT right-of-way as follows:
 1. A ten-foot area for landscaping and drainage which shall include live oaks meeting the minimum requirements of the landscaping regulations planted at 20-foot intervals; and



2. Grass ground cover.

- d. The property owners, developers, tenants, agents, and/or successors in title shall be responsible for paying all costs associated with construction of the service drive/frontage road.
- e. Unless prohibited by natural design limitations, all service drive/frontage road cuts shall coincide with existing median cuts.
- f. The service drive/frontage road shall be constructed to meet minimum standards for roadway construction as adopted in this code.
- g. Building setbacks and buffers shall be measured from the edge of the service drive/frontage road easement.

3. *Variances.* Variances to the standards set forth herein may be granted when the site conditions are such that the construction of a frontage road is infeasible, variances may be granted by the planning and zoning commission. However, in consideration of variances the commission shall determine whether it is necessary to provide cross access easements in lieu of the service drive/frontage road easement.

6.3.11. *Street jogs.* Street jogs with centerline offsets of less than 200 feet shall be avoided, except where topographic conditions make this provision impractical.

6.3.12. *Culs-de-sac.* Permanent dead-end streets shall not exceed 1,200 feet in length without special permission of the planning and zoning commission where, due to unusual circumstances, a greater length may be deemed necessary. However, in no case, shall more than 45 dwelling units front on any cul-de-sac. There may be provided in the center of the turnaround an unpaved island, surrounded by a curb, improved with grass, and landscaping that will not interfere with sight distance, which has a diameter of not less than 20 feet.

6.3.13. *Street grade.* Minimum centerline grade for all streets with curb and gutter shall be 0.24 percent. Maximum centerline grades for arterial streets shall not exceed six percent. Maximum grades for all other streets shall not exceed ten percent.

6.3.14. *Sight distance.* All development, with the exception of single-family residential on local streets, shall comply with the sight distance specifications contained in the "F.D.O.T. Green Book."

6.3.15. *Street names.* New street names shall not duplicate, or closely approximate phonetically, in spelling or by use of alternative suffixes, such as "lane," "way," "drive," "court," "avenue" or "street," the names of existing streets,



except that a new street that is an extension of or in alignment with an existing street shall bear the same name as that borne by such existing street.

6.3.16. Blocks.

1. *General.* The length, widths and shapes of blocks shall be determined with due regard to:

- a. Provision of adequate building sites suitable to the special needs of the type of use contemplated.
- b. Zoning requirements as to lot sizes and dimensions.
- c. Needs for convenient access, circulation, control and safety of street and pedestrian traffic, and fire protection.
- d. Limitations and opportunities of topography, with special emphasis on drainage of the proposed subdivision and the possible adverse affects of that drainage on properties surrounding the subdivisions.
- e. Limitations and opportunities of topography, with special emphasis on drainage of the proposed subdivision and the possible adverse affects of that drainage on properties surrounding the subdivisions.

2. *Block length.* Block length shall not exceed 500 feet nor be less than 330 feet between intersecting streets, except that the planning and zoning commission may, where special conditions exist, approve blocks of greater length.

3. *Pedestrian crosswalks.* Pedestrian crosswalks, where used, shall be in accordance with the "Manual on Uniform Traffic Control Devices."

4. *Nonresidential blocks.* Such blocks require length sufficient to serve the intended use without adversely affecting traffic circulation of existing or proposed surrounding streets. The width shall be sufficient to provide adequate service areas and parking without requiring excessive points of ingress and egress on abutting streets or requiring vehicular maneuvering on public rights-of-way. Lots within such blocks shall require a common vehicular access easement dedicated to the use, maintenance and benefit of all lots within the block, or a marginal access street shall be provided to prevent points of ingress and egress from each lot to the abutting street.

6.3.17. Specifications for improvements.

1. *Clearing and grading of rights-of-way.* The developer shall clear all rights-of-way and recovery areas which shall conform to minimum standards, according to the "The Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets," prepared by Florida State Department of Transportation, in accordance with F.S. § 335.075. Clearing of trees will be under the direction of the public works director. All grades, including grades for streets, alleys and drainage, shall be consistent with grades approved for the subdivision. All debris shall be removed from rights-of-way.



2. *Paving.* All unstable materials, such as muck, peat, plastic clays, or marls, shall be removed from roadbed areas. The areas then shall be back filled with suitable material, and the sub grade stabilized to a depth of ten inches below the base course to 75 pounds per square inch, Florida Bearing Value. The materials to be added for stabilization, if needed, shall be either high-bearing soil, sand clay, ground lime rock or any other material which is suitable. (Muck shall not be used.) For rural sections, subgrade shall be stabilized to include the entire width of both shoulders. Where curb and gutter is utilized, sub grade shall be stabilized underneath the curb and for a distance of one foot beyond the back edge of curbs. Written test results, taken by a competent testing laboratory, shall be submitted giving Florida Bearing Value sufficient to obtain uniform results for each and every type of soil appearing in the roadbed or at random locations designated by the city.

After the subgrade is mixed, brought to grade and ready for base course construction, it shall be tested for density.

Written test results by a competent testing laboratory shall be submitted showing not less than 98 percent modified maximum density for samples taken not more than every 250 feet apart, alternating from side to center, thence to opposite side and back to center, etc., or, in addition, wherever the city may require, prior to commencing immediately following the density test.

Separate test results will be required if stabilization is performed under curb areas separately from stabilization of the roadbed.

3. *Base courses.* Base courses shall be eight inches thick for all arterial streets, and all streets in a commercial or industrial subdivision, and six inches thick for residential collector and local streets.

Base courses shall consist of compacted Ocala lime rock. Soil cement may be used with the approval of the public works director. Base courses shall extend six inches beyond edge of paving where curb and gutter is omitted.

- a. Lime rock base courses, including the materials to be used, shall be constructed in accordance with the latest applicable Florida DOT specifications, and shall be compacted in one layer if six inches thick or two layers if eight inches thick.

Following compaction, written test results shall be submitted showing not less than 98 percent modified maximum density for samples taken not more than every 250 feet apart, alternating from side to center, etc., or in addition, wherever the city may require.

Tests shall be required for each layer if construction is in two layers. The contractor shall make borings in areas designated by the city to enable measures of thickness.

Finished lime rock base courses shall be primed without delay and continuously maintained free of damage until the wearing surface is applied. The wearing surface shall be applied immediately upon completion, but in no case, later than 15 days.



- b. Soil cement base course. The composition and constituents of this base course shall be under the design and construction supervision of a competent commercial engineering and testing laboratory which shall have an engineer registered in Florida as one of the responsible officials of the laboratory. Design mix and test results shall be submitted prior to construction. Sufficient mixing shall be performed to produce a homogeneous mix of uniform color, and the city shall be called and inspection shall be made prior to commencing mixing operations.

Soils cement base courses shall not be constructed until after subgrade construction has been completed and required sub grade test results have been submitted in writing and approved by the city.

The finished base course shall be primed without delay, protected from heavy traffic, and continuously maintained free of damage until the wearing surface is applied. If not barricaded, and light traffic is permitted over the completed and primed base course, it shall be sanded sufficiently to prevent pickup. All bad areas shall be cut out and replaced.

Assuming acceptable curing, the wearing surface shall be applied no sooner than seven days and no later than 30 days after completion.

The contractor shall make borings in areas designated by the city to enable measurement of thickness.

4. *Wearing surface.* The material used for the wearing surface shall be a Florida DOT asphaltic concrete mix of Type SIII, or Florida DOT modifications thereof including SuperPave, having a Hubbard-Field Stability of not less than 2,000 pounds. The wearing surface shall have a compacted nominal thickness of 1 1/4 inches with a tolerance of one-fourth inch, with an absolute minimum of one inch compacted thickness. On all arterial streets and all streets in commercial or industrial subdivisions, the wearing surface shall be constructed no less than 1 3/4 inches thick in any place, with a tolerance of one-fourth inch. Ponded water due to paving inaccuracies shall be limited to a water depth of no greater than one-fourth inch. Ponding in excess of this depth shall require correction.

A certified copy of the design mix shall be filed with the city, stating the type and design stability of the product used. Any deviation from this stability requirement will be considered only after review and documentation of the special circumstances. The completed road shall be guaranteed by maintenance bonding for a period of two years.

5. *Driveways.* All driveways shall be paved from the edge of the paved road to the property line using asphaltic concrete as specified in this section or cement concrete pavement with 3,000 pounds per square inch (psi) and five inches thick. Single family residential driveways shall be a minimum of 12 feet and maximum



of 18 feet in width. Commercial driveways shall be a minimum of 12 feet wide per each direction of travel.

6. *Sidewalks.* Concrete sidewalks, a minimum of five feet in width (except as indicated hereafter) and four inches thick (six inches thick in driveways) with expansion joints constructed every five feet, shall be constructed on both sides of all streets, except where individual lot sizes are one acre in size or larger, wherein the city may require a concrete sidewalk on one side of the street. If alternative path systems are approved instead of sidewalks, specifications for materials and design shall be approved by the city.

7. *Erosion control.* Seeding, mulching, sodding and/or other acceptable methods shall be performed as required to prevent undue erosion during all construction activities. The developer shall be required to keep accumulations of sand and earth out of the curb and gutter. Temporary siltation basins may be required during construction. Maintenance shall be provided by the developer for the two-year period of the road guarantee and for each lot until final inspection is passed.

8. *Street name signs, pavement marking and regulatory signs.* Required signs must be in place prior to city acceptance of the street. All signing and pavement marking shall be in accordance with the Florida DOT Manual entitled, "Uniform Traffic Control Devices for Streets and Highways," and shall be approved by the city. If, at any time prior to final acceptance, an unforeseen need becomes apparent for signing or pavement markings that were not shown on the approved plans, the city reserves the right to require the additional sign(s) or markings in the interest of public safety and as a condition of city acceptance.

9. *Street name signs.* Street name signs shall be six inches in width with lettering four inches in height on 0.6 inch anodized aluminum. Signs must use silver reflective lettering with green Scotchlite high-intensity reflective background or equivalent. Street name sign poles shall include a two-inch galvanized-type support set in concrete.

Major streets shall be provided with at least two street name signs at the intersection on diagonally opposite corners.

10. *Regulatory signs.* "STOP" signs shall be required at every street intersection as a condition for acceptance of subdivision paving and drainage improvements and shall be in place prior to final inspection. The developer shall furnish and erect regulatory signs as required by the city. Regulatory signs must conform to the specifications in the "Uniform Traffic Control Manual" and locations of signs shall be subject to approval by the city.

6.3.18. *Traffic impact analysis.*

1. A developer shall prepare, or have prepared, and provide the city with a traffic impact analysis when determined to be necessary by the city.



2. The analysis of traffic impacts will provide the following findings and appropriate methodologies utilized in determining the findings:
- Total average projected average daily trips for the site in question.
 - Design capacity of the accessed or impacted road(s).
 - Average projected peak-hour trip projections for the site in question.
 - Analysis of projected on- and off-site traffic patterns, e.g., turning movements.
 - Projected percentage of truck traffic.
 - Recommended improvements made necessary by the development.
 - Other related information as required by the city.
 - Existing and resulting level of service on accessed or affected roads.

