

**MUNICIPAL AND REGIONAL SUBDIVISION REGULATIONS  
LOUDON, LENOIR CITY, PHILADELPHIA & LOUDON COUNTY**

**PREPARED FOR AND ADOPTED BY:**

**LOUDON COUNTY REGIONAL PLANNING COMMISSION  
LENOIR CITY REGIONAL PLANNING COMMISSION  
LOUDON REGIONAL PLANNING COMMISSION**

**REVISED AND REPRINTED JUNE 6, 2006**

**Prepared by the:**

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**Office of Planning and Community Development  
274 Blair Bend Drive  
Loudon, TN 37774**

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**The following Regulations pertain to the subdivision of land within Loudon County and the municipalities of Lenoir City and Loudon. For purpose of simplification, these Regulations have been compiled for the three planning regions - Loudon County, Lenoir City and Loudon.**

**Occasionally, some sections of these Regulations may vary depending on the planning region. In these instances, those variations will be clearly identified.**

**Consult the enclosed map (Appendix IV) in determining the appropriate planning region.**

## ARTICLE I.

### PURPOSE, AUTHORITY AND JURISDICTION

#### A. Purpose

Land subdivision is the first step in the process of community development. Once land has been cut up 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 to 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.

#### B. Authority

These Subdivision Regulations are adopted under authority granted by Sections 13-3-401 through 13-3-411 and 13-4-301 through 13-4-309 of the Tennessee Code Annotated. The Planning Commissions have fulfilled the requirements set forth in this act as prerequisite to the adoption of such Regulations. A certified copy of the Major Road Plan for each region is on file in the office of the Register of Loudon County, Tennessee.

#### C. Jurisdiction

These Regulations shall govern all subdivision of land within Loudon County and the municipalities and regional jurisdictions of the City of Lenoir City and the City of Loudon, Tennessee, now or hereafter established and within these Regulations, the term "subdivision" means the division of a tract or parcel of land into two or more lots, sites, or other divisions for the purpose, whether immediate or future, of sale or building development and includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided provided, however, that "subdivision" does not include a division of any tract or parcel of land into two or more tracts or parcels when such parts or parcels are five (5) acres or larger in size. Any owner of land within this area wishing to subdivide land shall submit to the Planning Commission a plat of the subdivision according to the procedures outlined in Article II, which plat shall conform to the minimum requirements set forth in Article III. Improvements shall be installed as required by Article IV of these standards.

## ARTICLE II.

### PROCEDURE FOR PLAT APPROVAL

#### A. General

1. The procedure for review and approval of a subdivision plat consists of two (2) separate steps. The initial step is the preparation and submission to the Planning Commission of a preliminary plat of the proposed subdivision. The second step is the preparation and submission to the Regional Planning Commission of a final plat together with required certificates. This final plat becomes the instrument to be recorded in the office of the Register of Loudon County when duly signed by the secretary of the Regional Planning Commission.

The subdivider shall consult early and informally with the Planning Commission and its technical staff for advice and assistance before the preparation of the preliminary plat and its formal application for approval. This will enable him to become thoroughly familiar with these Regulations, the Major Street Plan and other official plans or public improvements which might affect the area. Such informal review should prevent unnecessary and costly revisions.

2. Any owner of land lying within the area of jurisdiction of the Planning Commission who wishes to divide such land into two (2) or more lots, sites, or divisions, for the purpose, whether immediate or future, of sale or building development and includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided, shall submit a plat of such proposed subdivision to the Regional Planning Commission for approval and shall obtain such approval prior to the filing of his subdivision plat for record. Any such plat of subdivision shall conform to the minimum standards of design for the subdivision of land as set forth in Article III of these Regulations and shall be presented in the manner specified in the following sections of this Article. No plat of a subdivision of land within the area of a planning jurisdiction shall be filed or recorded by the County Register without the approval of the Regional Planning Commission as specified herein.
3. In order to secure review and approval by the Regional 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 a preliminary sketch plat as provided in Section B of this Article. On approval of said preliminary sketch plat, he may proceed with the preparation of the final plat and other documents required in connection therewith as specified in Section C of this Article and the improvements set forth in Article IV.

**B. Preliminary Sketch Plat**

1. At least thirty (30) days prior to the meeting at which it is to be considered, the subdivider shall submit to the Regional Planning Commission six (6) copies of a preliminary plat of the proposed subdivision drawn to a scale of not less than one (1) inch equals one hundred (100) feet. A preliminary plat shall not be acceptable for submission unless it meets all the required standards of design and unless it contains all the required information or a written request for a variance from each specific deviation from the requirements with reasons thereof.

No sketch plat of a proposed subdivision which is to include individual subsurface sewage disposal systems (i.e. septic tanks) shall receive preliminary approval by the Planning Commission until the plans for such subdivision have been approved by the local health office and written evidence to this effect has been submitted to the Planning Commission. The approval of the local health office shall not constitute approval of the preliminary sketch plat by the Regional Planning Commission.

2. The preliminary sketch plat, which shall meet the minimum standards of design as set forth in Article III and the general requirements for the construction of public improvements as set forth in Article IV, shall give the following information insofar as possible:
  - a. The proposed subdivision's name and location, the name(s) and address(es) of the owner or owners, and the name of the designer of the plat who shall be an engineer or registered surveyor.
  - b. Date, approximate north point, and graphic scale.
  - c. The location of existing and platted property lines, existing streets, buildings, water courses, railroads, sewers, bridges, culverts, drain pipes, water mains, and any public utility easements or lines, detention basins, the present zoning classification, if any, on the land to be subdivided and on the adjoining land, and the names of adjoining property owners or subdivisions.
  - d. Plans of proposed utility layouts (sewers, water, gas, fire hydrants, and electricity) showing feasible connections to the existing or any proposed utility systems. When such connections are not practicable, any proposed individual water supply and/or sewage disposal system must be approved by the appropriate health authorities.
  - e. The proposed street names and the locations and dimensions of proposed streets, alleys, easements, parks, and other open spaces, reservations, lot lines, building setback lines and utilities.
  - f. Contours at vertical intervals of not more than five (5) feet except when specifically not required by the Planning Commission; such request must be made prior to the submission of a preliminary sketch plat.



**C. Final Plat**

1. The final plat shall conform substantially to the preliminary sketch plat as approved, and, if desired by the subdivider, it may constitute only that portion of the approved preliminary sketch plat which he proposed to record and develop at the time, provided however, that such portion conforms to all requirements of these Regulations. A final plat shall not be acceptable for submission unless it contains all of the required information or a written request for a variance from each specific deviation from the requirements with reasons therefore.
2. To allow sufficient time for review and processing by the Regional Planning Commission and staff, the subdivider shall submit six (6) copies of the final plat, together with street profiles or other plans required by the Commission at least thirty (30) days prior to the meeting at which it is to be considered. **In addition to hard copies of the plat, a digital format shall be required for all plats containing five (5) or more lots. Acceptable formats include: DGN (Intergraph Micro Stat. Format), AUTO CAD, DXF OUT.** The plat shall be drawn to a scale of one (1) inch equals one hundred (100) feet on sheets 17-1/2 x 22-1/2 inches in size. When more than one sheet is required, an index sheet of the same size shall be filed showing the entire subdivision with the streets lettered in alphabetical order as a key. When the plat has been approved by the Regional Planning Commission, one (1) copy shall be returned to the subdivider with the approval of the Regional Planning Commission certified thereon for filing with the County Register as the official plat of record. One copy shall be retained in the records of the Regional Planning Commission; one copy shall be retained by the planning staff; one copy shall be provided any utilities department or utility district as applicable.
3. The Regional Planning Commission shall approve or disapprove this final plat within sixty (60) days after its submission. If the plat is disapproved, the grounds for disapproval shall be stated upon the records of the Regional Planning Commission.
4. Approval of the final plat by the Regional Planning Commission shall not constitute the acceptance by the public of the dedication of any street or other public way or ground.
5. The final plat shall show:
  - a. The lines of all streets and roads, alley lines, building setback lines, lots numbered in numerical order, house numbers, reservations for easements, and any areas to be dedicated to public use or sites for other than residential use with notes stating their purpose and any limitations.
  - b. Sufficient data to determine readily and reproduce on the ground the location, bearing, and length of every street line, lot line, boundary line, block line and building line, whether curved or straight, and including true north point. This shall include the radius, central angle and tangent

distance for the centerline of curved streets and curved property lines that are not the boundary of curved streets.

