

**SUBDIVISION
REGULATIONS**

**KINGSTON SPRINGS,
TENNESSEE**

**SUBDIVISION REGULATIONS OF
KINGSTON SPRINGS, TENNESSEE**

**Prepared for the Kingston Springs
Planning Commission**

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AMENDMENTS

<u>DATE</u>	<u>RESOLUTION</u>	<u>AMENDMENTS</u>
September 8, 2005		Article 2, Subsection 2-104.1, Application Procedure and Requirements, amended by adding Subpart (7).
September 8, 2005		Article 3, Section 3-101, Improvements and Performance Bond, amended by adding Subsection 3-101.8, Developer's Agreement.
September 8, 2005		Article 4, Subsection 4-101.1, Conformance to Applicable Rules and Regulations, amended by adding Subpart (7), (a), (b), (c).
December, 2006		Articles 1- 5 Amended to include sections and definitions relevant to Conservation Subdivisions. Article 6 inserted, previous articles 6 and 7 renumbered to Articles 7 and 8 respectively.

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ARTICLE I

GENERAL PROVISIONS

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1-101 TITLE

These regulations shall hereinafter be known and cited as the "Subdivision Regulations of the Kingston Springs Planning Region."

1-102 AUTHORITY

These subdivision regulations are adopted by the Kingston Springs Municipal-Regional Planning Commission (hereinafter referred to as "Planning Commission"), pursuant to the authority and powers granted by Sections 13-3-401 through 13-3-411 and 13-4-301 through 13-4-309, Tennessee Code. Having adopted a Major Street or Road Plan for the jurisdictional area, and filed a certified copy of said plan with the Cheatham County Register of Deeds (hereinafter referred to as "county register"), as required by Sections 13-3-402 and 13-4-302, Tennessee Code, and having held a public hearing as indicated in Subsection 1-107.1, of these regulations, the Planning Commission has fulfilled the requirements set forth in state law as prerequisites to adoption of these regulations.

1-103 JURISDICTION

These subdivision regulations shall apply to all subdivisions, as herein defined, located within the Kingston Springs, Tennessee Planning Region as established by resolution of the Local Government Planning Advisory Committee. No land shall be subdivided within the jurisdictional area until the subdivider submits necessary plans as required by these regulations, obtains Planning Commission approval of such plans, and files the approved Final Plan with the county register.

1-104 POLICY AND PURPOSE

It is hereby declared to be the policy of the Planning Commission to consider land subdivision as part of a plan for orderly, efficient and economical development of the Town. This means, among other things, that:

- land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health, or peril from fire, flood or other menace;
- that proper provision shall be made for drainage, water supply, sewerage and other needed improvements;
- that the proposed streets shall compose a convenient system conforming to the Major Street Plan and shall be properly related to the proposals shown on the Town Development Plan and shall be of such width, grade and location as to accommodate the prospective traffic, to facilitate fire protection and to provide access of fire-fighting equipment to buildings;
- that provision shall be made for open spaces and environmental protection through the most enlightened layout and design of the land;
- that land designs shall be promoted which preserve the natural beauty and topography of the Town and ensure appropriate development with regard to natural features, water resources, agricultural land, and scenic viewsheds,
- that these policies and purposes are designed to implement the Town's policies of protection of its environmental and cultural resources pursuant to die Zoning Ordinance and Town Development Plan, and
- that the policies and purposes relevant to resource protection are to be coordinated with policies on open space location and use so as to enhance or restore existing resources that have been diminished or degraded through past land management practices.

1-105 INTERPRETATION, CONFLICT, AND SEVERABILITY

1-105.1 Interpretation

These regulations shall be held to be the minimum requirements for promotion of health, safety, and general welfare.

1-105.2 Conflict with Public and Private Provisions

1-105.201 Public Provisions

These regulations are not intended to interfere with, abrogate, or annul any other ordinance, rule, or regulation, statute, or other provision of law. Where any provision of these regulations imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provisions are more restrictive or impose higher standards shall control.

1-105.202 Private Provisions

These regulations are not intended to abrogate any easement, covenant, or other private agreement or restriction; provided, that where these regulations are more restrictive or impose higher standards than such easement, covenant, or other private agreement or restriction, the requirements of these regulations shall govern. Where

any private provision exceeds the standards set forth herein, such shall be considered a private contract between the parties of interest, and, as such, is beyond the jurisdiction of the Planning Commission.

1-105.3 Severability

If any part or provision of these regulations or application thereof to any person or circumstances is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision, or application directly involved in the controversy where such judgment shall have been rendered and shall not affect or impair the validity of the remainder of these regulations or the application thereof to other persons or circumstances. The Planning Commission hereby declares that it would have enacted the remainder of these regulations without any such part, provision, or application.

1-106 SAVING PROVISION

These regulations shall not be construed as abating any action now pending under, or by virtue of prior subdivision regulations; or as discontinuing, abating, modifying, or altering any penalty accruing or about to accrue; or as affecting the liability of any person; or as waiving any right of the governing body under any section or provision existing at the time of adoption of these regulations; or as vacating or annulling any rights obtained by any person by lawful action of the governing body, except as expressly provided otherwise in these regulations.

1-106.1 Previously Approved Subdivisions

1-106.101 Unexpired Preliminary Plans

The approval granted on any preliminary plan prior to the effective date of these regulations shall remain in force and effect for the time period stipulated by the regulations under which the approval was first granted.

1-106.102 Expired Preliminary Plans

In any instance where the period of approval shall have passed with some portion of the subdivision not having received approval of a Final Plan, and the applicant wishes an extension of the preliminary approval, the Planning Commission may.

- a. Permit the remaining portion of the subdivision to be constructed and to receive approval under provisions set forth in the regulations whereby preliminary approval was originally granted, or
- b. Stipulate that the plan is null and void and that a new plan be presented subject to all laws and provisions of these regulations that are in effect at the time such action is considered.

In making this determination, the Planning Commission shall consider all pertinent facts available to it. The current state and active pursuit of construction and development activities within the subdivision shall be given due consideration in the course of the Planning Commission's deliberation on this question.

1-106.103 Filing of Approved Plats

All previously approved final plats shall be filed with the county register's office within one (1) year following adoption of these subdivision regulations. In the event the owner fails to file a plat within the one (1) year time period stipulated herein the approval shall become void and no building permit may be issued for any lot located therein until action is taken to reinstate the plat. All Final Plans approved following adoption of these regulations shall be filed with the county register's office as provided in Subsection 2-108.602, Recording of Plan, of these regulations.

1-107 AMENDMENTS

1-107.1 Enactment

For the purpose of providing for the public health, safety, and general welfare the Planning Commission may from time to time amend these regulations. Before adoption of any amendment to these relations, a public hearing thereon shall be held by the Planning Commission, as required by Chapters 3 and 4, Title 13, Tennessee Code.

1-107.2 Codification and Distribution

Subsequent to adoption of any amendment to these regulations, such amendment shall be incorporated into the text of these regulations in the following manner:

1. Replacement pages shall be prepared incorporating the new or changed language. Each such new or replacement page shall have the amendment number and shall be dated so as to indicate the date of last revision of the page.
2. Each adopted amendment shall be numbered consecutively and printed on pages separate from any other amendment and in a manner that fully states any language deleted from these regulations and any language added and the place in the text of each such change.

1-108 RESUBDIVISION OF LAND

1-108.1 Procedures for Resubdivision

If any change in an approved or recorded subdivision plat would affect the layout of any public street, alley, or road (hereinafter referred to as public way) shown on such plat, or area reserved thereon for public use, or any lot line, or it would affect any map, plan, or plat legally recorded before adoption of any subdivision regulations, such amendment shall be approved by the same procedure, rules, and regulations as for a subdivision.

