

ORDINANCE NO. 2020-\_\_\_\_\_

AN ORDINANCE AFFECTING THE USE OF LAND IN ORANGE COUNTY, FLORIDA, RELATED TO CERTAIN COUNTY ADMINISTRATIVE PROVISIONS BY AMENDING THE FOLLOWING PARTS OF THE ORANGE COUNTY CODE: CHAPTER 16 (“EXCAVATION AND FILL”), ARTICLE I (“IN GENERAL”); CHAPTER 21 (“HIGHWAYS, BRIDGES AND MISCELLANEOUS PUBLIC PLACES”), ARTICLE I (“IN GENERAL”) AND ARTICLE III (“VACATING ROADS, RIGHTS OF WAY AND EASEMENTS”); CHAPTER 30 (“PLANNING AND DEVELOPMENT”), ARTICLE XIII (“EMINENT DOMAIN WAIVERS, EXCEPTIONS, AND VARIANCES”); AND CHAPTER 34 (“SUBDIVISION REGULATIONS”), ARTICLE I (“IN GENERAL”); AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF ORANGE COUNTY, FLORIDA:

*Section 1. Amendments; In General.* Chapters 16 (“Excavations and Fill”), 21 (“Highways, Bridges and Miscellaneous Public Places”), 30 (“Planning and Development”), and 34 (“Subdivision Regulations”) of the Orange County Code are amended as set forth in Section 2 through Section 5 below, with additions being shown as underlines and deletions being shown as ~~struck through~~:

*Section 2. Amendments to Chapter 16, Excavation and Fill.*

A. Section 16-8(d) of the Orange County Code is hereby amended to read as follows:

**Sec. 16-8. Technical requirements.**

\* \* \*

(d) *Mass grading.* A combined excavation/fill permit shall be required for mass grading operations where the volume of material moved exceeds four hundred ninety-nine (499) cubic yards and/or the disturbed area exceeds one (1.0) acre.

(1) No material is to be imported or exported.

(2) A tree removal permit, if required, shall be obtained prior to filing an application for an excavation/fill permit.

(3) An erosion and sediment control plan addressing both waterborne and windborne material shall be approved prior to issuance of a permit. Erosion and sediment control plans must be consistent with the guidelines in the most current version of the State of Florida Erosion and Sediment Control Designer and Reviewer Manual or its successor.

(4) Each phase of the operation (i.e., excavation, fill and restoration) shall comply with the applicable subsection of this chapter except that the planting of trees may be waived at the discretion of the County Engineer. In addition, the overall plan shall be in conformance with the approved preliminary subdivision plan as to final topography of the project.

\* \* \*

B. Section 16-22(a)(10) of the Orange County Code is hereby amended to read as follows:

**Sec. 16-22. Permit procedures.**

(a) The applicant shall submit a properly executed application form with all required supporting documents to the County Engineer. Supporting documents for origination or renewal include, but are not necessarily limited to:

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(10) Four (4) copies of an erosion, sediment, and turbidity control plan which is consistent with the guidelines in the most current version of the State of Florida Erosion and Sediment Control Designer and Reviewer Manual or its successor.

*Section 3. Amendments to Chapter 21, Highways, Bridges and Miscellaneous Public Places.*

A. Section 21-5 of the Orange County Code is hereby amended to read as follows:

**Sec. 21-5. Cutting or destroying shade trees.**

(a) The removing, cutting, marring, defacing, or destroying of any ~~shade~~-tree, either by direct personal action or by causing any other person to take such action, within any public road or public right-of-way, including roadway medians, is prohibited unless prior written permission to remove, cut, mar, deface, or destroy such tree has been granted by the ~~division of public works~~ Public Works Department.

(b) ~~For purposes of this section, the term "shade tree" shall mean any tree within the following list:~~

Common Name	Scientific Name
Ash, Green	Fraxinus pennsylvanica
Blolly	Guapira discolor
Bottlebrush	Callistemon spp.
Camphor tree	Cinnamomum camphora
Cherry Laurel	Prunus caroliniana
Copperpod	Peltophorum pterocarpum
Elm, American	Ulmus americana
Elm, Chinese	Ulmus parvifolia
Golden Shower Tree	Koelreutaria elegans
Hickory, Pignut	Carya glabra