- c. All dimensions to the nearest one hundredth (100th) of a foot and angles to the nearest minute.
- d. Location and description of monuments. All applications for new subdivisions containing five (5) or more lots shall be required to have a survey that is tied to the Tennessee State Plane Coordinate System. Either by referencing the survey from two existing Loudon County Geographical Information System (LCGIS) state plane coordinate monuments, or from two new monuments set by a Global Positioning System (GPS) contractor, that is approved by LCGIS.

When an application for a new subdivision is submitted with a survey that references an existing LCGIS monument, the application shall include the following:

- 1. Surveyor's name and address.
- 2. Surveyor's LCGIS license number for the purchase and use of the Monument Location.

When an application for a new subdivision is submitted with a survey that references a new monument that was set by a GPS contractor, the application shall include a LCGIS form entitled New GPS Monument Form. The form will be available at the County Tax Assessor's office. This form shall require, but may not be limited to, the following information:

- 1. Surveyor's name and address
- 2. GPS contractor's name, address and telephone number
- 3. LCGIS contractor approval number
- 4. Monument identification number assigned by the LCGIS
- 5. Monument location information
- 6. Monument coordinates and elevation as determined by the GPS survey

*(Addition adopted by the Lenoir City Regional, Loudon Regional, and Loudon County Regional Planning Commissions at their respective June, 1996 Planning Commission meetings.)*

- e. The names and locations of adjoining subdivisions and streets and the location and ownership of adjoining unsubdivided property.
- f. Date, title, name and location of subdivision, graphic scale, and true north point.
- g. Location sketch map showing site in relation to area.
- h. If any portion of the land being subdivided is subject to flood, as defined in Article III, Section E, the limit of such flood shall be shown.

- i. Street numbers at increments of 50'.
6. The following certificates shall be presented with the final plat:
- a. Certification showing that applicant is the land owner and dedicates streets, rights-of-way, and any sites for public use.
  - b. Certification by surveyor or engineer to accuracy of survey and plat and placement of monuments.
  - c. Certification that the water supply system meets requirements of the state health department.
  - d. Certification that the subsurface sewage disposal system is approved by the local health authority or that the public sewerage system meets requirements of the state health department.
  - e. Certification that all streets and appurtenances have been installed in accordance with established standards.
  - f. Certification for recording by the Planning Commission.
  - g. Certificate of Approval of street names and addresses.

Examples for each of the certification forms are provided on the following pages.

7. All final plats shall be submitted on the standard plat sheet provided by the Planning Commission



**4b. CERTIFICATION OF SUBSURFACE DISPOSAL (SEPTIC SYSTEMS)**

Approval is hereby granted for lots \_\_\_\_\_, defined as \_\_\_\_\_, Loudon County, Tennessee, as being suitable for subsurface sewage disposal (SSD) with the listed or attached restrictions.

Prior to any construction of a structure, mobile or permanent, the plans for the exact house/structure location must be approved and an SSD system permit issued by the Division of Ground Water Protection. Water taps, water lines, underground utilities and driveways should be located at side property lines unless otherwise noted. Any cutting, filling or alterations of the soil conditions may void this approval

\_\_\_\_\_  
Environmental Specialist  
Division of Ground Water Protection

\_\_\_\_\_  
Date

**5. CERTIFICATION OF STREETS**

I certify that streets and related appurtenances installed, or proposed for installation, fully meet the specifications established by the Regional Planning Commission.

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_  
Road Engineer/Highway Commission

**6. CERTIFICATE OF APPROVAL FOR RECORDING**

I certify that this plat has been found to comply with the subdivision requirements for the planning region, with the exception of such variances, if any, which are noted. All improvements have been installed or an acceptable surety posted in order to assure completion. This plat is approved for recording in the office of the County Register.

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_  
Secretary, Regional Planning Commission

**7. CERTIFICATE OF APPROVAL OF STREET NAMES AND ADDRESSES**

I hereby certify that (1) the names of existing public roads shown on this subdivision plat are correct, (2) the names of any new road, whether public or private, do not duplicate any existing names and said names are approved, and (3) the property addresses of the lots shown on this plat are in conformance with the E-911 System.

\_\_\_\_\_  
Date

\_\_\_\_\_  
E-911 Authority

## ARTICLE III.

### GENERAL REQUIREMENTS AND MINIMUM STANDARDS OF DESIGN

#### A. Streets

1. Conformity to the Major Road Plan

The location and width of all streets and roads shall conform to the official Major Road Plan adopted by the Regional Planning Commission.

2. Relation to Adjoining Street System

The proposed street system shall extend existing streets or projects. They shall be extended at a width no less than the required minimum width as set forth in this Article or the width of the existing street or road whichever is greater.

Subdivisions of more than 5 lots shall only be approved on streets or roads that have a minimum pavement width of 18 feet. *(Added by Loudon County Regional Planning Commission 11/22/05; Lenoir City Regional Planning Commission 4/3/06; Loudon Regional Planning Commission 2/1/06.)*

3. Access Streets to Subdivision Boundaries

Sufficient access streets or right-of-way to adjoining properties shall, in the discretion of the Planning Commission, be provided in subdivisions to permit harmonious development to the area.

4. Street Elevation

No street shall be approved unless it is one (1) foot above the base flood elevation as defined in Section E of this Article. The Regional Planning Commission shall require profiles and elevations of streets for areas subject to flood in accordance with these and any other applicable county regulations. Fill may be used for streets provided such fill does not increase flood heights. Drainage openings shall be so designed as to not restrict the flow of water and unduly increase flood heights. Where such fill and drainage openings are proposed, the Regional Planning Commission shall consult with the County road engineer as to the adequacy of the proposed design. In addition, the street pattern shall be designed so that in time of flood each lot shall be readily accessible to emergency vehicles.

5. Street Right-of-Way Widths

The minimum width of right-of-way, measured from lot line to lot line, shall be as shown on the Major Road Plan, or if not shown on such plan, shall be not less than as follows:

- a. Arterial Streets or Highways                      80 feet or as may be required

Such streets are used primarily for fast or heavy traffic and are located on the Major Street and Road Plan for the planning region.

- b. Major Collector Streets                      60 feet
- c. Minor Collector Streets                      50 feet

Collector streets are those which carry traffic from minor streets to the major system of arterial streets and highways and include the principal entrance streets of a residential development and streets for major circulation within such a development.

- d. Minor Residential Streets                      50 feet

Minor streets are those which are used primarily for access to the abutting residential properties and designed to discourage their use by through traffic.

- e. Cul-de-sac Streets\*                      50 feet

Cul-de-sacs are permanent dead-end streets or courts designed so that they cannot be extended in the future.

- f. Dead-end Streets                      Not allowed

Dead-end streets are similar to cul-de-sacs except that they provide no turnaround circle at their closed end and are not permitted as streets in any proposed subdivision. Stub streets planned for future continuation are not considered to be dead-end streets.