3. The traffic impact analysis shall be prepared by a qualified traffic engineer.

6.3.19. *Sidewalks.* Concrete sidewalks, a minimum of five feet in width, four inches thick (six inches in driveways), shall be constructed on both sides of all streets, except where the city determines the area to be rural in character and sufficiently served by sidewalks on only one side of the road.

6.3.20. *Standard street lighting.* If street lighting is proposed, the lights shall be spaced no greater than 100 feet apart and shall be limited to the following types:

- Thirty-foot concrete pole, six-foot extension arm, with a 150 watt cobra high pressure sodium light and underground conductor.
- Twenty-five-foot fiberglass pole with a bird cage type head, 100 watt high pressure sodium light and underground conductor
- Ten-foot fiberglass pole with an acorn type globe, 100 watt high pressure sodium lamp and underground.

6.4. Water and sewer.

Water and sewer systems shall be designed according to engineering standards as may be adopted by the city. The following standards shall be followed:

6.4.1. *Water facilities.*

- All development is required to be on the city's central potable water system, except when prohibited by law or not available. Availability shall be defined as follows:

TABLE INSET:

Single-family residential	Within 200 feet



Minor subdivisions	Within 500 feet
Minor site plans	Within 1,000 feet
Site plans less than 10,000 sq. ft.	Within 1,000 feet
Site plans greater than 10,000 sq. ft. but less than 30,000 sq. ft.	Within 2,500 feet
Site plans greater than 30,000 sq. ft.	Unlimited
Subdivisions less than 15 lots	Within 1,000 feet
Subdivisions greater than 15 lots but less than 40 lots	Within 2,500 feet
Subdivisions greater than 40 lots	Unlimited

6.4.2. *Sewer facilities.*

1. All development is required to be on central sewer except as stipulated in subsection 6.4.3.
2. Applicants for development in areas not accessible to existing sewer systems shall construct and dedicate a dry line system to the city and submit a plan for future tie-in to the appropriate area-wide system, including method of financing the tie-in.

6.4.3. *Septic tank.* Septic tanks are not permitted when central sewer is available on the following basis:

TABLE INSET:

Single-family residential	Within 200 feet
Minor subdivisions	Within 500 feet
Minor site plans	Within 1,000 feet
Site plans less than 10,000 sq. ft.	Within 1,000 feet
Site plans greater than 10,000 sq. ft. but less than 30,000 sq. ft.	Within 2,500 feet
Site plans greater than 30,000 sq. ft.	Unlimited
Subdivisions less than 15 lots	Within 1,000 feet



Subdivisions greater than 15 lots but less than 40 lots	Within 2,500 feet
Subdivisions greater than 40 lots	Unlimited

Developments proposed with individual wells and/or septic tank disposal fields shall conform to the standards of Putnam County, the Florida Department of Health and Rehabilitative Services and the Florida Department of Pollution Control, whichever is the more restrictive.

6.4.4. *Fire flow and hydrant requirements.* Central water systems shall be designed and constructed for an economic life of not less than twenty years and in accordance with the fire protection requirements of the Insurance Services Office (ISO). The standard water and sewer construction specifications shall be used as a minimum standards requirement. Where this requirement cannot be achieved through the city water system, design calculations shall be submitted in accordance with the appropriate pamphlet of the National Fire Protection Association, to provide ground or elevated storage and auxiliary pumps. Lines to which hydrants are connected shall be a minimum of eight inches in diameter. All mains shall be looped on the minimum size required for the area, when practical as determined by the City. Fire hydrants shall be spaced every 600 feet along the main in single-family residential areas and 300 feet for other development. Location of all hydrants shall be subject to the approval of the city. Fire-flow tests will be conducted by the city upon completion of construction and must conclusively demonstrate that engineering and construction standards have, in fact, produced the requisite fire flows prior to occupancy of the structure. The minimum fire flow must be 600 gallons per minute (gpm) with 20 pounds per square inch (psi) residual pressure in single-family residential areas and 1,500 gallons per minute (gpm) with 20 pounds per square inch (psi) residual pressure for other development. Any corrective action required will be at the developer's cost and in accordance with the standards above. Exceptions may be made with the approval of the fire chief and the public works director.

6.5. Parking and loading areas.

6.5.1. *General.*

1. *Permanent reservation:* Areas reserved for off-street parking or loading in accordance with the requirements of this section shall not be reduced in area or changed to any other use unless the permitted use which it serves is discontinued or modified, except where equivalent parking or loading space is provided.
2. *Determining required off-street parking and loading and unloading spaces:*
 - a. When units or measurements determining the number of required off-street parking and off-street loading spaces result in a measurement of a fractional space, any fraction up to and including



one-half shall be disregarded and fractions over one-half shall require one off-street parking or off-street loading space. Provided, however, the before-mentioned provision waiving fractional units of measurements shall not apply to the first off-street loading and unloading space.

- b. As required under the off-street loading and unloading regulations set out in subsection 6.5.10, the space provided for loading and unloading purposes shall not be construed as providing required off-street parking space.

6.5.2. *Off-street parking requirements.* There shall be provided, at the time of erection of any main building or structure, or at the time any main building is enlarged or increased in capacity by adding dwelling units, guest rooms or floor area, minimum off-street parking space with adequate provision for ingress and egress. An off-street parking space shall consist of a minimum net area of 200 square feet, with a minimum width of ten feet and a minimum length of 20 feet, exclusive of access drives or aisles adjacent thereto. The following minimum number of spaces shall be provided:

1. *Dwelling structures:*

- a. Single, duplex and multifamily: At least two spaces for each dwelling unit shall be provided. In multifamily areas, at least one additional space per three units will be provided for visitors.
- b. Hotels and motels: One space for each unit plus one space for each employee plus parking as may be required for accessory uses (including restaurants, conference and banquet rooms and retail store(s). Parking for all accessory uses shall be one space per six people based on occupancy load requirements.
- c. Rooming, boardinghouses or dormitories: One space for each bedroom.
- d. Retirement centers: One space per dwelling unit plus parking as may be required for accessory structures in accordance with established standards.
- e. Adult living facilities: One space for each four licensed beds plus one per employee on the largest shift plus one per company vehicle.

2. *Commercial:*

- a. General business or personal service establishments: One space for each 250 square feet of gross floor area.
- b. Office buildings: One space for each 300 square feet of gross floor area.
- c. Restaurants and other eating establishments: A minimum of 10 spaces plus one space for each 100 square feet of floor area devoted to patron use, plus one space for each two employees on the largest shift.



- d. Furniture and appliance stores: One space for each 200 square feet of gross floor area up to 10,000 square feet and one space for each 600 square feet over 10,000 square feet.
 - e. Convenience stores: One space for each 100 square feet of gross area.
 - f. Gas and service stations: Three spaces for each bay plus one space for each employee on the largest shift.
 - g. Commercial not catering to the retail trade: One space for each two employees on the largest shift plus one space for each company vehicle operating from the premises.
 - h. Bowling alleys: Five spaces for each alley.
 - i. Commercial recreation (skating rinks, miniature golf, go-cart trucks, etc.): One space for each employee plus one space for each three persons the facility is designated to accommodate.
 - j. Flea markets: Three spaces for each table, counter or booth.
 - k. Shopping centers: One space for each 250 square feet of leasable floor area.
3. *Manufacturing*: One space for each 500 square feet of gross floor area.
 4. *Warehouse*: One space for each 1,000 square feet of gross floor area.
 5. *Hospitals, sanitariums and convalescent homes*: Two spaces per bed.
 6. *Kennels and animal hospitals*: Four spaces plus one space for each 600 square feet of covered area over 3,000 square feet.
 7. *Schools and public buildings*: One space for each four seats in the main auditorium or place of assembly.
 8. *Theaters*: One space for each ten seats.
 9. *Stadiums and arenas*: One space for each five seats.
 10. *Child care centers*: One space for each employee, plus one space for each ten clients.
 11. *Libraries and museums*: One space for each 300 feet of area open to the public.
 12. *Churches, temples, or places of worship*: One space for each three seating places in the main auditorium.
 13. *Golf and gun clubs*: One space for each five members.
 14. *Private clubs or lodges*: One space for each ten members.



6.5.3. *Downtown exempt district.* (reserved)

6.5.4. *Location of off-street parking spaces.*

1. Parking spaces for all dwellings shall be located on the same lot with the main building to be served.
2. Parking spaces for other uses shall be provided on the same lot or on a lot of not more than 500 feet distance as measured along the nearest pedestrian walkway.
3. Parking requirements for two or more uses, of the same or different types, may be satisfied by the allocation of the required number of spaces of each use in a common parking facility.

6.5.5. *Parking space and aisle size requirements.* Off-street parking areas shall be designed so as to meet the minimum dimensions as shown on the following table:

TABLE INSET:

Parking Angle (degrees)	Stall Width (feet)	Stall to Curb (feet)	Access Aisle One-way (feet)	Curb Length (feet)
0	10.0	10.0	12.0	22.0
30	10.0	18.7	12.0	20.0
40	10.0	20.5	13.0	15.6
45	10.0	21.2	13.0	14.1
50	10.0	21.8	13.0	13.1
60	10.0	22.3	18.0	11.6
70	10.0	22.2	18.0	10.6
80	10.0	21.4	24.0	10.2
90	10.0	20.0	24.0	10.0



Minimum aisle widths shall be 12 feet for one-way traffic and 24 feet for two-way traffic.

6.5.6. *Parking garages.*

1. *Parking space and aisle dimensions:* Dimensions shown in subsection 6.5.4 apply. Depending on the needs of the use being served by a particular parking garage, space and aisle sizes may be reduced subject to the approval of the city.
2. *Compact spaces:* Up to 30 percent of the required parking spaces in any parking garage may be designed as compact spaces. Such spaces must be prominently marked and posted. Minimum compact space size shall be 8.5 feet wide and 18.5 feet deep for 90-degree spaces.

6.5.7. *Motorcycle spaces.* In building sites containing at least 20 parking spaces, motorcycle parking spaces may be provided in lieu of or in addition to automobile spaces in accordance with the following standards:

1. Minimum width = Four feet.
2. Minimum length = Ten feet.
3. All motorcycle parking shall be clearly identified through signage or marking as reserved for motorcycles.

6.5.8. *Lighting.* Lights used to illuminate any off-street parking facility shall be arranged so as not to create a hazard or nuisance to traffic or to adjacent properties. Light height shall be limited to 35 feet.

6.5.9. *Handicapped access.* Handicap accessibility to each principal building shall be provided from rights-of-way and parking areas by means of a pathway leading to at least one entrance generally used by the public. Such pathway shall be clear of all obstructions prior to the opening of the building to the public. Where curbs exist along such pathway, as between a parking lot surface and a sidewalk surface, inclined curb approaches or curb cuts having a gradient of not more than one foot in 12 feet and a width of not less than five feet shall be provided for access by wheelchairs.