1-108.2 Subdivision Procedures Where Future Resubdivision Is Foreseen

Whenever a parcel of land is subdivided and the subdivision plat shows one (1) or more lots containing more than double the minimum required area for the zoning district in which the lot is located, and the Planning Commission has reason to believe that any such lot(s) will be resubdivided into smaller building sites, the Planning Commission may require that the

subdivision and development of such parcel of land allow for the future opening of public ways and the ultimate extension of adjacent public ways or that such lots be restricted from further subdivision. The Planning Commission may also require that dedications providing for future opening and extension of such public ways be indicated on the plan.

1-109 CONDITIONS

Regulation of the subdivision of land and the attachment of reasonable conditions to land subdivision are exercises of valid police power delegated by the state to the Planning Commission. The developer has the duty of compliance with reasonable conditions imposed by the Planning Commission for design, dedication, improvement, and restrictive use of the land so as to provide for physical and economical development of the jurisdictional area and for the safety and general welfare of future plot owners in the subdivision and of the community at large.

1-110 VACATION OF PLATS AND ABANDONMENT OF RIGHT-OF-WAY DEDICATIONS

1-110.1 Vacation of Plats

Any plat or any part of any plat may be vacated by the owner of the premises, at any time before sale of any lot described therein, by a written instrument, to which a copy of such plat shall be attached, declaring the plat or part of the plat to be vacated. In approving the vacation of plats the Planning Commission shall follow the same procedure for approval of plats. The governing body may reject any such instrument that abridges or destroys any public rights in any of its public uses, improvements, or public ways. Such an instrument shall be executed, acknowledged, or approved, and duly recorded or filed; the instrument shall operate to void the recorded plat and divest all public rights in the public ways and public grounds and all dedications described in such plat. When any lot or lots have been sold the plat may be vacated in the manner herein provided all of the owners of all lots in such plated area join in the execution of such writing.

1-110.2 Abandonment of Right-of- Way Dedications

Any dedicated right-of-way shown on a recorded subdivision plat can be abandoned only through the resubdivision of such plat, or through the resubdivision of the affected section of such plat, according to the procedures stated in Subsection 1-108.1, Procedures for Resubdivision, of these regulations. Thereby, the Planning Commission must approve the resubdivision of the initially recorded plat that depicts the dedicated right-of-way or future public way access area; in such a manner wherein such dedicated right-of-way is deleted from said plat. Once, this revised plat is officially recorded, it acts to supersede the originally recorded plat, and accordingly abandons the respective dedicated right-of-way or future public way access area. No official action shall be made by the Planning Commission in relation to the abandonment of any dedicated right-of-way, pending the public notification of adjacent property owners by registered mail as to the time and place of the Planning Commission meeting, at which time such action is to be officially entertained. Any public way access area or dedicated right-of-way that is abandoned as per the procedures cited herein shall be deeded solely to the current owners of those lots which were in the originally platted and recorded section of the affected subdivision wherein such public way access area or dedicated right-of-way was depicted.

1-111 VARIANCES

1-111.1 General

The Planning Commission may waive, subject to appropriate conditions, the provision of any or all such improvements and requirements which in its judgment of the special circumstances of a particular plat or plats are not requisite to the interest of the public health, safety, and general welfare, or which in its judgment are inappropriate because of inadequacy or lack of connecting facilities adjacent or in proximity to the subdivision, or would cause unusual hardship, provided the public interest is protected and the development is in keeping with the general spirit and intent of these Regulations, the Zoning Ordinance, and the Town Development Plan.

The Planning Commission may approve variations if the Commission finds in a specific case that:

- Granting of the variance will not be detrimental to the public safety, health, or welfare, or be injurious to other property or improvements in the neighborhood where the property is located;
- Conditions upon which the request for a variance is based are unique to the property for which the variance is sought and are not applicable generally to other property;
- Because of the particular physical surroundings, shape, or topographical condition of the specific property involved, a particular hardship (not self-imposed) to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations were carried out; and
- The variance will not in any manner alter provisions of the land development plan, the major thoroughfare plan, or the zoning ordinance.

1-111.2 Procedures

Each and every variance or modification of these subdivision regulations sought by a subdivider shall be specifically applied for in the numerical order of the subdivision regulations, in writing by the subdivider. A separate form provided by the Enforcing Officer shall be utilized to list any and all variance(s) being requested. This form shall accompany the Development Plan. Any condition shown on the plan, which would require a variance or modification, shall constitute grounds for disapproval of the plan unless such special application for modification or variance is made. In approving any variation from these regulations the Planning Commission shall state fully in the minutes the grounds for the variation and all of the facts upon which the decision is made. The minutes of the meeting where the action approving the variance(s) is taken shall reflect the specific nature and content of such variance(s).

1-111.3 Conditions

In approving variations, the Planning Commission may impose such conditions as in its judgment will secure substantially the objectives, standards, and requirements of the regulations.

1-112 ENFORCEMENT, VIOLATION, AND PENALTIES

1-112.1 General

1-112.101 Authority

The enforcement of these regulations and the penalties for violations are provided pursuant to Title 13, Tennessee Code.

1-112.102 Enforcing Officer

It shall be the duty of the Enforcing Officer to enforce these regulations and to bring to the attention of legal counsel any violations or lack of compliance herewith.

1-112.103 Recording of Plats

Pursuant to Sections 13-3-402 and 13-4-302, Tennessee Code, no Final Plan of subdivision within the jurisdictional area shall be received or recorded by the county register until the plan has received approval of the Planning Commission in accordance with these regulations, and such approval has been endorsed in writing on the plan by the Planning Commission secretary in the manner prescribed by these regulations.

1-112.104 Use of Unapproved Plats

Pursuant to Sections 13-3-410 and 13-4-306, Tennessee Code, no owner or agent of the owner of any land shall convey such land contrary to the provisions stated herein.

1-112.105 Public Ways and Utilities

Pursuant to Sections 13-3-406 and 13-4-307, Tennessee Code, the governing body shall not nor shall any public authority accept, lay out, open, improve, grade, pave, or light any public way, lay or authorize the laying of water mains or sewers, or construct or authorize the construction of other facilities or utilities in any public way located within the jurisdictional area unless such way shall have been accepted, opened, or otherwise received the legal status of a public way prior to the attachment of the Planning Commission's jurisdiction, or unless such way corresponds in its location and lines to a way shown on a subdivision plan approved by the Planning Commission or on a public way plan made by the Planning Commission. The governing body may, however, accept or lay out any other street or adopt any other street location, provided the resolution, ordinance, or other measure for such acceptance, laying out or adoption first shall be submitted to the Planning Commission for its approval and, if disapproved by the Planning Commission, shall receive the favorable vote of a majority of the entire membership of the governing body. A street approved by the Planning Commission upon such submission or accepted, laid out, or adopted by the Planning Commission shall have the status of an approved street location as fully as though it originally had been shown on a subdivision plat approved by the Planning Commission or on a plat made and adopted by the Planning Commission. In case, however, of any state highway

constructed or to be constructed in the jurisdictional area by the State of Tennessee with state funds as a part of the state highway system, the submission to the Planning Commission shall be by the Tennessee Commissioner of Transportation, who shall have the power to overrule the disapproval of the Planning Commission.

1-112.106 Building Permits

No building permit shall be issued for construction of any building or structure located on a lot or plat that is subdivided or sold in violation of any provision of these regulations. Any individual requesting a building permit for a lot located within an established subdivision shall provide evidence that the plat of subdivision wherein such lot is located has been approved and appropriately recorded.

1-112.107 Access to Lots by Public Way or Private Easement

Pursuant to Sections 13-3-411 and 13-4-308, Tennessee Code, no building permit shall be issued and no building or structure shall be erected on any lot within the jurisdictional area, unless the public way giving access to the lot whereon the building or structure is proposed to be placed shall have been accepted or opened or shall have otherwise received the legal status of a public way prior to that time or unless such way corresponds in its location and lines with a way shown on a subdivision plan approved by the Planning Commission, or on a street plan made and adopted by the commission, or unless such lot fronts upon a permanent easement that conforms to all rules, regulations and specifications set forth, herein.