- g. Marginal Access Streets\*                      50 feet

Marginal access streets are minor streets which are parallel to and adjacent to arterial streets and highways and which provide access to abutting properties and protection from through traffic.

- h. Alleys                      20 feet

Alleys are minor public ways used primarily for service access to the back or side of properties otherwise abutting on a street.

In cases where topography or other physical conditions make a street of the required minimum width impracticable, the Regional Planning Commission may modify the above requirements. Through proposed neighborhood or local business areas, the street right-of-way width shall be increased ten (10) feet on each side to provide for movement of vehicles into and out of necessary off-street parking areas without interference to traffic.

\*The Planning Commission may reduce the right-of-way width for these streets to forty (40) feet provided the following conditions exist:

- i. Marginal access & loop streets not to exceed 1,200' or less or serving no more than 24 units/lots.
- j. Cul-de-sacs not to exceed 600' in length or serving not more than 15 lots.

6. Additional Width on Existing Streets

Subdivisions that adjoin existing streets shall dedicate additional right-of-way to meet the above minimum street width requirements.

- a. The entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing street.
- b. When the subdivision is located on only one side of an existing street, one-half (1/2) of the required right-of-way, measured from the centerline of the existing roadway, shall be provided.

7. Restriction of Access

Where a subdivision abuts or contains an existing or proposed major street, the Regional Planning Commission may require marginal access streets, reverse frontage with screen planting contained in a non-access reservation along the rear property line, or such other treatment as may be necessary for adequate protection of residential properties to afford separation of through and local traffic.

8. Street Grades

Grades on major streets shall not exceed seven (7) percent. Grades on other streets shall not exceed ten (10) percent.

9. Horizontal Curves

Where a deflection angle of more than ten (10) degrees in the alignment of a street occurs, a curve of reasonably long radius shall be introduced. On streets sixty (60) feet or more in width, the centerline radius of curvature shall be not less than three hundred (300) feet; on other streets, not less than one hundred (100) feet.

10. Vertical Curves

Every change in grade shall be connected by vertical curve constructed so as to afford a minimum sight distance of two hundred (200) feet, said distance being measured from the driver's eyes, which are assumed to be four and one-half (4-1/2) feet above the pavement surface, to an object four (4) inches high on the pavement. Profiles of all roads showing natural and finished grades drawn to a scale of not less than one (1) inch equals one hundred (100) feet horizontal, and one (1) inch equals twenty (20) feet vertical, shall be required.

11. Tangents

A tangent of at least one hundred (100) feet in length shall be introduced between reverse curves on arterial and collector streets.

12. Intersections

Street intersections shall be as nearly at right angles as is possible, and no intersection shall be at an angle of less than sixty (60) degrees.

Property line radii at street intersections shall not be less than twenty (20) feet, and where the angle of street intersection is less than seventy-five (75) degrees, a greater curb radius may be required. Wherever necessary to permit the construction of a curb having a desirable radius without curtailing the sidewalk at a street corner to less than normal width, the property line at such street corner shall be rounded or otherwise set back sufficiently to permit such construction.

13. Street Jogs

Street jogs with center line offsets of less than one hundred twenty-five (125) feet shall not be allowed.

14. Cul-de-sac Streets

a. Minor terminal streets or courts designed to have one end permanently closed shall be no more than six hundred (600) feet long unless necessitated by topography, as measured along the centerline from the entrance street right-of-way to the center of the turnaround. Such streets shall be provided at the closed end with a turnaround having an outside roadway diameter of at least eight (80) feet and a street right-of-way diameter of at least one hundred (100) feet; however, the Planning Commission may approve an alternate design.

b. Where, in the opinion of the Regional Planning Commission, it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property. Such dead-end streets shall be provided with a temporary turnaround having a roadway diameter of at least eighty (80) feet.

15.a. Permanent Easements and Reserve Strips

Every lot in subdivided property shall be served from a publicly dedicated street. There shall be no reserve strips controlling access to streets, except where the control of such strips is definitely placed with the County under conditions approved by the Regional Planning Commission. Permanent easements shall be permitted, however, said easements shall adjoin a public road for a distance of 50' feet. All permanent easements shall be designed and constructed to meet standards as established in Article IV, Development Prerequisite to Final Approval as for roads being dedicated for public acceptance. All improvements shall conform to standards for minor residential streets as specified for in the planning region. Building permits shall be issued for properties fronting on permanent easements provided said easement is constructed to standards

specified above and, further, provided the easement is shown on a plat approved by the Regional Planning Commission.

15.b. Permanent Easements Within the Planning Region of the Loudon County Regional Planning Commission (Amended on: October 21, 2003).

In addition to the provisions of subsection 15.a., above, the following provisions shall apply only within the jurisdictional territory of the Loudon County Regional Planning Commission.

Definition Section:

- a. Shared Driveway: A privately maintained drive constructed on a recorded permanent easement with a minimum width of 25 (twenty-five) feet serving no more than four (4) lots. Shared driveways shall be constructed according to the standards set forth in these regulations.
- b. Private Road: A privately maintained road constructed on a recorded permanent easement with a minimum width of 50 (fifty) feet and built according to the standards set forth in Article IV., Section D. A property owner's association must be established for the maintenance of a private road, with the appropriate legal instruments recorded in the Register's Office along with the final plat.

General Requirements for Subdivisions with Shared Driveways:

- a. Access to a Public Road. All shared driveways must intersect a county public road for a minimum width of 25'.
- b. Minimum Easement Width. All shared driveways must have a minimum width of 25
- c. Maximum Easement Length. The shared driveway easement shall not exceed 500' in length.
- d. Number of Lots. No more than four (4) lots shall have access to a shared driveway.
- e. Minimum Lot Size. All lots shall be 2 acres or larger in size, excluding the area provided for the shared driveway.
- f. Maintenance and Ownership Agreement. An agreement providing for the maintenance of the shared driveway easement shall be established between all lots served by the shared driveway. This agreement shall be recorded in the Register's Office along with the final plat.

- g. Construction Requirements. Shared driveways must provide for both vehicular and utility access. The driving surface shall consist of compacted gravel 4" deep and at least 12' wide on a compacted subgrade with a crown. Compacted shoulders 3' wide on both sides shall be slightly lower than the road surface. Shoulders shall be sown in grass. Swales (ditches) shall be constructed beyond the shoulders on both sides of the driveway and shall run the length of the driveway. Rip-rap or other material shall be used as required to dissipate the velocity of the water. Drain tiles shall be installed at the intersection of the shared drive and county public road. Tiles shall be approved by the County Highway Superintendent and shall have a minimum diameter of 15" extending beyond the driveway shoulders with precast concrete headwalls. Driveways above grade from the intersecting county road shall be paved 25' beyond the edge of right of way. Shared driveways shall not have a grade in excess of 12%. A turnaround shall be provided at the end of the shared driveway. Turnarounds may include a cul-de-sac or T or Y shaped turnaround. Cul-de-sacs must have a minimum radius of 30' and T or Y turnarounds must be at least 20' by 60'.
- h. Shared Driveway Names. Names of shared driveways shall end with the word "Way" and shall be approved by the 911 Board.
- i. Shared Driveway Signs. The developer shall install a street identification sign with white letters on a blue background at the intersection of the shared driveway and county public road. The sign shall be purchased from or meet the road sign specifications of the Loudon County Highway Department.
- j. Maintenance Responsibilities. The lot owners shall maintain the shared driveway easement until such time as the owners have improved the easement to the county road standard contained in these subdivision regulations, including the full right of way width, drainage, base, and paving requirements; have offered the improved road for dedication, the road has been approved for acceptance by the planning commission and county road superintendent, and accepted by the county commission.

