

THE SUBDIVISION REGULATIONS
OF THE
CITY OF OAK RIDGE, TENNESSEE

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As Of December 14, 2000

SUBDIVISION REGULATIONS

City of Oak Ridge, Tennessee
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SUBDIVISION REGULATIONS

City of Oak Ridge, Tennessee

ARTICLE I. GENERAL PROVISIONS

A. Purpose and Policy

1. Land Regulation and the Public Welfare

Land subdivision is the first step in the process of community development. Once land has been divided into streets, lots and blocks and publicly recorded, the correction of defects is costly and difficult. Subdivision of land sooner or later becomes a public responsibility, in that roads and streets must be maintained and various public services customary to urban areas must be provided. The welfare of the entire community is thereby affected in many important respects. It is, therefore, in the interest of the public, the developer and the future owners that subdivisions be conceived, designed, and developed in accordance with sound rules and proper minimum standards.

These regulations shall supplement and facilitate the enforcement of the provisions and standards contained in the Building and Housing Codes, Zoning Ordinance, Comprehensive Plan, Capital Improvements Plan, and Storm Water Erosion Control Ordinance.

2. Major Road Plan and Other Purposes

A Major Road Plan, a certified copy of which was originally filed in the office of the Register of Anderson County, Tennessee, on May 14, 1957, (as subsequently amended from time to time) and the following standards guiding the Planning Commission, are designed to provide for the harmonious development of the region and its environs; for the coordination of roads in the subdivided land with other existing or planned roads; for adequate open spaces for traffic, light, air, and recreation; for the conservation of or production of adequate transportation, water, drainage and sanitary facilities; for freedom from flooding; for the avoidance of population congestion; and for the avoidance of such scattered or premature subdivision of land as would involve danger or injury to health, safety or prosperity by reason of the lack of water supply, drainage, transportation or other public service or would necessitate an excessive expenditure of public funds for the supply of such services.

3. Policy Regarding Costs and Maintenance

It has been, and is, intended for the public welfare that to the extent possible newly-developing areas of the community bear the costs of their own improvements and the burden of their additional public services; that the standards for constructing such public improvements encourage the lowest feasible long-term costs of their maintenance; and that provision of such additional homes and businesses not impose an undue burden on the population already present. Such burdens may be offset by dedications of land for public purposes or by fees for the provision of specific facilities to serve the new population, as may be determined by the Oak Ridge City Council. However, in the event that the Planning Commission determines that favorable economic development and orderly advance planning suggests that the City should contribute to some of the up-front infrastructure costs in order to over-size roads or utilities for ultimate build-out needs, which costs can then be recouped by the City when additional nearby development occurs within a reasonable period of time, then the Commission may recommend to the City Council that City funding be allocated to such a project through an assessment district or other appropriate funding mechanism.

The City of Oak Ridge Standard Construction Requirements and Details (SCRD) set forth in greater detail methods and materials of construction to help achieve these objectives and constitute a subset of the Subdivision Regulations.

4. Special Provisions and Conditions

Provision has been made to allow Planned Unit Developments (PUD's) to effect more desirable environments through professional use of flexible standards for land development. Planned Unit Developments and additional Hillside Standards provide various suitable methods for dealing with problems unique to land development of unusual character or in defined areas of relatively steep hillsides.

5. Land which the Planning Commission has found to be unsuitable for subdivision due to flooding, bad drainage, steep slopes, observable karst features, rock formation or other features likely to be harmful to the safety, health, and general welfare of the future residents shall not be subdivided unless adequate methods approved by the Planning Commission are formulated by the

developer for meeting the problems created by the subdivision of such land.

B. Authority

The Subdivision Regulations of the City of Oak Ridge, Tennessee are enacted under the authority listed below. The Oak Ridge Regional Planning Commission has fulfilled the requirements set forth in the acts below as prerequisite to the adoption of such standards.

1. Tennessee Code Annotated

Laws of the State of Tennessee, as listed in the Tennessee Code Annotated (T.C.A.): authority originally approved under T.C.A. Title 13, Sec. 13-201 through Sec. 13-209 and Sec. 13-301 through 13-311, Official Edition dated January 1, 1956; and such authority later recodified and referenced as Chapter 13, Sec. 13-3-101; Sec. 13-3-103 through 13-3-105; 13-3-301 through 13-3-304; Sec. 13-3-401 through 13-3-411; Sec. 13-4-103 through 13-4-105; Sec. 13-4-201 through 13-4-203; and Sec. 13-4-301 through 13-4-309 of the 1987 Official Edition, the 1990 and 1991 Supplements, and as subsequently amended.

2. The Home Rule Charter of the City of Oak Ridge, incorporated May 5, 1959, as first approved by election on November 7, 1962, and as subsequently amended.

3. Ordinances and Resolutions of the City of Oak Ridge, Tennessee.

4. Resolutions of the Oak Ridge Regional Planning Commission adopting or amending the Subdivision Regulations.

C. Jurisdiction

These Regulations govern the subdivision of land within the Oak Ridge Planning Region, as established by resolutions of the Tennessee State Planning Commission dated August 1, 1955; February 12, 1957; September 20, 1957; and May 19, 1959; resolutions of the successor Local Government Planning Advisory Committee; and within the boundaries of the City Of Oak Ridge, as incorporated May 5, 1959, and as subsequently amended by annexations of the City of Oak Ridge. The Oak Ridge Regional Planning Commission acts as a municipal planning commission within the corporate limits of the City of Oak Ridge, in accord with the Home Rule Charter, and as a regional planning commission elsewhere as approved by the State.

Any owner of land lying within the Oak Ridge Planning Region wishing to subdivide such land shall submit to the Oak Ridge Planning Commission at the Community Development Department, Municipal Building, a plat of the subdivision according to the procedures set forth in Article III, which plat shall conform to the minimum requirements set forth in Article IV. Improvements shall be designed and installed as required by Article IV and V of these regulations, and as specified in the SCRD.

D. Enactment

Following a public hearing, these Regulations were approved by resolution of the Oak Ridge Regional Planning Commission on February 24, 2000, and ratified by resolution of the Oak Ridge City Council, Ordinance No. 27-00, approved on December 4, 2000.

E. Severability

It is intended that, if any section, subsection, paragraph, sentence, phrase, word, or other portion of these regulations shall be found unconstitutional or invalid by the valid action of any court of competent jurisdiction for whatever reason in its application to any agency, person or circumstance, the remainder of these regulations and their application to any other agency, person or circumstance shall not be affected thereby, and they shall continue in full force and effect.

F. Amendments

Amendments to these regulations may be enacted from time to time, following the procedures prescribed by State law and the Charter of the City of Oak Ridge.

G. Variances

Where the subdivider can show that a provision of these Subdivision Regulations would cause unnecessary hardship if strictly adhered to, and where, because of the topographical or other conditions peculiar to the site, in the opinion of the Planning Commission, a departure may be made without destroying the intent of such provisions, the Planning Commission may authorize a variance. Any variance thus authorized is to be stated in writing in the minutes of the Planning Commission with the reasoning on which the departure was justified set forth.

The Planning Commission shall not authorize variances to these regulations unless they shall make findings based upon the evidence presented to them in each specific case that all of the following conditions apply:

1. Because, by reason of exceptional narrowness, shallowness or shape of a specific piece of property existing prior to enactment of these regulations, or by reason of exceptional topographic conditions or other extraordinary and exceptional situation or condition of such piece of property, the strict application of any of these regulations would result in peculiar and exceptional practical difficulties to or exception or undue hardship upon the owner of such property.
2. The conditions upon which the request for a variation is based are peculiar to the property for which the variation is sought and are not applicable, generally, to other property, and have not been created by any person having an interest in the property.
3. Such relief may be granted without substantial detriment to the public good and without impairing the intent and purpose of these regulations.

H. Administration

1. Interpretation and Conflict

Words and phrases not elsewhere defined shall have their common meaning. Words and phrases defined in these regulations shall have the meaning set forth in such definition. In the event a question shall arise, the City shall interpret such term, meaning or regulation.

2. Enforcement, Violation and Penalties

The enforcement of these standards and penalties for the unapproved recordation or transfer of land is provided by State law in the authority granted by public acts of the State of Tennessee.

a. Enforcement

- (1) No plat or plan of a subdivision of land into two or more lots located within the planning region shall be admitted to the land records of the county or received or recorded by the County Register of Deeds until said plat or plan has received final approval in writing by the Planning Commission as provided in T.C.A. Title 13, Chapter 3, Section 13-3-402, and Chapter 4, Section 13-4-302, or as subsequently amended.

- (2) No board, public officer or authority shall accept, lay out, open, improve, grade, pave or light any road, or lay or authorize water mains or sewers or connections or other facilities or utilities to be laid in any road located within the Oak Ridge Planning Region, unless such road shall have been accepted, opened or otherwise have received the legal status of a public road, prior to the adoption of these standards, or unless such road corresponds in its location and lines with a road shown on a subdivision plat approved by the Planning Commission, or on a road plan made and adopted by the Commission, or as provided in T.C.A. Title 13, Chapter 3, Section 13-3-406 or Chapter 4, Section 13-4-307, 1987.
- (3) The process of subdividing land, as defined by T.C.A. Title 13, Chapter 3, Section 13-3-401(4)(B), merely by deed or metes-and-bounds description does not comply with these regulations, and shall be considered in violation thereof.

b. Penalties

- (1) No county register shall receive, file or record a plat of a subdivision within the planning region without the approval of the Planning Commission as required in T.C.A. Section 13-3-402 and/or Section 13-4-302, 1987, and any county register so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.

- (2) Title 13, Chapter 3, Section 13-3-410 of the Official Edition of the Tennessee Code Annotated, 1987, provides that:

Whoever, being the owner or agent of the owner of any land, transfers or sells or agrees to sell or negotiates to sell such land by reference to or exhibition of or by other use of a plat of subdivision of such land without having submitted a plat of such subdivision to the Regional Planning Commission and obtained its approval as required by this part and before such plat be recorded in the office of the appropriate county register or who falsely represents to a prospective purchaser of real estate that roads or streets will be built or constructed by a county or other political subdivision, shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law; and the description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. Provided, however, the owner or agent of any land may sell, transfer or agree to sell any lot or lots shown on a plan having been given tentative approval by the Regional Planning Commission; and provided, further, the owner or agent post bond in form and amount and with conditions and surety satisfactory to said Regional Planning Commission, providing for and securing to the public the actual construction and installation of such improvements and utilities within a period specified by the Commission and expressed in the bond. The county, through its county attorney, or other official designated by the county legislative body, may enjoin such transfer or sale or agreement by action or injunction.

- (3) Within the City of Oak Ridge, the City may enjoin the unapproved transfer or sale of property as specified above by action for injunction as provided in T.C.A. Section 13-4-306, or as may hereafter be amended.