Hornbeam, American	<i>Carpinus caroliniana</i>
Indian Rosewood	<i>Dalbergia sissoo</i>
Jacaranda	<i>Jacaranda mimosaeifolia</i>
Lancewood	<i>Nectandra coriacea</i>
Lynchee	<i>Litchi chinensis</i>
Macadamia Nut	<i>Macadamia integrifolia</i>
Magnolia, Southern	<i>Magnolia grandiflora</i>
Maple, Red	<i>Acer rubrum</i>
Oak, Bluejack	<i>Quercus incana</i>
Oak, Laurel	<i>Quercus laurifolia</i>
Oak, Live	<i>Quercus virginiana</i>
Oak, Myrtle	<i>Quercus myrtifolia</i>
Oak, Pin	<i>Quercus palustris</i>
Oak, Shumard Red	<i>Quercus shumardii</i>
Palm, Queen	<i>Arecastrum romanzoffianum</i>
Persimmon	<i>Diospyros virginiana</i>
Pine, Loblolly	<i>Pinus taeda</i>
Pine, Longleaf	<i>Pinus palustris</i>
Pine, Sand	<i>Pinus clausa</i>
Pine, Slash	<i>Pinus elliottii</i>

Red Bay	Persea borbonia
Redbud	Cercis canadensis
Silk tree	Albizia julibrissin
Sugarberry	Celtis Laevigata
Sweetgum	Liquidambar styraciflua
Sycamore	Platanus occidentalis
Tabebuia, Golden	Tabebuia chrysotricha

(e) — The following acts are exempt from subsection (a):

(1) Where the removing, cutting, marring, defacing, or destroying of any ~~shade~~ tree is done by or on behalf of the ~~division of public works~~ Public Works Department; or

(2) Where normal trimming of a ~~shade~~ tree is required to ensure the safe operation of a utility facility and such tree trimming is performed by the utility company in accordance with the provisions of its utility accommodations guide; or

(3) Where normal trimming of a ~~shade~~ tree is done by or on behalf of a single-family residential property owner in front of his or her residence.

(d) The ~~division of public works~~ Public Works Department may enforce this section by reporting the offender to the state attorney. Each offender shall be punished as provided in section 1-9.

B. Section 21-6 of the Orange County Code is hereby created to read as follows:

**Sec. 21-6. Opened non-maintained roadways.**

(a) Opened non-maintained roadways are roadways not accepted for County maintenance that are used on a daily basis to access two or more residential units, excluding condominiums, apartments, mobile home parks, commercial parcels, and private driveways serving a single parcel. These roadways may or may not

be paved and may or may not have adequate right-of-way, cross-section, or roadside drainage that meet County standards.

(b) Due to health and safety concerns with emergency responder access, the County shall not issue permits with regard to opened non-maintained rights-of-way.

(c) Property owners abutting and accessing opened non-maintained roadways shall be solely responsible for maintaining these substandard roadways without County assistance.

(d) Existing opened non-maintained roadways must be improved by property owners to approved minimum dirt road standards to be accepted for future maintenance and paving by the County through requirements that may include, but shall not be limited to, the following:

(1) Petition submitted to the Board of County Commissioners with the signatures of 67 percent of property owners requesting initiation of roadway improvements and certifying that 100 percent of the required right-of-way, with a minimum width of forty (40) feet, is available for dedication at no cost to the County.

(2) Permitting, plan approval, and construction of roadway and appropriate drainage improvements in accordance with County standards and policies, including applicable cross-section on file with the Development Engineering Division. An approved Right of Way Utilization Permit shall be required prior to the start of any improvements.

(3) Upon determination by the County that the roadway meets County standards, the property owner or owners and the County will apply for a permit from the applicable Water Management District for paving.

(4) Funding of improvements through non-County sources, which may include establishment of a Municipal Service Benefit Unit (MSBU) or other funding mechanism approved by the Board of County Commissioners, may include planning, design, survey, permitting, related drainage improvements, preparation of deeds, recordation of deeds, construction plan preparation, construction, and contract administration. Any funding obtained through private-sector financing institutions shall include a ten-year period for repayment of roadway improvement costs.

(5) Upon request of a property owner or owners, if the County deems it desirable and in the public interest, the County may elect, in its sole and absolute discretion, to administer and/or enter into a contract for any portion of the design, permitting, and/or construction of improvements funded by a property owner or owners.

(6) The foregoing is not intended to nor shall it impose any obligation on the County.

(e) Once the road is improved to County dirt road standards and accepted by the County, the County will assume maintenance of the roadway and responsibility for paving and will pave the roadway within one year.

(f) If all appropriate permits have been obtained, residential development along the opened non-maintained portion of roadways may occur, providing the property owner or owners sign a Non-Maintenance Agreement (a notarized document acknowledging the County is not responsible for the maintenance of the roadway) and a Notice of Future Assessment (a notarized document acknowledging the property owner is subject to future costs if the roadway is ever improved by the County) prior to the issuance of any building permit. Both documents shall be recorded in the official records of the County and shall run concurrent with the land.