16. Street Names

Proposed streets, which are obviously in alignment with others already existing and named, shall bear the names of existing streets. In no case shall the name for proposed streets duplicate existing street names, irrespective of the use of suffix street, avenue, boulevard, drive, way, place, or court. The Regional Planning Commission can assist the subdivider in avoiding duplication.

17. Alleys

Alleys shall be provided to the rear of all lots used for business purposes and shall not be provided in residential blocks except where the subdivider produces evidence satisfactory to the Regional Planning Commission of the need for alleys.

**B. Blocks**

1. Length

Blocks shall not be less than four hundred (400) nor more than twelve hundred (1200) feet in length except as the Regional Planning Commission considers necessary to secure efficient use of land or desired features of street pattern. In blocks over eight hundred (800) feet in length, the Planning Commission may require one (1) or more public crosswalks of not less than ten (10) feet in width to extend entirely across the block at locations deemed necessary.

2. Width

Blocks shall be wide enough to allow two (2) rows of lots except where reverse frontage on major streets and roads is provided or where prevented by topographical conditions or size of the property, in which case the Regional Planning Commission will approve a single row of lots of minimum depth.

**C. Lots**

1. Adequate Building Sites

Each lot shall contain a building site not subject to flood as defined in Section E of this Article and outside the limits of any existing easement or building setback lines required in Subsection 4 of this Section. Land within a floodway, as defined in Section E of this Article, shall not be platted for building purposes. Said land may be counted as part of the lot in computing lot sizes.

2. Arrangement

Insofar as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Each lot must front for a minimum seventy-five (75) feet upon a public street or permanent (B. 15) private easement except in special instances such as cul-de-sacs, in which case each lot must have frontage of at least sixty (60) feet.

3. Minimum Size

The size, shape, and orientation of lots shall be such as the Planning Commission deems appropriate for the type of development and use contemplated. Where public water and sanitary sewer systems are reasonably accessible, the subdivider shall connect with such sewer and provide a connection to each lot. Where a public sewer is not accessible, an alternate method of sewage disposal may be used upon approval by the Regional Planning Commission subject to the lot size requirements where water is not available.

- a. All lots served by public water and sanitary sewer systems shall not be less than seventy-five (75) feet wide at the building setback line nor less than seventy-five hundred (7500) square feet in area.

- b. The minimum size of residential lots to be served by a private source of water supply shall be determined by the regional planning commission after investigations of soil conditions, proposed sewerage system and depth of ground water. The assistance of the Loudon County Health Department and the Soil Conservation Service shall be sought in determining the appropriate size. Minimum frontage shall be not less than two hundred (200) feet at the setback line.
- a. Size of properties reserved or laid out for commercial or industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated. Platting of individual lots should be avoided in favor of an overall design of the land to be used for such purposes.

4. Building Setback Lines

- a. The minimum depth of building setback lines from the street right-of-way line shall not be less than thirty (30) feet from new minor residential streets and minor collector streets, cul-de-sac streets, and marginal access streets; forty (40) feet for major collector streets and fifty (50) feet for arterial streets and highways unless a greater distance is deemed to be necessary by the Regional Planning Commission for the protection of the contemplated development on the property.
- b. In the case of electric transmission lines where easement widths are not definitely established, there shall be a minimum building setback line from the center of the transmission line as follows:

<u>Voltage of Line</u>	<u>Minimum Building Setback</u>
46 KV	37-1/2 feet
69 KV	50 feet
161 KV and over	75 feet

5. Corner Lots

Corner lots shall have extra width sufficient to permit the additional side yard requirements of the building setback lines outlined above.

**D. Public Use and Service Areas**

Due consideration shall be given to the allocation of areas suitably located and of adequate size for playgrounds and parks for local or neighborhood use as well as public service areas.

1. Public Open Spaces

Where a school, neighborhood park or recreation area, or public access to water frontage shown on an official map or in a plan made and adopted by the Regional Planning Commission is located in whole or in part in the applicant's subdivision, the Regional Planning Commission may require the dedication or reservation of such open space within the subdivision up to and including a total of ten (10) percent of the gross area or water frontage of the plot for park, school, or recreation purposes.

2. Easements for Utilities

Except where alleys are permitted for the purpose, the Regional Planning Commission may require easements, not exceeding twelve (12) feet in width for poles, wires, conduits, storm and sanitary sewers, gas, water mains or other utility lines along rear lot lines or side lot lines if, in the opinion of the Regional Planning Commission, such action is desirable. Easements of the same or greater width may be required along the lines of or across lots where necessary for the extension of existing or planned utilities.

3. Easements for Drainage

Where a subdivision or lot is traversed by a watercourse, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way for the purpose of widening, deepening, relocating, improving, or protecting such drainage easement.

4. Community Assets

In all subdivisions due regard shall be shown for natural features such as large trees and watercourses and for historical spots and similar community assets which, if preserved, will add attractiveness and value to the property.

**E. Suitability of the Land**

Land which the Regional Planning Commission has found to be unsuitable for subdivision due to flooding, bad drainage, steep slopes, 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.

Land subject to flooding and land deemed to be topographically unsuitable shall not be platted for residential occupancy or for any other uses that may increase flood hazard, endanger health, life, or property, or aggravate erosion. Such land within the platted area shall be set aside for such uses as shall not be endangered by periodic or occasional inundation or shall not produce unsatisfactory living conditions.

All subdivision of property proposing construction of public utilities and facilities such as water supply or sanitary sewage systems, shall be designed to minimize or eliminate infiltration of flood waters into the system or discharges of the system into flood waters. Subdivisions shall be designed so that adequate drainage is provided in order to reduce exposure of flood hazards. Base flood elevation data shall be provided for subdivision proposals which are greater than the lesser of fifty lots or five acres.

Fill may not be used to raise lands in areas subject to flood unless the fill proposed does not restrict the flow of water and unduly increase flood heights.

The most recent requirements adopted by the local government pertaining to development in the floodplain, which comply with minimum requirements under the National Flood Insurance Program, shall be adhered to as part of the subdivision regulations.

**F. Large Tracts or Parcels**

When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged so as to allow for the opening of streets in the future and for logical further resubdivision.

**G. Variances**

Variances may be granted under the following conditions:

1. Where the subdivider can show that strict adherence to these Regulations would cause unnecessary hardship, and
2. Where the Regional Planning Commission decides that there are topographical or other conditions peculiar to the site and a departure from these Regulations will not destroy their intent. Any variance thus authorized shall be stated in writing in the minutes of the Regional Planning Commission with the reasoning on which the departure is justified set forth.

**H. Group Housing Developments**

1. Although the developer will be allowed to deviate from the lot area requirements for the individual lots on which residential structures are located, the complex itself must meet the overall minimum lot density requirements. This may be accomplished through the provision of open spaces, open-type recreational areas, and consolidated parking areas.
2. No parcel of land without an adequate public water supply shall be approved.

3. No group housing development will be approved unless an adequate sanitary sewer system is included in the plans and approved by the Tennessee Department of Public Health and the Loudon County Health Department.
4. The exterior yards of the complex must meet the minimum setback requirements.
5. All roads must be constructed to standards as set forth in these regulations.

The following additional plans and schedules shall be submitted to the Regional Planning Commission:

1. The location and legal description of the proposed development.
2. Site plan showing location of all buildings, lot lines, yard sizes, setbacks, recreation and open space areas, utilities, parking, and common-use facilities.
3. The location and dimensions of all points of entry and exit for cars, pedestrians and complete interior circulation pattern.
4. Such other architectural, engineering, and geographic data as may be required to permit the Planning Commission to determine if the above regulations are being complied with.
5. A time schedule for development.