- (4) No building permit or certificate of compliance shall be issued and no building or structure shall be

erected, unless the lot where the construction is to occur has access to:

- (a) a public street; or
- (b) a street which corresponds in its location and lines with a street shown on a subdivision plat approved by the Planning Commission; or
- (c) such lot fronts upon a permanent easement with access to a public street;

NOTE: (a) through (c) are based on T.C.A. Title 13, Chapter 3, Section 13-4-308, 1987.

- (5) Any building or structure erected or to be erected in violation of the subdivision standards shall be deemed an unlawful building or structure and the City may bring action to enjoin such erection or cause it to be vacated or removed as provided in T.C.A. Title 13, Chapter 3, Section 13-4-308, 1987.

ARTICLE II. DEFINITIONS

- A. The following words and terms when used in this code shall have the meanings ascribed thereto:
1. **Bikeway:** A hard-surfaced path designed and intended primarily for the use of bicyclists, rather than for pedestrians or motor vehicles.
 2. **Block:** An area of one or more lots, parcels or tracts, bounded by existing or proposed roads, streets or rights-of-way or other boundary conditions.
 3. **City:** The City Manager or his designee(s).
 4. **Comprehensive Plan:** A long-range plan intended to guide the growth and development of the community. (Includes the Major Road Plan.)
 5. **Concept Plan:** A drawing to show an intended division and/or improvement of land, including the designation of the parcel to be divided or improved and the adjacent parcels. The size and dimensions of lots in a concept plan are intended to be approximate, with no requirement that they be sufficiently detailed to reproduce such divisions on the ground, or be recorded; and therefore, the Planning Commission's tentative approval of a concept plan shall not make any lot shown on such plan eligible for sale, transfer, or for an agreement to be sold as provided in T.C.A. Title 13, Chapter 3, Section 13-3-410 or Chapter 4, Section 13-4-306, 1987.
 6. **Cul-de-Sac:** A street with only one outlet that terminates in a vehicular turnaround. A turnaround may be circular or T-shaped/hammerhead design.
 7. **Dedication:** The granting by a landowner of specified permanent rights or land for public use, as shown by a written instrument or drawing.
 8. **Easement:** A lawful right or privilege of use for a specified purpose over land owned by another party.
 9. **Engineer:** The City Engineer of the City of Oak Ridge, or other representative duly authorized by the City Engineer.
 10. **Final Plat:** A plat or plan drawn to show the division of land into lots, rights-of-way, and easements for utilities, drainage or other

purposes, with appropriate designation of each such division; and drawn to an accuracy specified in these regulations and sufficient to locate such features on the ground; and meeting the requirements for permanent, public recording with a county register of deeds.

11. **Greenbelt:** Zoning district providing for the preservation of publicly owned natural areas.
12. **Greenway:** A linear open space for pedestrian or bicycle use.
13. **Leased Lot or Lots:** Includes one or more separate parcels or lots defined or referenced by a lease, for whatever term or period of time, requiring new public street or utility construction to serve any such defined parcel or lot.
14. **Lot:** A defined area of land intended for specific use, usually for residential, commercial, industrial, or institutional use, and having access by a right-of-way.
15. **Parcel:** A part or piece of land.
16. **Planned Unit Development:** A residential development approved under the Planned Unit Development provisions of the Oak Ridge Zoning Ordinance.
17. **Plat:** Includes plat, plan, plot or replot, as referred to in T.C.A. Section 13-3-401 and Section 13-4-301, 1987, or as subsequently amended.
18. **Plat of Correction:** A plat drawn and submitted which corrects an error(s) or omission(s) in a previously-submitted plat, with no additional changes.
19. **Preliminary Plat:** A plat, working drawing or plan, drawn to show the proposed construction of roads, lots, drainage, utilities, and related features or improvements, and meeting the requirements of these regulations for such plat or plan.
20. **Private Road:** A privately maintained way, route, or path for vehicular passage.
21. **Resubdivision:** A subdivision which does not require the provision of additional streets or utilities for any of the new lots being established. Examples include the transfer of small area from one existing lot to another, or the combination of several lots into one lot,

or possibly the division of a single large lot with all required frontage on a public street, and served by utilities, into two or more legally-conforming smaller lots which also are served by the existing public street and existing utilities.

22. **Road:** A way, route, or path for vehicular passage.
23. **Right-of-Way:** Land owned by a government agency, reserved for streets, utilities and other public uses.
24. **Sidewalk:** A way, route or path along the side of a street or road, separated from the vehicular roadway, reserved principally for the use of pedestrians.
25. **Standard Construction Requirements and Details (SCRD):** The document entitled "City of Oak Ridge Standard Construction Requirements and Details" for constructing streets and standard elements of drainage structures, utilities and similar improvements within the City of Oak Ridge for dedication to and future maintenance by the City .
26. **Street:** A vehicular road or thoroughfare within a right-of-way, usually paved and curbed, often including a sidewalk or other walks or paths and bordering urban lots; includes street, highway, avenue, boulevard, parkway, road, lane, alley, and other ways, as referred to in T.C.A. Sections 13-3-401 and 13-4-301, 1987 or as subsequently amended.
27. **Subdivision:** The division of a tract or parcel of land into two (2) or more lots, sites, or other divisions requiring new street, utility or drainage construction, or any division of five (5) acres or less for the purpose, whether immediate or future, of sale or building development, and includes any such division by lease for the purpose of building development, or any resubdivision of land.
28. **Tennessee Code Annotated or T.C.A.:** Laws of the State of Tennessee, as listed in the Official Edition of the Tennessee Code Annotated, 1987, or 1990 or 1991 Supplement, or as may be amended hereafter.
29. **Tract:** A defined extent or area of land.

30. **Two-lot Subdivision:** The subdivision of a tract or parcel of and into no more than two (2) lots, sites, or other divisions, requiring no new street, utility or drainage construction.
 31. **Variance:** The official provision, by the Planning Commission, of an exemption from compliance with the terms or conditions of these Regulations due to a unique hardship related to physical characteristics of the property as provided in Article I, G. of the Subdivision Regulations.
 32. **Yard:** An open space that lies between the principal building or buildings and the nearest lot line.
 33. **Zone, Zoning:** The designation of an area of the Oak Ridge Planning Region in the Oak Ridge Zoning Ordinance, and/or the regulations for the use and development of land within that zone.
- B. Terms not defined herein shall have the meaning as defined in other regulations or ordinances of the City of Oak Ridge, or if not so defined, the meaning commonly set forth in a dictionary of current usage.

ARTICLE III. PROCEDURES FOR PLAT APPROVAL

A. General

The procedure for review and approval of a subdivision plat consists of four separate steps.

- The first step is an informal discussion and review by City staff of the subdivider's proposed development as shown on a concept plan. The subdivider may also discuss the concept plan with the Planning Commission.
- The second step is the preparation and submission of a preliminary plat of the proposed subdivision.
- The third step is construction in accord with the approved preliminary plat and the appropriate construction standards.
- The fourth step is the preparation and submission of a final plat together with required certificates and as-built plans of construction as actually installed. This final plat becomes the instrument to be recorded in the office of the County Register when approved by the Planning Commission and duly signed by the Secretary of the Planning Commission.

The subdivider should consult early and informally with the City (Step #1) for advice and assistance before preparation of the preliminary plat and submission of the preliminary plat for approval. This procedure will enable the subdivider to become thoroughly familiar with the subdivision standards, the Comprehensive Plan and other official plans or public improvements which might affect the area. Such informal review should prevent unnecessary and costly revisions.

1. Any owner of land lying within the area of jurisdiction of the Planning Commission wishing to divide such land into two or more lots, sites, or divisions, for the purpose, either immediate or future, of sale or building development, or wishes to resubdivide for this purpose, shall submit a plan of such proposed subdivision to the Oak Ridge Regional Planning Commission for approval and shall obtain such approval prior to the filing of his subdivision plat for record. Any such plat of a subdivision shall conform to the minimum requirements as set forth in Article III and standards of design for subdivision of land as set forth in Article IV of these regulations and shall be presented in the manner specified in the following section of this Article. All plats must be submitted to the Planning Commission at least seventeen (17) days prior to the scheduled meeting of the Planning Commission in order to be eligible for review and action by the Planning Commission during said calendar

month. Plats thus submitted will normally be afforded a public hearing and review for preliminary approval by the Planning Commission on the fourth Thursday of the month. No plat of a subdivision of land within the Oak Ridge, Tennessee, Planning Region shall be filed or recorded by the Register of Anderson County or the Register of Roane County without the approval of the Planning Commission as specified herein.

2. In order to secure review and approval by the Planning Commission of a proposed subdivision, the prospective subdivider shall, prior to the making of any street improvements or installations of utilities, submit to the Planning Commission, at its office in the Municipal Building, seven (7) copies of a preliminary plat of the proposed subdivision, in accordance with Section 2-b, below.
 - a. Plats submitted to the Planning Commission will be reviewed by the City for compliance with general layout and design and engineering requirements. This staff review will be made between the date of plat submission and the date of the public hearing and review by the Planning Commission.
 - b. Any subdivision plat presented to the Planning Commission must be accompanied by a complete list of instances in which the plat deviates from the Subdivision Regulations, with justification in writing for each such proposed deviation. Further, all known non-compliance items shall be enumerated and explained at the time of submission, with written request for any variance required on preliminary plats. Failure to comply with this regulation shall be grounds for refusal to approve such plat.
 - c. After approval of a subdivider's preliminary plat by the Planning Commission, the subdivider may proceed with the installation of required subdivision improvements as set forth in Article IV, and the preparation of a final plat.

B. Two-lot Subdivisions

As provided by State law, two-lot subdivisions which require no new street, drainage or utility dedications, or construction, and which require no variances, may be approved by endorsement in writing on the plat by the Secretary of the Planning Commission, upon certification by the City that the subdivision complies with these Subdivision Regulations, and need not be reviewed by the entire Planning Commission. Such subdivisions shall meet the applicable requirements for final plats.

C. Concept Plans

A concept plan shall be submitted for review by the City before submission of a plat establishing individual new lots for industrial, commercial, or residential development, except for plats of correction. Such concept plan shall show the proposed development and use of all contiguous property under control of the applicant, and the relation of such property to all surrounding roads, major water and sewer lines, other utility easements, natural streams, and storm drainage ways.

D. Planned Unit Developments

The Zoning Ordinance includes provisions for Planned Unit Developments in appropriately zoned districts. Where land is to be subdivided or streets or other lands are to be dedicated to the City within such Planned Unit Developments, normal subdivision procedures will be followed designating such new lots, streets, or other lands, in addition to the review and approval of Schematic and Final Planned Unit Developments as provided in the Zoning Ordinance.

1. Drawings and other documents submitted to define a Final Planned Unit Development shall conform to the requirements for a Preliminary Plat.
2. Designated lands within such Planned Unit Developments reserved for public use, for buffers, or for common activities shall be so designated by notes or otherwise on the Final Plat.
3. Such plats may be approved by the Planning Commission although the design of the project does not conform to standard street, lot, or subdivision arrangements, if departure from such standards can be made without destroying their intent. Provided, however, that any such development provides positive design features and otherwise complies with the provisions of the Zoning Ordinance for Planned Unit Developments.