Except as provided in Subsection 6-103.5, Multiple Lots on a Common Access Easement, in any instance where a permanent easement is used to provide access to a lot or tract of land having been or being separated by deed or plan from other property, such easement shall be at least fifty (50) feet in width. Where a permanent easement is proposed to provide access to more than one (1) lot or tract of land, an access way shall be constructed within the easement which will meet or exceed the standards for design and construction of public ways set forth in these regulations, and the Planning Commission shall act to insure that the responsibility for future maintenance of any such access way lying within a permanent easement remains solely with the benefited parties and that in no event shall the maintenance of such access way become a public responsibility.

1-112.2 Penalties for Violations

1-112.201 Recording of Unapproved Plats

No county register shall receive, file, or record a plat of subdivision within the planning region without approval of the Planning Commission as required in Sections 13-3-402 and 13-4-302, Tennessee Code, and any county register so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law. Any county register, receiving, filing or recording a plan of a subdivision in violation of Subsection 1-112.103, Recording of Plats, of these regulations, shall be deemed guilty of a violation of the above cited provision of the Tennessee Code.

1-112.202 Use of Unapproved Plats

Sections 13-3-410 and 13-4-306, Tennessee Code, 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, 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 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 Town through its attorney may enjoin such transfer or sale or agreement by action of injunction.

1-112.203 Illegal Buildings

Any building or structure erected or to be erected in violation of these subdivision regulations shall be deemed an unlawful building or structure; and the building official or other official designated by the Town may bring action or enjoin such erection or cause it to be vacated or removed as provided in Sections 13-3-411 and 13-4-308, Tennessee Code.

1-112.3 Civil Enforcement

1-112.301 General

Appropriate actions and proceedings may be taken in equity to prevent any violation of these regulations, to prevent unlawful construction, to recover damages; to restrain, correct, or abate a violation, or to prevent illegal occupancy of a building, structure, or premise; these remedies shall be in addition to the penalties described in Subsection 1-112.2, Penalties for Violations, of these regulations.

1-112.302 Specific Statutory Remedies

a. Use of Unapproved Plats

The Town, through its attorney or other official designated by the Town, may enjoin by action for injunction any transfer of, sale of, or agreement to sell any land in violation of Subsection 1-112.104, Use of Unapproved Plats, of these regulations.

b. Erection of Unlawful Buildings

Where any building or structure is erected or being erected on any lot in violation of the street or easement frontage requirements of Subsection 1-112.107, Access to Lots by Public Way or Private Easement, of these regulations, the building official or the Town attorney or other official designated by the governing body may bring action to enjoin such erection or cause the building or structure to be vacated or removed.

1-113 REPEAL OF PREVIOUS REGULATIONS

Upon the adoption and effective date of these regulations, the Subdivision Regulations, of Kingston Springs, Tennessee, adopted September 29, 1982, as amended, are, hereby, repealed.

1-114 FEES FOR PLAN REVIEW

Any individual who is seeking to subdivide property within the jurisdictional area where these regulations are applicable shall pay such filing and review fees as are required by the Town these fees shall be paid prior to the item being placed on an agenda for consideration by the Planning Commission.

ARTICLE II

PROCEDURE FOR SUBDIVISION APPROVAL

SECTIONS

- 2-101 General Procedure
- 2-102 Review Procedure
- 2-103 General Conditions
- 2-104 Pre-Application Meeting
- 2-105 Conceptual Plan Procedures
- 2-106 The Development Plan
- 2-107 Construction Plans
- 2-108 Final Subdivision Plans
- 2-109 Requirement for Improvements
- 2-110 Miscellaneous Platting Situations

2-101 GENERAL PROCEDURE

2-101.1 Plan Approval Requirements

Before any contract is executed for the sale of any parcel of land that is proposed to be subdivided and before any permit for the erection of any structure in a proposed subdivision shall be granted the subdividing owner or his authorized agent shall apply for and secure the Planning Commission's approval of the proposed subdivision in accordance with the procedures of this article.

2-101.2 Classification of Subdivisions

Utilizing the following definitions the Enforcing Officer shall determine whether the application is a major subdivision, a minor subdivision, or a land partition.

2-101.201 Major Subdivision

A division of land into two (2) or more lots that include any of the following:

- a. A new or extended public street or street right-of-way, but not including future street alignments illustrated in the plan of resubdivision required by Section 1-108.2, Subdivision Procedures Where Future Resubdivision is Foreseen;
- b. Improvements within an existing street right-of-way, other than repair or construction of sidewalks or other pedestrian connections required by these regulations, fire hydrants and other minor improvements to the lots being created;
- c. A future public school site, park site, greenway corridor open space site shown on the adopted Town Development Plan;

- d. The dedication of a right-of-way or easement for construction of a public water distribution or sewerage collection lines; and
- e. Dedications, reservation, improvements or environmental conditions that, in the opinion of the Enforcing Officer, require construction documents to be reviewed prior to Final Plan approval in order to insure the public health, safety and welfare.

2-101.202 Minor Subdivision

A division of land where the conditions for major subdivision review, as set out in Subsection 2-101.201 are not present.

2-101.203 Partition

A division of land, fronting on an existing standard street and no new streets are proposed, creating not more than two lots and not requiring public facilities or utility extensions. Partitions that require a variance or waiver from these regulations shall be deemed to be a minor or a major subdivision.

2-102 REVIEW PROCEDURE

2-102.1 Coordinated Review of Planned Developments

The purpose of this segment is to eliminate unneeded duplication of plans within Planned Unit Developments. The Final Development Plan required in accordance with applicable provisions of the Zoning Ordinance provides sufficient information to meet the needs for Conceptual Plan approval. No separate Conceptual Plan submission shall be required provided all information required for Conceptual Plans is included upon the PUD drawings. Development Plans, Construction Plans and Final Plans are required.

2-102.2 Approval Procedure for Partitions

A partition may be accomplished in accordance with the following procedure:

2-102.201 Partitioning Procedure

- a. Submission to the Secretary of the Commission of a final subdivision plat that shall be:
 - Made on forms available from the Enforcing Officer and shall be accompanied by a fee as determined by the Planning Commission.
 - Provided in the form of an original plat of survey, signed and sealed by a Registered Surveyor containing all information described on the Submittal Checklist.
- b. Upon the determination by the Enforcing Officer that the Final Plat meets the provisions of these regulations in every respect, the Secretary may sign said plat on behalf of the Commission and release the same for recordation.

2-102.202 Partitioning Large Tracts into Not More Than Two (2) Lots

a. Two (2) Lots Greater Than Five (5) Acres

When partitioning a tract into two (2) lots where each lot will be greater than five acres, no action by the Planning Commission is required if no public street or public utility extensions are required.

b. Two (2) Lots of Less Than Five (5) Acres Each

When partitioning a tract into two (2) lots of less than five (5) acres each, the procedure outlined in Subsection 2-102.201, Partitioning Procedure, shall be utilized.

c. One (1) Lot Less Than five (5) Acres and One (1) Lot Greater Than Five (5) Acres

When partitioning a tract into one (1) lot less than five (5) acres and one greater, the procedure outlined in Subsection 2-102.201 shall be followed except the plat drawn shall not require a detailed survey description of the lot greater than five (5) acres unless the easements supporting the lot being created are granted within the tract in excess of five (5) acres.

2-102.3 Approval Procedure for Minor Subdivisions

A Minor Subdivision may be accomplished in accordance with the following procedure:

1. Pre-Submission Conference (optional).
2. Filing of Final Plan showing proposal in detail.
3. Public Hearing on Final Plan.
4. Planning Commission action on Final Plan.
5. Planning Commission Secretary signs Final Plan.
6. Final Plan is filed in County Clerk's Office.

2-102.4 Approval Procedure for Major Subdivision

A Major Subdivision may be accomplished in accordance with the following procedure:

1. Pre-Submission Conference with the Planning Commission.
2. Site Inspection.
3. Conceptual Plan submission and review. **(NOTE: Items 2 and 3, may be reversed in sequence, at the discretion of the Planning Commission.)**
4. Development Plan submission and review.