I. **Zoning or Other Regulations**

No final plat of land within the force and effect of an existing zoning ordinance will be approved unless it conforms to such ordinance.

Whenever there is a discrepancy between minimum standards or dimensions noted herein and those contained in zoning regulations, building code, or other official regulations, the highest standard shall prevail.

## ARTICLE IV.

### DEVELOPMENT PREREQUISITE TO FINAL APPROVAL

A perfectly prepared and recorded subdivision or plat means little to a prospective lot buyer until he can see actual physical transformation of raw acreage into lots suitable for building purposes and human habitation. Improvements by the subdivider spare the community from a potential tax liability. The following tangible improvements are required before final plat approval in order to assure the physical reality of a subdivision which approval and recordation will establish legally.

#### **Required Improvements**

Every subdivision developer shall be required to grade and improve streets and alleys and to install curbs, monuments, sewers, storm water inlets and water mains, in accordance with specifications established by the Regional Planning Commission. The adopted requirements, whether in local regulations or in the following standards, shall govern.

#### A. Monuments or Corner Markers

1. Concrete monuments four (4) inches in diameter or four (4) inches square, three (3) feet long with a flat top, shall be set at all street corners, at all points where the street lines intersect the exterior boundaries of the subdivision, and at angle points and points of curve in each street. The top of the monuments shall have an indented cross to identify properly the location and shall be set flush with the finished grade.
2. All other lot corners shall be marked with iron pipe not less than three-fourths (3/4) inches in diameter and twenty-four (24) inches long and driven so as to be flush with the finished grade.

#### B. Grading

All streets, roads, and alleys shall be graded by the subdividers so that pavements and sidewalks can be constructed to the required cross-section. Deviation from the above due to special topographical conditions will be allowed only with special approval of the Planning Commission. Where streets are constructed under or adjacent to existing electric transmission lines, the nearest edge of the pavement shall be a minimum of fifteen (15) feet from any transmission line structure and all grading for the street shall be done in a manner which will not disturb the structure or result in erosion endangering the structure. In the case of electric transmission lines, the clearance from the pavement to the nearest conductor shall meet the requirements of the National Electrical Safety Code.

1. Preparation: Before grading is started, the entire right-of-way area shall be cleared of all stumps, roots, brush and other objectionable materials and all trees not intended for preservation.

2. Cuts: All tree stumps, boulders, and other obstructions shall be removed to a depth of two (2) feet below the subgrade. Rock, when encountered, shall be scarified to a depth of twelve (12) inches below subgrade. All topsoil shall be removed a minimum of two (2) feet below the subgrade and back filled with suitable material. No grading shall be done when ground is frozen or muddy unless mud is removed and disposed of outside of streets.
3. Fill: All suitable material from roadway cuts may be used in the construction of fills, approaches, or at other places as needed. Excess materials including organic materials, soft clays, etc., shall be removed from the development site. The fill shall be spread in layers not to exceed twelve (12) inches loose and compacted by a sheep's foot roller with a minimum compaction of 95%. The filling of utility trenches and other places not accessible to a roller shall be mechanically tamped, and where water is used to assist compaction the water content shall not exceed the optimum of moisture.
4. Inspections: During the construction of any subdivision roads in the area of the planning jurisdiction where such roads will be public roads to be maintained by Loudon County, Lenoir City, or Loudon, the developer and/or his contractor shall be required to keep the Road Engineer advised as to the progress being made. Such roads shall meet the standards required by these Subdivision Regulations adopted by Loudon County, Lenoir City, or Loudon, whichever are higher. In addition, the following inspections and/or approvals by the Loudon County Road Engineer shall be required:
  - (1) After clearing and stripping
  - (2) Approval of the drainage plan
  - (3) After grading and drainage are completed
  - (4) After the stone base is in place, and
  - (5) During and after application of all asphaltic materials.

The developer or his representative will be responsible for notifying the Road Engineer for each inspection. When the plat is submitted to the Regional Planning Commission for final approval, the Road Engineer shall make a final inspection. His findings and recommendations as to approval of the roads shall be reported in writing to the Regional Planning Commission. In lieu of road improvements being completed upon request for final approval of the plat, the Regional Planning Commission shall ask the advice of the Road Engineer in regard to the amount of the bond, certified check, or other means of guarantee shall not be released by the Regional Planning Commission until the recommendations of the Road Engineer have been obtained as to the acceptability of the roads upon completion of construction.

5. Compaction Testing: During construction of any road, compaction tests shall be conducted during the placement of fill within the right-of-way. Prior to the placement of stone on the subgrade a detailed engineering

report, stamped and signed by a licensed engineer, shall be submitted to the Office of Planning and Community Development outlining the results of compaction tests. All tests shall be conducted in accordance with appropriate ASTM (American Society of Testing and Materials) standards. Fill sections shall be compacted to 95% of standard proctor (ASTM D 698) with the upper 24" being placed at 100% of standard proctor. At a minimum, one test shall be conducted for each 500 cu. yds. of fill, or for each two feet of vertical placement. The report shall describe the method of testing, dates of testing, locations along the right-of-way, results and statement regarding compliance with specifications. Said report shall bear the signature and professional stamp of the individual responsible for the document. Failure of the developer to provide the report will prevent approval of the road for acceptance and/or plat approval. (Adopted: July 5, 1995)

C. Storm Water Control

An adequate drainage system, including necessary open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, etc., shall be provided for the proper drainage of all surface water. Cross drains shall be provided to accommodate all natural water flow, and shall be of sufficient length to permit full width roadway and the required slopes. Cross drains shall be built on straight line and grade and shall be laid on a firm base but not on rock. Pipes shall be laid with the spigot end pointing in the direction of the flow and with the ends fitted and matched to provide tight joints and a smooth uniform invert. They shall be placed at a sufficient depth below the roadbed to avoid dangerous pressure of impact, and in no case shall the top of the pipe be less than one (1) foot below the roadbed.

The following standards shall apply:

1. Definitions:

*Ten-year frequency flood:* A flood with a ten percent (10%) chance of being equaled or exceeded in any given year.

*Detention Basin:* A permanent basin constructed to protect downstream facilities by providing temporary storage of peak discharges from surface water runoff on a developed site and releasing the stored water at controlled rates not to exceed pre-development discharges under specified storm frequencies.

*Pre-development Discharge:* The present or natural peak storm water discharge from a site generally before significant development occurs and within a specified storm duration and frequency.

*Post-development Discharge:* The present or natural peak stormwater discharge from a fully developed site within a specified storm duration and frequency.

*Watercourse:* Any natural or artificial stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, or wash in which water flows in a definite direction or course, either continuously or intermittently, and which has a definite channel, bed or banks, and shall include any area adjacent thereto subject to inundation by reason of overflow of surface water.

*County Engineer:* Shall refer to the appointed City or County engineer.