E. Preliminary Plat: Submission, Review and Approval

1. Submission - Seven (7) copies of the preliminary plat, drawn to a scale of not less than one inch equals one hundred (100) feet, together with two (2) copies of profiles and all other supplementary plans as may be necessary to present required information. Said plans shall meet the minimum standards of design and general requirements for the construction of public improvements as set forth in Articles III and IV.

Such preliminary plats shall contain, or when applicable be accompanied by, the following information:

a. Description:

- (1) Proposed name of subdivision.
- (2) Name and address of subdivider.
- (3) Name and address of designer of the plat.
- (4) Graphic scale, true and grid north points and date of preparation.
- (5) Locational sketch map showing relationship of the subdivision site to the surrounding area.
- (6) Water and sewer design

b. Existing Conditions

- (1) Topography by contours at vertical intervals of not more than five (5) feet.
- (2) Zoning district classification (if there is more than one classification, showing dividing lines) on land to be subdivided and on adjoining land.
- (3) Names of adjoining property owners or subdivision.
- (4) Acreage to be subdivided.
- (5) In case of resubdivision, a copy of existing plat, if not on file with the City.
- (6) Location of streams, lakes, and wetlands with direction of flow and elevations, land subject to flood as determined in the Floodway and Flood Insurance Rate Maps of the Federal Emergency Management Agency, Community No. 475441,

revised May 15, 1985, and July 16, 1998 or as subsequently amended, whichever is higher.

- (7) Location of existing and platted property lines. Location, width, and names of all platted roads, railroads, utility rights-of-way, public areas, existing buildings or structures, and planning region boundary lines.
- (8) Existing sewers, water mains, drains, culverts, electric lines and manholes, or other underground facilities within the tract or within the right-of-way of boundary roads, with pipe sizes, grades and invert elevations from public records. Location of these facilities as well as overhead electric equipment including poles, anchors, and overhead conductors in adjoining tracts or subdivisions if proposed for use or extension.
- (9) Designation of existing or remediated sinkholes, cave entrances, disappearing streams and springs

c. Proposed Conditions

- (1) Layout of roads, alleys, and public crosswalks, with widths noted; detailed design of street intersections; road names or designation; grades, road profiles, road cross sections at intervals not greater than one hundred (100) feet measured along all road rights-of-way and finished contours or equivalent (cut and fill lines). Layout of roads shall be shown on Plan and Profile paper, at one (1) inch equals fifty (50) feet horizontal scale and one (1) inch equals ten (10) feet vertical scale, giving all horizontal and vertical road data required and verified by field layout if necessary.
- (2) Layout of all lots, including area of each lot and minimum front, minimum rear and "least" side building setback lines (legal minimum lot areas and setback dimensions are established in the Zoning Ordinance); for R-1, R-2, R-3 and R-4 zones, the building "envelope" size allowed by such setback lines, and maximum square feet of building allowed by the Zoning Ordinance ratio of floor area to lot size for the

zone of such lot; lot numbering, and lot divisions; scaled dimensions of all corner lots and lots on curvilinear sections of roads; utility easements with width and use on all lots; total number of lots.

- (3) Preliminary plan of sanitary sewers on Plan and Profile paper, at one (1) inch equals fifty (50) feet horizontal scale and one (1) inch equals ten (10) feet vertical scale plotted from field survey, showing elevations, grades, points of discharge, distances, and pipe size and type.
- (4) Preliminary plan of storm sewer system with grade, pipe sizes, location of outlet, and designation of drainage areas.
- (5) Preliminary plan of erosion and sediment control structures to be provided during construction.
- (6) Preliminary plan of water supply system with pipe sizes and location of hydrants.
- (7) Designation of all land to be reserved or dedicated for public use.
- (8) Draft of proposed protective covenants (if any) to be imposed and homeowner association documents in a PUD.
- (9) Street name, street signage, and traffic signage plan.
- (10) Preliminary designation of sinkholes to be remediated
- (11) If existing or remediated sinkholes exist on the property, the preliminary plat shall contain the following statement: “Part of the property identified in this plat contains a geologic feature known as a depressed area or sinkhole, evidenced by soil subsidence of a sufficient nature to create a depression. Construction activities may ameliorate or activate future subsidence.”
- (12) The City may assess an additional subdivision application fee to cover the cost of getting a second opinion from a qualified professional licensed to practice in specific

matters of concern, if needed.

2. Review

Within sixty (60) days of the submission of the preliminary plat the Planning Commission shall review it and indicate its approval, disapproval or approval subject to modifications as a basis for the preparation of the final plat. If a plat is disapproved, reasons for such disapproval shall be stated in the records of the Planning Commission. If approved subject to modifications, the nature of the required modifications shall be indicated. Five (5) copies of the preliminary plat will be retained by the Planning Commission for distribution; one copy, with notations and possible specific changes required, will be returned to the subdivider after approval or disapproval.

3. Approval

Failure of the Planning Commission to act on the preliminary plat (working drawing) within sixty (60) days shall be deemed approval of such plat. Approval of the preliminary plat (working drawing) shall lapse unless a final plat based thereon is submitted within one (1) year from the date of such approval, unless an extension of time is granted by the Planning Commission.

F. Final Plat

1. General

a. Standard Submission

Final plats shall include such information and be submitted in the form set forth in this section. The final plat, final profiles and final as-built drawings shall conform substantially to the preliminary plat, preliminary profiles, and preliminary plans as approved. Plats shall be 18" x 24" in size.

b. Supplementary Electronic Submission

In addition to the submission of subdivisions as paper drawings, final subdivision plats (including plats of correction) should be submitted in an approved electronic format.

2. Submission

If desired by the subdivider, a final plat may include only that portion of the approved preliminary plat which is proposed to be developed and recorded at the time, provided that such portion meets the requirements of the regulations. Final plats shall include the following:

a. All information as to land owner, developer or design firm from preliminary plat. Land contours need not be shown.

b. Sufficient data to determine readily and reproduce on the ground the location, bearing & length of every road line, right-of-way, easement lines, block line or building line, whether curved or straight. This shall include the radius, central angle, and tangent distance for the center lines of curved roads. Curved property lines shall show arc and chord distance, chord bearings, and radii. All surveys shall be based on the Oak Ridge Grid System, showing grid north as well as true north on a graphic indicator. Not less than one (1) grid coordinate tie must be shown. Submit evidence of closures.

Show the area of each lot, to the nearest one-hundredth (1/100) of an acre. Specify final lot numbering and tract designations in accord

with the system and standards of the City Manager. Previous lot, tract or parcel numbers, boundary dimensions, and areas shall be shown in parentheses.

- c. All dimensions shall be shown to the nearest one-hundredth (1/100) of a foot, and angles to a 20-second accuracy. Accuracy of surveys shall be according to the current standards of practice as described in the “Tennessee Land Surveyors Laws and Regulations” issued by the Tennessee State Board of Examiners for Land Surveyors.
- d. Elevation references; 100-year flood elevations and minimum floor elevations where pertinent.
- e. Monuments, monument spikes, and corner pins: Concrete monuments four (4) inches in diameter or four (4) inches square, thirty inches (30”) long, with a flat top, shall be set at a point where the road right-of-way lines intersect the exterior boundary of the subdivision, and at other locations at approximate intervals of 1,000 feet. The top of the monument shall be marked to identify the location, and shall be set flush with the finish grade. These monuments shall be identified on the final plat with Oak Ridge Grid coordinates.

Monument spikes in pavement shall be railroad spikes or iron rods twenty-four (24) inches in length and not less than one-half (1/2) inch in diameter. Monument spikes shall be set along the centerline of all streets at intersecting centerlines, at the center of circular turnarounds, and at angle points and points of curves in each road. They shall be set flush with the finish grade. Grid coordinate ties shall be marked with either a monument or a monument spike.

All other corners shall be marked with corner pins, to be iron pipes not less than three-fourths (3/4) inches in diameter and twenty-four (24) inches long, or with iron rods not less than one-half (1/2) inch in diameter and twenty-four (24) inches long, driven so as to be flush with the finished grade.

The center line or the edges of all easements shall be defined by bearings and distances, and must be tied down to a property corner marker.

All corner pins and monuments shall be in place and noted on the final plat and as-built drawings. Locations shall reference the Oak Ridge Coordinate Grid.

- f. A five (5) foot easement for utilities in favor of the City shall be required along all lot lines, unless alternative provisions for utilities have been approved by the City.
- g. Certification that applicant is the land owner, and dedicates the roads, right-of-way, easements, and any sites intended for public use (Form 1).
- h. Certification by registered surveyor (Form 2)
- i. Certification by Health Officer (Form 3)
- j. Certificate of Approval of Utilities and Required Improvements (Form 4)
- k. Certificate of Approval for Recording (Form 5)
- l. Following approval, the owner or developer or designee shall submit as-built plans of construction as actually installed, including any items modified in accord with the final punch list. These shall include all items in accord with Section 9 of the SCRD.
- m. Final designation of existing sinkholes and sinkholes to be remediated
- n. If existing or remediated sinkholes exist on the property, the final plat shall contain the following statement: “Part of the property identified in this plat contains a geologic features known as a depressed area or sinkhole, evidenced by soil subsidence of a sufficient nature to create a depression. Construction activities may ameliorate or activate future subsidence.”
- o. A locational sketch map showing relationship of the subdivision site to the surrounding area.

3. Review

All improvements intended for public maintenance are eligible for acceptance by the City of Oak Ridge following procedures outlined below. All materials and workmanship are the responsibility of the owner or developer until the City issues a final acceptance letter. The Planning Commission may recommend to City Council acceptance of greenways, greenbelts, open space, rights-of-ways or other similar dedications immediately following final plat approval.

- a. After installation of improvements in accordance with plans approved by the Planning Commission and in accord with the, SCRD the owner or developer or designee shall contact the City Engineer and schedule an inspection for completion.

- b. The City Engineer shall recommend acceptance of the improvement or respond with a punch list of items remaining for completion within five (5) working days of the request.
- c. The owner or developer or designee must complete all items on the punch list, and any additional items noted, within sixty (60) days or the punch list will be void. The owner or developer or designee must then request another inspection for completion.
- d. Upon the acceptable completion of all items on the punch list and payment of any outstanding fees, the owner or developer or designee shall be notified, and a recommendation for acceptance shall be submitted to the Planning Commission at its next regularly scheduled meeting.
- e. After a recommendation from the Planning Commission, a letter recommending acceptance shall be sent to the Oak Ridge City Council. After formal action by the City Council, the City shall advise the owner or developer or designee of such action by letter. Such acceptance will begin a warranty for materials and workmanship for not less than one (1) year from the date of acceptance. This warranty shall be to the City from the owner or developer or designee with assurance to the City in the form of a warranty bond in the amount of 5 percent of the constructed cost of facilities accepted by the City. The City of Oak Ridge shall carry out routine maintenance during the warranty period such as sweeping, snow removal, traffic control signs, etc. The cost of repairing failures associated with materials or workmanship during the period of the warranty shall be assessed to the warranty bond unless repaired by developer on timely basis as determined by the City.
- f. Upon completion of, or just prior to, expiration of the warranty period, the owner or developer or designee shall request a final inspection by the City.
- g. The City shall respond with final acceptance or with a punch list of items to be completed within five (5) working days of the request.
- h. The owner or developer or designee must complete all items on the punch list, and any additional items noted within sixty (60) days. If not, the final punch list will be void and another final inspection must be requested.