1. *Parking space reserved for handicapped.* A parking lot servicing each entrance pathway required by this item shall have level parking spaces for physically handicapped persons in the following amounts:

TABLE INSET:

Total Spaces in Lot	Required Number of Reserved Spaces



Up to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 and over	2% of total

2. *Design standards for reserved spaces.* Reserved parking spaces shall be not less than 12 feet in width with a five-foot access aisle and shall be identified by above-grade signs as being reserved for physically handicapped persons. Such spaces shall be located as close as possible to elevators, ramps, walkways and entrances. Parking spaces should be located so that physically handicapped persons are not compelled to wheel or to walk behind parked cars to reach entrances, ramps, walkways and elevators.

6.5.10. *Off-street loading and unloading.* All buildings which are erected, enlarged, altered or converted shall provide off-street loading facilities in conformance with the requirements of this section, so that vehicles engaged in loading and unloading of goods and materials will not interfere with the public use of streets, sidewalks and alleys by automotive vehicles and pedestrians.

1. *Loading requirements:*

TABLE INSET:

Use Category	Gross Floor Area in Square Feet	Loading Spaces Required



Auditoriums, assembly halls, stadium	20,000 to 50,000 Over 50,000	Two berths Four berths
Automotive sales or service recreation facilities, amusements	2,000 to 15,000 15,000 to 40,000	One berth Two berths
**Each additional 10,000 or fraction thereof, add one berth.		
Office buildings, apartments, hotel, motel, hospital, nursing or convalescent	5,000 to 20,000 20,000 to 100,000 More than 100,000	One berth Two berths Three berths
Funeral homes or mortuaries	2,500 to 4,000 4,000 to 6,000	One berth Two berths
**Each additional 10,000 or fraction thereof, add one berth.		
Retail stores (including department stores, restaurants, consumer services), wholesale and jobbing establishments	3,000 to 10,000 10,000 to 20,000	One berth Two berths
**Each additional 10,000 or fraction thereof, add one berth.		
<i>Note:</i> Convenience stores shall provide adequate space to accommodate a tractor trailer (14' × 60' minimum).		
Manufacturing or processing, research and development	Up to 15,000 15,000 to 40,000 40,000 to 65,000	One berth Two berths Three berths

2. *Size and dimension of loading spaces.* A loading space is a space located within the main building or on the same lot which provides an area for standing,



loading and unloading of trucks. The minimum dimensions of loading bays shall be as follows:

TABLE INSET:

Vehicle Type	Width (feet)	Length (feet)	Vertical Maneuvering Clearance (feet)	Apron (feet)
Single units	12	30	12	30
Tractor trailers	14	60	15	60

The development review coordinator shall determine the need for single unit or tractor trailer spaces or combination thereof, based upon the specific use.

3. *Changed or enlarged use.* When the use of a building or land or any part thereof is changed to a use requiring off-street loading facilities, the full amount of off-street loading space required shall be supplied and maintained. When any building is enlarged or its occupancy requires off-street loading space, the full amount of such space shall be supplied and maintained for the building or use in its enlarged or extended size.
 4. *Combined off-street loading.* Collective, joint or combined provisions for off-street loading facilities for two or more buildings or uses may be made, provided such loading facilities are equal in size and capacity to the combined requirements of the various buildings or uses, and are designed, located and arranged to be usable thereby. The joint use shall be by recorded easement, at a minimum.
 5. *Public right-of-way provision.* In no case shall any public right-of-way be used for the loading or unloading of materials, unless in compliance with City Code.
 6. *Ingress and egress.* There shall be adequate provisions for ingress and egress to all loading areas designed for use by employees, customers, delivery services, sales people and the general public. Where a loading area does not abut a public right-of-way, private alley or access easement, an access drive shall be provided into the loading area, which shall consist of one drive per lane of traffic and shall not be less than 18 feet in width.
- 6.5.11. *Construction specifications.* All parking lots, loading areas and vehicular use areas shall have durable all-weather drainage and surface water control.



1. *Acceptable materials.* A durable all-weather surface shall mean an improved surface of concrete, brick, asphalt, permanent porous grating or other permanent dust-free surfaces. Wood chips or similar materials shall only be allowed for lots of ten spaces or less.

2. *Use of stone for parking surfaces.* Stone may be used as a parking surface on a limited basis as an alternative material in accordance with the following standards:

- a. The entire parking facility in which the stone surface is used shall not consist of more than 10 parking spaces.
- b. To ensure that nuisances and safety hazards will not be created by the spilling of stone onto sidewalks and streets, stone shall not be used on any driveway or parking aisle within 15 feet of a street right-of-way.
- c. No limerock or similar material, including calcareous rock, which is impermeable when compacted or has the propensity to track or rut when wet, shall be used for stone surfaces.

3. *Bumpers, curbs, wheel stops and barriers.* Parking spaces at the perimeters of the parking lots shall be provided with permanent curbs, bumpers, wheel stops or similar devices sufficient to ensure that parked vehicles do not overhang sidewalks, landscaped areas or other areas outside the parking lot, nor come in contact with walls, fences or buildings. The city may also require such devices in other locations where necessary to protect planting, structures or other areas from vehicular encroachment.

4. *Wheel stop standards.* The stopping edge shall be placed not less than two feet from the end of the parking space or curb, and so located that the wheels of a standard-sized car pulling into the space will ordinarily come into contact with it.

5. *Access barriers.* Improvements shall be provided as necessary to prevent ingress and egress at any point other than designated driveways.

6. *Marking and signage of parking spaces.* All parking spaces shall be marked on the pavement (except where stone or mulch parking surfaces are used). Other directional information to assist traffic flow shall be provided by either pavement marking or signage.

6.5.12. *Unimproved parking areas.* The city may authorize that required off-street parking spaces and vehicular use areas remain as unimproved reserved areas as follows:

1. *Reduced need.* Up to 25 percent of required spaces may be unimproved, wherever the city finds that one or more of the following circumstances exists:
 - a. The expected need for off-street parking is lessened due to unusual characteristics of the use, and comparable data is available to establish that there is no present need for parking.



- b. The use will be immediately adjacent to public transportation facilities serving a significant proportion of residents, employees and/or customers.
- c. The use will provide effective private or company car pool, van pool, bus or similar transportation programs.
- d. There is substantial evidence that a proportion of residents, employees and/or customers utilize, on a regular basis, bicycle or pedestrian transportation alternatives commensurate with reduced parking requirements.
- e. The city recognizes that in some cases the required number of spaces may be more than the intended building use requires. If a developer feels that the parking requirements are excessive for his intended use, he may appeal to the planning and zoning commission for relief of this requirement. They must show sufficient cause for their belief and also show that if the number of parking spaces approved prove to be insufficient, they can and will correct the situation by adding the number of spaces needed to meet the city's minimum standards. The planning and zoning commission shall approve or deny a request for a waiver of the minimum number of parking spaces.

2. *Occasional parking.* Up to 40 percent of required parking spaces may be unimproved, where the city finds that the parking lot is to be used for occasional parking only (approximately one or two times per week); and provided that all accessways and aisles shall be paved.

3. *Temporary or interim parking.* Up to 100 percent of required parking spaces may be unimproved, where the facility will be used on only a temporary or interim basis (not more than 90 days per year).

4. *Required conditions for reservation.* No unimproved reservation of required parking areas permitted by this code shall be authorized unless:

- a. The area covered by the reservation shall be shown on the final site plan.
- b. The property owner shall, at his own expense, enter into a written agreement with the city, recorded in the records of the county and running with the land, that the area covered by the reservation shall never be encroached upon, used, sold or leased for any purpose other than parking for the use it serves, so long as the off-street parking facilities are required by this section.
- c. The written agreement shall include such conditions as may be necessary to guarantee development of the reserved spaces whenever the city shall determine that the need exists, or that the reserved area has not been maintained in a healthy, grassy state. The agreement shall be voided if the reserved spaces are developed or if the off-street parking facilities are no longer required.



6.6. Landscaping and buffers.

Landscaping areas and buffers are required between certain land uses, along certain corridors, in certain areas, and in paved parking areas to preserve the value of land and buildings on surrounding properties and neighborhoods; to eliminate or minimize potential nuisances such as noise, lights, signs, dirt, litter, unsightly buildings, or parking areas; and to encourage the proliferation of trees and vegetation. Buffers provide spacing to reduce potentially adverse impacts of odor and danger from fire or explosions. Landscaping can aid in erosion prevention, oxygen production, beautification and aesthetic enhancement of improved and vacant land.

6.6.1. *General requirements.* The landscape requirements contained herein shall apply to all new development. No additions or improvements may be made on existing developed property unless the development conforms to the regulations contained herein.

6.6.2 *Buffer Areas.* Wherever a commercial, multiple-family or use of greater intensity abuts another use of less intensity, the use of greater intensity shall provide and maintain an appropriate sight proof fence or wall included within a minimum 10 feet landscaped buffer area. Land uses with trip generation rates greater than 1 and a half times (1 1/2) the adjacent land use shall be considered incompatible and shall require a 100-foot physical separation between access points.

6.6.3. *Parking lot requirements.*

It is essential that proper plant specimens be chosen for each specific condition. In choosing plant materials consideration should be given to the amount of sun or shade, the wetness or dryness of the soil/the amount of maintenance required, ultimate growth size of plants chosen, and the aesthetics of the planting areas.

1. Preserving existing trees and shrubs within the parking area is encouraged. Discretionary credit will be given for each existing plant or tree preserved. All trees shall be planted in a minimum dimension of five (5) feet. This five (5) foot square minimum planting area must be free of all bumper overhang in order to prevent possible tree damage resulting from auto bumpers striking trees. All trees shall have a minimum trunk diameter of two (2) inches measured at a point four and one-half (4.5) feet above ground line, and a minimum crown spread of five (5) feet diameter. Shrubs used for screening off-street parking area from adjacent properties shall have a minimum height of thirty (30) inches when planted. These shrubs shall be planted in a manner which will form a visual barrier between the off-street parking area and adjacent property. All shrubs used for screening shall be of a plant species that is capable of reaching the required height of six (6) feet within twenty-four (24)



months under normal growing conditions. Shrubs used as accent ground cover and vines may vary in size depending on the type of plant material and the desired effect.

2. The location of all trees and shrubs shall be reviewed and approved by the Planning and Zoning Commission. There shall be an even and site appropriate distribution of canopy and understory trees throughout the site.

a. Adjacent to public right-of-ways:

1. A landscaped area at least five (5) feet wide shall be located between the parking area and the abutting right-of-way. Wheel stops or curbing shall be used, where necessary, to assure that this five (5) foot strip is not overhung by car bumpers. This landscaped area shall include one (1) tree for every twenty-five (25) feet of frontage or fraction thereof, and one shrub for every five (5) feet of frontage or fraction thereof. All shrubs shall attain a maximum height three (3) feet within twelve (12) months under normal growing conditions.

