# Subdivision Regulations

## for the City of

# Kingston, Tennessee

## and its

## Planning Region

***Republished with Amendments***
***March 23, 2016***

*(Previously Re-adopted August 1998)*

**COMPLETED CHECKLIST MUST BE SUBMITTED WITH PLAT**

# CITY OF KINGSTON
# PRELIMINARY PLAT CHECKLIST

Date Submitted _____

Name of Subdivision _____

Location _____ Tax Map & Parcel # _____ Zoning Dist. _____

Owner _____ Address _____ Tel. _____

Agent _____ Address _____ Tel. _____

Surveyor Signature _____ Tel. _____

**Variance Requested-Attach Copy:** _____ Action Taken: _____

**Plat Checklist**: Please (✓) all that apply and (x) those not applicable

( ) Electronic copy submitted
( ) Verbal description of plat
( ) Twelve (12) copies of plat submitted 10 days prior to meeting
( ) Plat drawn to 1"=100'
( ) Subdivision name & location
( ) Owner's name & address
( ) Surveyor/engineer name & address
( ) Date
( ) Approximate north point
( ) Graphic scale
( ) Location of existing & platted property lines
( ) Existing and proposed lot numbers
( ) Existing streets
( ) Buildings
( ) Water courses
( ) Sewers
( ) Bridges
( ) Culverts
( ) Drain pipes
( ) Water mains
( ) Any public utility easement or lines
( ) Detention basin
( ) Present zoning on land to be subdivided & adjoining land

**Staff Comments:**

( ) Names of adjoining property owners & subdivisions
( ) Proposed utility (sewer, water, gas, fire hydrants & electricity) layouts & connections
( ) Proposed street names
( ) Location & dimensions of proposed:
  ( ) Streets
  ( ) Alleys
  ( ) Easements
  ( ) Parks
  ( ) Open spaces
  ( ) Reservations
  ( ) Lot lines
  ( ) Building setback lines
  ( ) Utilities
( ) Topographic contours at vertical intervals of not more than five (5) feet
( ) Acreage of land to be subdivided
( ) Location sketch map
( ) Floodway, or note stating property is not located in Floodway
( ) Street or Road profiles, for any proposed street, drawn to 1"=100' horizontally & 1"=20' vertically
( ) Storm water drainage plan, for any proposed street

**COMPLETED CHECKLIST MUST BE SUBMITTED WITH PLAT**

# CITY OF KINGSTON
# FINAL PLAT CHECKLIST

Date Submitted _____

Name of Subdivision _____

Location _____ Tax Map & Parcel # _____ Zoning Dist. _____

Owner _____ Address _____ Tel. _____

Agent _____ Address _____ Tel. _____

Surveyor Signature _____ Tel. _____

**Variance Requested-Attach Copy:** _____ Action Taken: _____

**Plat Checklist:** Please (✓) all that apply and (x) those not applicable

( ) Electronic copy submitted
( ) Twelve (12) copies of the plat submitted 10 days prior to meeting
( ) Drawn entirely in black ink at scale of 1"=100', on sheets between 18" to 24" by 24" to 36" in size
( ) Lines of all streets
( ) Alley lines
( ) Building setback lines
( ) Lot numbers
( ) House numbers
( ) Easements
( ) Areas dedicated to public use & note stating purpose
( ) Location, bearing, and length of street line, lot line, boundary line, block line, building line, & true north point
( ) Radius, central angle & tangent distance for centerline of curved street & property line
( ) Dimensions to nearest one hundredth (100th) of a foot & angles to nearest minute
( ) Location & description of monuments
( ) Names & locations of adjoining subdivisions & streets; location & ownership of unsubdivided property
( ) Date
( ) Title
( ) Name & location of subdivision
( ) Graphic scale
( ) Approximate north point
( ) Location sketch map
( ) Floodway, if any
( ) Completed preliminary plat checklist (if preliminary plat not required)
( ) Certifications:
  ( ) Ownership & Dedication
  ( ) Accuracy
  ( ) Utilities (water & sewer)
  ( ) Subsurface sewerage disposal
  ( ) Streets
  ( ) Street Names (E-911)
  ( ) Electric lines
  ( ) Recording (Planning Commission)

**Staff Comments:**

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# 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 of the *Tennessee Code Annotated*. The planning commission has 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 the Kingston Planning Region is on file in the office of the Register of Deeds for Roane County, Tennessee.

### C. Jurisdiction

These regulations shall govern all subdivision of land within the planning region of the City of Kingston, 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 requiring new street or utility construction, or any division of less than five (5) acres, 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 resubdividing 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 and do not require street or utility construction. 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
*(Article II amended in its entirety by Resolution #2009-01)*

### 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 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 the City of Kingston when duly signed by the secretary of the planning commission.

   If, however, the plat of subdivision divides the tract into no more than two (2) lots, then the approval may be endorsed in writing on the plat by the secretary of the commission or by another designee of the municipal/regional planning commission without the approval of the regional planning commission, upon certification of the planning staff of the municipal/regional planning commission that the subdivision complies with the regulations governing the subdivision of land, and provided that no request for variance from such regulations has been requested. Both planning staff and the secretary of the planning commission have the discretion to send a two-lot plat to the planning commission for formal review.

   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 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 planning jurisdiction shall be filed or recorded by the county register without the approval of the planning commission as specified herein.

3. 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 a preliminary sketch plat as provided in Section D 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 E of this Article and the improvements set forth in Article IV.