(g) Development beyond the opened non-maintained limits shall be required to comply with Section 21-7 and the latest Policy for Unopened Unimproved Rights-of-Way.

(h) This section shall not apply to gated communities developed in accordance with Chapter 34, Article VIII, Orange County Code, which do not have public rights-of-way.

C. Section 21-7 of the Orange County Code is hereby created to read as follows:

**Sec. 21-7. Unopened unimproved rights-of-way.**

(a) Unopened unimproved rights-of-way are defined as any unopened, unimproved platted or dedicated access to any number of undeveloped lots or parcels as defined by the County. These rights-of-way may or may not have adequate width to meet County standards for roadway construction.

(b) Prior to development of a parcel or parcels accessing unopened unimproved rights-of-way, these rights-of-way shall be improved to County roadway standards as a paved

roadway from the access point of each parcel or parcels being developed to the nearest paved roadway in accordance with Chapter 34 (Subdivision Regulations) and be accepted by the County for future maintenance. Requirements may include, but shall not be limited to, the following:

(1) Five signed and sealed sets of construction plans and two signed and sealed copies of engineer's estimates must be submitted to the Development Engineering Division for review and approval, along with payment of appropriate review fees. All plan documents submitted shall be prepared and certified by a registered professional engineer in the state of Florida.

(2) Continuous rights-of-way with a minimum width of fifty (50) feet for an urban section or sixty (60) feet for a rural section shall be available.

(3) ~~Payment of all costs of r~~Roadway improvements, including planning, right-of-way, survey, design, ~~and~~ permitting, mitigation, and construction, shall be ~~the responsibility of parcel owners or developers~~at no cost to the County.

(4) Design, permitting, and construction plan approval, and construction of improvements shall be in accordance with County standards and policies, including, but not limited to, issuance of a County Right-of-Way Utilization Permit before any roadway construction begins, periodic inspections of roadway improvements by the County, and construction in accordance with federal and state requirements.

(c) After all required improvements have been installed, the engineer of record shall submit certification to the County that all improvements have been constructed according to County-approved plans and specifications. Upon final inspection and acceptance by the County Engineer, the County will maintain the roadway. A letter of credit will be posted to warrant all workmanship and materials for a period of one year upon completion of the improvements and prior to County acceptance of the roadway.

(d) Parcel development reviews, permitting, and infrastructure construction may occur simultaneously with road improvements. No Certificates of Occupancy shall be issued until roadway improvements are accepted by the County.

(e) The execution of a Non-Maintenance Agreement (a notarized document acknowledging the County is not responsible for the maintenance of the roadway) and a Notice of Future Assessment (a notarized document acknowledging the parcel



owner is subject to future costs if the roadway is ever improved by the County) by parcel owners or developers shall not be accepted in lieu of the requirement to improve the roadway to County standards.

\* \* \*

D. Section 21-61 of the Orange County Code is hereby amended to read as follows:

**Sec. 21-61. Petition requirements.**

(a) All requests for vacating county roads, rights-of-way and easements shall be made by written petition. Any such petition shall be in a form or forms required by the board of county commissioners and may include, but shall not be limited to, the following:

(1) A sketch of description with the legal description of the property subject to the petition.

(2) The instrument that ~~identifies the title or created public interest~~ which the county ~~and the public holds~~ in the property subject to the petition.

(3) Proof that the county did not pay more than a nominal amount for the road, right-of-way or easement sought to be vacated.

~~(4) A survey of the property subject to the petition.~~

(54) A list of all abutting property owners.

(65) In the case of roads and rights-of-way, a certification by the petitioner that the vacating will not deprive other property owners of access to and from their property.

(76) Certificates from public utility companies that the vacating will neither interfere with the utility services being provided nor encroach unreasonably on any utility easements.

(87) A ~~statement of reasons~~narrative explaining why the petition should be granted.

~~(b) A petition shall contain all information requested therein and shall be limited to a single road, right of way or easement, except that contiguous or adjoining roads or rights of way or easements may be included in a single petition.~~

E. Section 21-62 of the Orange County Code is hereby amended to read as follows:

**Sec. 21-62. Fees for processing petitions.**

The board of county commissioners may set by resolution such fees as are reasonable to cover the cost of administrative review and investigation, the cost of publishing and posting notices, the cost of recording and other reasonable administrative costs which the board of county commissioners incurs in processing such petitions.