2. The required landscaped area may also be defined by the use of a barrier of nonliving materials in lieu of living materials. Such barriers shall not exceed three (3) feet in height. An average of one (1) shrub or vine for every ten (10) feet or fraction thereof, shall be planted abutting such barrier. These shrubs or vines may be clustered rather than spaced evenly apart. Such shrubs or vines shall be planted along the street side of such barrier. Also, one (1) tree shall be planted for every twenty-five (25) feet of frontage or fraction thereof. A planting area of four (4) feet must be maintained between this barrier and the right-of-way line. P

3. Sight distance for landscaping adjacent to public right-of-ways and points of access. When an access intersects a public right-of-way, clear unobstructed cross visibility shall be provided within the sight triangle formed by such intersection. The sight triangle shall be measured from the point of intersection, ten (10) feet along the access way and then ten feet connecting the two (2) points. Cross visibility within the sight triangle shall be unobstructed between the height of two (2) feet and have their limbs and foliage trimmed in a manner that no limbs or foliage will extend into the cross visibility area. To ensure proper visibility at the intersection of access ways with public right-of-ways, excluding properly trimmed trees as previously stated, only ground cover type plants shall¹ be allowed within the sight triangle.

b. Adjacent to other properties:

1. Residential areas. When off-street parking areas are adjacent to residential uses or properties, a landscaped buffer at least five (5) feet wide shall separate them. The landscaped buffer shall contain an opaque screen composed of either living plant materials or durable nonliving materials, e.g., fences, walls, etc., having a



minimum height of six (6) feet. When located on side lot lines, such screen shall terminate within ten (10) feet of its intersection within the street right-of-way line. All living plant materials shall be planted in a manner which will form a visual barrier and must be at least thirty (30) inches when planted and shall attain the required height of six (6) feet within the twenty-four (24) months under normal growing conditions. If a barrier composed of nonliving materials is used for screening, the barrier shall be accented with shrubbery. A minimum of one (1) tree shall be planted . . . for every fifty (50) feet of common lot line or fraction thereof. The required landscaped area shall be protected from vehicle encroachment by the use of wheel stops or curbs.

- 2 . Nonresidential areas: When off-street parking areas are adjacent to nonresidential uses or property containing a conforming hedge, wall, or other durable landscape feature, the provisions stated in subsection c, 2 excluding the tree planting requirements, shall not apply to rear or side lot lines.
3. A landscaped buffer area is not required for off-street parking areas that are screened from adjacent property by intervening buildings.

c. Interior landscaping regulations:

1. Off-street parking areas shall contain ten (10) square feet of interior landscaping for each parking space.
2. Each separate interior landscaped area shall contain a minimum on one hundred (100) square feet and shall be at least five (5) feet wide. A minimum of one (1) tree shall be planted for every two hundred (200) square feet of interior landscaping with the remaining area adequately planted with shrubs, ground cover, or other approved landscaping materials.
3. All interior landscaping shall be protected from vehicle encroachment by curbing and wheel stops.
4. Interior landscaping shall be located in a manner which will divide or interrupt the broad expanse of paving. Landscaped areas shall subdivide parking areas into parking bays containing a maximum of forty (40) spaces, provided that no more than twenty (20) spaces shall be in an uninterrupted row.
5. Interior landscaping layout or design shall be reviewed and approved by the Planning and Zoning Commission.



6.6.4. *Downtown(Reserved)*

6.6.5. *Planting standards and requirements.*

1. *Preservation.* Preservation of existing landscape materials and land forms is encouraged. Natural existing vegetation may be substituted for the applicable landscape buffer provided canopy trees are greater than six inches in diameter and understory/hedge/shrubbery provides a continuous visual screen from the adjacent property.

2. *Quality.* Plant materials used to conform with the provisions of this section shall equal or exceed the Florida No. 1, as given in "Grades and Standards for Nursery Plants," Part I, 1963, and Part III, State of Florida, Department of Agriculture, and amendments thereto.

a. *Trees:* Canopy trees shall have a minimum height of 15 feet and a caliper requirement of 3.5 inches measured six inches above the ground immediately upon planting or where required as replacement planting. Wherever trees are installed, they shall be anchored in order to provide sufficient time for the roots to become established. Trees of species providing roots known to cause damage to public roadways or other public works shall not be planted closer than 12 feet to such public works, unless the tree root system is completely encased within a container for which the minimum interior dimensions shall be five feet square and five feet deep in compliance with the construction requirements of the city. All rootball wrapping shall be removed prior to planting.

Understory trees shall have a minimum height of six feet and a caliber requirement of 1.5 inches measured six inches above the ground with a minimum four feet crown spread at the time of planting. Multi-trunk understory trees shall have no more than three main trunks with combined caliber of 2.5 inches.

b. *Shrubs and hedges:* Shrubs shall be a minimum of 24 inches in height immediately upon planting and reach an average height of 36 inches within one year after planting. Hedges shall be of nondeciduous species and planted and maintained so as to form a continuous unbroken solid, visual screen immediately upon planting.

c. *Ground cover:* Ground cover such as ivy, juniper and lilyturf used in lieu of grass shall be planted in such manner as to present a finished appearance and reasonably complete coverage within three months after planting.

d. *Lawn grass:* Grass shall be species normally grown as permanent lawns in the city. Grass seed shall be clean and reasonably free of weeds and noxious pests or diseases. Grass seed shall be delivered to the job site in containers with Florida Department of Agriculture tags attached



indicating the seed grower's compliance with the department's quality control program.

e. *Berm*: When a berm is used to form a visual screen in lieu of or in conjunction with a hedge or wall, such berm shall not exceed a slope of 30 degrees and shall be completely covered with shrubs, grass or other living ground cover.

3. *Approved species*: The landscaping requirements of this appendix may be achieved by using any of the approved drought tolerant xeriscape species listed in Table VI-3. Other species may also be used if approved in advance by the city as being equivalent in function and quality. Pines listed in the approved species list may be counted for landscaping purposes if they exist on site at the time of development; however, pines may not be counted for landscaping purposes if they are planted as a part of new landscaping.

4. *Designation on-site plan*: The specific species designated on the approved site plan shall be the species planted in the locations and quantities indicated.

APPROVED TREE AND PLANT SPECIES LIST (Table VI-3)

1. *Canopy trees* --Trees which normally grown to mature height of 40 feet or more:

- a. Live Oak (*Quercus Virginiana*)
- b. Laurel Oak (*Quercus Laurifolia*)
- c. Shumard Oak (*Quercus Shumardii*)
- d. Red Maple (*Acer Rubrum*)
- e. American Holly (*Ilex Opaca*)
- f. Sweetgum (*Liquidambar Styraciflua*)
- g. Southern Magnolia (*Magnolia Grandiflora*)
- h. Sweet Bay (*Magnolia Virginiana*)
- i. Slash Pine (*Pinus Elliottii*)
- j. Sand Pine (*Pinus Clausa*)
- k. Longleaf Pine (*Pinus palustris*)
- l. Loblolly Pine (*Pinus taeda*)
- m. Bald Cypress (*Taxodium Distichum*)

2. *Understory trees* --Trees which normally grow to a mature height of 15 to 35 feet:

- a. Winged Elm (*Ulmus Atata*)
- b. Drake Elm*
- c. Chinese Elm (*Ulmus Parfolia*)
- d. Yaupon Holly (*Ilex Vomitoria*)
- e. Weeping Bottlebrush (*Callistemon Viminalis*)
- f. Loquat (*Eriobotrya Japonica*)
- g. Redbud (*Cercis Canadensis*)
- h. Dogwood (*Cornus Florida*)
- i. Jerusalem Thorn (*Parkinsonia Aculeata*)



- j. Tree of Gold (Tabebuia Argentea)
 - k. Cherry Laurel (Prunus Caroliniana)
 - l. Chickasaw Plum (Prunus Angustifolia)
 - m. Southern Wax Myrtle (Myrica Cerifera)
 - n. Crape Myrtle (Lagerstroemia Indica)
 - o. Citrus trees (all kinds)
 - p. Walter Viburnum (Viburnum Obovatum)
 - q. Devilwood (Osmanthus Americanum)
 - r. Bumelia (Bumelia Tenax)
 - s. Tar Flower (Befaria Racemosa)
 - t. Fringe Tree (Chionanthus Virginicus)
- *May be used as canopy tree in parking lots with a minimum of 2.5 inch DBH.

3. *Shrubs:*

- a. Sandankwa Viburnum (Viburnum Suspensum)
- b. Glossy Privet (Ligustrum Lucidum)
- c. Japanese Privet (Ligustrum Japonicum)
- d. Podocarpus (Podocarpus Macrophylla)
- e. Pittosporum (Pittosporum Tobira)
- f. Surinam Cherry (Eugenia Uniflora)
- g. Cherry Laurel (Prunus Caroliniana)
- h. Wax Myrtle (Myrica Cevifera)
- i. Native Azaleas (Rhododendron Viscosum)
- j. Star Anise (Illicium Parviflorum)
- k. Eleagnus (Eleagnus Pungens)
- l. Florida Lencothoe (Agavista Populifovia)
- m. Walter Viburnum (Viburnum Obovatum)
- n. Sweet Viburnum (Vuburnum Odoratissium)
- o. Devilwood
- p. Red Tip Photinia

4. *Prohibited trees:*

- a. Australian Pine (Casuarina species)
- b. Cajeput or Punk Tree (Melaleuca Quinquenervia)
- c. Chinaberry (Melia Azedarach)
- d. Ear Tree (Enterlobium Cyclocarpum)
- e. Eucalyptus species
- f. Florida Holly or Brazilian Pepper (Schninus Terebinthifolius)
- g. Paper Mulberry (Broussonetia Papyrifera)
- h. Camphor Tree (Cinnanonum Camphora)

5. *Safety and protection:*

- a. Curbing or wheel stops shall be used to protect landscape areas.
- b. If curbs are used, tree trunks and shrubs shall be set in three feet from either side of a parking space to avoid damage by vehicles.



c. Street and highway sight distances established by the Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction, and Maintenance shall be observed for all street intersections or driveways and streets. Within these sight distances, no landscape material exceeding 2.5 feet in height shall be permitted. Trees shall be permitted when traffic visibility is not obstructed.

6. *Performance standards:*

- a. *Clustering:* In order to provide a more interesting and aesthetically pleasing effect, landscaping may be clustered along perimeter buffers, clustered landscape plans shall be approved at the discretion of the planning and zoning commission.
- b. *Substitutions:* Six cabbage palm trees may be substituted for each canopy tree for up to 25 percent of the total number of canopy trees. These trees must be clustered at a maximum six foot on center and have a minimum height of 12 feet.
- c. *Shifting:* Canopy trees may be shifted within the perimeter buffers provided a minimum of three canopy trees per 100 linear feet be maintained in any one buffer.
- d. *Off-site donation:* If the applicant finds it difficult to provide the necessary landscape materials to meet minimum code requirements, the planning and zoning commission may consider donation of materials for off-site landscaping. Such landscaping may be located along public rights-of-way and on publicly owned property within 500 feet of the property in question.
- e. *Xeriscape standards:* Plant material shall be clustered and located with plants of similar water use requirements. Irrigation systems shall be designed to provide differential zones to accommodate the specific needs for each plant grouping to ensure that over watering does not occur.