## B. Classification of Subdivision

For the purpose of these regulations, subdivisions shall be classified into three (3) types. The specific review procedure of the subdivision plat is as follows:

1. Major Subdivisions. All subdivisions not classified as minor subdivisions, included but not limited to subdivisions of eight (8) or more lots, or any size subdivision requiring any new street or extension of the local governmental facilities, or the creating of any public improvements.

2. Minor Subdivisions. Any subdivision containing not more than seven (7) lots fronting on an existing street, not involving any new street or road, or the extension of local government facilities, or the creating of any public improvements, and not adversely affecting the remainder of the property or adjoining property.

3. Administrative Review Subdivision. A subdivision containing no more than two (2) lots fronting on an existing street, not involving any new street or road, or the extension of local government facilities, or the creating of any public improvements, and not adversely affecting the remainder of the property or adjoining property. These subdivision plats do not have to go to the planning commission for formal review, but are reviewed by planning staff and the secretary of the planning commission. Both planning staff and the secretary of the planning commission have the discretion to send a two-lot plat to the planning commission for formal review.

## C. Procedure

1. Major Subdivisions. The subdivider must submit both a preliminary sketch plat and a final plat to the planning commission as delineated in sections D and E as follows.

2. Minor Subdivisions. The subdivider submits only a final plat to the planning commission as delineated in section E as follows.

3. Administrative Review Subdivisions. The subdivider submits only a final plat to planning staff as delineated in section E as follows. The subdivider must submit two (2) copies of the subdivision plat directly to planning staff.

## D. Preliminary Sketch Plat (for major subdivisions only)

1. At least ten (10) days prior to the meeting at which it is to be considered, the subdivider shall submit to the planning commission a completed preliminary plat checklist and twelve (12) copies of a preliminary plat of the proposed subdivision drawn to a legible scale. (Copies of the plat should be conveyed to the "planning commission box" at the Kingston Municipal Building.) 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 the requirements, along with supporting reasons for the request. A request for a variance shall be submitted in writing by the subdivider, along with the submitted subdivision plat.

As noted in Article III, Section A, Subsection 10, street or road profiles shall be submitted with the preliminary plat for any proposed street or road. The profiles shall display both natural and finished grades, and shall be drawn to a scale no greater than one (1) inch equals one hundred (100) feet horizontally and one (1) inch equals twenty (20) feet vertically.

As noted in Article IV, Section C, Subsection 3, a storm water drainage plan shall be submitted with the preliminary plat, where the plat includes any proposed streets or roads. For convenience, the drainage plan may be integrated into the preliminary plat.

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. A verbal description of the change being made by the plat.

   b. 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.

   c. Date, north point with reference boundary defined, and graphic scale.

   d. The location of existing and platted property lines, existing and proposed lot numbers, existing streets, buildings, water courses, sewers, bridges, culverts, drain pipes, water mains, any public utility easements or lines, detention basins, the present zoning classification on the land to be subdivided and on the adjoining land, and the names of adjoining property owners or subdivisions.

   e. 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.

   f. 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.

   g. Topographic contours at vertical intervals of not more than five (5) feet with vertical reference defined.

   h. The acreage of the land to be subdivided.

   i. Location sketch map showing relationship of subdivision site to area.

   j. If any portion of the land being subdivided is subject to flood as defined in Article III, Section E, the area subject to flood shall be shown.

3. For minor subdivision plats and administrative review subdivision plats, a subdivider may omit the submission of a preliminary plat, submitting only a final plat if all the following conditions are met:

a. The proposed subdivision does not contain more than seven (7) lots, sites, or divisions.

b. All public improvements as set forth in Article IV are already installed, or because of the nature of the development deemed not necessary by the planning commission. Any construction, installation, or improvement of any public improvements shall require submission of a preliminary plat as prescribed by Section D of Article II.

c. The subdivider has consulted informally with the planning commission and/or planning staff for advice and assistance before preparation of a final plat and its formal application for approval.

4. Within thirty-five (35) days after submission of a preliminary sketch plat (including all necessary information and materials needed for a decision), the planning commission shall review it and indicate its approval, disapproval, or approval subject to modifications. If a plat is disapproved, reasons for such disapproval shall be stated in writing. If approved subject to modifications, the nature of the required modifications will be indicated.

5. One (1) copy of the preliminary sketch plat shall be retained in the planning commission files; one (1) copy shall be retained by the planning commission staff; and, one (1) copy shall be returned to the subdivider at the time of approval or disapproval with any notations as to required changes, if any.

6. The approval of the preliminary plat by the planning commission will not constitute acceptance of the final plat and will not be indicated on the preliminary sketch plat.

7. The approval of the preliminary plat shall lapse unless a final plat based thereon is submitted within twelve (12) months from the date of such approval, unless an extension of time is applied for and granted by the planning commission.

**E. <u>Final Plat</u>**

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. (Where the design or configuration of a final plat has been changed from the preliminary plat, the subdivider shall indicate in writing the nature of those changes or deviations.) A final plat shall not be acceptable for submission unless it contains all of the required information, or where appropriate, a written request for a variance from each specific deviation from the requirements with reasons therefore. If a preliminary plat is not required, all information required for a preliminary plat shall be provided on the final plat.