- i. Upon acceptable completion of all punch list items after the warranty period, the City shall send to the owner or developer or designee a final letter of acceptance from the City of Oak Ridge and will release the warranty bond. The City shall begin total maintenance as of the date of such final letter of acceptance.

ARTICLE IV.

GENERAL DESIGN STANDARDS

A. General Improvement Standards

1. Conformity with Adopted Standards

Minimum lot sizes, land use, and the general arrangement of streets and utilities shall conform as appropriate to these Subdivision Regulations, to the Zoning Ordinance, and to the Comprehensive Plan, including the Major Road Plan. In designated Hillside areas, the design standards may be modified as specified herein.

Construction of streets, utilities, and other improvements shall conform as appropriate to the Storm Water Management and Erosion Control Ordinance, other adopted codes, and the SCRD of the City of Oak Ridge.

2. On-site and Off-Site Improvements

Planning or design criteria may require certain improvements or use of land beyond the site originally proposed for subdivision. These may include street extensions, sidewalks or walkways, storm water channels or impoundments, parks or open space, or other features or improvements, further detailed below.

3. Preservation of Natural Features and Amenities

Wherever the Planning Commission deems it possible, natural features including rock outcrops, mature trees, historical spots, natural drainage and similar community assets that add special interest shall be preserved and incorporated into the design of the subdivision.

4. Large Tracts or Parcels

When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged so as to allow the opening of future streets and logical further resubdivision. A minimum of fifty (50) feet of road frontage shall be maintained for such larger parcels. Further, that when only parts of a parcel are being developed, the Planning Commission may require that the developer present a general development plan of the entire parcel showing proposed extension of streets and contemplated future disposition of the land.

5. Private Roads and Reserve Strips

In any residential subdivision, there shall be no private roads platted so that every subdivided property shall be served from a publicly dedicated street, or from a road or other access whose design and maintenance is provided in accord with an approved Planned Unit Development. There shall be no reserve strips controlling access to roads, except where the control of such strip is definitely placed with the community under conditions approved by the Planning Commission.

6. Low Density Development

Subdivisions in which all lots are two hundred thousand (200,000) square feet in area or larger, with a minimum recorded setback line of fifty (50) feet and a minimum width of three hundred (300) feet at the setback line, are designated as low-density developments. In low-density developments, roads with fifty (50) foot rights-of-way and twenty (20) foot paved surfaces are permitted. (See SCRD detail #3.17). All other utilities and improvements as required by these regulations shall be provided by the developer

7. Access to Adjacent Property

When adjacent property is in different ownership or its development is to be postponed, the Planning Commission may require dedication of right-of-way extending to the property line. The curb defining such "stubbed-out" road shall be installed as typically shown in SCRD detail #3.16; however, it may be temporarily blocked. The paving of such dedicated, "stubbed out" access may be postponed as the responsibility of the next developer.

8. Subdividers shall consider provision of areas suitably located and accessible for playgrounds, parks and other open space for local or neighborhood use, as well as public service areas or easements, in addition to residential, commercial, industrial, or other lots, in accord with other provisions of these regulations.

9. Remediation of Sinkholes

- a. It is strongly recommended that sinkholes not be remediated, especially in residential areas.
- b. If sinkholes are remediated, fills, cuts, and alterations to the pre-development drainage shall be minimized.

- c. Drainage patterns resulting from remediated sinkholes shall be analyzed prior to the remediation to ensure, as much as is feasible, that the new drainage patterns will not contribute to future problems with erosion, flooding, or other problems.

10. Existing Sinkholes

- a. Adequate erosion and sediment controls shall be taken around the perimeter of sinkhole inlets to preclude sediment from entering and clogging the sinkhole.
 - (1) Adequate structural controls include but are not limited to: entrenched and staked straw bale barriers, synthetic filter fabric barriers, slope protection, temporary sediment traps and basins, improved sinkhole inlets with elevated openings or other inlet protection: and/or diversions.
 - (2) Non-structural controls include, but are not limited to: limitations of clearing; temporary seeding, erosion control blankets and/or mulching; construction timing; locations of debris and trash piles; and proper storage of construction related chemicals and petroleum products.
- b. Foundations of structures shall not be built on sinkholes.

B. Standard Construction Requirements and Details

The SCR D as approved by the City are hereby incorporated in these Subdivision Regulations by reference.

C. Lot Design and Layout.

All lots shall meet the minimum standards for the zone in which they are located.

Each lot in a subdivision shall contain a building site above the elevation subject to flooding in accord with any applicable Floodway Fringe overlay zone on the property.

Each lot must front upon a public road right-of-way for a minimum distance of at least thirty (30) feet.

Lots shall be numbered so that the same number occurs only once on the same subdivision plan grid sheet. If a lot extends to two or more grid sheets, the lot number shall be assigned to the grid sheet on which the street providing such lot's access is shown.

Insofar as practical, side lot lines shall be at right angles to straight road lines or radial to curved road lines.

1. Residential Lots

a. Minimum Size

The size, shape and orientation of lots shall be such as the Planning Commission deems appropriate for the type of development, zoning, and use contemplated.

- (1) The subdivision shall demonstrate that the area, depth and width of lots is appropriate for the size of proposed principal structures, without violation of building setback distances.
- (2) If it is determined by the City that it is not feasible to connect to a public sanitary sewer and that it is not feasible to provide a sewage treatment plant designed to serve the subdivision, the installation of private sewage disposal systems on individual lots will be an acceptable alternative method of sewage disposal, provided that all individual lots served by septic tanks are a minimum of two (2) acres in area, and that all other provisions of these regulations for septic systems are met.

b. Corner Lots

Corner lots shall be sufficiently wider and larger to permit the additional side yard requirements of the Zoning Ordinance or building setback lines outlined above.

c. Remnant or Unusable Lots

Where irregularity of ownership or street lines would otherwise produce small remnant lots, such areas shall be added to adjoining lots, or left unplatted and marked to be left in that status until such time as arrangements may be made with adjoining owners for the proper platting of such pieces or areas, subject to approval of the Planning Commission. Plats shall not be presented indicating new lots with no obvious legal building sites.

2. Industrial, Commercial, and Other Non-Residential Subdivisions

Size of properties reserved or laid out for commercial or industrial development shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated. An overall design of the land, including a concept plan, shall be submitted for review by the City before submission of a plat of individual lots for industrial, commercial, or other non-residential development. The requirements of the Floodway and Floodway Fringe zones shall be met, with minimum building elevations shown on the plat for any land within the Floodway Fringe overlay zone. The Planning Commission suggests the following as additional criteria for industrial subdivisions:

- a. Individual sites should be platted at right angles to railroads and major access streets.
- b. Sites should be of such sizes as required by the types of business or industry expected to locate in the area.
- c. Minor streets serving the sites should be platted at right angles to railroads and major access streets.
- d. Minor streets should be made sufficiently wide to provide truck access to individual sites for all loading and unloading.
- e. Minor streets should be connected to a wide collector street that in turn is well-connected with the major street and highway system of the City and region.
- f. Land on each lot for expansion and for adequate off-street parking facilities for employees should always be provided.

- g. Water main extension should be so arranged and of such capacity as to be adequate for the anticipated full requirements of the area.
- h. Sanitary sewer systems should be adequate for the full requirements of the area. Provision should be made for all industrial wastes to meet established standards of quality. Where a separate disposal system for industrial wastes is required, the City shall determine the acceptability of such system predicated on the designer's submittal.
- i. Storm drainage systems shall be adequate for the area.
- j. Sidewalks within public rights-of-way shall be required in all cases where a substantial amount of pedestrian traffic may be anticipated.

D. Block Size

1. Length

Blocks shall not be less than four hundred (400) nor more than twelve hundred (1,200) feet in length, except as the Planning Commission considers necessary to secure efficient use of land or desired features of road pattern. In Hillside areas, block length may extend for two thousand four hundred (2,400) feet if required by the terrain. In blocks over eight hundred (800) feet in length, the Planning Commission may require one or more public walkways of not less than ten (10) feet in width to extend entirely across the block and at locations deemed necessary.

2. Width

Blocks shall be wide enough to allow two tiers of lots of minimum depth, except where fronting on arterial or collector roads or prevented by topographical conditions or size of the property, in which case the Planning Commission may approve a single tier of lots of minimum depth.

E. Road Design and Layout

1. Conformity with Comprehensive Plan

- a. General design of all streets shall conform to the approved Comprehensive Plan of the City of Oak Ridge, as to both the general alignment and the right-of-way width. Construction shall conform to the approved Standard Construction Requirements and Details or other details and specifications referenced therein.

Residential streets shall be designed to discourage high speed traffic and minimize excessive cuts, fills and through traffic. Traffic calming principles may be required if the basic design does not discourage traffic speeds which are inappropriate for the type of street being planned.

- b. Right-of-Way Dedication. Where the Comprehensive Plan requires a road right-of-way wider than that for local streets and the proposed subdivision contributes no greater traffic than may be served by local streets, the owner or developer shall dedicate the full width of right-of-way required by the type of street indicated on the Plan. The developer may build such a street to local street standards, with the City to contribute the cost of additional width of pavement required by such street designation; provided that the street may be widened by the City at a later date, as may be scheduled in the capital improvements program after review by the City, the Planning Commission and the City Council of overall traffic needs and the rate of development of the lands served by such new street.
- c. Street Names. Names of streets shall conform with the City's street name policy. Extensions of existing streets shall continue the same name. Names shall be confirmed by the Planning Commission on final plats, and for safety and convenience, shall not duplicate or sound like the names of any previously approved street name, even if the suffix is different. The suffix "Way" shall not be used for any public street, but shall be the required suffix for all private roads which are named.