6.6.6. *Maintenance.* Maintenance shall consist of mowing, removing of litter and dead plant materials, necessary pruning, replacement of dead plantings, watering and fertilizing. Maintenance is required in order to ensure proper functioning.

1. *Responsibility:* The owner of any property or the tenant thereof, shall be, as to those parties, jointly and severally responsible for the maintenance of all landscaping on-site and in the unpaved portion of the rights-of-way adjoining the site to present a neat, healthy and orderly appearance, free of refuse and debris. The owner shall have an implied easement on rights-of-way extending from the site to the road pavement to complete the required maintenance.

2. *Irrigation:* All landscape areas shall be provided with an underground irrigation system with suitable coverage.

3. *Enforcement:* The city may conduct periodic inspections to assure compliance with the maintenance requirements of this code.



4. *Pruning:*

- a. *Applicability.* The owner of a property, or the tenant thereof, shall not trim, prune, remove living branches or cause the diminution of the crown of any canopy tree as specified in subsection 6.6.6.2 without a permit.
- b. *Permit application procedures.* The following procedures shall be followed and shall govern the granting of all permits pursuant to this section.
 1. *Submittals.* A permit fee shall not be charged for authorized tree pruning within the city. Each application for permit to alter, trim, prune, or reduce the canopy or crown of trees covered herein shall be accompanied by a written statement indicating the reasons for the requested action and two copies of a legible site plan drawn to the largest practicable scale indicating the following:
 - a. The portion of the site involved in the operation, and
 - b. The trees by type and number to be pruned.
 2. *Application review.* Upon receipt of the application, the zoning official or his designated agent shall review said application, which may include a field check of the site and referral of the application for recommendations to other appropriate administrative departments or agencies.

6.6.7. *Preservation of existing trees.*

1. *Replacement of trees for construction of paved area.* Where removal of an approved tree is approved for construction of other than a single-family residence or duplex, the community development director shall require the owner to move or replace said tree or trees somewhere within the property site. The replacement tree shall have an oxygen-producing capacity at least equal to that of the tree removed, and of a type to reach an eventual height of at least 15 feet with a trunk diameter of at least 3 1/2 inches measured six inches above the ground, at the time of planting. In the event the tree removed is an approved canopy tree greater than or equal to 24 inches in diameter when measured four feet above the ground, the owner shall provide one approved canopy tree for each eight inches of diameter removed of a type to reach an eventual height of at least 15 feet with a trunk diameter of at least 3 1/2 inches measured six inches above the ground, at the time of planting, with the oxygen producing capacity of the removed tree upon maturity. In the event the replacement trees required would be too numerous to be placed upon the site, the owner may elect to provide fewer replacement trees so long as the inches provided as replacement inches are greater than or equal to the inches required. These replacement trees shall not be counted toward the buffer requirement, but may be planted within the buffer with the approval of planning and zoning commission. As an alternative, upon a request for a variance based upon a claim that the replacement trees required would be too numerous to be placed upon the site, the planning and zoning commission, if a variance is



warranted, may, but is not required to, allow the owner to provide fewer replacement trees so long as the number of trees provided is no less than 1.25 times the number which would have been required if the site was vacant at the time of site plan submission. For each approved canopy tree greater than or equal to 24 inches in diameter when measured four feet above the ground which the owner preserves on site, the owner shall be credited one approved canopy tree for each eight inches of diameter above eight inches.

2. *Erection of protective barriers.* During construction, builders shall be required to erect protective barriers around trees that might be injured. These barriers shall be constructed of wood and extend to the drip line of the tree to be protected.

3. *Other protection.* It shall be unlawful for any person to allow machinery, soil deposits, harmful liquids or any substance that would cause disease or destruction of any trees protected by this section to encroach into or be stored within the drip line of the tree.

4. *Appeals.* Any person adversely affected by a decision of the zoning official or his representative may appeal to the planning and zoning commission through written notice filed with the Planning and Zoning Director. The notice shall set forth all grounds for the appeal.

5. *Public property.* Trees on public parks and public rights-of-way and on city properties shall be subject to this section.

6. *Emergency waivers.* In case of emergencies, such as storms, a written permit for removal may be waived in the event the tree is endangering the public health, welfare or safety and requires immediate removal. Verbal authorization may be given by the city manager, the Fire or Police Chief, the Community Development Director or public works director or their designees.

7. *Parking areas.* No parking areas for more than two cars, public or private, shall be approved until a drawing has been presented to the zoning official showing site plan, existing trees, and plans for planting of trees to provide shade and aesthetic relief from the barrenness of open paving.

6.6.8. *Decorative entrances.* Decorative entrances, structures or landscaping shall not be permitted in a public right-of-way unless it can be shown to not conflict with any existing or proposed utilities and may be required to be removed if maintenance within the right-of-way is required. All decorative entrances must be approved by the public works director.

6.6.9 *Trees.* Trees shall be planted adjacent to the rights-of-way in any subdivision platted after November 10, 2005. At a minimum, such trees shall conform to the standards for canopy trees set forth in subsection 6.6.5.2.a, hereof. A canopy tree meeting those standard shall be planted on each lot at a distance of



three feet from the right-of-way line or any utility easement adjacent to the right- of-way, whichever is further from the center line of the road right-of-way for the lot in question.

6.7. Signs

The provisions of this section are intended to promote the city's economic well-being, traffic safety, and visual environmental quality by creating the necessary legal framework for established includes regulations governing the number, location, and other characteristics of signs. It is the intent of this section to encourage the use of signs which are compatible with their surroundings and appropriate to the type of activity to which they pertain.

6.7.1 Permitting.

Any sign exceeding six (6) square feet put in place within the city shall require a permit issued by the City. Upon payment and receipt of a completed sign permit application the City shall evaluate the application for conformance to the requirements of this Code and render a permit or denial within 10 business days of receipt, except that building mount projection signs shall require Planning and Zoning Commission approval prior to installation.

6.7.2 Definitions.

Banner sign. Any sign possessing characters, letters, illustrations or ornamentations applied to cloth, paper, or fabric of any kind, either with or without frame.

Building mount sign. Sign with the display area mounted parallel to the building facade on which it is mounted.

Building Projection sign. *Sign with the display area mounted perpendicular to the building facade on which it is mounted. May project over the non-vehicular portion of public right of way, is only allowed in the Community Redevelopment Area with Planning and Zoning Commission approval.*

Free Standing Sign. *A sign with the display face elevated off the ground by columns or posts, which is not physically connected to any structure.*

Lot. *A parcel of land occupied or intended for occupancy and having its principal frontage upon a legally constituted access.*

Monument Sign. *A sign with the display elevated not more than three (3) feet above grade and fixed to the ground with a base the full width and length of the sign.*



Off Premises Sign Outdoor advertising signs erected and maintained by an advertising business or service, or owner, upon which advertising matter may be displayed and which generally advertise firms and organizations that along with their goods and services, are not located on the same premises as the sign.

Portable sign. Any sign or sign structure that is or was designed to be easily moved. The immobilizing or removal of the portable element(s) of any sign shall not allow consideration of the sign as permanent.

Shopping center. A group of retail stores or service establishments planned and developed as a unit by one (1) operator, owner, organization or corporation for sale or for lease upon the site on which they are built and sharing a common road access and parking area.

Sign. Any device or display, consisting of letters, numbers, symbols, pictures, illustrations, announcements, cut-outs, insignia, trade marks or demonstrations, including all trim and borders, designed to advertise, inform, identify, or to attract the attention of persons not on the premises on which the device or display is located, and visible from any public way. A sign shall be construed to be a single display surface or device containing elements organized, related and composed to form a single unit.

Sign Area. The total area of any display consisting of letters, numbers, symbols, pictures, illustrations, announcements, cut-outs, insignia, trade marks or demonstrations, including all trim and borders, designed to advertise, inform, identify, or to attract the attention of persons not on the premises on which the device or display is located. In the case of double-sided signs, both display areas shall be calculated and added together for the total sign area of the sign. Sign area shall not include mounting hardware; brackets, frames or other structural support elements provided these support elements are clearly subordinate to the attraction of the display element of the sign.

6.7.3 Standards.

- (a) The following signs are permitted in all zoning districts unless not allowed due to other provisions of this chapter:
 - (1) Signs not visible from a street due to the location of a building, other structure, topographic features of the land, intensive year-round natural vegetation, or some other object or objects.
 - (2) Signs within enclosed structures.
 - (3) For each lot with a semi-public use religious, charitable, educational, or cultural signs not exceeding six (6) square feet in area which are used for not more than thirty (30) days.
 - (4) For each lot one historic marker not exceeding four (4) square feet in size.
 - (5) For each lot temporary signs not exceeding six (6) square feet in size which advertise the sale, lease, or rental of property on which the signs are located and/or which state the name of a future site occupant and other information concerning a construction project underway on the lot.



- (6) For each lot political signs not more than thirty-two (32) square feet in area per sign, per political candidate, which are put in place no earlier than thirty (30) days prior to the election or referendum to which they pertain. These political signs must be removed within forty-eight (48) hours after the election or referendum to which the sign relates is over. The person or persons responsible for the placement of a political sign must be responsible for its removal.
 - (7) For each dwelling unit one (1) sign no larger than two (2) square feet in area which contains the name of the occupant, profession of the occupant and/or the house number.
 - (8) For each occupant of a commercial or semi-public use, one (1) sign no larger than two (2) square feet in area which contains the name and profession of the occupant.
 - (9) Governmental or other legally required posters, notices, or other signs.
 - (10) Parking or directional signs not over two (2) square feet in area with no advertising matter.
- (b) The following signs are prohibited in all zoning districts:
- (1) Signs which incorporate in any manner any flashing, moving, or intermittent lighting. This does not include time and temperature units or units utilized to announce governmental services.
 - (2) Signs which by reason of their position, working, illumination, size, shape, or color may obstruct impair, obscure or interfere with the view of, or be confused with, any authorized traffic control sign, signal, or device.
 - (3) Signs which by reason of their position, size, or shape obstruct any sign previously erected.
 - (4) Signs for whatever purpose that are obscene, lewd, indecent, immoral, or lascivious.
 - (5) Signs that create a safety hazard by obstructing the view of pedestrian or vehicular traffic.
 - (6) Signs which are located all or partially on or over a street, alley, or public property other than sidewalks unless specifically approved as a projection sign within the Community Redevelopment Area.
 - (7) Signs on public utility posts or poles, unless required by law or authorized by the city commission as a governmental usage.
 - (8) Portable signs.
 - (9) No sign shall physically project beyond the property line over any public street, right-of-way, walk or alley unless specifically approved as a projection sign within the Community Redevelopment Area.
 - (10) Off premises signs
- (c) The following signs are permitted in residential zoning districts unless not allowed due to other provisions of this article:
- (1) The planning and zoning commission may allow non-illuminated ground or wall signs identifying a neighborhood for residential areas which



include at least five (5) acres of land area. These signs shall only be allowed at major entrance ways and no more than one (1) sign shall be located at each entrance way.