2. To allow sufficient time for review and processing by the regional planning commission and staff, the subdivider shall submit a completed final plat checklist and twelve (12) copies of the final plat, together with street profiles or other plans required by the commission at least ten (10) days prior to the meeting at which it is to be considered. (Copies of the plat should be conveyed to the "planning

commission box" at the Kingston Municipal Building). The plat shall be drawn to a legible scale on sheets no larger than 18" x 24" 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 planning commission, two (2) copies shall be returned to the subdivider with the approval of the regional planning commission certified thereon for filing with the county register and the county assessor as the official plat of record. One copy shall be retained in the records of the 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. Per Tennessee Code Annotated 13-4-304 (a), the commission shall approve or disapprove a plat within thirty-five (35) days after the initial consideration of the plat by the commission; otherwise, the plat shall be deemed approved and a certificate to that effect shall be issued by the commission on demand. The applicant for the commission's approval may waive the time requirement set in this subsection (a) and consent to an extension or extensions of the applicable time period. If the plat is disapproved, the grounds for disapproval shall be stated upon the records of the planning commission.

4. Approval of the final plat by the 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. A verbal description of the change being made by the plat.

   b. 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.

   c. 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.

   d. All dimensions to the nearest one hundredth (100th) of a foot and angles to the nearest minute.

   e. Location and description of monuments.

   f. The names and locations of adjoining subdivisions and streets and the location and ownership of adjoining unsubdivided property.

   g. Date, title, name and location of subdivision, graphic scale, and north point with reference boundary defined.

   h. Location sketch map showing site in relation to area.

i. 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.

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 of the approval of utilities (water and sewer).

d. Certification of subsurface sewage disposal.

e. Certification that all streets and appurtenances have been installed in accordance with established standards.

f. Certification from the City of Kingston E-911 coordinator that all street names in proposed subdivisions do not conflict with other street names in the county.

g. Certification for the installation of electric lines.

h. Certification for recording by planning commission.

i. Certification for the responsibility of maintenance of private streets, if any.

7. All final plats shall be submitted on the standard plat sheet as required by the planning commission.

(Sections D. and E. amended by Resolution 15-10-20, effective 10/20/15)

SUBDIVISION PLAT CERTIFICATION FORMS

1. CERTIFICATION OF OWNERSHIP AND DEDICATION

This is to certify that the owner(s) of the property shown and described hereon hereby adopt this subdivision plat and dedicate all streets, alleys, walks, park or other public ways and open space to public or private use as noted.

_____ _____

Date Owner(s)

2. CERTIFICATE OF ACCURACY

I certify that the plat shown and described hereon, is a true and correct survey to the accuracy required by the planning commission and that monuments have been placed as shown hereon, to the specifications of the planning commission.

_____ _____

Date Registered Engineer/Surveyor

3. CERTIFICATION OF THE APPROVAL OF UTILITIES

I hereby certify that _____ improvements have been installed in an acceptable manner and according to the specifications of the Kingston Regional Subdivision Regulations in the subdivision entitled: _____.

_____ _____

Date Local Utilities Approving Agent

Or

_____

Superintendent of Water and Sewage Dept.
(if on Kingston public water system)

4. CERTIFICATION OF SUBSURFACE DISPOSAL

Subdivision is approved for subsurface sewage disposal. Owner/developer shall obtain from the Commissioner/Health Authority or Representative a permit for each lot prior to any construction on the property. The permit shall establish the maximum size dwelling and the specific location of the primary and the secondary disposal areas. Owner/developer shall not do any construction or mutilation (cutting or filling) of the so designated primary and secondary disposal area without the prior approval of the Commissioner, Health Authority or Representative. (not required if 4a is applicable).

_____ _____

Date Local Health Authority

5. CERTIFICATION OF STREETS

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

_____ _____

Date City Street Superintendent or County Road Superintendent

6. CERTIFICATION OF STREET NAMES

I certify that all street names are in compliance with E-911 and do not conflict with other street names in the county.

_____ _____

Date E-911 Coordinator

7. CERTIFICATION OF ELECTRIC LINES

I certify that electric lines have been installed in an acceptable manner and according to the requirements of this company, or a letter of credit, security bond has been posted with the planning commission to assure completion of all required improvements in case of default.

_____ _____

Date Electric Company Representative

8. 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.

| | |
|---|---|
| Date | Secretary, Kingston Regional Planning Commission |

9. CERTIFICATE OF PRIVATE STREETS (Added by Resolution 99-02)

Certain streets within this subdivision are designated as private streets under private ownership. It is acknowledged that said streets must be privately maintained unless and until they are improved to the City of Kingston road standards at the property owner(s) expense, have been formally offered for dedication by the owner(s), approved and recommended by the Kingston Municipal/Regional Planning Commission, and accepted by the Kingston City Council.

| | |
|---|---|
| Date | Owner(s) |

## ARTICLE III.

## GENERAL REQUIREMENTS AND MINIMUM STANDARDS OF DESIGN

### A. Streets

1. Conformity to the Major Road Plan and Roane County Road Acceptance Standards

   The location and width of all streets and roads shall conform to the official major road plan adopted by the Kingston Regional Planning Commission. Where proposed streets or roads are located outside of the city and within the Kingston Planning Region, the subdivider should consult early with the Roane County Road Superintendent. This consultation should occur prior to the submission of a preliminary subdivision plat, primarily to ensure that any proposed streets or roads meet the acceptance standards of Roane County.

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.

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. Fill may be used for streets provided such fill does not increase flood heights. Stormwater 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 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 required.

      Arterial streets or highways 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 — 60 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 terminal streets or courts, containing turnarounds, and are designed so that they cannot be extended in the future. Unless exceptional topographic conditions occur, the length of cul-de-sac streets shall not exceed 1,200 feet

f. Stub Streets Not allowed

Stub 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 allowable, when such streets have temporary turnarounds to accommodate traffic until the streets are extended.