5. Public Hearing before Planning Commission on Development Plan.
6. Planning Commission action on Development Plan.
7. Final Plan submission and review.
8. Planning Commission action on Final Plan.
9. Completion of improvements or posting of bond, or suitable alternative surety.
10. Planning Commission Secretary signs final plat.
11. Final Plan is filed in County Clerk's Office.

2-102.5 Official Submission Date

For the purpose of these regulations, for both major and minor subdivisions, the date of the regular meeting of the Planning Commission where the public hearing on the Final Plan, including any adjourned date thereof, is closed, shall constitute the official submittal date of the plan at which the statutory period required in Section 13-3-404, Tennessee Code, for formal approval or disapproval of the plan shall commence

2-103 GENERAL CONDITIONS

2-103.1 Site Alterations

During the subdivision review, no site disturbance shall take place, such as road construction or grading, except that which is directly related to obtaining any required approvals (e.g., surveying, test pits and the location of stakes), that would alter, remove or relocate any existing features including, but not limited to, stone walls, steep slopes, rock outcroppings, trees, general vegetation, streams or water courses.

2-103.2 Concurrent Review by Other Agencies

When approvals by other agencies of government are required such may be achieved concurrently with the review processes required by these regulations.

2-104 PRE-APPLICATION MEETING

- A. The purposes of the pre-application meeting are to introduce the applicant to the Town's zoning and subdivision regulations and procedures, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below. Applicants are also encouraged to present the Existing Resources and Site Analysis Map (described below) at this meeting.
- B. The applicant or a duly authorized representative shall attend an initial meeting with Town Staff to discuss the requirements of these regulations for the "gray infrastructure", such as street improvements, drainage, sewerage, water supply, fire protection, and related matters. In addition, a related purpose of this meeting is to discuss the potential for conserving important natural and cultural features of the property and for creating links in an interconnected network of protected open spaces.

2-105 CONCEPTUAL PLAN PROCEDURES

2-105.1 Application Procedure and Requirements

A request to subdivide the land shall be made by the owner of the land, or an authorized representative, by filing an application for approval of a Conceptual Plan with the Planning Commission. The application shall:

1. Be made on forms available from the Enforcing Officer and shall be accompanied by a fee as determined by the Planning Commission.
2. Be accompanied by the Conceptual Plan Overlay Sheet and include all information described in Section 5-102, Conceptual Plans, of these regulations
3. For major subdivisions, be presented to the Enforcing Officer at least fifteen (15) days prior to a regular meeting of the Planning Commission.
4. For miscellaneous platting situations described in Section 2-110, Miscellaneous Platting Situations, be presented to the Enforcing Officer at any time.

When an application for a major subdivision includes only a portion of a landowner's entire tract, or when such portion is contiguous to an adjoining tract of the landowner, a layout shall be included showing future potential subdivision of all the contiguous lands belonging to the landowner to ensure that subdivision may be accomplished in accordance with current regulations of the Town and with appropriate access.

2-105.2 Conceptual Plan Content and Pre-submission Procedures

2-105.201 Plan Preparation and Content

The Development Plan shall be prepared by a licensed landscape architect. As a minimum such plan shall contain the information contained in Section 5-102, CONCEPTUAL PLANS, of these regulations.

2-105.202 Site Context Map

Applicants shall submit a Site Context Map containing the information required by Subsection 5-102.201, Site Context Map. The purpose of this map is to illuminate discussion as to the most appropriate places to design linkages to adjacent open space resource lands for efficient farming, contiguous wildlife habitat, trails, etc.

2-105.203 Existing Resources and Site Analysis Map

Applicants shall submit an Existing Resources and Site Analysis Map in its context, containing the information required by Subsection 5-102.202, Existing Resources and Site Analysis. The purpose of this key submission is to familiarize officials with existing conditions on the applicant's tract, and to provide a complete and factual reference for them in making a site inspection. This map shall be provided prior to or at the site inspection, and shall form the basis for the development design as shown on the diagrammatic Conceptual Plan.

2-105.204 Site Inspection

After preparing the Existing Resources and Site Analysis Map, applicants shall arrange for a site inspection of the property by the Planning Commission and other Town officials, and shall distribute copies of the site analysis plan at an on-site meeting, which shall be publicized in the same manner as all other Planning Commission meetings and workshops. Applicants, their site designers, and the landowner are encouraged to accompany the Planning Commission. Abutting landowners shall also be notified in writing and invited to attend. The purpose of the visit is to familiarize local officials with the property's existing conditions and special features, to identify potential site design including the general layout of designated conservation lands (if applicable), and potential locations for proposed buildings and street alignments. Comments made by Town officials or staff and consultants shall be interpreted as being only suggestive. It shall be understood by all parties that no formal recommendations can be offered, and no official decisions can be made, at the Site Inspection, which is essentially an outdoor workshop session.

2-105.205 Pre-Submission Conference

Following the site inspection and prior to the submission of a Conceptual Plan, the applicant shall meet with the Planning Commission to discuss the findings of the site inspection and to develop a mutual understanding on the general approach for subdividing the tract. At the discretion of the Commission, this conference may be combined with the site inspection.

2-105.3 Review of Conceptual Plan

Copies of a Conceptual Plan meeting the requirements set forth of Subsection 5-102.2, Conceptual Plan Requirements, herein, shall be submitted to the Planning Commission for distribution to the Planning Commission, the Enforcing Officer, Town Engineer, and the Town Planner, at least fifteen (15) days prior to the Planning Commission meeting at which the Conceptual Plan is to be discussed. The Conceptual Plan diagrammatically illustrates initial thoughts about a conceptual layout for greenway lands, house sites, and street alignments, and shall be based closely upon the information contained in the Existing Resources and Site Analysis Map. Where the provisions of Article VI, CONSERVATION SUBDIVISIONS, are to be utilized the Conceptual Plan shall also be designed in accordance with the four-step design process and the Greenway Standards set forth in Sections 6-104, DESIGN PROCESS FOR CONSERVATION SUBDIVISIONS, and in accordance with Section 6-108, GREENWAY STANDARDS, respectively.

The Planning Commission shall review the Conceptual Plan in accordance with the criteria contained in these regulations and with other applicable laws of the Town. Their review shall informally advise him/her of the extent to which the proposed subdivision or land development conforms to the relevant standards of these regulations, and may suggest possible plan modifications that would increase its degree of conformance. Their review shall include but is not limited to:

1. the location of all areas proposed for land disturbance (streets, foundations, yards, septic disposal systems, storm water management areas, etc.) with respect to notable features of natural or cultural significance as identified on the applicant's Existing Resources and Site Analysis Map and on the Town's Map of Potential Conservation Lands;

2. the potential for street connections with existing streets, other proposed streets, or potential developments on adjoining parcels;
3. the location of proposed access points along the existing road network;
4. the proposed building density and impervious coverage;
5. the compatibility of the proposal with respect to the objectives and policy recommendations of the Town Development Plan and the Open Space Plan; and
6. consistency with the local zoning law.

The Commission shall submit its written comments to the applicant within sixty (60) days of the first public meeting at which a complete Conceptual Plan was first submitted, advising him/her of modifications that are highly recommended prior to submitting a Development Plan.

2-105.4 Expiration of Approval

2-105.401 Effective Period of Conceptual Plan Approval

The approval of the Conceptual Plan shall expire within one (1) year unless during such time period a Development Plan is filed for all or a portion of the land included within the approved Conceptual Plan. A one (1) year extension may be granted if application is made no less than sixty (60) days prior to the expiration date. In the event the Conceptual Plan expires such plan shall become null and void and be no further effect.

2-105.402 Reapproval for Expired Conceptual Plans

Should the Conceptual Plan expire for any reason, any submittal for Planning Commission reapproval may be, at the discretion of the Planning Commission, subject to current Zoning and Subdivision Regulations in effect at the time reapproval is sought.