- (2) Multi-family housing developments may have one (1) identification sign per street frontage. These signs may be ground or wall signs. The only form of artificial illumination allowed is indirect illumination. Identification signs shall be limited to one (1) square foot of area per dwelling unit up to a maximum of thirty (30) square feet.
 - (3) The planning and zoning commission may allow nonresidential special exceptions to have non-illuminated signs no larger than twenty-four (24) square feet in area. No off-site sign bearing a commercial message shall be allowed in a residential zoning district.
- (d) The following signs are permitted in commercial zoning districts unless not allowed due to other provisions of this chapter:
- (1) The total surface area of all signs for the site shall not exceed two hundred fifty (250) square feet
 - (2) Signs serving or incidental to a special exception subject to approval by the city commission.
 - (3) Small incidental signs such as those necessary to control or direct traffic, parking, or access shall be permitted in addition to those allowed above, provided no such sign shall exceed two (2) square feet in area on one (1) side.
 - (4) Window advertisements not exceeding 20 percent of total window space and shall be counted toward total surface area of signage for the business.
 - (5) Banners, portable signs, or other temporary wall signs shall be permitted under the following conditions:
 - a. In addition to signage permitted under subsection (d)(1) above, for Grand Opening Celebrations one (1) time only once a year, to be allowed for a time period of up to ninety (90) days, per business entity.
 - b. For sidewalk sales and other outdoor sales events except yard/garage sales.
 - c. Maximum sign area shall be thirty-two (32) square feet.
 - d. Banner signs and other temporary wall signs permitted by this section shall require the approval of a sign application, but shall be exempt from permit fees.
 - e. Banners under fifteen (15) square feet in the commercial district may be allowed as long as maintained in good condition.
- (e) Notwithstanding other provisions of this chapter, the city commission may permit a special event signing program for a period of no more than thirty (30) days in a year for any use or combination of uses of any type when it has made the following findings:



- (1) The event is a festive occasion which would be enhanced by the use of signing not already allowed.
 - (2) All segments of the city's population may attend the event.
 - (3) The event is appropriate for the location where it is being held. Such a location must conform to zoning requirements.
 - (4) The event is being undertaken for the purpose of advertising or otherwise promoting a public oriented use or uses.
- (f) Other sign provisions:
- (1) No sign shall exceed twenty (20) feet in height without specific approval of the city commission.
 - (2) No illuminated sign shall be so located as to face directly, shine, or reflect glare into a dwelling home situated in the vicinity of such sign.
 - (3) No off premises sign or sign not related to goods or services available on the premises shall be permitted within the corporate limits of the City of Crescent City.
 - (4) All signs together with any supports, braces, guys, and anchors shall be kept in good repair and shall be constructed in compliance with the Southern Building Code.
- (g) The following sign types and standards shall be utilized for advertisement signage:
- (1) Monument sign- shall not exceed eight (8) feet in height. 150 squarefeet in sign area, and must include architectural elements of the building or facility it is advertising.
 - (2) Free Standing Sign- shall not exceed twenty (20) feet in height; 100 square feet in sign area, with the bottom of the sign face not less than eight (8) feet above finished grade. Freestanding signs shall feature architecturally embellished supports and sign panel framing of a material complimentary to the building or facility it is advertising.
 - (3) Building Mount Sign- shall not exceed 100 square feet in sign area and must be of a complementary architectural design to the building which it is mounted.
 - (4) Building Projection Sign- allowed only in the Community Redevelopment Area; shall not exceed 25 square feet in sign area with the bottom of the sign face not less than twelve (12) feet above finished grade and must be approved by the Planning and Zoning Commission.
 - (5) Multiple tenant developments must use a single sign design theme throughout the development.
 - (6) Signage is permitted on awnings and canopies provided it is not backlit or illuminated.
 - (7) Sign display and structural support materials shall be of a clean and neat nature presenting quality workmanship and shall be maintained as such.

6.7.4 Non-conforming signs and exceptions.



- a. Non-conforming signs are declared by this section to be incompatible with permitted sign usage in the zoning districts involved.
- b. Signs which are non conforming or become non-conforming through zoning changes shall be removed or made to conform with this Code within the following specified time periods, which ever is shorter:
 1. After the end of the seventh year the sign has become non-conforming.
 2. Flashing signs, which are non-conforming, must be removed or brought into conformity within one year from the enactment of this code.
 3. Deteriorated signs or signs which have not been maintained in good repair in accordance with the requirements of this section must be removed or brought into conformity within one year from the enactment of this code.
 4. In the case of hardship caused by an Act of God, the City Manager shall have the power to grant a temporary portable sign permit for a period of up to sixty (60) days.
- c. Whenever a non-conforming use of a sign, or portion thereof has been discontinued, as evidenced by non-operation of a business, or building vacancy for a period of six (6) months, such non-conforming sign shall not thereafter be reestablished or continued and any future sign shall be in conformity with the requirements of this section.
- d. Any sign that has been damaged by any means to an extent more than sixty (60) percent of its value immediately prior to damage, shall not be restored except in conformity with the requirements of this section.
- e. To avoid undue hardship, nothing within in this section shall be deemed to require a change in the plans or construction of a sign for which a permit has been issued prior to adoption of this section, provided construction of the sign occurs within three (3) months of permit issuance.

6.7.5 Enforcement

The Zoning Official is vested with the authority to administer, interpret and enforce the provisions of this section. The Zoning Official shall issue a STOP WORK ORDER, if in his determination, a sign is being erected contrary to the requirements of this section. The Zoning Official or his designee shall also have the authority to issue a class 4 citation for failure to comply with the requirements of this section in accordance with City Code of Ordinances Section 2.59. Additional enforcement remedies may also be pursued by the City as outlined in section 2.9 of this Land Development Code.

6.8. Floodprone areas.

1. No structure shall be constructed within any floodprone area without either:
 - a. The implementation and utilization of appropriate "floodproofing measures" as defined herein; or
 - b. The implementation and utilization of flood elevations of not less than 18 inches above the floodprone elevation, except for nonresidential agricultural structures which may be constructed at elevations equal to or above the floodprone elevation; and
2. No structure shall be constructed within said classification where a septic tank will be utilized to service said structure unless prior approval as to the use and location of said septic tank shall be obtained through the county department of health and other appropriate state agencies; and



3. No structure shall be constructed and no land filling or grade level changes shall be permitted within said classification, unless approved by the city after review and recommendation by the director of public works to ensure that the change will not inhibit the flow of flood waters or drainage waters; and,
4. No structure shall be constructed and no land filling or grade level changes shall be permitted within said classification, unless approved by the city council after review and recommendation by the director of public works to determine that said change will not increase flooding of or drainage of lands above or below the property and that the modification to an affected watercourse can be maintained.

6.8.1. *Additional factors to be considered in evaluating structure proposals in floodprone areas.* In passing upon any application for the location of a structure in floodprone areas, the director of public works shall consider all relevant factors specified in other sections of this code and, to the extent applicable, shall also consider the following as general criteria and guidelines:

1. The danger to life and property due to increased flood heights or velocities caused by encroachment;
2. The danger that materials may be swept onto other lands or downstream to the injury of others;
3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions;
4. The susceptibility of the proposed facility and its contents to flood damage;
5. The importance of the services provided by the proposed facility to the community;
6. The requirements of the facility for a waterfront location;
7. The availability of alternative locations not subject to flooding for the proposed use and under the ownership of the applicant;
8. The compatibility of the proposed use with existing and anticipated development;
9. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;
10. The safety of access to the property in times of flood for ordinary and emergency vehicles;
11. The expected heights, velocity, duration, rate of rise and sediment transport of flood waters expected at the site; and



12. Such other factors as shall be relevant to the purposes of this code.

6.8.2. *Building permits.* No building permit shall be issued for any structure not complying with the provisions of this code. A conditional building permit will be issued for construction to the lowest floor. The applicant for a building permit shall provide a flood elevation for floodproofing certification after the lowest floor is completed. As soon as possible, but no later than 21 calendar days after establishment of the lowest floor elevation, or floodproofing by whatever construction means, it shall be the duty of the permit holder to submit to the city a certification of the elevation of the lowest floor or floodproofed elevation, as built, in relation to mean sea level. The certification of the lowest floor elevation shall be prepared by or under the direct supervision of a registered land surveyor or registered engineer and certified by same. When floodproofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a registered engineer or architect and certified by same. Any work done within the 21 calendar day period and prior to submission of the certification shall be at the permit holder's risk.

Nonresidential structures using floodproofing measures below the base flood level are to be designed so that below the base flood level the structure is watertight and with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy as certified by a registered professional engineer or architect.

6.9. Wetlands.

The city shall ensure the protection of natural functions of wetlands. In the interest of maintaining the ecological function of wetlands, residential densities of one unit per five acres will be permitted within wetland areas. All development will be required to be clustered away from all wetland areas on the site and an upland buffer will be provided adjacent to the wetlands. The buffer width will be a minimum of 25 feet and shall consist of preserved or planted canopy and ground cover. An additional 25 feet will be required on previously undeveloped and unplatted parcels in order to provide sufficient habitat for wildlife. For sites or parcels recorded on or before the date of this plan adoption, which do not contain sufficient uplands to permit development, fill and clearing of natural vegetation will be allowed only in conjunction with a minimal accessway and a minimum amount beneath one residential structure, provided the direction and rate of historical water flow are not altered.

All structures must be elevated on pilings and septic systems are prohibited. Subsequent to plan adoption the city shall not allow lots or parcels to be created without sufficient uplands.

The location of wetlands shall be accurately identified at the time of site development review. The alteration of wetland areas is prohibited unless no other alternative exists. If alteration is necessary after it is proven that no other



alternative exists, it shall be accompanied by a mitigation plan at a ration of 2:1 so that twice as much wetlands are created or restored as lost. The purpose of mitigation is to ensure that the ecological value and extent of the wetlands is maintained. The plan must provide the city with assurances that the mitigation plan will be maintained.

The definition of wetlands shall be a comprehensive definition which encompasses the definitions used by the water management district, the Florida Department of Environmental Protection, and the U.S. Army Corps of Engineers and is based upon soils and vegetation. This comprehensive definition shall include both the wetlands regulated by these agencies and those that are not within their regulatory jurisdiction.

6.10. Concurrency management and consistency determination.

6.10.1. *Purpose and intent.* Pursuant to F.S. § 163.3177(10)(h), public facilities and services needed to support development shall be available concurrent with the impacts of such development. The Florida Administrative Rule implementing this statute, Rule 9J-5.0055, mandates the adoption of concurrency management systems by a local government to ensure that the level of service standards adopted through the comprehensive plan are maintained. Concurrency is a finding that the public facilities and services necessary to support a proposed development are available, or will be made available, concurrent with the impact of development. The provisions of this section are designed to provide a systematic process for the review and evaluation of all proposed development for its impact on basic public facilities and services in order to meet the requirements of statutory concurrency requirements.