F. Section 21-63 of the Orange County Code is hereby amended to read as follows:

**Sec. 21-63. Procedure and criteria for review of petitions—  
Generally.**

(a) Each petition shall be reviewed by the public works director, and he or she shall submit his recommendations to the board of county commissioners. The board of county commissioners, upon review of the petition and the recommendations of the public works director, shall either adopt a resolution setting a public hearing for the petition, deny the petition, or return the petition to the public works director or other appropriate county staff for additional study.

(b) A preapplication conference with the Development Engineering Division shall be required before submittal of a petition to vacate.

(c) Per Transportation Policy T3.2.4 of the Comprehensive Plan, the County shall not vacate roads, rights-of-way and easements except under the following conditions:

(1) Vacation will not forestall reasonably foreseeable future bicycle/pedestrian use;

(2) Vacation will not forestall non-motorized access to adjacent land uses or transit stops;

(3) Vacation is necessary for the construction of a high-density, mixed-use project containing both residential and non-residential uses;

(4) There is no reasonably foreseeable need for any type of transportation corridor for the area in the future.

G. Section 21-196 of the Orange County Code is hereby amended to read as follows:

**Sec. 21-196. Application.**

(a) A single application form approved by the ~~e~~County ~~e~~Engineer shall be used when applying for either a right-of-way utilization permit, an underground utility contracting work permit, or both. ~~The applicant shall indicate in the space provided on the application the type or types of permit or permits being applied for. A copy of the permit application is shown in Appendixes A and B.~~

(b) Applications may be obtained at the Orange County website or at 4200 South John Young Parkway~~county engineer's office at 4200 Whiteomb Avenue, Orlando, Florida, 3280932839.~~ Applications should also be submitted to this office. A minimum of fourteen (14) days is normally necessary for processing and approval of permit application. The applicant must take this into consideration in planning proposed construction/installation or other work in the right-of-way.

~~(c) Information provided by the applicant in completing the application form shall be typewritten or printed in ink. The top three (3) copies of the application must be legible and all requested information must be provided. Instructions for completing the application are printed on the reverse side of the application.~~

~~(1) A sketch shall accompany the application. The sketch, not necessarily to scale, similar to Appendix C, shall reflect a plan view of the proposed utility installation. This should be a strip drawing folded to size not to exceed eight and one half (8½) inches by fourteen (14) inches.~~

~~(2) It shall show the offset from the centerline of the right of way or road to the proposed utility installation, the road right of way width and pavement width, the distance from edge of pavement to the utility, sidewalks, and the location of all other utilities within the area of work.~~

~~(3) One (1) or more typical cross sections as required to adequately reflect the location of the utility shall also be shown.~~

~~(4) The minimum vertical clearance above or below the parkway or pavement shall be shown.~~

~~(5) — Additional information such as the location in relation to the nearest road intersection, bridges, railroad crossings and other physical features shall be indicated on the sketch and identified.~~

~~(6) — It is desirable that a simple key map showing the location of this proposed facility be included either on the sketch itself, or as a separate sketch to assist all concerned with the general location of the installation, and should indicate the applicable section, township and range.~~

~~(7) — The applicant shall submit a Maintenance of Traffic (MOT) management plan for temporary traffic control of the work activity that must be reviewed and approved by Orange County Traffic Engineering Division.~~

~~(d) — Upon approval of the application and payment of the fee, one (1) copy of the approved permit application, with attachments, will be returned to the applicant.~~

~~(e) — If for any reason the project is canceled or not approved, a refund of fees paid in excess of the base fee will be refunded or credited to the applicant's account.~~

~~(fc) Permits for work within dedicated public right-of-way, in conjunction with a project that requires a preconstruction meeting to be held, pursuant to the provisions of the county subdivision regulations, will not be issued until the required preconstruction meeting has been conducted and required fees paid.~~

**Section 4. Amendments to Chapter 30, Planning and Development.** Section 30-282

of the Orange County Code is hereby amended to read as follows:

**Sec. 30-282. Drainage plan requirements; all categories of development.**

(a) *Drainage map.* The project engineer shall include in the construction plans a master drainage map showing all existing and proposed features. The map is to be prepared on a twenty-four-inch by thirty-six-inch sheet on a scale not to exceed one (1) inch equals two hundred (200) feet. The following shall be included on the drainage map:

(1) Drainage bounds, including all off-site areas draining to the proposed site.

(2) Sufficient topographical information with elevations to verify the location of all ridges, streams, etc., (one-foot contour intervals).

(3) High water data on existing structures upstream and downstream from the site.

(4) Notes indicating sources of highway data.

(5) Notes pertaining to existing standing water, area of heavy seepage, or springs.