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 planning commission may modify the above requirements.

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 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 any proposed streets or roads shall follow the standards indicated below. (However, within the area of the Kingston Planning Region located outside the city boundaries, the following Roane County Road Acceptance Standard applies in addition to those indicated below: within fifty (50) feet of an intersection on a proposed street or road, the grade shall not exceed three (3) percent.) This standard shall not be a requirement inside the city boundaries.

a. Arterial Maximum Grade

The maximum grade on arterial streets shall not exceed seven (7) percent.

b. Major Collector Maximum Grade

The maximum grade on major collector streets shall not exceed seven (7) percent.

c. Minor Collectors and Local Streets

The maximum grade on local and minor collector streets shall not exceed ten (10) percent. However, when special topographic or other conditions justify, the planning commission may increase the maximum allowable grade on local streets to fifteen (15) percent within the city boundaries, and to a maximum of fourteen (14) percent outside of the city boundaries.

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 and ten (110) feet.

10. Vertical Curve

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 proposed streets or roads shall be required showing natural and finished grades drawn to a scale no greater than one (1) inch equals one hundred (100) feet horizontally, and one (1) inch equals twenty (20) feet vertically.

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 twelve hundred (1,200) feet long unless necessitated by topography, as measured along the centerline from the entrance street right-of-way to the center of the turnaround. Within the City of Kingston, 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; but the planning commission may approve an alternate design. However, within that area of the Kingston Planning Region located outside of the Kingston city boundaries, the street right of way diameter of a cul-de-sac turnaround shall be at least 110 feet.

b. Where, in the opinion of the 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. Private Streets and Gated Communities ***(Added by Resolution #05-02)***

a. Purpose and Intent of Regulations

1. To promote the overall safety of motorists and pedestrians on public and private streets in the City of Kingston and its planning region;

2. To reduce the interference with through traffic by other vehicles or pedestrians entering, leaving, and crossing the public streets from private streets;

3. To assure safe access to and from public roads by emergency vehicles; and

4. To promote the general welfare by preserving and upgrading the traffic carrying capacity of public roads.

b. General Requirements

1. Each subdivision plat or site plan for a private street and/or gated community as provided for in this article shall require the approval of the planning commission.

2. All private streets shall be platted within separate designated rights of way of at least fifty (50) feet in width owned in common by a homeowners association or property owners association.

3. An easement encompassing each private street right-of-way shall be officially platted and granted to the City of Kingston providing unrestricted use of the property for utilities and their maintenance. This right shall extend to all utility providers operating within the City. The easement shall also provide the City with the right to access for any purpose related to the exercise of a governmental service or function. In no way does this access easement or provision of public services thereon constitute acceptance of a private street by the City. Such a statement shall be added to the homeowner's association agreement and the subdivision plat.

4. Every lot within a private street and/or gated community shall front upon either a public or private street.

5. The City of Kingston shall not pay for any portion of the cost of constructing or maintaining a private street at any time.

6. No private street shall cross a public right-of-way.

c. Technical Requirements

1. All private streets shall be constructed in accordance to the Road Design Standards of the Subdivision Regulations for the City of Kingston, Tennessee.

2. All street and other related improvements shall be constructed and certified to be in conformance with the approved preliminary plat before final plat approval. In lieu of completion of these improvements, a performance bond posted in an amount sufficient to assure completion of the work MAY be accepted by the planning commission upon review of the bonding committee. The performance bond shall not be reduced or released until all improvements have been deemed to be in compliance with the City's technical standards AND released to the homeowners or property owners association.

3. No gates or guardhouses shall be located on public rights-of-way. All gates and guardhouses shall be located at least fifty (50) feet from an existing public right-of-way. Overhead barriers shall not be allowed and an additional one hundred (100) foot setback is required between the public right-of-way and gate to allow denied vehicles adequate room to turn around and exit upon the public street.

4. Gates, their related structures, and guardhouses shall be approved by the City Engineer, Fire Chief, and Police Chief and shall include a standard emergency access system for immediate access to the private community. At minimum, gates barring access shall be constructed to permit opening for an emergency by bolt cutters or breakaway panels.

5. Under no circumstances shall the City of Kingston or emergency service providers be responsible for damage to gates, their related structures, or guardhouses associated with an emergency response to the private community. Neither the City of Kingston nor any emergency service providers shall be responsible for any damages resulting from delays caused by gates or their related structures. Likewise, the developer and/or homeowners association shall be responsible for any damages caused to emergency vehicles upon entry through a gate or related structure. Such a statement shall be added to the homeowner's association agreement and the subdivision plat.

d. Signs and Street Names

1. All private street signs and traffic control signs shall have a design approved by the City Engineer, Fire Chief, and Police Chief.

2. All entrances to the private community from a public road must be clearly marked with a sign stating that it is a private street/development.

3. The planning commission and Roane County E-911 shall approve all proposed private street names to avoid confusion and conflict for the provision of services.

e. Maintenance and Ownership

1. All private streets shall be identified as such on the final subdivision plat. The following plat notes shall also be included:

   a. All streets contained within this subdivision are to be privately maintained and owned, and the City of Kingston shall accept no responsibility for their maintenance.
   b. No private street shall be adopted by the City of Kingston until it is improved to current public road standards.