2-106 THE DEVELOPMENT PLAN

2-106.1 Purpose of Development Plan

The Development Plan presents detailed engineering information concerning the design and ultimate operation of the proposed development. Such plan will reflect results of decisions that have been made in the process of adapting the general concepts contained within the Conceptual Plan to actual physical conditions of the site. **Prior to approval of construction drawings, and signing of a Development Agreement no clearing of trees (with the exception of those required to facilitate surveying activities) or site grading in any form shall be undertaken.**

2-106.2 Application Procedure and Requirements

Following approval of a Conceptual Plan an applicant may file with the Planning Commission a Development Plan. Failure of the applicant to provide full and correct information shall be cause for disapproval of such plan. The Development Plan shall contain the information presented in Section 5-103, and:

1. Be presented at the office of the Enforcing Officer at least fifteen (15) days prior to a regular (officially opened) meeting of the Planning Commission; and
2. Include the entire subdivision, or, when phasing is being requested, section thereof, for which approval is sought and all land immediately adjacent, extending five hundred (500) feet therefrom, or of that directly opposite thereto, extending five hundred (500) feet from the public way frontage of such opposite land. The lot pattern of surrounding development shall be shown within the area located within five hundred (500) feet of the proposed development; and
3. Be accompanied by a minimum of fifteen (15) copies of the development plan as described herein.

2-106.3 Plan Preparation and Content

The Development Plan shall be prepared by individuals who are licensed to perform the necessary design services. As a minimum such plan shall contain the information contained in Section 5-103, DEVELOPMENT PLANS, of these regulations.

2-106.4 Design Certification

A "Development Design Certification" shall accompany any Development Plan submitted under authority of these regulations. Such certification shall indicate that the plan either fully complies with all provisions the zoning ordinance and subdivision regulations or that the plan complies with such provisions with specifically noted exceptions. Any variance(s) requested from these regulations shall conform to the provisions of Section 1-111, VARIANCES. This certification requirement is meant to provide assurance that the proposed plan can be accomplished within the current regulations of the community.

2-106.5 Administrative Review

The Enforcing Officer shall initiate an administrative review of the Development Plan and any exhibits submitted in conformance with these regulations. This review shall include the Town Engineer, Town Planner and any other appropriate official. The findings of the review shall be presented to the applicant and the Planning Commission.

2-106.6 Planning Commission Review and Action

Following the administrative review of the Development Plan the applicant shall be advised of any recommendation for changes. The Planning Commission shall approve, conditionally approve, or disapprove the Development Plan Within sixty (60) days after the date of the regular meeting of the Planning Commission at which the hearing on approval, including adjourned date thereof, is closed. The Planning Commission shall review the plan and any recommendations made by members of the reviewing staff, to determine conformance of the plan to these regulations, the zoning ordinance, and any other relevant regulations of the Town. The Commission may specify conditions, changes, modifications or additions that it deems necessary or appropriate, and may make its decision to grant approval subject to such conditions, changes, modifications or additions. Whenever the approval of a Development Plan is subject to conditions, the written action of the Commission shall (1) specify each condition of approval; and (2) request the applicant's written agreement to the conditions

within thirty (30) days of receipt of the Commission's written decision. If the Plan is not approved, the Commission's decision shall specify the defects found in the plan, shall describe the requirements that have not been met, and shall cite in each case the provisions of these regulations relied upon.

2-106.7 Certificate of Approval

Upon approval of Construction Plans required by Section 2-107, of these regulations a "Certificate of Development Plan Approval" may be issued by the Secretary of the Planning Commission and the applicant may proceed to apply for Final Plan approval in the manner prescribed by Section 2-108, FINAL SUBDIVISION PLANS, of these regulations.

When the Secretary of the Planning Commission has signed the Certificate of Development Plan Approval, one (1) copy of the Development Plan, Construction Plans and development agreement with the date of approval noted thereon shall be returned to the applicant. If a Development Plan is disapproved the Planning Commission shall state Specific reasons for disapproval which shall be entered into the minutes of the meeting wherein such action was taken.

2-106.8 Public Improvements

Prior to initiating grading within any: major subdivision (or portion thereof) or installation of any public improvements a "Certificate of Development Plan Approval" as required by Subsection 2-106.7, above, shall have been obtained for that portion of the development. The Planning Commission may require that all public improvements be installed and dedicated prior to signing of the final subdivision plat by the Secretary of the Planning Commission. If the Planning Commission does not require that all public improvements be installed and dedicated prior to signing of the final subdivision plat an adequate performance bond (see Article III) shall be approved.

2-106.9 Effective Period of Approval

1. Construction shall commence within two years after approval is granted, or the Development Plan is void.
2. A major subdivision shall not be subject to Development Plan expiration when the following conditions are met:
 - (a) The subdivision has been divided into two or more phases for final approval purposes, in compliance with Subsection 2-108.604, Sectionalizing of Major Subdivisions, and.
 - (b) At least one of those phases has a Final Plan recorded with the Register of Deeds and has all public improvements bonded.

2-106.10 Application of Changes within Land Use Regulations to Approved Development Plans

Every Development Plan shall conform to all existing zoning provisions and subdivision regulations applicable at the time of approval, except that any plan which has received approval shall be exempt from any subsequent amendments to such zoning provisions or these regulations that may render the plan non-conforming as to bulk, use, or development

standards, provided, that final approval of the development or affected portion thereof is obtained Within the effective period of preliminary approval set forth in Subsection 2-106.9, Effective Period of Approval, herein. Should Development Plan approval expire for any reason, any submittal for Planning Commission reapproval may be, at the discretion of the Planning Commission, subject to current Zoning Ordinance and Subdivision Regulations in effect at the time reapproval is sought.

2-106.11 Revisions to Approved Development Plans

The applicant shall submit proposed revisions to the approved Development Plans to the Enforcing Officer. The Enforcing Officer shall initiate a review of the proposed revisions. The review is to be performed by the Development Review Committee. For all revisions determined to be major revisions, Planning Commission approval shall be required.

2-106.1101 Minor Revisions

If the Enforcing Officer, on the advice of the Development Review Committee deems the revision(s) to be minor, he or she is authorized to approve the revisions to the Development Plan. Minor revisions are insignificant shifts in street and open space locations, minor changes to lot size, minor changes to unit size and distribution of intensity not inconsistent with a final PUD approval and its associated plan.

2-106.1102 Major Revisions

All other revisions, including revisions that are determined by the Enforcing Officer, on the advice of the Development Review Committee, to constitute a public interest, shall be deemed to be major revisions. At the request of the applicant, any revised Development Plan shall be forwarded to the Planning Commission for decision, including reversal of the decision of the Enforcing Officer. The Enforcing Officer may, at his or her discretion or on the advice of the Development Review Committee, direct any revised Development Plan to the Planning Commission.

2-107 CONSTRUCTION PLANS

2-107.1 Application Procedure and Requirements

Construction Plans may be prepared and presented, with the Development Plan or at any point in time following approval of a Development Plan by the Planning Commission. Construction Plans shall:

1. Be presented at the office of the Enforcing Officer;
2. Include the entire subdivision, or, when phasing has been approved in the Development Plan, the entire section which shall correspond to the territory incorporated within the Development Plan; and
3. Be accompanied by a minimum of five (5) copies of the Construction Plans as described, herein.

2-107.2 Construction Plan Preparation and Content

Construction Plans shall be prepared by a Tennessee Licensed Engineer engaged in the practice of civil engineering. As a minimum, such plans shall contain the information required in Section 5-104, CONSTRUCTION PLANS, of these regulations.

2-107.3 Plan Review and Approval

A plan review meeting shall be conducted for the purpose of assuring a coordinated review of Construction Plans. This meeting shall include the Enforcing Officer and any other appropriate governmental representative(s). It shall be the responsibility of this committee to assure that the Construction Plans are in compliance with the provisions of these regulations, other appropriate laws and sound engineering practice. The committee shall approve or disapprove the Construction Plans. The Plan Review Committee shall notify the Planning Commission in writing of all actions on plans submitted. In any case where revisions may be required for unconditional approval, such revisions shall be made prior to such notice being forwarded to the Planning Commission. In the event of plan disapproval the committee shall provide notice thereof to the submitter in writing. Such notice shall include specific provisions of these regulations and/or other provisions with which such plans do not comply.