6.10.2. Concurrency, general provisions.

1. No final development order shall be issued by the city after the adoption of these regulations and no previously approved development may cause a change in use upon a parcel of property unless there is sufficient available capacity of concurrency public facilities to meet the standards for levels of service as established in the Crescent City Comprehensive Plan for the existing population, vested development as projected by the planning and zoning department and for the proposed development according to the following time requirements:

a. As to potable water, sanitary sewer, solid waste and drainage concurrency public facilities, the necessary concurrency public facilities must be:

1. Available and in place at the time the development is authorized in accordance with the Crescent City Comprehensive Plan; or
2. The development order or permit is issued subject to the condition that the necessary concurrency public facilities will be in place when the impacts of the development occur; or



3. The necessary concurrency public facilities are under construction at the time the development is authorized; or
 4. The necessary concurrency public facilities are guaranteed in an enforceable development agreement which requires that the necessary facilities will be in place when the impacts of the development occur.
- b. All final development orders shall be conditioned on the requirement that building permits shall not be issued for the subject property until the capacity of the public facility or facilities set forth in this subsection meet the adopted levels of service standards for said concurrency public facility or facilities. As to solid waste, the level of service standard shall be a citywide standard. As to stormwater management, the level of service standard shall be a site specific standard. As to potable water and sanitary sewer, the level of service standard shall be based upon the appropriate service areas as set forth in the Crescent City Comprehensive Plan.
 - c. As to arterial and collector roads, said concurrency public facilities must be available within one year of the subject final development order or consistent with provisions of Rule 9J-5.0055(2)(c), Florida Administrative Code, as same may be amended from time to time. No certificate of occupancy shall be issued until the above public facilities are in place and accepted by the governing jurisdiction.
 - d. Parks, including land and facilities, must be available to serve the development within 12 months of the issuance of the subject final development order. The parks' level of service standard shall be citywide standard.
 - e. On-site potable water wells and septic tanks which meet all applicable laws, rules, standards, and regulations shall be deemed to be concurrent for the purposes of this section as to potable water and sanitary sewer concurrency public facility level of service requirements; provided, however, this provision shall not be construed to limit the city's authority to require central potable water and sanitary sewer services as a condition of development approval.
2. Approved plans of development which are specifically exempted from or specifically determined to be vested from the concurrency requirements of the Crescent City Comprehensive Plan by the city pursuant to applicable ordinances shall not be subject to concurrency review unless the exemption or vesting has been eliminated, waived, expired or withdrawn pursuant to law or has otherwise lapsed and thereby having become of no further force nor effect. Notwithstanding the foregoing, the city may use the concurrency review process to account for the impacts upon and utilization of concurrency public facilities by vested developments.



6.10.3. Concurrency base line statement and monitoring system.

1. On or before October 1 of each year, the planning and zoning department shall develop a concurrency public facility base line statement which shall be effective for one year after its issuance. Nothing herein precludes, however, the issuance and effectiveness of more frequent amendments to concurrency base line statement by the planning and zoning department.

6.10.4. Preliminary and final development orders.

1. Development orders and development permits are designated preliminary or final under the development review process, as delineated below:

- a. Type I--Preliminary (No concurrency test. Capacity reservation not available).
 - 1. Variance.
 - 2. Abandonment/vacation.
- b. Preliminary (Internal concurrency test. Capacity reservation optional).
 - 1. Comprehensive plan amendment.
 - 2. Rezoning.
- c. Preliminary (Concurrency test/encumbrance. Capacity reservation optional).
 - 1. Preliminary subdivision plan.
 - 2. Conditional use.
- d. Final (Concurrency test/capacity reservation required).
 - 1. DRI.
 - 2. All development permits except as exempted in subsection 6.11.8.
 - 3. Final site plan.
 - 4. Final subdivision plan and plat.
 - 5. Conditional use.

2. Each applicant for a final development order, except as provided in subsection 6.10.7 shall pay the appropriate concurrency reservation fees and apply for a certificate of capacity.

3. Each applicant for a preliminary development order: Concurrency option, except as provided in subsection 6.10.7 shall elect one of the following options:

- a. Pay the capacity reservation fee and apply for a certificate of capacity; or
- b. Execute a nonconcurrency affidavit.

6.10.5. Concurrency test requirements.

1. The city shall perform a concurrency test for each development application, except as provided in subsection 6.11.8. The planning and zoning department shall be responsible for conducting all concurrency tests as required by this section. Concurrency tests shall be initiated upon receipt of a concurrency test application form provided by the city, accompanied by the appropriate, nonrefundable, application fee.

2. Each development application will be reviewed on a first-come, first-served



basis. As each application is reviewed, capacity that is available will be encumbered until the final disposition of the application is determined. If the application is approved, the reservation becomes permanent upon payment of the capacity reservation fee (See subsection 6.10.8.6). If the application is denied, the temporary reservation returns to the pool of capacity. If an application cannot be approved because of encumbrances preceding it, the application will be returned to the applicant unless the city determines that it can supersede an earlier application according to the following procedure.

An application that is ready for final disposition can supersede or "advance over" the temporary reservation by an application ahead of it upon early payment of the capacity reservation fee. There are three criteria which restrict the ability to "advance over":

- a. Applicants cannot "advance over" other applicants that have been in the system less than six months;
 - b. An applicant can be "advanced over" only after written notice has been given to all preceding applicants, and they have received ten working days to pay reservation fees and complete the concurrency review process.
3. For development that requires one or more public facilities which are provided by entities other than the city, the city shall condition the issuance of any final development order for the same parcel on the availability of such public facilities.
 4. If the capacity of available public facilities is equal to or greater than the capacity required to maintain the level of service standard for the impact of development, the concurrency test is passed.
 5. If the capacity of available public facilities is less than the capacity required to maintain the level of service standard for the impact of the development, the concurrency test is not passed and the applicant shall select one of the following options:
 - a. Amend the application to reduce the need for public facilities to the capacity that is available; or
 - b. Arrange to provide for public facilities that are not otherwise available; or
 - c. Reapply for a certificate of capacity not less than six months following the denial of an application for a certificate of capacity; or
 - d. Appeal the denial of the application for a certificate of capacity, pursuant to the provisions of subsection 6.10.10.
 6. If no option under subsection 6.10.5(5) above is exercised within five working days by the applicant, the application shall be deemed abandoned.

6.10.6. Concurrency management/concurrency reservation application procedures.



1. Capacity of public facilities for a project will move from the encumbered status to the reserved status for final development orders that pass the concurrency test and satisfy payment of capacity reservation fees.
2. The city has specific time limits for most types of development orders, and the capacity certificate will be valid for the same period of time as the underlying development order.
3. The process for each type of preliminary or final development order is outlined below:
 - a. Preliminary development order--Variance or abandonment.
 1. Submit application.
 2. No concurrency test.
 3. Capacity reservation not available.
 - b. Preliminary development order--Rezoning or comprehensive plan amendment.
 1. Submit concurrency and other applicable application and pay application review fee.
 2. Internal concurrency test.
 3. Capacity determined for maximum or specified uses, densities and intensities.
 4. Encumbrance or reservation option:
 - a. Capacity encumbered while plan amendment or rezoning is under review.
 - b. Capacity reservation at applicant's option. No development order or certificate of capacity is issued.
 - c. If applicant chooses not to reserve capacity, an affidavit is signed acknowledging that future rights to develop the property are subject to future concurrency and no rights have been granted by the city or acquired by the applicant.
 - c. Preliminary development order--Preliminary subdivision plan or conditional use.
 1. Submit concurrency application and pay application review fee.
 2. Concurrency test/encumbrance.
 3. Encumbrance and reservation option:
 - a. Capacity encumbered while plan is under review. Following approval, capacity will be encumbered for an additional six months to allow for final plan submission. No certificate of capacity is issued.
 - b. Capacity reservation at applicant's option. Capacity reservation fees are paid.



- c. If applicant chooses not to reserve capacity and affidavit is signed acknowledging that future rights to develop the property are subject to future concurrency and no rights have been granted by the city or acquired by the applicant.
- d. Final development order. Site plan, final subdivision, DRI.
 - 1. Submit concurrency application if not previously completed.
 - 2. Concurrency test/encumbrance if not previously performed.
 - 3. Capacity determined for specified uses, densities and/or intensities.
 - 4. Encumbrance and reservation option:
 - a. Encumbrance while plan is under review.
 - b. Capacity reservation fee must be paid or nonconcurrency affidavit submitted prior to issuance of final development order.
 - c. Final development order issued and certificate of capacity is released following payment of capacity reservation fee.

4. Concurrency determination analysis is required only once, provided all applicable deadlines are met.

5. Projects can obtain site development permits for new construction without obtaining building permits. Site work development (site work includes clearing and preparation of property and installation of infrastructure) will not be considered to expand or extend the capacity reservation. A capacity reservation is not, by issuance of a site development permit, extended and the applicant will need to seek such extensions as necessary if the capacity reservation will expire prior to receipt of all development approvals.

6. The city will specifically identify its conditions of approval of the capacity reservation application within an enforceable development agreement or binding contract, including necessary off-site infrastructure or facility improvements that are needed to support the project, whether or not the needed facility is public or private if necessary.

- a. If the applicant chooses not to reserve capacity for subdivision lots, development may take place on a site by site basis provided capacity is available. The applicant will be required to sign an affidavit of nonconcurrency acknowledging that future rights to develop the property



are subject to capacity availability at the time of issuance of a building permit.

7. Following final plan approval, recording of plat and receipt of performance and maintenance bond, the city will prepare the final development order. The final development order and certificate of capacity will be released to the appropriate party following payment of the capacity reservation fee or filing of nonconcurrency affidavit and submittal of all applicable documents related to the development. If payment or affidavit is not received within six months after final approval, approval will be null and void.

8. If a concurrency public facility to be provided by an applicant is not available at the time of the development's impacts upon concurrency public facilities, further development will cease until all required concurrency public facilities are constructed. If a concurrency public facility to be provided by an applicant is included in a binding contract, but the construction is behind schedule, development may continue, but no releases for final electrical service or certificates of occupancy will be issued until the facility has been accepted or approved by the city. If, however, a concurrency public facility is to be provided by the city and is not completed on time, development can continue within the conditions of the development order; provided, however, that no certificate of occupancy or releases for final electrical service will be issued until potable water, sanitary sewer and solid waste capacity are available.

9. Certificates of concurrency are not transferable to another parcel or parcels of real property. Certificates of concurrency shall benefit and run with the parcel of real property to which the application related, subject to the limits prescribed in this section, and shall contain detailed information relating to limitations on uses and development densities and intensities.