2. *Watercourse Protection:* Watercourses shall be maintained in order to carry storm water from adjacent properties or public rights-of-way. The filling of any watercourse is prohibited unless the property owner/developer can successfully demonstrate that an alternative approach will meet the intent of this Section. The County engineer shall approve any alternative plan and the filling of any existing watercourse, not within a designated floodplain.
3. *Drainage System Design Criteria:* The following criteria shall be followed in the design and installation of storm water drainage systems:
  - (a) The installation of drainage pipe is required for all driveways which connect into a county road. This requirement, and specifications herein noted, is applicable on any roadway section which does not have curbing.
  - (b) Driveway side drains shall be a minimum of 16 gauge for corrugated metal pipe (CMP), or class III concrete for pipe diameters to 18". For pipe 24" in diameter or larger, the CMP shall be 14 gauge or Class III concrete. Pipe shall extend beyond the edges of the driveway and shall terminate with a concrete flared headwall (See Illustrations 1 & 2). No pipe shall be installed which is less than 15' in diameter. For single family driveway permits, the county engineer shall determine the need for or minimum size pipe for installation. The engineer shall also have the authority to approve an alternative headwall design which is suitable for the site.
  - (c) Catch Basins shall be integrated into any new roadway construction where curbing will be installed. Catch basins shall be TDOT 12-32 (standard drawing D-CB-12-32) modified to accept the frame and grate as shown on standard drawing D-CBB-12A or other designs of comparable quality as approved by the County. Total casting weight shall be a minimum of 730 lbs. per catch basin. Castings shall be aligned using plan normal gutter elevations which shall be adjusted to allow for a 2' sump at face of curb.
  - (d) Enclosed storm drains which collect and convey drainage on, across, and through public rights-of-way shall be designed utilizing Class III concrete pipe. In areas of excessive fill heights, the Planning Commission shall have the prerogative to require a

greater class pipe. For areas not requiring a pipe diameter greater than 24", Corrugated Polyethylene Pipe (CCP) may be permitted for areas with less than 6' of fill. Such pipe shall have a smooth walled interior and shall meet the same design specifications as ADS (Advanced Drainage Systems) N-12, or Handcor HI-Q, meeting the manufacturers specifications for installation. Pipe shall extend beyond the ROW and shall terminate with a flared concrete headwall (see Illustrations 1 & 2). Rip rap/quarry or field stone 4" or 8" shall be placed a minimum of 6' beyond the headwall and laid over erosion control matting material equal to Erosion control Fabric 955 by Synthetic Industries, Inc. (Change adopted by the Lenoir City Regional, Loudon Regional, and Loudon County Regional Planning Commissions at their respective November 1995 Planning Commission meetings.)

- (e) Standards for enclosed systems: The minimum design criteria used for calculating the size of enclosed drainage systems shall be based on a ten-year (1) flood frequency, 24-hour duration storm. For major system designs, the County engineer and development engineer shall determine other appropriate criteria which is consistent with the intent of this section.
- (f) All hydrologic and hydraulic computations utilized in the design of storm water appurtenances and detention facilities must be prepared by a registered engineer proficient in the field of hydrology and hydraulics and licensed in the state of Tennessee. An acceptable method for calculating runoff and detention facilities is outlined in "Urban Hydrology For Watersheds", 2nd Edition, U.S. Soil Conservation Service, Technical Release #55.

## 2. Storm Water Detention

Storm water detention shall be required for any single family residential development for five (5) acres or ten (10) lots. The Planning Commission may waive these requirements if the applicant can demonstrate that compliance is unnecessary or not feasible.

Standards: The development will be required to use generally accepted standards and procedures for calculating the release of stormwater from the site before and after development, and institute control measures on-site so that downstream peak discharges at post-development are generally reduced to pre-development conditions. The design criteria for the sizing of detention basins and drain pipes is based on a 24-hour storm of a ten year frequency under the pre-development conditions of the site (4.8 inches), and a 24-hour storm of 24 year frequency under the post-developed condition (5.5 inches).

## 3. Storm Water Plan

Storm water drainage and detention plans must be submitted to the Planning Office five (5) days prior to the issuance of a permit. The plan can be integrated into the preliminary subdivision plat.

4. Erosion Control

Effective erosion control measures shall be required during construction to eliminate sedimentation on public rights-of-way or watercourses. The use of straw bales or silt fencing is typically the most prevalent, however, other suitable method will be permitted.

D. Road Design Standards

1. Pavement Base

After preparation of the subgrade (minimum compaction of 95%), the roadbed shall be surfaced with material required by local standards; but of not lower classification than crushed rock, stone or gravel. The size of the crushed rock or stone shall be that generally known as "crusher run stone" from two and one-half inches down including dust sufficient to bond stone together. Spreading of the stone shall be done uniformly over the area to be covered by means of appropriate spreading devices and shall not be dumped in piles. After spreading, the stone shall be rolled until thoroughly compacted and bonded together. The compacted thickness of the stone roadway shall be as follows for the area zoned:

Residential	8"
Commercial	8"
Industrial	10"

2. Prime Coat

After a thoroughly compacted base has been established, a prime coat shall be applied as specified in Appendix III of these regulations.

3. Binder

A binder course consisting of asphaltic concrete (307-B) shall be required for all roadways as follows:

Residential	2.5"
Commercial	3.0"
Industrial	3.0"

4. Wearing Surface

The wearing surface shall meet specifications as provided in Appendix II and the following thickness:

Residential	1.5"
Commercial	2.0"
Industrial	2.0"

5. Minimum Pavement Widths and Cross Section

Minimum pavement widths between curbs shall be as follows:

- a. Minor Residential Streets 24 feet
- b. Marginal Access Streets 20 feet  
(1,200' or less in length or serving not more than 24 lots)
- c. Cul-de-sac 18 feet  
(600' or less in length and serving not more than 15 lots)
- d. Collector streets (major and minor) 28 feet
- e. Commercial & industrial roads 26 & 28 ft. respectively

See Illustration 3 in Appendix for typical roadway section.

6. Curbs and Gutters

The subdivider shall provide permanent six (6) inch concrete curbs with twenty-four (24) inch integral concrete gutters, standard rolled curb and gutters, or other construction approved by the Planning Commission. The Commission may exempt the placement of curbing on cul-de-sacs, marginal access streets, and loop streets depending on the length of said streets and topography of the area.

E. Sidewalks

For the safety of pedestrians and of children at play, installation of sidewalks on both sides of streets will normally be required of the developer. Sidewalks, if required, shall be located not less than one (1) foot from the property line to prevent interference of encroachment by fencing, walls, hedges, or other planting or structures placed on the property line at a later date. In single-family residential areas, concrete sidewalks shall be four (4) feet wide and four (4) inches thick. In multi-family or group housing developments, sidewalks shall be five (5) feet wide and four (4) inches thick. In commercial areas, sidewalks shall be ten (10) feet wide and four (4) inches thick.

F. Installation of Utilities and Driveways

After grading is completed and approved and before any base is applied, all of the underground works (water mains, gas mains, etc.) and all service connections shall be installed completely and approved throughout the length of the road and across the flat section. All driveways for houses to be built by the developer shall be cut and drained.

G. Water Supply System

The provisions of a public water supply is deemed by the Planning Commission to be essential to the public welfare in the case of all development contemplating the growth of homes in close proximity to each other. Accordingly, the provisions of a public water supply system will be required in all subdivisions containing lots of less than five (5) acres and/or lots of less than two hundred (200) feet in width at the building setback line. An exception may be granted in the case where a single small parcel is separated from a larger tract without the intention of further subdivision.

The water supply system shall be constructed to serve all lots shown on the subdivision plat with water for both domestic use and fire protection. Fire hydrants shall be installed where sufficient size line exists.

H. Sanitary Sewers

When located within a sewer service area, sanitary sewers shall be installed in such a manner as to serve adequately all lots with connection to the public system.

Where lots cannot be economically connected with a sewerage system, they must contain adequate area for the installation of approved septic tank and disposal fields and must be approved in writing by the city or county health officer.

I. Street Name Signs & Regulatory Warning Signs

Signs shall appear at all intersections in new residential subdivisions including intersections with county and city roads. Appropriate regulatory and warning signs shall be installed as is needed and shall conform to Uniform Traffic Control Manual guidelines.