2. A homeowner's or property owner's association shall be established by the developer to adequately maintain the private community's streets, their related facilities, and any other infrastructure to be held in common. This agreement shall be reviewed and approved by the City Attorney and planning staff to ensure that it conforms to this and any other applicable regulations. Approval of the association agreement is required prior to any final subdivision plat approval. Any infrastructure not expressly covered in the association agreement shall be maintained by the developer unless dedicated and adopted by the City of Kingston.

3. The homeowners or property owners association shall have the authority to levy assessments on a periodic basis with the intent to maintain public rights-of-way and their related facilities, along with any specified common areas or facilities. The association also has the authority to impose liens when necessary.

4. No private street shall be adopted by the City of Kingston unless all of the following conditions have been met:

   a. All private streets shall be improved to meet the current public road standards.
   b. All gates and associated structures have been removed.
   c. The homeowners or property owners association has officially dedicated the rights-of-way.
   d. An official request has been submitted to the City of Kingston and the private streets have been inspected and accepted by the City.
   e. The homeowners association has disposed of any liability claims.

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 planning commission can assist the subdivider in avoiding duplication. Each street name shall be approved by the Roane County E-911 Coordinator and such approval shall be shown on the plat.

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 planning commission of the need for alleys.

**B. <u>Blocks</u>**

1. Length

Blocks shall not be less than four hundred (400) feet nor more than twelve hundred (1200) feet in length, except as the 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 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 not in violation of any existing easement or building setback lines required in Subsection 4 of this Section.

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 of sixty (60) feet upon a public street, except in special instances, such as cul-de-sacs, in which case each lot must front for at least thirty (30) feet on a public street.

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 planning commission subject to the lot size requirements where water is not available.

   a. All lots created in the subdivision, other than those not intended for development, shall conform to the following lot size and lot width:

      (1) Lots served by both public water and public sanitary sewer shall not be less than seven thousand five hundred (7,500) square feet in area and not less than sixty (60) feet in width at the building setback line.

      (2) Lots served by public water but <u>not</u> served by a public sanitary sewer system shall not be less than fifteen thousand (15,000) square feet in area and not less than seventy-five (75) feet in width at the building setback line. The planning commission may require a larger lot size upon the recommendation of the health department environmentalist.

      (3) Lots <u>not</u> served by a public water supply shall have a minimum area determined by the county health officer based on an evaluation of soil conditions, proposed sewerage system, and depth of groundwater.

   b. 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 done in the context of an overall design of the land to be used for commercial purposes.

4. Building Setback Lines ***(Added by Resolution # 2007-01)***

   a. The depth of setback/yard lines from all property/lot or right-of-way lines, as appropriate, shall be shown on the plat and shall reflect the minimum requirements set forth in the Kingston Zoning Ordinance. In the case of corner lots, any setback associated with a lot line abutting a street right-of-way shall reflect the minimum requirements set forth in the Kingston Zoning Ordinance for front yard setbacks/depths.

   b. The developer is responsible for verifying the details of an existing easement with the party to whom the easement has been granted or transferred prior to developing the initial version of the subdivision. 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:

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

**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 planning commission, is located in whole or in part in the applicant's subdivision, the 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 planning commission may require easements, not exceeding twenty (20) 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 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, drainageway, 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. Pedestrian Easements

   In such cases and at such locations as the planning commission deems advisable,

easements along side or rear lot lines not exceeding twelve (12) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other public places.

5. 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

1. Land Physically Unsuitable for Subdivision

The planning commission may determine that land is unsuitable for development as a result of the following conditions or observations:

a. Where flooding, poor drainage, steep slopes, rock formations and other such features may endanger health, life, or property, aggravate erosion, increase flood hazard, or necessitate excessive expenditure of public funds for supply and maintenance of services.

b. Physical constraints to development which other public agencies concerned have investigated and found in the best interest of the public not suitable for the type of platting and development proposed.

Land with unsuitable development characteristics shall not be approved for subdivision purposes unless effective methods are formulated by the developer to reduce adequately the impacts of such features.

2. Land Unsuitably Located for Subdivision

The planning commission shall not approve what it considers to be premature subdivision of land which would involve danger or injury to the health, safety, property or economic utilization by reason of lack of or adverse effect on water supply, sanitary wastewater disposal, schools, stormwater drainage, adequate transportation, or other public services or facilities that would necessitate an excessive expenditure of public funds for the supply or maintenance of such services or elimination of danger.

3. Land Subject to Flood

Land within any floodway shall not be platted for residential occupancy or other building sites and shall not be raised by fill. Other land subject to flood may be platted for residential use only if filled to such height as will secure a flood-free building site based on data submitted by the subdivider and prepared by an engineer or hydrologist, provided such use or fill does not endanger health, life or property or restrict the flow of water or increase flood heights. In applying these provisions, floodways and land subject to flood shall be identified as follows:

a. Along Watts Bar Lake land subject to flood shall be that below the elevation of the TVA Structure Profile (on the Tennessee and Clinch Rivers in the vicinity of Kingston this is elevation 750; on the Emory River, elevation 750 at its mouth, increasing in steps of one foot per mile to elevation 754 at mile 4).

b. Along other streams in the planning region, land subject to flood shall be within fifty (50) feet of either side of the center of the channel unless the subdivider demonstrates that a reasonable degree of flooding would extend only to a lesser distance, but not less than twenty (20) feet; such determination being based on the watershed area, the probable runoff and other topographic and hydrologic data prepared by competent engineers or hydrologists.

c. Floodways are the open spaces necessary to reasonably provide for the passage of flood flows, being those areas along Watts Bar Lake which would be inundated when the lake is at normal full pool elevation 741, and along other streams as determined by competent engineers but in no case less than twenty (20) feet on each side of the stream.