2-107.4 Preparation of Development Agreement

A completed "Development Agreement" and accompanying performance bond shall have been prepared and executed prior to initiation of any "land development activity" within any development to which these regulations are applicable. A draft development agreement shall be prepared by the Plan Review Committee following approval of the Construction Plans. The draft agreement shall reference the design incorporated within the approved Construction Plans and shall be sufficient in form to assure that proposed construction methods and materials meet or exceed minimum standards established by these regulations. The draft development agreement and an estimate of the amount of the performance bond shall be sent to the applicant for approval. Upon acceptance of the agreement by the applicant, the proposed development agreement accompanied by the approved Construction Plans and performance bond shall be forwarded to the Planning Commission for approval. Land development activity may begin upon approval of the agreement and establishment of the required bond.

2-107.5 Dispute Resolution

In the event a dispute should arise concerning interpretation or application of these regulations to the information contained within Construction Plans, the Planning Commission shall act to resolve such dispute. The Development Plan shall present written recommendations and the applicant shall be afforded an opportunity to present supporting data and information with regard to the specific disputed issue. The Planning Commission shall act to decide the issue and its action shall be final, subject to legal review.

2-108 FINAL SUBDIVISION PLANS

2-108.1 Purpose of Final Plan

The purpose of a Final Plan is threefold. First, such plan provides the legal instrument whereby ownership of lots may be transferred. Secondly, Final Plans constitute a means

whereby the person subdividing property may offer streets and other infrastructure for acceptance and maintenance by the public. Thirdly, the accompanying Covenants, Conditions and Restrictions and other legally binding commitments associated with such plan become a matter of public record upon filing of the plan.

2-108.2 Application Procedure and Requirements

The applicant shall file with the Enforcing Officer an application for approval of a Final Plan. The Final Plan application shall:

1. Contain such information as described in Section 5-105.
2. Be made on application forms available from the Enforcing Officer.
3. Include the entire subdivision, or section thereof, for which final approval is sought.
4. Be a reproducible record plat the size, material, and inking of which shall be as specified by the Register of Deeds. When more than one sheet is required, an index sheet of the same size shall be filed showing the entire subdivision with the sheets numbered in sequence. Any shading placed on the plat face to add clarity shall not cover any words or figures.
5. Except for minor adjustments for field conditions, comply with the approved Development Plan in street locations, drainage design and the number of lots.
6. Be presented to the Enforcing Officer at least fifteen (15) days prior to the regular meeting of the Commission at which the Final Plan is to be considered. No application shall be deemed filed unless all requirements have been met and all fees paid in full.
7. Be accompanied by formal irrevocable offers of dedication to the public of all public ways and uses, utilities, parks, and easements, in a form approved by legal counsel, as applicable. (The Final Plan shall be marked with a notation indicating the formal offers of dedication as required by Subsection 5-105.6, Formal Irrevocable Offers of Dedication, of these regulations.)
8. Be accompanied by written assurance from any utility companies serving the area of the subdivision that necessary utilities will be installed as required by the Planning Commission upon approval of the Development Plan.
9. Be accompanied by final drafts of Covenants, Conditions and Restrictions proposed by the applicant.
10. Be accompanied, if the Final Plan contains jointly held open space, recreational facilities, or any portion of the site that is held in common ownership, by the following documentation for approval by the Planning Commission.

- (a) Final Open Space and Management Plan containing the information required by Subsection 5-105.4, Final Open Space Ownership and Management Plan; and
- (b) Final Community Association Documents in accordance with Subsection 5-105.5, Final Community Association Documents.

2-108.3 Staff Review

The Enforcing Officer shall initiate a review of the Final Plan and any exhibits submitted in conformance with these regulations. The review shall be performed by the Enforcing Officer or the Enforcing Officer may send it to the Development Review Committee. The review shall be conducted in accordance with the published review schedule.

2-108.4 Hearing and Decision on Final Plan

The Planning Commission shall hold a hearing as required by Section 13-3-404, Tennessee Code, on each Final Plan brought before it. The Planning Commission within sixty (60) days after submission shall approve, modify, or disapprove the Final Plan. In any instance where special conditions are attached to any plan approval, the Commission shall set forth in detail such conditions. If a Final Plan is disapproved specific reasons for such action shall be noted in the minutes of the meeting where such action is taken.

Failure of the Planning Commission to act upon a Final Plan within the prescribed time shall be deemed approval of the plan, and in such event, a certificate of approval, entitling the applicant to proceed shall be issued, upon demand, by the Secretary of the Planning Commission. The applicant, however, may agree to an extension of the time for Planning Commission review. One (1) copy of the Final Plan shall be returned to the applicant with the date of approval, conditional approval, or disapproval noted thereon.

2-108.5 Notations and Certifications

The notations and certifications required by Subsection 5-105.303, Plat Notations, of these regulations, to appear upon the Final Plat shall be endorsed by appropriate officials and other persons prior to Final Plan approval except that the certificate of Planning Commission approval shall be signed at the time specified in Subsection 2-108.6.

2-108.6 Signing of Final Subdivision Plats and Recording of Final Subdivision Plans

2-108.601 Signing of Plat

1. "When a performance bond is required, the Secretary of the Planning Commission shall endorse approval on the Final Plat after the Planning Commission has approved the development agreement and accompanying bond.
2. "When installation of improvements is required prior to signing of the Final Plat, the Secretary of the Planning Commission shall endorse approval on the Final Plat after all conditions of the resolution of approval have been satisfied and all improvements satisfactorily completed. There shall be written evidence that the required public facilities have been installed in a

manner satisfactory to the accepting body as shown on certifications by the appropriate governmental representative(s) and that necessary land dedications and improvements have been accomplished.

3. When the conditions of this section are satisfied, the Secretary may sign the permanent reproducible original of the Final Plat.

2-108.602 Recording of Plan

It shall be the responsibility of the property owner to obtain the required signatures and to file the Final Plan in the county register's office within two (2) years of the date of final approval by the Planning Commission. When the Final Plan is filed, the property owner shall simultaneously record the agreement of dedication together with such legal documents as the Town Attorney shall require to be recorded. Any plan not filed within the time period set forth herein shall be considered null and void. In the event such Final Plan is not filed in a timely manner and becomes null and void the applicant shall be required to submit new plans of subdivision and obtain approval of such plans subject to any new zoning restrictions and/or subdivision regulations.

2-108.603 Plan Void if Revised after Approval

No changes, erasures, modifications, or revisions shall be made in any Final Plan after approval has been given by the Planning Commission and endorsed in writing on the plat, unless the said plan is first resubmitted to the Planning Commission and such Commission approves any modifications. In the event that any such Final Plan is recorded without complying with this requirement, the same shall be considered null and void, and the Commission shall institute proceedings to have the plan stricken from the records of the County Register.

2-108.604 Sectionalizing of Major Subdivisions

When sectioning is approved within a Development Plan, a Final Plan may be approved in two (2) or more sections and may impose such conditions upon the filing of each section as it may deem necessary to assure the orderly development of the subdivision. The Planning Commission shall require that appropriate development agreements and surety instruments guaranteeing the performance of such agreements, be in such amount as is commensurate with the section or sections of the Final Plan to be filed and may defer the remaining required principal amount of such surety until the remaining sections of the plan are offered for filing. Where certain improvements are in the opinion of the Planning Commission necessary to facilitate traffic movement, water distribution, sewer collection, stormwater drainage, detention and conveyance and any other infrastructure within future sections of a development the Commission may require that such systems be constructed as part of any section of a subdivision.

2-109 REQUIREMENT FOR IMPROVEMENTS.