J. Requirements for Acceleration and Deceleration Lanes

In order to provide for the safe and orderly movement of traffic on existing streets, the Loudon Regional Planning Commission may require a developer to construct such lanes for acceleration and deceleration as may be appropriate. The Commission's decision will be based on the existing road widths, average daily traffic and safety conditions of the area.

1. Left turn lanes will be required for all subdivisions over five lots with proposed entrances onto state or federal roads. *(Added by Loudon County RPC 2/21/06; City of Loudon RPC 4/5/06)*

a. The Lenoir City Planning Commission will consider the results of a traffic impact study prepared by a qualified transportation engineer in making a final determination of this requirement for a left turn lane. *(Added by Lenoir City RPC 6/6/06)*

K. Electric Transmission Lines

The subdivider shall provide the necessary major electric transmission lines throughout the subdivision. The system shall be constructed to serve all lots shown on the subdivision plat. When feasible, lines should be run either along adjoining rear lot lines or underground in order to avoid construction of power lines and poles along the public rights-of-way.

L. Guarantee in Lieu of Completed Improvements

No final subdivision plat shall be approved by the Planning Commission or accepted for record by the County Register of Deeds until one of the following conditions has been met:

1. All required improvements have been constructed in a satisfactory manner and approved by the Regional Planning Commission.

2. The Regional Planning Commission has accepted a security or performance bond in an amount equal to the estimated cost of installation of the required improvements, whereby improvements may be made and utilities installed without cost to Loudon County, Lenoir City or Loudon in the event of default of the subdivider. The conditions of such security or performance bond shall provide for the installation of the improvements covered by such bond within a period of not to exceed eighteen (18) months; provided however, that such period may be extended by the Regional Planning Commission with the consent of the parties thereto if

the Regional Planning Commission finds that the public interest will not be adversely affected by such extension. If the Regional Planning Commission shall decide at any time during the performance bond that the extent of the building development that has taken place in the subdivision is not sufficient to warrant all the improvements covered by such performance bond, that required improvements have been installed as provided in this Section in sufficient amount to warrant reduction in the face amount of said bond, or that the character and the extent of such development require additional improvements for any or all such improvements; and the face value of such performance bond shall thereupon be reduced or increased by an appropriate amount so that the new face amount will cover the cost in full of the amended list of improvements.

Performance bonds which are submitted in lieu of the installation of required improvements shall be in cash or with a surety approved by the Regional Planning Commission. The Regional Planning Commission, in its discretion, may waive the requirement of a surety.

3. Any owner or agent of any land may sell, transfer, or agree to sell any lot or lots shown on a plat having been preliminary approval by the Regional Planning Commission; provided the owner or agent post an acceptable performance or security bond guaranteeing to the public the actual construction and installation of the necessary improvements within the specified time period.

Sale of subdivision by auction does not exempt the subdivider from posting acceptable security in lieu of completed improvements; however, only if a parcel is sold as a whole, the security or performance bond will be immediately released by the Regional Planning Commission.

4. A certified check in the full amount of the estimated cost of installing all required improvements has been posted with the Regional Planning Commission.
5. An escrow account in the full amount of the estimated cost of installing required improvements has been established.

## ARTICLE V.

### ENFORCEMENT AND PENALTIES FOR VIOLATIONS

#### A. General

The enforcement of these regulations and penalties for the unapproved recordation or transfer of land are provided by state law in the authority granted by Public Acts of the State of Tennessee.

#### B. Enforcement

1. No plat or plan of a subdivision of land into two or more lots located within the area of planning jurisdiction shall be admitted to the land records of Loudon County or received or recorded by the County Registrar until said plat or plan has received final approval in writing by the Planning Commission, as provided in Section 13-3-402, Tennessee Code Annotated.
2. No board, public officer, or authority shall light any street, or lay or authorize the laying of water mains or sewers, or the construction of other facilities or utilities in any street located within the area of planning jurisdiction unless such street shall have been accepted, opened or otherwise received the legal status of a public street prior to the adoption of these Regulations, or unless such street corresponds in its location and lines to a street shown on a subdivision plat approved by the Planning Commission, as provided in Section 13-3-406, Tennessee Code Annotated.

#### C. Penalties

1. No County Registrar shall receive, file, or record a plat of a subdivision within the planning region without the approval of the Planning Commission as required in Section 13-3-402, Tennessee Code Annotated, and any County Registrar so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.
2. Section 13-3-410, Tennessee Code Annotated, 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 Planning Commission and obtained its approval as required before such plat be recorded in the office of the appropriate County Register, shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by the 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. The county, through its county attorney or other official designated by the quarterly county court, may enjoin such transfer or sale or agreement by action for injunction.
3. Any building or structure erected or to be erected in violation of the Subdivision Regulations shall be deemed an unlawful building or structure, and the building

commissioner or solicitor of the municipality or other official designated by the chief legislative body and/or the county attorney or other official designated by the quarterly county court may bring action to enjoin such erection or cause it to be vacated or removed as provided in Section 13-3-411, Tennessee Code Annotated.

**ARTICLE VI.**

**ADOPTION AND EFFECTIVE DATE**

- A. Before adoption of these Subdivision Regulations, a public hearing as required by Sections 13-3-403 and 13-4-303, Tennessee Code Annotated, was afforded any interested person or persons. Notice of such hearing was announced in a local paper, being of general circulation within the area of planning jurisdiction, and stating the time and place for the hearing.
- B. These rules and regulations and any amendment thereto shall be in full force and effect from and after their adoption and effective date.

Lenoir City Regional Planning Commission:

_____	<u>May 4, 1993</u>	<u>May 4, 1993</u>
Chairman	Adopted	Public Hearing

Loudon County Regional Planning Commission:

_____	<u>May 13, 1993</u>	<u>May 13, 1993</u>
Chairman	Adopted	Public Hearing

Loudon Regional Planning Commission:

_____	<u>May 5, 1993</u>	<u>May 5, 1993</u>
Chairman	Adopted	Public Hearing

## APPENDICES

## APPENDIX I

### CEMENT, CONCRETE CURBING AND SIDEWALKS

#### A. Description

This item shall consist of Portland cement concrete curbs, curbs and gutters, or sidewalks constructed on a prepared subgrade in accordance with these specifications and either of the cross-sections shown. The required width of the base varies with the type of curbing selected:

Type A. Base two (2) feet narrower than required pavement width.

Type B. Base two (2) feet narrower than required pavement width.

Type C. Base equal to required pavement width.

Type D. Base two (2) feet wider than required pavement width.

#### B. Materials

1. Aggregates: Coarse aggregate shall consist of crushed gravel. It shall be clean, hard, tough, durable pieces free from injurious amounts of soft friable, thin, elongated or laminated pieces, soluble salts, organic or other deleterious matter.

Fine aggregate shall consist of either a natural sand or a stone sand composed of sound particles of approved stone. All sand shall be free of clay or other adherent coatings and injurious amounts of deleterious matter.

2. Cement: Standard Portland cement and high early strength Portland cement shall meet the requirements of current federal specifications SS-C-192 or equal.
  3. Water: Water shall be free from oil, acids, alkali and vegetable matter and shall be clean.
  4. Gradation: The aggregate when tested by means of laboratory sieves shall meet the following requirements:
-

Percent by Weight  
Passing Square Mesh Sieve

<u>Sieve Designation</u>	<u>Coarse Aggregate</u>	<u>Fine Aggregate</u>
1-1/2 inch	100	---
1 inch	95-100	---
1/2 inch	35- 70	---
3/8 inch	---	100
No. 4	0 -10	95-100
No. 16	---	45- 80
No. 50	---	10- 30
No. 100	---	2- 10

5. Proportions: Concrete shall contain six (6) bags of cement per cubic yard and shall be proportioned in an approximate 1:2:4 mix as follows: Mix with each bag of cement 188 pounds of fine aggregate and 345 pounds of coarse aggregate, using six (6) gallons of water. Weight of aggregates is based on a specific gravity of 2.65. Compressive strength shall be 3,000 pounds per square inch at 28 days.