## 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 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 planning commission with the reasoning on which the departure is justified set forth.

## H. Planned Unit Developments (PUD)

Planned unit developments are meant to provide opportunities for the creation of desirable environments through the application of flexible and diversified land development standards under a comprehensive plan and program professionally prepared. The planned unit development is intended to encourage the application of innovative designs and technologies to community development, which will result in superior living environments or development arrangements, based on identifiable themes and ideas. It is further intended to achieve efficiencies in the use of land and infrastructure systems, while providing clustered areas for building locations, usable attractive open spaces, safe vehicular circulation, and the general well-being of the inhabitants.

Since planned unit developments involve the design of buildings and structures based on specific site conditions, the Kingston Regional Planning Commission may consider departures from the standards of these regulations, where it can be shown that such departures do not violate their intent. Furthermore, any planned unit development proposed within the jurisdiction of the planning commission shall conform with the requirements of the Kingston Zoning Ordinance or the Roane County Zoning Resolution, whichever may be applicable to the location of a given 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 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 the 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 the ground is frozen or muddy, unless mud is removed and disposed of outside of streets. Roadbed banks and slopes shall be finished to a 3 to 1 slope.

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 standard 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 planning jurisdiction, where such roads will be public roads maintained by the City of Kingston or Roane County, the developer and/or his contractor shall be required to keep the applicable City or County Road Superintendent advised as to the progress being made. Such roads shall meet or exceed the standards required by these subdivision regulations. The following inspections and/or approvals by the relevant City or County Road Superintendent shall be required:

   (a) After clearing and stripping

   (b) After grading and drainage are completed.

   (c) After the stone base is in place, and

   (d) During and after application of all asphaltic materials.

   The developer, or his representative, shall be responsible for notifying the Street or Road Superintendent for each inspection. When the plat is submitted to the planning commission for final approval, a final inspection shall be made. That official's findings and recommendations concerning approval of the roads shall be reported in writing to the planning commission.

   In addition, the subdivider shall be responsible for hiring a certified engineering consultant (P.E.) to do independent testing and inspection of any new street or road being constructed. The results of these tests and inspections shall be certified, stamped, and signed by a registered engineer, and shall be conveyed to the Kingston Planning Commission in a sealed envelope. For additional information on street and road inspections by an engineering consultant please see Section E of this article.

   In lieu of the completion of road improvements by the time of final plat submission, the planning commission may upon request accept an improvements guarantee. In considering such a guarantee, the planning commission may ask the advice of the City or County Road Superintendent with regard to the amount indicated for the completion of the street and road improvements. Such a guarantee shall not be released by the planning commission until the following have occurred: (1) the recommendation of the applicable road official has been obtained concerning the acceptability of the completed road(s), and (2) the recommendation of an engineering consultant (P.E.) has been obtained confirming the proper construction of the road(s).

## 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. For the calculation of cross drain or culvert diameters, Talbot's Formula shall be used, except that no drainage pipe or culvert may be less than eighteen (18) inches in diameter (see Appendix IV). In lieu of Talbot's formula, another method of calculation for pipe or culvert size may be employed, if it is widely accepted by engineering and architectural professionals.

The following standards shall apply:

1. *Drainage System Design Criteria*: The following criteria shall be followed in the design and installation of storm water drainage systems:

   (a) The installation of a drainage pipe is required for any driveway which connects into a public street or road. This requirement, as specified herein, is applicable on any roadway section which does not have curbing.

   (b) Drainage pipes underlying driveways, and connecting with a public street or road, shall be a minimum of eighteen (18) inches in diameter. However greater diameter may be necessary depending upon the flow of stormwater anticipated along the applicable drainage channel.

   (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 comply with standards for driveway side drains. Pipe shall extend beyond the ROW and shall terminate with a flared concrete headwall. Rip rap/quarry or field stone (4 to 8 inches in dimension) 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.

   (e) Standards for enclosed systems: The minimum design criteria used for calculating the size of enclosed drainage systems shall be based on a ten (10) year frequency, 24 hour duration storm. For major system designs, an 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 stormwater detention or retention 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.

(g) If curbs are not provided, drainage ditching shall be constructed so that the valley line of the ditch is placed at least six (6) feet from the edge of the pavement surface and at least eighteen (18) inches below the elevation of that surface. The slopes of the ditch shall normally have a ratio of at least 3:1, horizontally to vertically.

(h) The surface of the finished street or road shall be constructed to include a crown of at least two (2) inches for the proper drainage of stormwater.

2. Stormwater Detention/Retention

Where significant problems exist in the conveyance of stormwater drainage from a proposed single family residential subdivision, amounting to at least five (5) acres or ten (10) lots, then stormwater detention or retention may be required.

Standards: Where detention or retention are necessary, 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. The design criteria for the sizing of detention or retention basins are based on a 24-hour storm of 10 year frequency under the pre-development condition of the site, and a 24-hour storm of 25-year frequency under the post-development condition.

3. Stormwater Drainage Plan

If any street improvement is proposed for a subdivision development, then a professionally (engineer, architect, registered surveyor) designed stormwater drainage plan shall be submitted to the planning commission with the preliminary plat. The plan may be integrated into the preliminary plat, if desired by the subdivider. It shall indicate any needed stormwater structures, such as culverts, rip-rapping, concrete or asphalt swales, storm drains used with curbing, subsurface piping, and detention or retention basins.