2. Classification of Proposed Streets

Streets are classified as listed below, and shall be built and dedicated with the indicated widths of right-of-way and pavement widths:

- a. Arterial Streets: Arterial streets shall have a minimum right-of-way width of ninety (90) feet with a minimum lane width of 12 feet. Arterial streets are further designated in the Zoning Ordinance. Where parking is desired on the right-of-way, an additional eight (8) feet of pavement shall be required for each parking lane. When arterial streets are also state highways, the Tennessee Department of Transportation may require higher standards.
- b. Major Collector Streets: Major collector streets are used more for through traffic than for providing access to adjoining properties. Access to adjacent property should be planned and controlled so that minimum disturbance is made to the traffic-moving efficiency of the collector street. Major collector streets shall have a minimum right-of-way width of eighty (80) feet and a minimum lane width of twelve (12) feet. Where parking is desired on the right-of-way, an additional eight (8) feet of pavement shall be required for each parking lane.
- c. Minor Collector Streets: Minor collector streets have two (2) open ends: each end generally connects with a another street. One or more other streets may intersect it between its two open ends. Property fronting on either side of the street may have access to the street. Minor collector streets may carry through traffic within the immediate vicinity. Minor collector streets shall have a minimum right-of-way width of seventy (70) feet and a minimum lane width of twelve (12) feet.
- d. Local Streets: Local streets are used primarily for providing access to adjacent properties. Vehicles moving on these streets should have an origin or destination in the immediate vicinity, and all types of through traffic should be eliminated through initial design of their connections with other streets. Local streets should have a minimum right-of-way width of fifty (50) feet and a minimum pavement width of twenty-eight (28) feet.

The function of local streets may be performed by Marginal Access Roads, Dead-End Streets, or one of several other types:

- e. Marginal Access Streets: Marginal access streets may be required along expressways and arterial and collector streets to provide access

to abutting properties, and shall be located within the dedicated right-of-way. The right-of-way width shall be contiguous with right-of-way of the major road and extend a minimum of 10 feet beyond the back of the outside curb. The minimum roadway width shall be twenty-four (24) feet. The Zoning Ordinance further regulates such roads.

- f. **Dead-End Streets (Cul-de-Sacs):** Dead-end streets are local streets having only one open end providing no access to another street. No other street intersects between the two ends, and cul-de-sacs shall have a minimum right-of-way width of 50 feet and a minimum pavement width of 28 feet. They shall be provided at the closed end with a turn-around having an outside street diameter of at least 80 feet and a street right-of-way diameter of at least 100 feet.

A “hammer-head” or other non-circular turn-around design may be approved by the Planning Commission as a variance in cases of difficult topography or similar unusual situations, provided that such design can accommodate the turn-around of fire, solid waste collection, and delivery vehicles as determined by the City.

When the street is planned for future extension or to additional developable property, it shall meet the design standards applicable to the street classification for future build-out and a temporary turn-around shall be provided and paved. A curb for the temporary turn-around is not required unless it is essential to control drainage. Additional right-of-way for temporary turn-arounds may be provided by a temporary easement which shall be platted and later revised through a Plat of Correction or future Final Plat.

- (1) The maximum length for a permanent cul-de-sac shall be six hundred (600) feet. A variance may be approved by the Planning Commission up to a length of one thousand eight hundred (1,800) feet, upon consideration of topography, number of residences to be served, and safety considerations.
- (2) Residential developments, or sections or parts or phases thereof, containing more than two hundred (200) lots or dwelling units must have a second full means of access,

which shall afford an alternative means of safe entry to and egress from the development. Developments which add lots or units to existing or approved subdivisions or parts thereof so that their combined total exceeds two hundred (200) lots or dwelling units must likewise have such a second full means of access. "Second means of access" shall be provided either by full access to a public through road or street, other than that on which the primary access is located, or by full access to another point along the primary access road, provided that at each access point a route exiting to another through road or street is available in either direction.

(Ord. No. 5-97 Revised Effective 4/7/97)

- g. Alleys: Alleys are minor, roadways, which afford a secondary means of vehicular access to the back or side of properties otherwise abutting a street and which may also be used for public utility purposes. Alleys generally have two (2) open ends, and each end connects with a different street. Alleys shall have sufficient pavement width to serve adequately the anticipated vehicular traffic.
- h. Exception to Standards: When a new street or subdivision has a unified plan which utilizes a more innovative approach to street standards not meeting the above standards in 2a through 2h, the Planning Commission, with advice from City staff, may approve a different standard which should be equal or better. A traffic engineering impact study may justify sections of reduced right-of-way and roadway width, if approved by the City.

3. Traffic Impact Study Requirements

Subdivisions that create more than one hundred (100) residential lots or more than ten (10) acres of land zoned for office or institutional use, or more than five (5) acres of land zoned for retail or commercial use, or any other subdivision estimated to generate 1,000 or more daily vehicle trips after partial or full development, shall be accompanied by a traffic impact study stating the estimated total trips to be generated at full development of such subdivision. Such study shall include the most recent estimate of the traffic

on streets adjacent to such subdivision. The design of entrance ways and new street intersections shall take into consideration the resulting estimated additional vehicular traffic.

4. Horizontal and Vertical Design Standards

The alignment of all streets shall be designed to conform with the City Comprehensive Plan, in proper relation to existing streets and lots and to proposed future streets, the adjoining terrain, and proposed future lots. Horizontal and vertical curves shall conform to the standards of the Table of Horizontal and Vertical Curve Controls, Table E-4. Street grades shall be established with respect to existing topography to avoid excessive grading and the removal of existing trees and vegetation wherever possible.

The maximum grade allowed shall be seven percent (7%) for arterial streets, nine percent (9%) for major and minor collector streets, and twelve percent (12%) for other streets. The maximum grade allowed when approaching an intersection is five percent (5%) for the last one hundred (100) feet of pavement before the intersection.

The minimum grade on any street shall be one-half of one percent (1/2%).

a. Tangent Sections:

Minimum tangent lengths between reverse curves on arterial and collector streets shall be computed to provide for superelevation transition lengths in accordance with Tennessee Department of Transportation (TDOT) Standards. Local streets and other lower classified streets not requiring superelevation should provide a minimum tangent length of 75 feet between reverse curves. The minimum tangent length of an approaching intersection should be fifty (50) feet for local and lower classified streets measured from edge of pavement. All intersection of streets classified as collector or greater should have a tangent section not less than 100 feet approaching the intersection.

	HORIZONTAL CURVE CONTROLS				VERTICAL	
	Minimum Design Speed (MPH) (1)	Maximum Superelevation (ft/ft) (2)	Minimum Radii (ft)	Maximum Grade	Length Crest	A
Expressways	Design standards shall conform to Federal and TN					
Arterial Streets	50	0.06	850	7%	160A	
Collector Streets	40	0.04	575	9%	80A	
Local Streets	30	Normal Crown	300	12%	30A	
Marginal Access Streets	30	Normal Crown	300 ⁽³⁾	12%	30A	
Deadend Street (600 ft or less)	25	Normal Crown	150	12%	20A	

A - Algebraic difference in grades

(1) - Design speed shall be at least five (5) mph greater than posted speed.

(2) - The superelevation tables found in "A Policy on Design of Urban Highways and Arterial Streets - 1990" or latest edition published by the American Association of State Highway Officials will be used for determining the actual rate of superelevation "e" at various radii. Superelevation transitions shall be designed in accordance with Tennessee Department of Transportation Standards.

(3) - Radii may be reduced at turnouts and intersections.

TABLE 3.1

b. Block Length and Intersection Spacing

Distance between intersections shall meet the standards for block length of Article IV-D of these Regulations. In addition, there shall be a minimum of eight hundred (800) feet between intersections along arterial streets, two hundred (200) feet between center lines of intersections on major collector and minor collector streets, and a minimum offset of one hundred twenty-five (125) feet between centerlines of intersections along other streets.

c. Intersection Design

(1) Road intersections shall be as nearly at right angles as is possible. The minimum desirable intersection angle is eighty (80) degrees, and no street shall intersect another at an angle of less than sixty (60) degrees.

(2) Intersections of streets classified as collector or arterial streets should have a tangent section not less than one hundred (100) feet approaching the intersection, measured from the point of intersection of the centerline of the intersecting street to the point of curvature of the centerline of the side street. The minimum tangent length on any other residential street approaching an intersection should be fifty (50) feet.

d. Radii

(1) A minimum radius of twenty-five (25) feet to the face of curb shall be required where local streets intersect. Where the angle of road inter-section is less than seventy-five (75) degrees, the Planning Commission may require a greater curb radius. Wherever necessary to permit the construction of a curb having a desirable radius without curtailing the sidewalk at a road corner to less than normal width, the property line at such road corner shall be rounded or otherwise set back sufficiently to permit such construction.

(2) A minimum radius of thirty (30) feet to the face of curb shall be required where a local street intersects with a collector street. A design using larger radii or 3-centered compound curves is recommended where needed to provide for turning movements of larger vehicles.

(3) Where collector streets or arterial streets intersect other arterial streets, a minimum radius of forty (40) feet to face of curb shall be required.

e. Driveways

Residential and non-residential driveway intersections with the street shall conform to the Vehicle Access Control provisions of the Oak Ridge Zoning Ordinance as to driveway width, radii at the street intersection, spacing, and related aspects. Driveway construction at existing curb and gutters and/or sidewalks shall conform with SCRD (concrete driveway aprons).

f. Curb

All dedicated streets shall be provided with a curb, or curb and gutter, as specified in the Standard Construction Requirements and Details.

5. Sight Distance

The sight distance at intersecting streets shall meet AASHTO standards for the given design speed. Refer to Section 3.02E of the Standard Construction Requirements and Details for intersection sight distance requirements.

6. Utility Placement

Utility placement in the right-of-way shall be in accordance with SCRD Detail No. 3.15. Deviations from standard placement requirements will be considered by the City.

7. Sidewalks

In determining whether sidewalks shall be required, the Planning Commission shall consider the need or desire to connect the proposed development to adjacent areas, as well as the need to provide a safe means for internal pedestrian circulation.

An off-street pattern of walkways may be approved by the Planning Commission as a substitute for sidewalks required below, provided such walkways address adequately both internal pedestrian circulation and pedestrian traffic between the proposed development and surrounding areas. Where sidewalks or walkways intersect a curbed pavement, a handicap ramp shall be installed.

Construction methods shall be in accord with the City's SCRD. Sidewalks Along a street shall be concrete. Other walkways and bikeways may be constructed of asphaltic concrete.

- a. Criteria for Sidewalks on One Side of Street. The Planning Commission shall require sidewalks on one side of the street in the following Zoning Districts:

R-1-B, Single Family Residential

R-1-C, Single Family Residential

NOTE: The Planning Commission may reduce normal street width up to two feet to offset the cost of developing a sidewalk on one side of the street.

In addition, in other zones sidewalks shall be provided on at least one side of the street in the vicinity of any community-serving facilities such as public schools, private schools serving 100 or more students, shopping centers, and employment centers serving 100 or more employees, as determined by the Planning Commission.

If no other criteria in this section are met, sidewalks shall be required on one side of the street when the estimated vehicular traffic on that street at build-out (or full development) will exceed 1,000 vehicles per day, based on Institute of Traffic Engineers (ITE) criteria (ITE's Trip Generation, latest edition), or other approved traffic engineering standards.