(6) Existing drainage features (ditches, roadways, pond, etc.). Existing drainage features are to be shown a minimum of one thousand (1,000) feet downstream of the proposed development, unless the ultimate outfall system is a lesser distance.

(7) Drainage features, including, but not limited to, location of inlets, swales, ponding area, and flow arrows.

(8) Delineation of drainage sub-areas.

(9) General type of soils (obtain from the most recent edition of the USDA soil survey of the county).

(10) FEMA Flood hazard classification.

(11) Description of current ground cover and/or land use.

(12) Identification of retention/detention areas and ingress/egress areas thereto.

(13) NHWE designation for all surface water bodies.

(14) Seasonal high water elevations for wetlands as determined by a qualified ecologist/biologist.

(15) All storm sewer pipes and sizes.

(b) *Subsoil investigation.* A subsoil report shall be prepared by a geotechnical engineer ~~experienced in the preparation of this type of report~~. The contents of the subsoil report will be in accordance with ~~s~~Section 30-280(d). A minimum of two (2) borings will be taken per retention/detention area.

(c) *Stormwater calculations.* Stormwater calculations for retention/detention areas, including design high water elevations for the 25-year frequency, 24-hour duration and 100-year frequency/24-hour duration~~twenty five year and one hundred year storm events~~ shall include the following:

(1) Cross sections of retention/detention facilities.

(2) Typical swale, ditch or canal sections.

(3) Drainage, rights-of-way.

(4) Typical fencing detail.

(5) Note on the design plans that an erosion and sediment control plan will be submitted to the eCounty eEngineer for approval prior to the preconstruction conference. Erosion and sediment control plans must be consistent with the guidelines in the most current version of the State of Florida Erosion and Sediment Control Designer and Reviewer Manual or its successor.

(d) Routing calculations including the following:

(1) Identify the locations of all storage areas and hydraulic structures on the basin map.

(2) A schematic drawing (i.e., nodal diagram) showing the interconnection of the hydrologic/hydraulic network.

(3) Stage vs. storage/area/time calculations with references and methodology.

(4) Hydrologic parameters required to calculate the hydrograph such as drainage area, time of concentration, runoff coefficient and runoff curve number.

(5) Peak stage, peak outflow, and peak velocity results for the simulated design storm event including all computer printouts of input and output.

(6) Additional information that the County Engineer deems necessary.

***Section 5. Amendments to Chapter 34, Subdivision Regulations.***

A. Section 34-4 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-4. Purpose.**

This chapter was enacted by the board of county commissioners for the following purposes:

(1) To establish minimum standards of subdivision design.

(2) To ensure an adequate and efficient supply of utilities and services.

(3) To provide for safe and convenient vehicular, bicycle, and pedestrian traffic circulation.

(4) To promote ~~the~~ public health, safety and general welfare.

(5) To minimize flooding and promote water management.

(6) To coordinate land development in accordance with ~~the comprehensive policy plan (CCP)~~ Comprehensive Plan policies and other adopted rules and regulations.

(7) To help protect the natural and scenic resources of the county.

(8) To serve as one (1) of the several instruments of land use control authorized by the state legislature for the county.

(9) To ensure the adequate availability of affordable housing in Orange County through the utilization of the expedited permitting process, the housing incentive plan and any existing or adopted policies that encourage the provision of affordable housing units.

(10) To facilitate Low-Impact Development (LID) practices and preserve existing trees to the extent practicable to further promote sustainability in Orange County.

B. Section 34-132 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-132. Subdivision construction plans.**

(a) If a conservation area ~~mitigation plan~~ impact permit is required, it must be approved prior to approval of subdivision construction plans.

(b) All construction plans, engineering calculations and supporting documents submitted to the County Engineer for review and approval shall bear the date, seal and signature of the engineer responsible for the development.

(c) A minimum of ~~five (5)~~ six (6) hard copies and one (1) digital copy of the subdivision construction plans and specifications for paving, drainage, utility systems and other improvements shall be submitted and approved prior to the commencement of construction. The plans shall include:

(1) Plan and profile of all proposed streets, including existing grade, storm sewers, water mains, reclaimed water mains, sanitary sewers, off-site utility mains, seasonal-high groundwater elevations, and outfall ditches. Construction plans must show on plan view all road alignment geometry, including curve data, lot dimensions and cul-de-sac dimensions.