4. Erosion Control

Effective erosion control measures shall be required during construction to eliminate sedimentation on public rights-of-way, watercourses, or adjacent properties. Among the most prevalent measures are straw bales or silt fencing, however other suitable methods may be permitted. Barren areas within the subdivision shall be replanted as soon as possible in the development process. At a minimum grass shall be planted on denuded areas, but wherever feasible original vegetation shall be maintained on the development site.

## D. Road Design Standards

1. Pavement Base

After preparation of the subgrade, the roadbed shall be surfaced with Type A mineral aggregate crushed stone, pugmill mixed with even wetting to maintain a uniform moisture content, in accordance with Section 303, Mineral Aggregate Base, Standard Specifications for Road and Bridge Construction, Tennessee Department of Transportation. The aggregate shall be applied in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the street profile/plan. The average density shall not be less than ninety-five (95) percent of maximum density as determined by AASHTO T-99, Method D. Any constructed base shall extend at least three (3) feet from the edge of the pavement on each side of the street or road surface. The compacted thickness of the stone roadway shall be as

follows for the dominant type of traffic using the road:

| | |
|---|---|
| Residential | 6" |
| 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 compacted asphaltic concrete (307-B, Tennessee Department of Transportation specification) shall be required for all streets or roadways as follows:

| | |
|---|---|
| Residential | 2.5" |
| Commercial | 3.0" |
| Industrial | 3.0" |

4. Wearing Surface

A wearing surface consisting of compacted finish material (307-C, Tennessee Department of Transportation specification) shall be required for all streets or roadways as follows:

| | |
|---|---|
| Residential | 1.5" |
| Commercial | 2.0" |
| Industrial | 2.0" |

5. Minimum Pavement Widths

Minimum pavement widths shall be as follows:

| | | |
|---|---|---|
| a. | Minor Residential Streets | 26 feet |
| b. | Marginal Access Streets<br>(1,200' or less in length or serving not more than 24 lots) | 26 feet |
| c. | Cul-de-sac<br>(1,200' or less in length) | 26 feet |
| d. | Collector Streets (major and minor, with two moving lanes) | 36 feet |
| e. | Arterials (major and minor, with two moving lanes) | 50 feet |

6. Curbs and Gutters

The subdivider may 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 (see Appendix I).

## E. Consulting Engineer Inspection and Testing

The construction of new streets, roads, and associated stormwater drainage structures shall be subject to inspection and testing by a certified engineering consultant for any subdivision requiring such improvements. It shall be the responsibility of the developer to contract the services of an engineering firm competent to inspect and test street or road construction, and payment for such services shall be assumed by the developer. No engineering consultant chosen for the inspection of a particular development may be involved in any aspect of the design or construction of that development. The consultant shall have the right to reject inadequate construction, and may recommend necessary changes in order to rectify deficiencies. Results of the inspections shall guide the planning commission in its decisions regarding subdivision plat approvals and releases of improvements guarantees. Any engineering consultant hired for inspection purposes shall have a P.E. certification. The results of a street or road inspection shall be conveyed to the Kingston Planning Commission in a sealed envelope, and the consultant shall place his stamp and signature on the document indicating those results.

Street or road inspections by a consultant engineer shall be conducted at three principal stages of the construction process: (1) when the subgrade is constructed; (2) when the gravel base is laid down and compacted; and (3) when the asphaltic concrete is applied, including the binder course and the wearing surface. (The specific requirements for road testing and inspection by a consulting engineer are described in Appendix V of this document.) For the construction of subdivision streets outside of the City of Kingston (but within the Kingston Planning Region), the subdivider shall meet both the road testing and inspection requirements described in Appendix V and those employed by the Roane County Highway Department.

## F. Sidewalks

Sidewalks, if constructed, 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.

## G. 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.

## H. Water Supply System

It is the intent of these regulations to require six (6) inch inside diameter water mains as a minimum in future subdivisions throughout the region, connected to the city water supply system or other public utility in order to serve adequately all lots for domestic use and fire protection. Exceptions may be considered where the existing water lines and/or water pressure in the vicinity of a proposed subdivision are not adequate to connect to new six (6) inch water lines. Fire hydrants shall be installed where sufficient size line exists.

## I. 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 county health officer.

## J. Street Name Signs & Regulatory Warning Signs

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

## K. Requirements for Acceleration and Deceleration Lanes

In order to provide for the safe and orderly movement of traffic on existing streets, the City of Kingston 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.

## L. Electric Transmission Lines

The subdivider shall provide the necessary major electric distribution lines throughout the subdivision. The system shall be constructed to serve all lots shown on the subdivision plat through the responsible electric utility.

## M. 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 planning commission.
2. The planning commission has accepted an irrevocable letter of credit, certified check, escrow account, or 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 the City of Kingston in case of default by the subdivider. The conditions of such guarantees shall provide for the installation of the secured improvements within a period not to exceed eighteen (18) months; provided however, that such period may be extended by the planning commission with the consent of the parties thereto, if the planning commission finds that the public interest will not be adversely affected by such extension.
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 given preliminary approval by the planning commission provided the owner or agent posts an acceptable guarantee to the public for the construction and installation of 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, in the event that a parcel is sold as a whole, the security or performance bond will be immediately released by the planning commission.