A pedestrian crosswalk shall be provided at all locations where the sidewalk crosses an intersection or transitions from one side to another or from both sides to one side, with the location to have due regard for a safe sight distance.

Notwithstanding above criteria, if a permanent residential cul-de-sac with 20 or fewer single-family detached lots is planned, no sidewalks shall be required on such streets.

- b. Criteria for Sidewalks on Both Sides of Street. The Planning Commission shall require sidewalks on both sides of the street in all commercial, office, and attached housing developments.

If no other criteria in this section are met, sidewalks shall be required on both sides of the street when the estimated vehicular traffic on that street at build-out (or full development) will exceed 2,000 vehicles per day, based on Institute of Traffic Engineers (ITE) criteria (ITE's Trip Generation, latest edition), or other approved traffic engineering standards. The Planning Commission may reduce normal street width up to two feet and consider other reductions in infrastructure costs proposed by the developer to offset the cost of developing sidewalks on both sides of the street. In granting such reductions, the Commission will be guided by staff advice and be assured that the overall intent and objectives of the Subdivision Regulations are being fulfilled.

- c. Width of Sidewalks and Walkways. In detached single-family residential and all other areas, sidewalks shall be a minimum of four (4) feet wide. In attached housing developments, and in commercial areas and industrial areas if appropriate to pedestrian traffic as determined by the Planning Commission, sidewalks shall be a minimum of five (5) feet wide or more.

- d. Off-Site Sidewalks and Walkways. Provided that public rights-of-way or easements exist, the Planning Commission may require the extension of sidewalks, greenways or bikeways up to five hundred (500) feet beyond the development to connect to an existing sidewalk or a developed area, when users of the proposed development can be expected to use such facilities and when it is deemed to be in the best interests of the City because of the proximity of schools, shopping areas, parks, or other major generators of pedestrian traffic.
- e. Bikeways. The width of bikeways designed for one-way use shall be a minimum of four (4) feet. The width of bikeways designed for two-way use shall be a minimum of eight (8) feet.

Bikeways next to roadways where bicyclists are moving against the traffic shall have physical separation between the two ways for safety.

When the proposed development includes a part of a bikeway or multipurpose pathway plan adopted by the City of Oak Ridge, the developer shall construct the portion of such pathway within the development, consistent with the design and construction of other portions of the pathway, existing or planned. The City shall finance the proportion of such pathways that is estimated to serve residents outside the proposed development.

- f. Sidewalk Location. Sidewalks shall be located near the edge of the road right-of-way but no closer than one (1) foot from the property line to prevent interference or encroachment by walls, fences, hedges, other planting or other structures placed at the property line at a later date. If a sidewalk will be located on only one side of a street, the centerline of the street may be offset within the right-of-way so that the berms beyond the sidewalk and the curb are of even width. If sidewalks will be located on both sides, additional right-of-way width may be required. Whenever possible and within the limits of the right-of-way, the sidewalk shall be located a minimum of three (3) feet behind the curb or edge of pavement, and with the exception of electric utility lines should be designed not to cover underground utilities. If the subdivider can demonstrate that meeting the specifications of

this paragraph will raise sidewalk costs in a prohibitive manner, the Planning Commission may permit the sidewalk(s) to be constructed against the back of curb as a means of lowering such costs, if pedestrian safety is not materially compromised.

- g. Exceptions and Variances Regarding Sidewalks and Bikeways. The Planning Commission shall have the authority to modify the sidewalk and/or bikeway requirements in cases where any of the following factors could cause prohibitively high costs and there is no reasonable alternative for routing the sidewalk and/or bikeway:

- Steep terrain
- Preserving mature existing vegetation
- Avoidance of significant land disturbance

In granting an exception or variance, the Planning Commission shall attempt to maintain continuity and connectivity of sidewalk networks and shall restrict the geographic extent of the relief to only the specific area affected by the above factors. The criterion for determining whether costs are prohibitive shall be when the average cost of constructing sidewalks throughout the proposed subdivision phase would exceed twice the average cost of similar sidewalks in areas not affected by the above factors, as determined by the Planning Commission.

- h. Timing of Sidewalk or Walkway Construction. Sidewalks or walkways shall be constructed after all underground utilities are in place unless otherwise approved by the City.

8. Parking Lots

The design and construction of parking lots in subdivisions shall be in accord with the provisions of the Zoning Ordinance for the zone in which such parking lot is located.

9. Street Signs

Standard street name and traffic signs shall be installed on dedicated streets to City specifications, at the cost of the developer. Non-standard street signs must be approved by the City. The owner or developer must provide for on-going repair or replacement of non-standard street signs.

10. Plantings and Street Trees

The planting of street trees provides protection against excessive heat and glare and enhances the attractiveness and value of abutting property.

Trees should be planted at intervals of forty (40) to fifty (50) feet, except that no tree planting or other obstruction shall be placed within the intersection clear sight distance triangle.

a. Plantings within Rights-of-Way and Easements

When safe obstruction distances are provided, trees may be planted between the curb and the front property line in the "open parkway" area of Arterial road rights-of-way, except in utility corridors, but five (5) feet inside front property lines along Major and Minor Collector Streets, Local Streets, Marginal Access Roads, and Dead-End Roads. Care should be taken that such trees will not interfere, at time of planting or during subsequent growth, with major electric circuits or water sewer pipes.

Any plantings installed within a road right-of-way or easement may be damaged or destroyed during the course of maintenance or servicing of utilities. Plantings shall not prevent access to any fire hydrant, manhole, power transformer, or permanent utility equipment. Fire hydrants shall remain visible at all times. The City shall not be liable for damage to plantings within such right-of-way or easement. The City will reseed as necessary any bare or disturbed soil for erosion control purposes.

b. Plantings Outside Rights-of-Way

Where suitable trees do not exist, trees may be planted by the subdivider along the development side of all road rights-of-way.

c. Types of Ground Cover, Shrubs and Trees

- (1) Ground covers or grasses shall be planted beyond the pavement of a right-of-way, to reduce erosion. Small

and medium shrubs, ground covers, or grasses may be planted within a utility easement.

- (2) Small trees (under thirty (30) feet in height at maturity) may be planted a minimum of ten (10) feet from the centerline of the closest pipeline or conduit within a utility easement or ten (10) feet from the center of the easement, whichever is greater. Small trees as defined above shall include ornamentals like redbud, fringe trees, dogwoods, serviceberry, crape myrtle, golden raintree, hawthorne, hornbeam, saucer or star magnolia, sassafras, smoke tree, sourwood or sumac.
- (3) Large trees (any tree taller than thirty (30) feet at maturity) shall not be planted within any City utility easement, or in any utility corridor within any street right-of-way.

11. Planted Buffer Strip Areas

If not already regulated by the Zoning Ordinance, this section shall apply.

For the protection of residential properties, the Planning Commission may require that the subdivider construct and reserve planted buffer strip areas with a minimum width of ten (10) feet and of such growth characteristics as to reduce noise and provide an obscuring screen, along heavily traveled thoroughfares, railroad rights-of-way, and/or to divide land uses that would have an injurious effect on adjacent residentially-developed properties if not so screened. The Planning Commission may require such planted buffer strip areas, up to a maximum width of twenty (20) feet, provided that the total of such required areas do not exceed more than five (5) percent of the total land area of the subdivision.

F. Drainage and Storm Sewer Design

Storm drainage and stormwater impoundments shall be designed and installed in accord with the Standard Construction Requirements and Details, and the Erosion Control and Storm Water Management Ordinance, as appropriate. The developer shall submit a downstream drainage impact report, extending to an appropriate natural drain, as defined by the City, for all drainage leaving the development area.

During construction, temporary erosion control measures shall be applied, and upon completion of construction, permanent erosion control measures shall be provided, all in accord with the Standard Construction Requirements and Details.

All public storm sewers shall be installed in dedicated street right-of-way or dedicated easements. Minimum widths of storm sewer easements shall be 10 feet for pipes up to 24 inches in diameter that are less than 5 feet in depth measured from pipe invert, 15 feet for pipes greater than 24 inches up to and including 48 inches, and a minimum of 20 feet for pipes greater than 48 inches in diameter. For multiple pipe installations, the width of the easement shall be as specified above but measured from the centerline of each outside pipe. The City shall maintain only the storm sewer systems which receive drainage from City rights-of-way, that cross the rights-of-way, or that lie in dedicated easements. Storm drainage systems originating on private property shall be maintained by the property owner to the point where they tie to public systems.

G. Water System and Facilities Design

The water system shall adequately serve all lots shown on the subdivision plat for both domestic use and fire protection. Such system shall be designed and installed in accord with the SCRD, and shall meet State Health Department standards. A hydraulic analysis of the proposed water system will be required.

1. Location

All public water mains shall be located within dedicated rights-of-way and/or dedicated easements with a minimum width of 10 feet, centered about the pipe. An easement of 15 feet shall be required where the depth is greater than five feet but less than eight feet. An easement of 20 feet shall be required where depths are greater than eight feet. Pipe systems should be arranged in loops unless otherwise permitted by the City. No part of any structure, including foundations and overhangs, are permitted in an easement.

2. Sizing

In residential areas, in order to obtain maximum available fire flow, mains shall be a minimum of six inches in diameter. Four inch mains are permitted on residential cul-de-sacs less than 400 feet in length provided no fire hydrants are required on the cul-de-sac and adequate pressure is available. Use of two inch mains shall be considered for short cul-de-sacs and permanent dead ends where future growth is not feasible and where justified by hydraulic

analysis. The City may require water mains to be oversized with the incremental cost for oversizing to be born by the City.

In non-residential districts, six inch water mains are acceptable where fire flows of 1000 gpm at 20 psi residual pressure can be achieved.

3. Fire Protection and Fire Flow

a. Water mains providing required fire flow for an area shall be large enough in all cases to deliver the flow required for fire suppression purposes. The amount of water required and therefore delivered by each fire hydrant shall be no less than five hundred (500) gallons per minute (G.P.M.) with twenty (20) pounds per square inch residual pressure in residential areas, and no less than one thousand (1,000) G.P.M. with twenty (20) pounds per square inch residual pressure at peak system demand in commercial and industrial areas.

b. The requirements of the Insurance Services Office or its equivalent, and related agencies, shall be investigated and complied with if they are more stringent than the minimum flows set forth above. The City may require a higher flow where building conditions warrant such action.

c. Adequate Fire Protection. In any one or more of the conditions listed below, the developer or builder shall provide a means for adequate fire protection, including but not limited to the installation of a domestic sprinkler system complying with applicable codes, the installation of an additional fire hydrant capable of supplying adequate flow, or the installation of a booster pump to increase flow to an acceptable level at the structure:

(1) Travel distance along roadways or paved accesses to the nearest existing fire hydrant is more than 150 feet from the nearest property line. In no case shall any part of the building be more than 500 feet from a hydrant measured along an accessible roadway; or

(2) The nearest hydrant provides a water supply of less than five hundred (500) gallons per minute in residential or 1000 gallons per minute in non-residential areas at twenty (20) pounds per square inch residual pressure at periods of peak demand; or

- (3) The elevation difference between the highest floor of the referenced structure and the nearest hydrant prevents adequate water flow and pressure for fire protection at that structure.