(2) Grading plan which includes original contours at one-foot intervals, finish floor elevation, final elevation at each corner and type grading for each lot shall be shown. Also, the typical building envelope shall be shown. The minimum floor elevation shall be one and one-half (1.5) feet above the centerline of the street or as approved by the ~~e~~County ~~e~~Engineer. Pollution abatement swales shall be provided upland of streams and canals and the normal high water elevation on all lakes. For lots on central sewer system only, grading of lots need not be accomplished prior to issuance of an approval for maintenance by the county. For lots on OSDS, see sSection 34-204(a).

(3) Water distribution facilities, including off-site main extensions, if applicable.

(4) Sanitary sewerage facilities, including collection systems, pump stations, force mains and off-site main extensions, if applicable.

(5) Reclaimed water distribution facilities, including off-site main extensions, if applicable.

(6) Stormwater management plan. A stormwater management plan, including calculations in the form of one (1) hard copy and one (1) digital copy, shall be submitted to the County and shall comply with article VII of this chapter.

(7) Soil profiles, prepared under the supervision of a geotechnical engineer, including, but not limited to, the following minimum requirements:

a. Soil borings at a maximum interval of five hundred (500) feet along street centerlines. The minimum depth of boring shall be five (5) feet below profile grade or two (2) feet below the storm sewer or sanitary sewer, whichever is greater. Not less than two (2) borings shall be taken per street.

b. Soils classification.

c. Gradation.

d. Determination of water table elevation (twenty-four-hour test) and estimated wet season water table.

(8) Screen walls as outlined in sSection 34-209.



(9) Sidewalks/bikeways, if applicable, as outlined in ~~s~~Section 34-171.

(10) Signing and pavement marking plans with details of installation consistent with Traffic Engineering Division specifications

(11) Copy of approved MOT management plan for temporary traffic control to be submitted consistent with Section 21-236.

C. Section 34-152 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-152. Lots and blocks.**

(a) *Lot size.* The minimum lot size in a subdivision shall be determined based on the potable water source and wastewater system provided in the subdivision as stated in ~~s~~Sections 34-206 and 34-207, respectively, provided that lot dimensions and size shall not be less than the minimum established in ~~e~~Chapter 38 of the Orange County Code (zoning).

(b) *Corner lots.* Corner lots shall be at least ten (10) feet greater in width than the minimum established in chapter 38 of the Orange County Code (zoning). Where the minimum width established in chapter 38 exceeds ninety-five (95) feet, no additional width shall be required.

(c) *Access.* Each lot and tract interior to the subdivision shall have a minimum access width of twenty (20) feet to a dedicated public paved street, except in gated communities covered by article VIII of this chapter, and access to the public sidewalk network along major roadways. The subdivision shall be so designed that remnants and landlocked areas within the subdivision are not created, except access may not be required to parcels identified as conservation areas. All lots shall have access from an internal subdivision street. Access rights to external roads from individual lots shall be dedicated to Orange County. Lots shall not be approved with access on an unpaved right-of-way or with access by any type of easement.

(d) All access cuts or driveways shall meet all requirements of Section 30-248.

~~(d)~~ *Flag type lots.* Flag lots shall be designed to minimize safety problems. No more than two (2) flag lots should be located adjacent to each other. The minimum lot width for the

narrow extension of the lot to the right-of-way shall be twenty (20) feet.

(ef) *Lot lines.* Side lot lines shall be, as nearly as practical, at right angles to straight street lines and radial to curved street lines. In subdivisions which overlap municipal or county boundaries, lot lines shall follow the boundary lines.

(fg) *Conservation areas, as defined by the conservation ordinance, chapter 15 of the Orange County Code.*

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D. Section 34-171 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-171. Roadway design standards.**

All streets to be established in a subdivision shall be designed in accordance with the latest editions of the Orange County Road Construction Specifications and the Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (~~Green Book~~ Florida Greenbook) and the following minimum standards:

(1) *Right-of-way width.* The minimum right-of-way width shall be as listed below, or of sufficient width to provide for adequate ultimate drainage facilities, utilities, and sidewalks, whichever is greater:

Rural (feet)	Urban (feet)
60	50

Additional right-of-way may be required to accommodate design cross sections.

(2) *Pavement width.* The minimum pavement widths shall be determined by the average daily traffic (ADT), measured in vehicles per day (vpd), projected for the roadway and shall be in accordance with the following:

Average Daily Traffic (vpd)	Pavement Width (in feet)
Residential:	
— 0 — 300	18
<u>0</u> 301 — <u>0</u> —800	20
801—1500	22
1501—3500	<del>24</del> 22*
3501—10,000	<del>22/24</del> 24**
Commercial/Industrial:	28
Over 10,000	48 <del>44</del> †

\* With dedicated access and left turn lane

\*\*Eleven-foot lanes may be allowable at the discretion of the County Engineer.