## 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 the City of Kingston 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 13-4-302, 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 13-4-307, 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 13-4-302, 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 13-4-306 and Section 13-4-410, Tennessee Code Annotated, provide 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 municipality, through its solicitor or other official designated by its chief legislative body, and the county, through its county attorney or other official designated by the county commission, may enjoin such transfer or sale or agreement by action or 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 county 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 13-4-308, Tennessee Code Annotated.

## ARTICLE VI.

## ADOPTION AND EFFECTIVE DATE

A. Before adoption of these subdivision regulations, a public hearing as required by Section 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.

# 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 | |
|---|---|---|
| Sieve Designation | Coarse Aggregate | Fine Aggregate |
| 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.

## STREET AND ROAD PAVING

## TWO COURSES OF ASPHALTIC CONCRETE (HOT MIX)

Asphaltic paving for streets and roads shall consist of two courses, a binder course (307-B) and a wearing surface (307-C), each composed of a particular combination of aggregate and bituminous material prepared as a hot mix. Both paving courses shall conform to the specifications described in the latest edition of Standard Specifications for Road and Bridge Construction, a publication of the Tennessee Department of Transportation. The binder course shall meet the requirements of Mix 307-B, and shall conform to the applicable dimensions noted in Article IV, Section D of this document. After a suitable tack coat, the wearing surface meeting the requirements of Mix 307-C, shall be applied according to the applicable dimensions also noted in Article IV, Section D. The finished pavement surface shall have a minimum crown of two (2) inches to assure the proper drainage of stormwater.

## 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.

## APPENDIX IV.

## TALBOT'S FORMULA

### FULL CIRCLE DRAINAGE TABLE

This chart is based on Talbot's Formula for determining correct culvert sizes for the area to be drained.

| Diameter of Culvert in Inches | Area of Waterway Opening In Sq. Ft. | Acres of Mountainous Country | Acres of Rolling Country | Acres of Level Country |
|---|---|---|---|---|
| 15 | 1.227 | 1 | 6 | 11 |
| 18 | 1.767 | 2 | 9 | 18 |
| 24 | 3.142 | 5 | 20 | 39 |
| 30 | 4.909 | 8 | 36 | 71 |
| 36 | 7.068 | 14 | 59 | 115 |
| 42 | 9.621 | 20 | 89 | 175 |
| 48 | 12.566 | 29 | 125 | 250 |
| 54 | 16.000 | 40 | 175 | 345 |
| 60 | 19.635 | 55 | 230 | 455 |
| 66 | 23.760 | 70 | 295 | 585 |
| 72 | 28.274 | 85 | 375 | 735 |
| 78 | 33.183 | 105 | 460 | 910 |
| 84 | 38.484 | 130 | 560 | 1110 |

### MULTIPLE CULVERT INSTALLATION

This table shows the number of smaller diameter culverts equal in water carrying capacity to that of one culvert of larger size. It is based on culverts laid on the same slope.
EXAMPLE: One 24" diameter culvert is equivalent to three 15" culverts or two 18" culverts in water carrying capacity.

| Dia. in Inches | 15" | 18" | 21" | 24" | 30" | 36" | 42" | 48" | 54" |
|---|---|---|---|---|---|---|---|---|---|
| 15" | 1 | | | | | | | | |
| 18" | 1.5 | 1 | | | | | | | |
| 21" | 2.2 | 1.4 | 1 | | | | | | |
| 24" | 3 | 2 | 1.4 | 1 | | | | | |
| 30" | 5 | 3 | 2.3 | 1.7 | 1 | | | | |
| 36" | 8 | 5 | 3.5 | 3.6 | 1.5 | 1 | | | |
| 42" | 11 | 7 | 5 | 3 | 2.2 | 1.4 | 1 | | |
| 48" | 15 | 10 | 7 | 5 | 3 | 1.9 | 1.4 | 1 | |
| 54" | 19 | 13 | 9 | 6.5 | 4 | 2.6 | 1.8 | 1.3 | 1 |
| 60" | 25 | 16 | 11 | 8 | 5 | 3.3 | 2.3 | 1.7 | 1.3 |
| 66" | 29 | 20 | 14 | 10 | 6 | 4 | 2.8 | 2 | 1.6 |
| 72" | 37 | 25 | 17 | 12 | 7.5 | 5 | 3.5 | 2.5 | 1.9 |
| 84" | 53 | 35 | 25 | 18 | 11 | 7 | 5 | 3.6 | 2.8 |

## APPENDIX V

Road Testing/Inspection Schedule

| Construction Phase | Material | Test | Frequency |
|---|---|---|---|
| After construction of subgrade | Soil | Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing for density/moisture | One sample every 200 linear feet of roadway collected in random pattern* |
| After installation of curbs (if constructed) | At least machine formed concrete extruded | Visual inspection to determine that curb has been installed in accordance with specifications | Entire length of roadway |
| Base | Mineral Aggregate | Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing to determine if materials meet specifications and if depth, compaction, and density are as specified | One every 200 linear feet of roadway collected in random pattern* |
| Riding Surface | Plant Mix Asphalt | Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing to determine if materials meet specifications and if depth, compaction, and density are as specified | Representative of testing company to be present when mix arrives at site and during the installation of the riding surface; and shall conduct tests every 200 linear feet in a random fashion to assure the material is of the quality specified and is being applied to the depth and density specified* |
| After completion of all construction | | The testing company shall prepare a letter to the planning commission | |

*Where a proposed roadway is less that two hundred (200) feet in length (linear feet), at least one (1) sample shall be tested.