2-109.1 Basic Requirement

The Planning Commission may require that all improvements be installed and dedicated prior to the signing of the final plat by the Secretary of the Planning Commission. If the Planning Commission does not require that all public improvements be installed and dedicated prior to signing of such plan, adequate performance bonds must be approved. The amount of any bond shall be established by the Enforcing Officer based upon the recommendations of the Development Review Committee. The Enforcing Officer shall require the applicant to indicate on the final plat all streets and public improvements to be dedicated or reserved; and

any other special requirements deemed necessary by the Enforcing Officer in order for the subdivision

plat to conform to the Major Street Plan, the Town Development Plan and the most recent, detailed plan(s) adopted by the Planning Commission.

2-109.2 Authorization to Construct Improvements

Construction may proceed following approval of a Development Plan by the Planning Commission and, when improvements are to be constructed as a result of such approval, approval of Construction Plans and accompanying Development Agreement as required by Subsection 2-107.4, Preparation of Development Agreement.

2-109.3 Construction of Improvements.

Construction shall be completed to the approved Construction Plans, construction specifications, and construction inspection requirements of the applicable department and agencies. Inspections during the construction process shall meet the requirements of Subsection 2-109.4, Construction Inspection Procedures. If construction has not started for a subdivision phase within two (2) years of the date of approval of Construction Plans, such plans shall be resubmitted to the applicable departments or agencies for re-approval.

2-109.4 Construction Inspection Procedures

2-109.401 Inspections During Construction

All infrastructure construction is to be completed as described in the approved Construction Plans, construction specifications, and Development Agreement.

2-109.402 Pre-Construction Conference Required

A pre-construction conference will be held with the Enforcing Officer prior to the start of construction on each project. At the pre-construction conference, the contractor and owner shall sign documentation acknowledging construction and inspection requirements.

2-109.403 Inspection Schedule

The contractor shall give twenty-four (24) hours notification to the applicable departments or agencies prior to beginning work on each phase of construction. All completed work shall be inspected and approved. Failure to obtain the required inspections and approvals may require work to be removed, certifications and testing by a licensed geotechnical engineering firm to be provided or any future acceptance by the applicable department or agency to be jeopardized.

2-109.5 Modification of Design Improvements

If at any time before or during the construction of the required improvements it is demonstrated to the satisfaction of the Town Engineer that unforeseen conditions make it

necessary or preferable to modify the location or design of such required improvements, the Town Engineer may, upon approval by a previously delegated member of the Planning Commission, authorize modifications, provided these modifications are within the spirit and intent of the Planning Commission's approval and do not extend to the waiver or substantial alteration of the function of any improvements required by the Commission. The Town Engineer shall issue any authorization under this section in writing and shall transmit a copy of such authorization to the Planning Commission at their next regular meeting. No change shall be implemented and no construction associated therewith shall be initiated until revised Construction Plans have been submitted to the office of the Enforcing Officer and approved so as to reflect the proposed change.

2-109.6 Proper Installation of Improvements

If the Town Engineer shall find, upon inspection of improvements performed before the expiration date of the performance bond, that any of the required improvements have not been constructed in accordance with the plans and specifications filed by the subdivider, he shall so report to the governing body and Planning Commission. The governing body shall then notify the subdivider and, if necessary, the bonding company, and take all necessary steps to preserve the Town's rights under the bond. No plat shall be approved by the Planning Commission as long as the subdivider is in default on a previously approved plan.

2-109.7 "As Built" Drawings Necessary

The required improvements shall not be considered to be completed until the installation of the improvements has been approved by the Town Engineer and a map satisfactory to the Planning Commission has been submitted, indicating the actual location of all required improvements and monuments marking all underground utilities as actually installed. If the subdivider completes all required improvements then said map shall be submitted prior to endorsement of the Final Plan by the Secretary of the Planning Commission. However, if the subdivider elects to provide a bond or other surety satisfactory to the Planning Commission, for all required improvements as specified, such surety shall not be released until such map is submitted.

2-109.8 Completion and Maintenance of Improvements

2-109.801 Streets Designated as Construction Routes

Permanent streets designated as construction routes within a subdivision shall be maintained for a time period specified in the Dedication Agreement submitted in accordance with the offer for street dedication.

2-109.802 Other Streets

Streets other than those designated as construction routes shall be maintained as provided herein. Generally, the final paving course shall not be applied until seventy-five (75) percent of the houses fronting along a street are completed. However, when an undue hardship is created by disallowing the final paving of a street prior to construction of seventy-five (75) percent, but not less than fifty (50) percent, of the houses fronting along a street, the enforcing officer may permit formal paving to occur and the Town may allow the subsequent release of the performance bond provided a maintenance bond is substituted, therefor. The maintenance bond may be released after a period of one (1) year or when at least seventy-five (75)

percent of the houses fronting along a street have been satisfactorily completed, inspected and released by the inspecting departments. The maintenance bond shall be in an amount and for a term as recommended by the Town and shall be posted in conformance with the procedures presented in Article III, of these regulations.

2-110 MISCELLANEOUS PLATTING SITUATIONS

2-110.1 Combination of Two (2) or More Lots

Any number of lots may be combined into an equal or lesser number of lots by submittal of a Final Plan, as described in Section 2-108, FINAL SUBDIVISION PLANS. The Final Plan shall show the original lot lines as dash lines and proposed lot lines as solid lines. Combining lots shall require an approval process as set forth herein based on the initial number of lots and manner of conveyance. Any lots resulting from such recombination shall meet all applicable regulations.

2-110.2 Shifting Lot Lines

Shifting of lot lines is subject to the same procedures as described in Subsection 2-110.1. Shifting of lot lines within a Planned Unit Development shall require submittal of a document showing approval by the Homeowners' Association.

2-110.3 Dedication of Right-of-way, Public Use Lands, or Easements

The dedication of land or use of land for public purposes may be accomplished by one of the following methods, both of which require Planning Commission approval:

2-110.301 Dedication by Plat

A reproducible plat shall be prepared depicting the area to be dedicated by lines and survey description. The location of surrounding property lines, streets and public utilities shall be shown for reference. The placing of monuments and the location of such shall be shown on the plat. Signatory data shall also be included in the same manner as for a final plat. If the dedication is for a street right-of-way that, by the location of the dedication area, would divide a tract into two parcels, the plan shall be created as a Final Subdivision Plan in conformance with Section 2-108.

2-110.302 Dedication by Written Document (Deed or Instrument)

A written document in the form acceptable to the Town Attorney may be used for dedications in lieu of a plat. The document shall contain the following minimum information:

- Statement of purpose for the dedication
- A narrative survey description of the area to be dedicated
- Conditions, if any imposed by Grantor
- The document shall contain the same signatory data as required for a final subdivision plat.

ARTICLE III

ASSURANCE FOR COMPLETION AND MAINTENANCE OF IMPROVEMENTS

SECTIONS

- 3-101 The Development Agreement Bonding
- 3-102 and Recording of Final Plats Bond
- 3-103 Standards and Requirements
- 3-104 Completion of Improvements
- 3-105 Release or Reduction of Reclamation or Performance Bond
- 3-106 Acceptance of Dedication Offers
- 3-107 Deferral or Waiver of Required Improvements
- 3-108 Issuance of Building Permits and Certificates of Occupancy

3-101 THE DEVELOPMENT AGREEMENT

A completed "Development Agreement" shall have been prepared and executed prior to initiation of any "land development activity" within any development to which these regulations are applicable. A draft development agreement shall be prepared following approval of the Construction Plans. The draft agreement shall reference the design incorporated within the approved Construction Plans and shall be sufficient in form to assure that proposed construction methods and materials meet or exceed minimum established standards. The draft development agreement and an estimate of the amount of bond (as established by the Town Engineer) shall be sent to the applicant for approval. Development activity may begin upon acceptance of the development agreement by the applicant and acceptance of the required bond by the Planning Commission.