4. Fire Hydrants

- a. Spacing In Residential Districts. In residential districts, fire hydrants shall be spaced a maximum distance of four hundred and fifty (450) feet apart, measured along street centerlines.
- b. Spacing In Non-Residential Districts. In non-residential districts, if the closest existing fire hydrant capable of providing the required fire flow is more than one hundred and fifty (150) feet from the nearest part of the lot, or if any part of the referenced building is more than five hundred (500) feet from such nearest fire hydrant, the developer, builder, or owner shall be responsible for providing on-site fire hydrants. Such hydrants shall be located so as to no more than five hundred (500) feet from any part of any building on the lot.
- c. Sprinkler System Requirements. Where sprinkler systems are required, fire hydrants shall be provided and shall be located for accessibility in accord with the SCRD.

5. Materials and Installation

Water system materials and installation, including number, type, and placement of all valves, cover of lines, reaction blocks, and separation from other utilities, etc. shall comply with the SCRD.

6. Water Service and Taps

All connections and repairs shall be completed in accord with the SCRD.

- a. Connection. All connections to existing water mains shall be made by Public Works Department personnel at the expense of the developer in accord with the current rate schedule. Service taps on new residential water lines shall be made by the contractor in accordance with the standards of the City of Oak Ridge. All meters and meter boxes shall be installed by

Public Works Department personnel or an appropriate contractor designated by the Public Works Director. Non-residential service locations and configurations shall be determined on a case-by-case basis by the City.

- b. Maintenance. After final Council acceptance the City will maintain all water service mains within rights-of-way and dedicated easements, and all laterals up to the meter.
- c. House Service Connections. All service connections shall conform with the Standard Construction Requirements and Details.

7. Acceptance of Water System

a. Residential

The water system must be accepted by the Public Works Department in conformance with these SCRD prior to approval of any subdivision Final Plat. The water system shall be 100 percent complete, including testing, prior to Final Plat recording. Formal acceptance of water main systems shall be by City Council Resolution upon the request of the developer and upon submission and approval of “as built” drawings. The developer shall be responsible for all maintenance and repairs to the system until formal City Council acceptance.

b. Non-Residential

All non-residential water mains that serve only one property shall be privately maintained by the property owner. The City will accept water mains in conformance with the SCRD that serve multiple properties upon the owner’s request. Such acceptance includes the submission and approval of as-built drawings and, if necessary, Plats of Corrections for easements. Formal acceptance of water mains to be dedicated to the City shall be by City Council Resolution action. The developer/owner shall be responsible for all maintenance and repairs to the system until formal City Council acceptance. The water system must be accepted by the City and shall be 100 percent complete, including testing, prior to the issue of a Certificate of Occupancy.

H. Sewer System and Facilities Design

Each lot in a subdivision shall be provided with a connection to the public sanitary sewer system, or to an alternative sewage treatment system approved by the Planning Commission, and which meets all local and State requirements. Any proposed use of septic tanks must meet all requirements set forth in these Regulations.

1. Design

- a. Sewer systems and facilities shall be designed and installed in accordance with the Standard Construction Requirements and Details. All public sanitary sewer mains shall be located in dedicated street rights-of-way and/or in dedicated easements, with a minimum width of 10 feet, centered about the pipe. An easement of 15 feet shall be required where the depth is greater than five feet but less than eight feet. An easement of 20 feet shall be required where depths below finished grade are greater than eight feet. Special Conditions may warrant greater widths as required by the City. No part of any structure, including foundations and overhangs, are permitted in an easement.
- b. An hydraulic analysis of the impact of the proposed development on the existing sewer system is required.
- c. Proposed sewers shall be designed to a proper depth such that all creek crossings shall have at least three feet of cover between it and the stream bed unless otherwise approved by the City. Concrete encasement and ductile iron pipe with mechanical joints, in accordance with Standard Detail 7.01, shall be required at stream crossings. All stream crossings will include check dams in the conduit trench on both sides of the crossing.
- d. Sanitary sewer mains shall not be installed under any part of water impoundments, such as storm water detention basins except as approved by the City.

2. Size

Sewer systems shall be designed and installed in accord with the SCRD, and in accord with the proposed land use at full development of the contributing area. The minimum size of public gravity sanitary sewer mains shall be eight inches (8").

3. Grades

Grades shall be within the ranges specified in the Standard Construction Requirements and Details SCR.D.

4. Installation and Materials

Sanitary sewer mains shall be deep enough to serve the adjoining property and allow for sufficient slope in lateral lines. Such mains shall be installed using materials, methods and testing procedures in accordance with the SCR.D.

5. Manholes

Manholes shall be located and spaced as provided in the SCR.D, and shall be of precast concrete or other material specifically approved therein. Manholes subject to flooding as determined by the City shall be constructed with water-tight frames and covers to minimize water inflow.

6. Septic Systems

Each lot shall be provided with a connection to the public sanitary system wherever feasible. However, if it is not feasible to connect to an approved sanitary system as determined by the City, due to topography, distance to the nearest existing public sewer, probable ultimate extent and pattern of development or the desirable and logical sequence of development, and it is not feasible to provide a sewage treatment plant designed to serve the subdivision, installation of private sewage disposal systems on individual lots will be an acceptable alternative, provided that each lot meets all of the following criteria:

- a. A minimum standard of two (2) acres in area;
- b. Each lot has a minimum of two hundred (200) feet in width at the building line;
- c. Each lot with slopes towards the road have a minimum recorded setback line of sixty (60) feet;
- d. That all wastes be disposed of on the lot;
- e. That no part of the disposal system be closer than ten (10) feet to any lot line;

- f. That the lot provide minimum soil percolation rates and satisfactory area reserved for an absorption field to meet the standards of the designated State health department official for the soil conditions found at such absorption field, and the distance to any existing or proposed wells; and
- g. That such official approve the proposed installation of septic tanks on such lot in writing, on the plat.

7. Acceptance of Sanitary Sewer Systems

All sanitary sewer systems must be accepted by the Public Works Department for conformance with these SCRD prior to approval of any subdivision Final Plat, except that an acceptable bond, as referenced in the City Subdivision Regulations, may be posted for incomplete items at Final Plat stage. The sanitary sewer system shall be at least 75 percent complete prior to Final Plat recording. No TEMPORARY OR PERMANENT CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL THE SANITARY SEWER SYSTEM IS 100 PERCENT COMPLETE AND ACCEPTED by the City. Formal acceptance of sewer systems shall be by City Council Resolution upon the request of the developer and upon submission and approval of "As Built" drawings and Final Plat. The developer shall be responsible for all maintenance and repairs on the sewer system until formal acceptance by the City Council

I. Utilities and Easements

The Planning Commission may require easements for utilities along all lot lines or across lots, where necessary for the extension of existing or planned utilities. The City shall not be responsible for maintenance of any private permanent easements negotiated across one lot in favor of another lot.

J. Public Uses

1. Parks, Playgrounds, and Recreation Areas

a. Recreation Standards.

The Planning Commission shall require that land be reserved for parks and playgrounds or other recreation purposes in locations designated on the Comprehensive Plan or otherwise where such reservations would be appropriate

given policies in the Plan. Each reservation shall be of suitable size, dimension, topography, and general character and shall have adequate road access for the particular purposes envisioned by the Planning Commission. The area shall be shown and marked on the plat, "Reserved for Park and/or Recreation Purposes." When recreation areas are required, the Planning Commission shall determine the number of acres to be reserved from the following table, which has been prepared on the basis of providing three (3) acres of recreation for every one hundred (100) dwelling units. The Planning Commission may refer such proposed reservations to the local government official or department in charge of parks and recreation for recommendation. The developer shall dedicate all such recreation areas to the City of Oak Ridge, or to a Homeowners' Association, as a condition of final subdivision plat approval.

(1) Table of Recreation Requirements

Single-Family Lots Average Size of Lot	Percentage of Total Land in Subdivision to be Reserved for Recreation Purposes
80,000 sq ft & greater	1.5%
50,000 sq ft	2.5%
40,000 sq ft	3.0%
35,000 sq ft	3.5%
25,000 sq ft	5.0%
20,000 sq ft	6.0%
15,000 sq ft	8.0%
10,000 sq ft or smaller	10.0%

(2) Multifamily and High-Density Residential. The Planning Commission shall determine the acreage for reservation based on the number of dwelling units per acre to occupy the site as permitted by the Zoning Ordinance.

b. Recreation Sites.

Land reserved for recreation purposes shall be of a character and location suitable for use as a playground, playfield, or for other recreation purposes, and shall be relatively level and dry; and shall be improved by the developer to the standards required by the Planning Commission. A recreation site shall

have a total frontage on one (1) or more streets of at least two hundred (200) feet, and no other dimension of the site shall be less than two hundred (200) feet. The Planning Commission may refer any subdivision proposed to contain a dedicated park to the local government or department in charge of parks and recreation for a recommendation. All land to be reserved for dedication to the local government for park purposes shall have prior approval of the City Council and shall be shown marked on the plat, "Reserved for Park and/or Recreation Purposes."

c. Alternative Procedure: Money in Lieu of Land

Where, with respect to a particular subdivision, the amount of land reserved pursuant to this section does not equal the percentage of total land required to be reserved in Article IV, Section J. 1. a, the Planning Commission may require, prior to final approval of the subdivision plat, that the applicant deposit with the Governing Body a cash payment in lieu of land reservation. Such deposit shall be placed in a Neighborhood Park and Recreation Improvement Fund to be established by the City. The deposit shall be used by the local government for improvement of a neighborhood park, playground, or recreation area including the acquisition of property. The deposit must be used for facilities that actually will be available to and benefit the persons in the subdivision for which payment was made and be located in the general neighborhood of subdivision. The Planning Commission shall determine the amount to be deposited, based on the following formula: two hundred dollars (\$200) multiplied by the number of times that the total area of subdivision is divisible by the required minimum lot size of the zoning district in which it is located, less a credit for the amount of land actually reserved for recreation purposes, if any, as the land reserved bears in proportion to the land required for reservation in Article IV, Section J.1.a, but not including any lands reserved through density zoning. For example:

- A. 50 acre site (50 x 43,560 sq. ft. = 2,178,000 sq ft)
- B. Zoning: R-1-C (Minimum lot size = 8,000 sq. ft.)
- C. Percentage of land required for recreation = 10% x 50 acres = 5 acres
- D. Land proposed for recreation: 3 acres; Calculation of credit: 100% - (3 acres ÷ 5 acres) = 100% - 60% = 40%
- E. FORMULA:

$$\$200 \times (2,178,000 \times \text{Result of D calculation})$$

$$8,000$$
$$\$200 \times (272.25 \times 40\%)$$
$$\$200 \times 108.9 = \$21,780 \text{ cash in lieu of land}$$

NOTE: This \$21,780 would go into an escrow fund to be used to improve, develop, or purchase a park that serves, among other residents, the residents of the 50 acre subdivision.

d. Other Recreation Reservations

The provisions of this section are minimum standards. None of the paragraphs above shall be construed as prohibiting a developer from reserving other land for recreation purposes or greenbelt in addition to the requirements of this section.