† With dedicated access and left turn lane and median

Minimum pavement width for one-way roadway, not including on-street parking, shall be ~~seventeen~~twenty (17/20) feet. For all local streets with on-street parking on one side and mountable curb, the minimum driveable pavement width shall be twenty-four (24) feet, plus one and one-half (1.5) feet on each side, for a total of twenty-seven (27) feet of pavement. For all local streets with on-street parking on two sides and mountable curb, the minimum driveable pavement width shall be thirty-one (31) feet, plus one and one-half (1.5) feet on each side, for a total of thirty-four (34) feet of pavement. If not using mountable curb, the pavement width shall be twenty-seven (27) feet for one side of parking and thirty-four (34) feet for both sides of parking.

Minimum median width shall be ~~fifteen and one-half (15.5) feet back of curb to back of curb~~consistent with Florida Greenbook standards.

Note: Pavement widths shall be measured exclusive of curbs. All roads shall be designed with either Type "A," "B" or "C" in accordance with Florida Greenbook standards for curbs. Median curb shall be designed along all medians. All median curbs shall meet FDOT standards.

(3) *Vertical alignment.* The vertical alignment of streets in a subdivision shall be in accordance with Florida Greenbook standards and subject to the following:

a. Vertical curves shall be required where the algebraic difference in intersecting grades equals or exceeds the following values:

Average <del>—</del> Daily Traffic (vpd)	Algebraic Difference (percentage)
0 <del>—</del> 3,500	1.20
Over 3,500	1.00

<u>Design Speed (mph)</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>	<u>50</u>	<u>55</u>
<u>Maximum Change in Grade in Percent</u>	<u>1.2</u>	<u>1.10</u>	<u>1.00</u>	<u>0.90</u>	<u>0.80</u>	<u>0.70</u>	<u>0.60</u>	<u>0.50</u>

b. All vertical curves shall be of sufficient length to provide a safe stopping sight distance compatible to the design speed of the roadway. Minimum length of all vertical curves shall be one hundred (100) feet or three times the design speed of the highway, whichever is greater.

c. The minimum grade for subdivision streets with curb and gutter shall be twenty-four hundredths (0.24) percent.

d. Minimum cross slopes and/or super-elevation rates of .0208 feet/foot (one-quarter-inch/foot) shall be utilized for the design of all roadways.

(4) *Horizontal alignment.* The horizontal alignments of streets in a subdivision shall be in accordance with Florida Greenbook standards, subject to the following:

~~a. The minimum radius of inside edge of pavement at right angle curves internal to subdivisions will be thirty five (35) feet.~~

~~b. A two hundred seventy five (275) foot minimum radius shall be used on all streets with an ADT of three thousand five hundred (3,500) vpd or greater, unless super-elevation of the roadway is incorporated in the design.~~

(5) *Pavement requirements.* The requirements for pavements of streets in a subdivision shall be subject to the

following unless a specific pavement design has been approved by the Ceounty Engineer:

a. Subgrade. The subgrade shall be constructed in accordance with Orange County Road Construction Specifications and shall be compacted to ninety-five (95) percent of the maximum density as determined by AASHTO T-180 test method. In addition, the top six (6) inches shall be stabilized to a minimum Florida Bearing Value of 50 under curb areas and under limerock base.

b. Base course. The base course shall be constructed in accordance with the Orange County Road Construction Specifications. Subject to the recommendation of the Ceounty Engineer, base course materials may be either limerock or soil-cement with a minimum thickness as follows:

<b>Type of Development</b>	<b>ADT (vpd)</b>	<b>Base Thickness</b>
Residential	<1500	6"
	1500—3,500	8"
	>3,500	10"
Commercial/Industrial	<1,500	8"
	>1,500	10"

[REST OF PAGE INTENTIONALLY BLANK]

c. Surface course for flexible pavements. Asphaltic concrete surface courses shall comply with the county road specifications, latest edition, and shall meet the following minimum average thickness requirements:

Type of Development	ADT (vpd)	Thickness
Residential	<1,500	1"
	1,500—3,500	1½"
	>3,500	2½"
Commercial/Industrial	<1,500	1½"
	>1,500	2½"

d. For any entrance intersection improvement, the pavement section shall match the pavement section for the existing roadway.