6.10.7. Exemptions for concurrency test.

1. The following development orders and permits are exempt from this article, and may commence development without a certificate of capacity:

- a. Any addition to a residence;
- b. Interior completion of a shell-only structure for uses with same or less intensity as identified on an approved site plan;
- c. Interior renovations with no change in use;
- d. Accessory structure to a residence;
- e. Storage addition to a nonresidential use;
- f. Replacement structure, except for a nonconforming use, in accordance with the land development code provisions on nonconforming uses;



- g. Temporary construction trailers;
- h. Wells and septic tanks;
- i. Driveway or resurfacing parking lot paving;
- j. Re-roofing of structures;
- k. Demolitions;
- l. Occupational license for a change in tenant space similar to the previous business tenant in the space;
- m. Single-family and duplex residences, which were permitted for construction prior to adoption of this code;
- n. The following items: public utility and service structures, attached or detached guest house to a residence, accessory parking for passenger vehicles when intended for a permitted adjacent commercial use;
- o. Development permits including, specifically, building permits, which do not require an additional final development order prior to their issuance shall not require a concurrency review as a condition of issuance of said permits;
- p. Sign permits.

2. Development that is determined to be vested.

6.10.8. Fees.

1. The city commission shall establish from time to time by the adoption of a resolution the fees required by this section. The fees shall provide for the costs relating to the review and analysis related to applications including, but not limited to, city staff time and expenses resulting from the review of matters such as, by way of example and not limitation, calculations, traffic studies or mitigation studies presented to the city by an applicant.
2. Fees shall be established for concurrency review determinations for each concurrency review application and shall be paid at the time of the filing of the application.
3. Fees shall also be established to provide for the recovery of costs to the city relating to informal inquiries relating to matters involving the concurrency management system. Fees for raw data (public records) shall be charged in accordance with the provisions of Chapter 119, Florida Statutes, or its successor provision, as implemented by the city.
4. Fees shall also be established for appeals, administrative determinations and



the extension of certificates of concurrency resulting from the approval of extending final development orders or the extension of a final development order.

5. The city shall establish by resolution, fees for concurrency testing, both formal and informal, for inquiries which require substantially the same research as a full scale concurrency test; for time required to review alternative demand data which an applicant may provide as well as any traffic studies or mitigation plans which an applicant requests be reviewed as part of a concurrency test; and for capacity reservations.

6. For each concurrency public facility the facility reservation fee shall apply to all development and shall be an amount equivalent to the then applicable Crescent City Impact Fee for each concurrency facility type. All impact fees shall be required to be assessed and paid as a condition of receiving a building permit pursuant to the impact fee rate schedules in effect at the time a permit is issued. However, each facility reservation fee is a per unit fixed-dollar deduction from the applicable impact fee in place at the time of building permit issuance.

7. At the time of the issuance of a final development order, all of the said fees must be paid; provided, however, that if a development agreement or a contingent development order provides that the final development order is not effective until a preconstruction conference occurs, said fees may be delayed until that date; provided further, that if the fees are not paid, the development order shall be null and void and of no further force or effect.

8. If a final development order is not issued, expires or is surrendered pursuant to an amending development order issued by the city or an amending development agreement, an applicant may request in writing and the city shall issue a refund of facility reservation fees if the following condition is met:

- a. For all concurrency public facilities, capacity shall be surrendered, and thereupon a refund shall be made by the city at the occurrence of the following event: a determination has been made by the public works director that such refund will not require or result in the elimination, deferral or delay of a project which is needed to maintain adopted level of service standards and which is listed in the adopted capital improvements element schedule of improvements.

6.10.9. Enforcement of concurrency requirements.

1. The requirements of this section shall be enforced by the planning and zoning department. Whenever the planning and zoning department determines that a violation of this part has occurred or is occurring, the department shall issue written notice to any persons believed to be in violation, identifying the nature and location of the violation and specifying the remedial actions required to bring the violation into compliance. Such alleged violations may be brought before the Crescent City Code Enforcement Board or otherwise enforced in accordance with the provisions of this code.



2. The planning and zoning department shall have the authority to immediately issue a stop work order if it is found that the application intentionally provided incorrect or inaccurate information in order to obtain a certificate of concurrency or factual circumstances demonstrate that development is occurring without a certificate of concurrency.

6.10.10. Appeals.

1. An applicant may appeal a denial of a certificate of capacity on two grounds:

- A technical error;
- The applicant provided alternative data or traffic mitigation plan that was rejected by the city;

2. The appeal of a denial of a certificate of capacity shall be filed in writing within five days of the date of denial with the planning and zoning department detailing the exact grounds for the appeal. No other information will be considered in the appeal process. A recommendation will be formulated by the planning and zoning department with regard to the appeal and transmitted to the city manager within 30 days of the receipt of request for appeal. A final decision will be made by the city manager within 15 days upon receipt of the staff recommendation. Appeal of a denial of a certificate of capacity by the city manager shall be made by requesting a hearing before the city council within five days of the denial. The city manager shall forward his/her recommendation to the city council for final disposition. Appeal of a denial by the city council can be made by filing a petition for the Circuit Court of the Fifth Judicial Circuit Court in and for Putnam County, Florida, within 30 days of the date of notice of denial by the city council.

3. If an applicant is denied a development order on concurrency grounds, the applicant may not resubmit the same application for a period of six months from the date the application was denied. If the applicant makes material or significant reductions to the densities and intensities of use in the application, it may be resubmitted at any time.

6.11. Residential architectural guidelines.

6.11.1. Purpose and intent. It is the purpose of this section to provide general guidelines relating to the architectural design of development and redevelopment in the city. These guidelines apply to residential development or redevelopment where special conditions or circumstances arise where it is desirable to deviate from standard code requirements.

6.11.2. Applicability. These architectural guidelines shall apply to development where the applicant finds it difficult to meet, or desirous to deviate from standard code requirements. In these cases, waivers may be granted to the applicable development provided that the structure(s) conform to the general guidelines contained herein.

6.11.3. Enforceability. The planning and zoning commission shall act as the



Design Review Committee for review of applications which apply to the architectural guidelines.

6.11.4. *Submittals.* The applicant shall submit, with the appropriate applications, elevation drawings with enough detail to ensure that the intent of this section is met.

6.11.5. *Architectural standards.*

1. Facades and elevations.

a. Buildings or structures which are part of a present or future group or complex shall have a unity of character and design. The relationship of forms and the use, texture and color of materials shall be such as to create a harmonious whole. When the area involved forms an integral part of, is immediately adjacent to, or otherwise clearly affects the future of any established section of the city, the design, scale and location on-site shall enhance rather than detract from the character, value and attractiveness of the surroundings.

b. Buildings or structures located along strips of land or on single sites and not a part of a unified multi-building complex shall strive to achieve visual harmony with the surroundings. If the buildings are in undeveloped areas, three primary requirements must be met: proper design concepts, honest design construction and appropriateness to surroundings.

c. All facades visible to public or adjacent property shall be designed to create a harmonious whole. Materials shall express their function clearly and not appear as a material foreign to the rest of the building.

d. It is not to be inferred that buildings must look alike to be of the same style or to be harmonious. Harmony can be achieved through the proper consideration of scale, proportions, site planning, materials and color.

e. Look-alike buildings are not allowed unless, in the opinion of the board, there is sufficient separation to preserve the aesthetic character of the present or evolving neighborhood. This is not to be construed to prohibit duplication of floor plans and exterior treatment in a planned development or developments which depend upon or are enhanced by the look-alike buildings and their relationship to each other.

f. Buildings which are of symbolic design for reasons of advertising and buildings which are not compatible to the surroundings will not be approved. Symbols attached to buildings will not be allowed unless they are secondary in appearance to the building and landscape and are an aesthetic asset to the building project and neighborhood.

g. Exterior lighting may be used to illuminate a building and its grounds for safety purposes but in an aesthetic manner. Lighting is not to be used as a form of advertising in a manner that is not compatible to the neighborhood or in a manner that draws considerably more attention to the building or grounds at night than in



the day. Lighting following the form of the building or part of the building will not be allowed if the overall effect will be garish or detrimental to the environment. All fixtures used in exterior lighting are to be selected for functional and aesthetic value.

h. All exterior forms, attached or not attached to buildings, shall be in conformity to and secondary to the building. They shall be an asset both to the aesthetics of the site and the neighborhood.

i. Guidelines: The following guidelines are intended to be general in nature to provide flexibility to the applicant in providing structure(s) which are in keeping with the architectural styles of the neighborhoods in which they are located:

1. The following architectural factors shall be considered of primary importance when reviewing for consistency:

- a. Open air front or wrap around porches;
- b. Gable, hipped or mansard type roofs;
- c. Second story balconies;
- d. Decorative roof treatments, including but not limited to, pediments, dormers, ridge cresting, entablature, decorative bridgeboard, decorative shingles, etc.;
- e. Decorative window treatments, including but not limited to, louvered shutters, double-hung windows, arched windows, transoms, stained glass, etc.

2. To provide further guidance, the following examples of architectural design are provided. These styles should not be considered as mandatory designs, rather as general indications of the types of styles considered by the city to be consistent with historical development trends. Specific architectural attributes or characteristics may be mixed between the period structures shown to produce an aesthetically pleasing design.

(Insert Historic Crescent City Walking Tour Photos)

Sec. 6.12. Commercial architectural and site design requirements.
(Reserved)

Sec. 6.13. Aquatic vegetation.

6.13.1. No person shall control, eradicate, destroy, remove, or otherwise alter any aquatic weeds, plants or vegetation found within any wetland or within any waters within the city unless a permit for such activity has been issued by the Florida Department of Environmental Protection ("DEP"), or unless the activity is in waters expressly exempted by DEP rule or is expressly exempted in subsection 6.13.2 below.



6.13.2. As an exemption to all permitting requirements in this section and any other requirements of any other governmental body or agency unless expressly required by state law, a riparian owner may physically or mechanically remove herbaceous aquatic plants and semiwoody herbaceous plants, such as shrub species and willow, within an area delimited by up to 50 percent of the property owner's frontage or 50 feet, whichever is less, and by a sufficient length waterward from, and perpendicular to, the riparian owner's shoreline to create a corridor to allow access for a boat or swimmer to reach open water. All unvegetated areas shall be cumulatively considered when determining the width of the exempt corridor. Physical or mechanical removal does not include the use of any chemicals or any activity that requires a permit pursuant to F.S. ch. 373, part IV.

Sec. 6.14. Easements.

6.14.1 *Standard subdivision easements.* Easements at least seven and one half (7 ½) feet in width shall be provided on each side of all back lot lines and five feet (5) in width on all side lot lines.

6.14.2 *Additional easement standards.* The following minimum standard widths shall apply to all proposed easements where the following conditions or uses are proposed:

1. Drainage- minimum twenty (20) feet width
2. Sanitary gravity sewer- minimum twenty (20) feet width
3. Sanitary force main- minimum fifteen (15) feet width
4. Water main- minimum fifteen (15) feet width
5. Gas main- minimum fifteen (15) feet width
6. Access- minimum twenty (20) feet width (may not replace required public right-of-way access)

All easements are to be centered on the facility. Additional easement width may be required if deemed necessary by the City for maintenance and access activities.