**C. Construction Methods**

1. Preparation of Subgrade: All boulders, organic material, soft clay, spongy material, and any other objectionable material shall be removed and replaced with approved material. The subgrade shall be properly shaped, rolled and uniformly compacted to conform with the accepted cross-sections and grades.
2. Forms for Concrete: The forms for the concrete shall be of wood or metal, straight, free from warps or kinks and of sufficient strength. They shall be staked securely enough to resist the pressure of the concrete without spring. When ready for the concrete to be deposited, they shall not vary from the approved line and grade and shall be kept so until the concrete has set. Where a face form for a curb is used, it shall be so designed as to permit it to be securely fastened to the other forms.
3. Placing and Finishing Concrete: Just prior to placing the concrete, the subgrade (or base) shall be moistened, the concrete mixed to the proper consistency shall be placed in the forms and thoroughly tamped in place so that all honeycombs will be eliminated and sufficient mortar will be brought to the surface. After this, the surface shall be brought to the smooth even finish by means of a wooden float. All faces adjacent to the forms shall be spaced so that after the forms are stripped the surface of the faces will be smooth, even, and free of honeycomb. All edges shall be tool rounded. Slope sidewalks one quarter (1/4) inch per foot toward the pavement surface.
4. Expansion and Contraction Joints for Concrete: Half-inch (1/2) expansion joints shall be placed at intervals not exceeding sixty (60) feet. At intervals not greater than ten (10) feet nor less than five (5) feet the concrete curb shall be scored for a depth equal to one-third (1/3) the total depth of the concrete. Sidewalks shall

be scored to a depth of one (1) inch every four (4) to six (6) feet and at all intersections with curbs or other structures.

5. Curing Concrete: When completed, the concrete shall be kept moist for a period of not less than seven (7) days and longer, if necessary, and shall be protected from the elements in a satisfactory manner.
6. Backfilling: Backfill shall be of suitable selected material and shall be placed and tamped in layers of not over six (6) inches in depth until firm and solid. Backfilling shall follow immediately after the concrete forms have been removed, and shall be higher than and sloped toward the top of the curb to insure surface drainage on the paved surface of the roadway. Paved and "V" type ditches for drainage behind the curb will not be permitted. Slope sidewalk planting strips shall be placed one-quarter (1/4) inch per foot toward the pavement surface.

D. **Seasonal Limits**

No concrete shall be poured on a frozen or thawing subgrade, or during unfavorable weather conditions, or when the temperature is 38° F and falling.

## APPENDIX II

### ONE COURSE ASPHALTIC CONCRETE WEARING SURFACE (PLANT MIXED)

#### Description:

This wearing surface shall consist of aggregate and bituminous material mixed in a central plant, constructed on the prepared base in accordance with these specifications and in conformity with the lines, grades, and typical cross sections as shown on the accepted drawings.

#### Materials:

1. Liquid asphalt for the tack coat shall be grade RC-2.
2. Asphalt cement to be used in the asphaltic concrete shall be uniform in character, free from water, and shall not foam when heated to 350° F and shall meet the following requirements for penetration:

Penetration at 77° F, 100 grams, 5 seconds - 100 to 120

No mineral matter other than that naturally contained in the asphalt shall be present.

3. Aggregate shall consist of fine gravel and sand, disintegrated granite, or other similar granular materials. The portion of the material retained on a No. 4 sieve shall be known as coarse aggregate and that portion passing a No. 4 sieve shall be known as filler.
4. The materials shall be graded and proportioned as follows:

<u>Sieve Designation</u>	<u>Passing Square Mesh Sieve</u>
1 inch	100
3/4 inch	85-100
No. 4	60-95
No. 10	45-80
No. 200	5-15
Asphalt by Weight	4 -8

#### Construction Methods:

1. Apply Tack Coat: Immediately before placing the bituminous mixture, the existing surface shall be cleaned of loose or deleterious material by sweeping with a power broom and hand broom. The surface shall be thoroughly dry before applying the tack coat. When the existing surface has been put in proper condition, a tack coat shall be applied to the surface at the rate of 0.1 gallon per square yard by a power distribution of approved type, having a pressure of not less than forty (40) pounds per square inch. The bituminous mixture shall be spread and finished immediately after the tack coat has been applied.

The finished thickness shall not be less than two (2) inches and shall not weigh less than two hundred twenty (220) pounds per square yard per inch of compacted thickness.

2. Spreading and Finishing: Where cement, concrete, or masonry edging is not specified on the accepted plans, suitable side forms or wood or steel shall be firmly fastened in place and shall be true to line and grade as shown on the accepted plans. These forms shall remain in place until initial compaction has been obtained.

The bituminous mixture shall be delivered on the job at a temperature of not less than 250° F. Whenever practical, the mixture shall be spread by means of an approved mechanical self-powered paver, capable of spreading the mixture true to the line and grade and crown as shown on the accepted plans and cross sections.

When the mixture is to be spread by hand, it shall be deposited outside the area on which it is to be spread. Immediately thereafter it shall be distributed into place by means of hot shovels and spread with hot rakes in a loose layer of uniform density and correct depth. Loads shall not be dumped and distributed any faster than they can be properly handled by the shovelers and rakers. The raking shall be carefully and skillfully done in such a manner that after the first passage of the roller over the raked mixture a minimum amount of back patching will be required.

Placing of the mixture shall be as continuous as possible, and the roller shall pass over the unprotected edge of the freshly laid mixture only when the laying of the course is to be discontinued for such length of time as to permit the mixture to become chilled.

Longitudinal and transverse joints shall be well-bonded and sealed. If necessary, to obtain this result, the joints shall be cut back to the full depth of the previously laid course, painted with hot asphalt, and heated. Before placing the mixture against them, all contact surfaces of curbs, gutters, headers, manholes, etc., shall be painted with a thin uniform coating of hot asphalt cement or asphalt cement dissolved in naphtha.

After spreading, the mixture shall be thoroughly compacted by a three-wheel power driven roller, weighing not less than ten (10) tons, as soon after being spread as it will bear the roller without undue displacement.

Rolling shall start longitudinally at the sides and proceed toward the center width of the rear wheel. The pavement shall then be rolled diagonally in two directions with a tandem roller, weighing not less than ten (10) tons, the second diagonal rolling shall cross the lines of the first. Along curbs, headers, manholes, and similar structures and at all places not accessible to the roller, thorough compaction must be secured by means of hot tampers and at all contacts of this character the joints between these structures and the surface mixture must be effectively sealed.

3. Seasonal Limits: No asphalt material shall be laid when the temperature of the air is 50° F and falling nor during unfavorable weather conditions.

### **APPENDIX III.**

#### **PRIME COAT REQUIREMENTS**

After a thoroughly compacted and broomed base has been established, a prime coat shall be applied as follows:

Between April and November 15 at a temperature of 35 degrees or above, tar grade RT-2 or RT-1 inclusive, or MC-1 or MC-2, shall be applied at the rate of four-tenths (4/10) gallon per square yard of base surface. The stone chips graded from one-half (1/2) inch down to number eight (8) with no dust shall be applied at the rate of ten (10) to fifteen (15) pounds per square yard, rolled until thoroughly compacted and left to cure for such time as the road engineer may direct but not less than seven (7) days.