2. Other Public Uses

a. Plat to Provide for Public Uses

Except when an applicant utilizes planned unit development in which land is set aside by the developer as required by the provision of the Zoning Ordinance, whenever a tract to be subdivided includes a school, recreation uses [in excess of the requirements of Section 5.9(1)], or other public use as indicated on the Comprehensive Plan or any portion thereof, the space shall be suitably incorporated by the applicant into its sketch plat. After proper determination of its necessity by the Planning Commission and the appropriate local government official or other public agency involved in the acquisition and use of each such site and a determination has been made to acquire the site by the public agency, the site shall be suitably incorporated by the applicant into the preliminary and final plats.

b. Referral to Public Body

The Planning Commission shall refer the sketch plat to the public body concerned with acquisition for its consideration and report. The Planning Commission may propose alternate areas for such acquisition and shall allow the public body or agency 30 days for reply. The agency's recommendation, if affirmative, shall include a map showing the boundaries and area of the parcel to be acquired and an estimate of the time required to complete the acquisition.

c. Notice to Property Owner

Upon a receipt of an affirmative report, the Planning Commission shall notify the property owner and shall designate on the preliminary and final plats that area proposed to be acquired by the public body.

d. Duration of Land Reservation

The acquisition of land reserved by a public agency on the final plat shall be initiated within twelve (12) months of notification, in writing, from the owner that he intends to develop the land. Such letter of intent shall be accompanied by a sketch plat of the proposed development and a tentative schedule of construction. Failure on the part of the public agency to initiate acquisition within the prescribed 12 months shall result in the removal of the “reserved” designation from the property involved and the freeing of the property for development in accordance with these regulations.

K. Hillside Standards

1. General

a. Purpose

Hillside development requires special planning on the part of developers and the Planning Commission. Special treatment of building sites and streets is needed to preserve natural terrain, trees, rock formations, and special features such as views, and to reduce soil instability and erosion resulting from land development, while still providing safe circulation for vehicles and pedestrians. The amended standards herein are intended to allow more flexible development of steep lands, reducing where possible the additional cost of such development, while maintaining minimum standards for safety despite the risk of working and living in such areas.

b. Methods

Development of such areas may require unusually deep or unusually shallow lots, unusually large lots and reduced density of use, narrow frontages or reduced front setbacks, and steeper roads with sharper curves, and therefore, reduced design speeds. Careful planning of roads, drainage, lots and utility layout and installation is needed to avoid excessive grading and future severe erosion.

2. Definition of Hillside Areas

Areas of the City may be classified in the Hillside category if 85% of the land has a natural slope greater than 15% and 50% has a natural slope greater than 20%. Such areas are designated on the Oak Ridge Regional Planning Commission map, "Hillside Areas," dated November, 1968, on file in the Community Development Department, City of Oak Ridge, and as may be subsequently revised.

3. Designation of Hillside Subdivisions

Subdivisions making use of Hillside standards of street and lot layout shall be specifically designated "Hillside Area" on both the preliminary plat and the final plat.

4. Modifications for Road and Lot Design and Layout

Slopes over 35% present special problems for construction and for control of runoff. The preliminary plat shall specifically designate any areas where the proposed development will alter land with natural surface slope greater than 35%, i.e. clearing of vegetation, cutting or filling or other substantial change to natural conditions. All areas of natural slope of 35% or greater which exceed two (2) acres shall also be designated on the preliminary plat.

a. Determination of Average Slope

Average slope of an area shall be determined by a formula,

$$S = \frac{0.00229 IL}{A}, \text{ where}$$

S = average slope, %

I = contour interval in feet

L = contour length in feet, within area

A = area in acres of the part whose slope is being ascertained.

b. Areas to be left undisturbed

Depending on the natural steepness of a site, varying fractions of the site should be left in their natural state, to be developed solely for recreational purposes or for residential yards, as listed in the table below.

The Planning Commission may approve deviations from Table M-1, provided other acceptable provisions to preserve the stability of slopes and the safety of residents or occupants are included in the development plan.

Table M-1
PORTION OF LAND FOR RESTRICTED USE

Slope Classification (Average Slope, in %) <u>Percent</u>	Minimum Portion of Land Falling Within Each Slope Classification to Remain in NATURAL STATE or be Developed solely for recreation or <u>Residential Yards*</u>
15.0 - 19.9 %	40 %
20.0 - 24.9 %	55 %
25.0 - 29.9 %	70 %
30.0 and above	85 %

*Planning Commission may reduce these percentages up to an additional 10% of the area within each slope classification.

Table M-2
Permissible Exceptions to Design Standards in Hillside Areas

<u>Design Element</u>	<u>Normal Standard</u>	<u>Permissible Exception</u>
Minor road and cul-de-sac right of way turn-around (no parking)	50' minimum	35' minimum exception
<u>Construction Details</u>		<u>Alternatives for Slopes</u>
Road grade	12%	12% for full use 18% for limited use roadway
Horizontal curves center line minimum radii	300' (local streets) 150' (cul-de-sac)	150' (local streets) 75' min. radius (cul-de-sac)
Vertical curves	min. sight distance*	min. sight distance reduced by 25% ± with adequate warning signs installed by developer
Intersections	Min. angle 60°	Min. angle 45°
Jogs or offsets	Min. 125' offset	No minimum on local streets; 75' on collector streets or above
Dead end turn-around	80' paved circle	Functional equivalent
Block length	1200' max. length	No limit

*See Section 3.00, Table 3.1 of Standard Construction Requirements and Details.

c. Criteria for Hillside Streets and Driveways

The following criteria shall be used in evaluating streets and driveways in Hillside areas:

- (1) Street and driveway designs should preserve natural topography insofar as practical, and in particular at necessary ridge-to-valley transitions.
- (2) Divided lanes and similar mechanisms should be fully applied toward the objective of preserving natural topography.

- (3) In general, grading should embody the principle of half fill and half cut in preference to all fill or all cut.
- (4) Insofar as practical, streets and driveway alignments should be parallel to contours, in valleys and on ridges.
- (5) In Hillside areas, the Planning Commission may allow exceptions to road design and block layout as set forth in Table M-2:

L. Non-Residential Subdivisions and Leases

Any lease shall be considered a subdivision, if it divides land on which non-residential buildings or other above-ground improvements with an appraised value of \$100,000 or more are constructed or are to be constructed, for a period of two years or more or including an option for either party to renew such lease for such period. A plat shall be submitted to the Planning Commission showing such division, naming the owner or owners and lessee or lessees, and showing existing and proposed utilities, existing and proposed streets or drives, and such other features as are required for the division of land into separate parcels for sale. Such plat shall state the zoning of the property, the date on which the lease terminates, and the date of termination of any extensions of such lease.

ARTICLE V. DEVELOPMENT PREREQUISITE TO FINAL PLAT APPROVAL

- A. Guarantees in Lieu of Completed Improvements No final subdivision plat shall be approved by the Planning Commission or accepted for recording by the County Register of Deeds until the required improvements listed shall be constructed in a satisfactory manner and approved by the local approving agent or in place of such prior construction, the Planning Commission shall require a bond based on an amount equal to 120% of the City's estimated cost of installation of the required improvements, whereby improvements may be made and utilities installed without cost to the City or County in the event of default by the subdivider.
- B. Period for Completion. Uncompleted improvements must be completed by the subdivider within one (1) year after approval of the final plat, or the City may use the bond to complete installation of the required improvements, unless an extension for a specified time period (one year or less) is requested by the subdivider and approved by the Planning Commission.

The City shall authorize a reduction in the amount of the bond as the required improvements are completed. No temporary or permanent Certificate of Occupancy shall be issued for any building in the subdivision until all City utility improvements serving that unit are 100 percent complete.

The balance retained, however, may never be less than 80 percent of the original security bond face value until all work is complete and accepted by the City.

- C. Methods of Posting Bond. The following methods of bonding will be acceptable:
1. A surety bond or insurance bond from the subdivider to the City in the full amount.
 2. A certified check or cash to the City in the full amount required under subdivision regulations.
 3. An escrow account or Certificate of Deposit in favor of the City in the full amount of the estimated cost required under subdivision regulations.
 4. An irrevocable letter of credit in favor of the City, from a bank or other financial institution approved for such a purpose by the City, in the full amount required under subdivision regulations.

APPENDICES

A. Forms for Final Plat Certification

The following forms shall be affixed on the original plat if applicable:

Form 1. CERTIFICATE OF OWNERSHIP AND DEDICATION

I (we) hereby certify that I am (we are) the owner (s) of the property shown and described hereon and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and dedicate all roads, alleys and walks to public use; and dedicate all parks and other open spaces to public or private use as noted.

_____,
Owner

Date

Owner

Form 2. CERTIFICATE OF ACCURACY

I hereby certify that the plan shown and described hereon is a true and correct survey to the accuracy required by the Oak Ridge Subdivision Regulations and that the monuments have been placed as shown hereon, to the specifications of the said Regulations.

Registered Surveyor

Date

State in which registered

Registration Number

Form 3. CERTIFICATION OF THE APPROVAL OF WATER AND SEWAGE SYSTEMS

I hereby certify that the water supply and sewage disposal utility system installed, or proposed for installation, fully meets the requirements of the Tennessee Department of Environment and Conservation and locally established standards, and are hereby approved as shown.

_____,
Date

Health Officer designated by the Planning Commission

Form 4 **CERTIFICATION OF THE APPROVAL OF UTILITIES AND REQUIRED IMPROVEMENTS**

I hereby certify that:

(1)_____ All required improvements have been completed satisfactorily,

or (2)_____ No required improvements are included in this project,

or (3)_____ A security bond in the amount of \$_____ has been posted to assure completion of all required improvements in case of default.

Approving Agent Designated by the Planning Commission

Date

Form 5. CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the subdivision plat shown hereon has been found to comply with the Subdivision Regulations for the Oak Ridge, Tennessee Planning Region, with the exception of such variances, if any, as are noted in the minutes of the Planning Commission and that it has been approved for recording in the office of the County Register.

_____, _____
Date

Secretary, Planning Commission

Form 6. **CERTIFICATION OF THE APPROVAL OF PRIVATE SEWAGE DISPOSAL SYSTEM**

I hereby certify that the private sewage disposal system installed, or proposed for installation, fully meets the requirements of the Tennessee Department of Environment and Conservation and locally established standards, and is hereby approved as shown.

_____, _____
Date

Approving Agent designated by TDEC