(6) *Return radii.* The return radii for intersections in a subdivision shall be as follows:

- a. Point of measurement:
  - 1. Urban sections: Face of curb or flow line.
  - 2. Rural sections: Edge of pavement.
- b. Minimum requirements:

Type of Development	ADT (vpd)	Min. Radius* (feet)
1. Residential:	<3,500	25
	>3,500	35
2. <del>Commercial and Industrial:</del>		50
3. <u>Commercial:</u>		<u>35/50</u>

\* Minimum radius of returns shall be based on AASHTO requirements for the type vehicle predominant to the industry considered. The County Traffic Engineer may require larger radii, depending on location and use of the proposed development.

\* \* \*

E. Section 34-175 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-175. Intersection design.**

Streets shall be laid out to intersect as nearly as possible at right angles. Multiple intersections involving the juncture of more than two (2) streets shall be prohibited. ~~§~~Vertical and/or horizontal sight distances from any intersection, driveway, or alley shall be in accordance with the Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Green Book Florida Greenbook).

F. Section 34-229 of the Orange County Code is hereby amended to read as follows:

**Sec. 34-229. - Drainage design requirements.**

(a) *Drainage map.* The project engineer shall include in the subdivision construction plans a master drainage 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 one (1) inch equals two hundred (200) feet. Listed below are the features that are to be included on the drainage map.

(1) Drainage bounds, including all off-site areas draining to the proposed subdivision.

(2) Sufficient topographical information with elevations to verify the location of all ridges, streams, etc. (one-foot contour intervals).

(3) High water data on existing structures upstream and downstream of the subdivision.

(4) Notes indicating sources of high water data.

(5) Notes pertaining to existing standing water, area of heavy seepage, or springs.

(6) Existing drainage features (ditches, roadways, ponds, etc.) are to be shown a minimum of one thousand (1,000) feet downstream of the proposed development unless the ultimate outfall system is a lesser distance.

(7) Subdivision layout with horizontal and vertical controls.

(8) Drainage features, including, but not limited to, location of inlets, swales, ponding areas, and flow arrows.

(9) Delineation of drainage subareas.

(10) Identification of retention/detention areas and ingress/egress areas thereto.

(11) General types of soils (obtain from soil survey of the county).

(12) Flood hazard classification.

(13) Description of current ground cover and/or land use.

(14) NHWE designation for all surface water bodies.

(15) All storm sewer pipes and sizes.

(b) *Subsoil investigation.* A subsoil report shall be prepared by a geotechnical engineer. The contents of the subsoil report will be in accordance with sSection 34-132(c)(6) and sSection 34-250. A minimum of two (2) borings will be taken per retention/detention area.

(c) *Stormwater calculations.* Stormwater calculations for retention/detention areas, including design high water elevations for the 25-year frequency, 24-hour duration and 100-year frequency/24-hour duration storm events shall include the following, in addition to the requirements of sSection 34-250:

(1) Storm sewer tabulations including, but not limited to, the following:

- a. Locations and types of structures.
- b. Types and lengths of line.
- c. Drainage subarea tributary to each structure.
- d. Runoff coefficient per subarea.
- e. Time of concentration to structure.
- f. Hydraulic gradient for the ten-year storm.
- g. Estimated receiving water (tailwater) elevation with sources of information, if available.
- h. Diameters of pipe.
- i. Outlet and other pipe velocities.



(2) Drainage plans including, but not limited to, the following:

- a. Cross section of retention/detention facilities.
- b. Typical swale, ditch or canal sections.
- c. Drainage rights-of-way.
- d. Typical fencing detail.
- e. Note on the design plans that an erosion and sediment control plan will be approved by the eCounty eEngineer prior to the preconstruction conference. Erosion and sediment control plans must be consistent with the guidelines in the most current version of the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, or successor.

(d) Routing calculations including the following:

(1) Identify the locations of all storage areas and hydraulic structures on the basin map.

(2) A schematic drawing (i.e., nodal diagram) showing the interconnection of the hydrologic/hydraulic network.

(3) Stage vs. storage/area/time calculations with references and methodology.

(4) Hydrologic parameters required to calculate the hydrograph such as drainage area, time of concentration, runoff coefficient and runoff curve number.

(5) Peak stage, peak outflow, and peak velocity results for the simulated design storm event including all computer printouts of input and output.

(6) Additional information that the eCounty eEngineer deems necessary.

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*Section 6. Effective date.* This ordinance shall become effective pursuant to general law.

**ADOPTED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2020.**

**ORANGE COUNTY, FLORIDA**  
By: Board of County Commissioners

By: \_\_\_\_\_  
Jerry L. Demings,  
Orange County Mayor

**ATTEST:** Phil Diamond, CPA, County Comptroller  
As Clerk of the Board of County Commissioners

By: \_\_\_\_\_  
Deputy Clerk

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