3-102 BONDING AND RECORDING OF FINAL PLANS

3-102.1 Construction Prior to Recording Final Plan

When the developer desires to proceed with construction of a portion or all of the required improvements prior to recording the Final Plat, a development agreement conforming with the terms of these regulations shall be executed and a reclamation bond shall be provided in an amount determined by the Town Engineer to be sufficient to reclaim the property in the event the developer or the bonding company do not complete the required improvements. Such reclamation is to include filling trenches, closing off streets, performing drainage work, re-seeding and other actions necessary to make the property safe and to remedy any nuisance, such as soil erosion, the property may be causing to surrounding property owners or the public in general.

After completion of a portion of the required improvements, the developer may elect to replace the reclamation bond with a performance bond as specified in Section 3-104, COMPLETION OF IMPROVEMENTS, which will guarantee completion of the remaining required improvements. Under such terms, the Town shall record the approved Final Plan, thereby allowing the sale of lots and issuance of building permits.

3-102.2 Recording of Final Plat Prior to Construction

When the applicant wishes to record a Final Plan prior to completion of required improvements, the applicant shall provide a performance bond conforming to Section 3-103, BOND STANDARDS AND REQUIREMENTS, guaranteeing the installation of such improvements. The amount and form of such bond shall in all regards be sufficient to guarantee to the governing body or other agency ultimately responsible for acceptance of the facilities, satisfactory construction, installation, and dedication, free and clear of any encumbrances, of the incomplete portion of required improvements.

3-103 BOND STANDARDS AND REQUIREMENTS

3-103.1 General

In order to insure that the work will be completed in accordance with approved plans and specifications, all improvements proposed in conjunction with any subdivision must be covered by adequate bond unless such work is to be totally completed prior to filing of any Final Plan for any portion of the development site. When the work is to be completed prior to filing of a Final Plan, the amount of such bond shall be sufficient to insure that the building site may be stabilized in the event of the failure of the applicant to complete the work

3-103.2 Amount of Bond

The applicant shall post good and sufficient bond with the Planning Commission in the amount of one hundred-twenty-five (125)/percent of the Town Engineer's estimate of cost to assure completion of the work Good and sufficient surety shall include the types of bond specified in Subsection 3-103.3, Types of Bond. Each bond shall be accompanied by a "Development Agreement", as found in Section 3-101, TI-IE DEVELOPMENT AGREEMENT, whereby the applicant agrees to make and install the improvements in accordance with the approved plans and specifications.

3-103.3 Types of Bond

Subject to the standards and requirements of this Article and acceptance by the Planning Commission, the following types of bond may be accepted for purposes of guaranteeing completion of improvements required by the regulations:

- Irrevocable Standby Letter of Credit.
- Cash Escrow or bank assignment of certificates of deposit with a federally insured bank having assets of at least \$100 million.
- Surety or performance bond.

3-103.301 Irrevocable Standby Letters of Credit

An irrevocable standby letter of credit may be utilized as the means of providing bond for improvements required under the various provisions of these regulations. Any letter of credit shall be drafted so as to represent an obligation of the financial institution to the Town and not an obligation to the permittee. All Letters of Credit, and each provision thereof, shall be governed and construed in accordance with the Uniform Customs and Practice for Documentary Credits (1983 Revision and subsequent revisions), International Chamber of Commerce, Publication 400 and

Sections 47-5-101 through 47-5-118, Tennessee Code. Such letters shall be for one (1) year and shall be automatically renewable for successive one (1) year periods without any effort on the part of the Town. They shall be renewed until released by the Town. However, said letters may be revoked after giving the Town written notice with ninety (90) days opportunity to cash the letter. Such notice shall be by certified mail, return receipt requested.

3-103.302 Escrow Deposits for Improvements

a. Acceptance of Escrow Funds

The term "Cash Escrow" as used in these regulations refers to two types of performance guarantees, cash escrows and bank assignment of funds. In the case of either cash or other near cash (i.e., certificates of deposit) guarantees, all funds shall be maintained in accounts that are beyond the reach of the developer and subject to an escrow agreement.

b. Procedures on Escrow Fund

All escrows shall be held by the Town, kept in its bank accounts, and totally under control of the Town. A detailed "Escrow Agreement" shall be prepared and appropriately endorsed by all parties to such agreement at the time of creation of any escrow account. The developer's tax identification shall be used for the escrow and the developer shall be responsible for paying tax on any interest credited to the escrow account.

3-103.303 Performance Bonds

A performance bond may be used as the means of providing bond for improvements required under the various provisions of these Regulations. In no instance shall any performance bond be accepted as a guarantee unless a "Development Agreement" required by the provisions of Section 3-101, DEVELOPMENT AGREEMENT, accompanies such bond. Such agreement shall detail the specific nature and estimated cost of all improvements. All performance bonds shall provide a location within Cheatham County or a county adjoining Cheatham County where such bond(s) may be drawn upon. All performance bonds shall be drafted so that the only requirement for the Town to draw upon such bond is to notify the financial institution (grantor) that:

"We have incurred liability by reason of the failure of the applicant/developer/owner to complete the construction of their project _____

[insert name of subdivision and plans]

in accordance with the definitive subdivision plans and development agreement and the rules and regulations governing the subdivision of land within the Kingston Springs, Tennessee Planning Region." The amount drawn, which may be more than required to complete the project, will be held in a segregated bank account until the work can be bid competitively and the bid awarded and paid for or until the contract for the work is, otherwise, let and the work paid for. Any excess over the cost of completing the work will be returned to the grantor."

3-104 COMPLETION OF IMPROVEMENTS

Generally, the final paving course shall not be applied until seventy-five (75) percent of the houses in the subdivision, or phase thereof, fronting along a street are completed. Where maintenance, safety or an unforeseen problem is created by the absence of the final paving course; paving may be allowed of a street prior to construction of seventy-five (75) percent, but not less than fifty (50) percent, of the houses fronting along a street. The Town may permit final paving to occur and the Town Engineer may allow subsequent reduction of the performance bond to an amount sufficient to guarantee maintenance of the streets as specified below. The Town Engineer may permit the maintenance bond to be renewed if additional time is needed to complete further build out of the subdivision. The Town Engineer may require that the final paving course be applied one (1) year or longer after the date of the issuance of the first Use and Occupancy Permit in said subdivision or phase thereof regardless of the number of houses built. Under no circumstances shall final paving occur until all utility installations, including service lines to individual lots, are complete.

3-104.1 Failure to Complete Improvements

In those cases where development agreements have been established, surety instruments have been posted and required improvements have not been installed within the terms of such agreements, the Planning Commission, thereupon, may declare the surety to be in default and require that all the improvements be installed regardless of the extent of the building development at the time the bond is declared to be in default. If the improvements are not completed within the time period specified, including any extension thereof, no additional building permits shall be issued for any lot or portion of such property until such facilities are completed to the satisfaction of the governing body. The applicant and the financial institution issuing the bond shall be severally and jointly responsible for completing said improvements according to specifications.

3-104.2 Maintenance of Improvements

The applicant shall be required to maintain all improvements for one (1) year after acceptance of the public improvements by the governing authority. Additionally, the applicant shall be required to file a maintenance/warranty bond with the governing body prior to dedication. This bond is established for purposes of assuring the quality of the materials and construction of such facilities. Such bond shall be in an amount considered adequate by the Town Engineer to assure satisfactory condition of the required improvements. In no event, will this bond be set below an amount equal to ten (10) percent of the estimated original cost of such improvements.

3-104.3 Inspection of Improvements

The Town may provide for inspection of required improvements during construction. If the appropriate governmental representative finds upon inspection that any of the required improvements have not been constructed in accordance with the accepting body's construction standards and specifications, the applicant shall be responsible for completing such improvements to the required standards. The fact that the Town inspects the facilities in no way relieves the developer from designing or installing such facilities in accordance with the provisions of these regulations and the established development agreement.

3-105 RELEASE OR REDUCTION OF RECLAMATION OR PERFORMANCE BOND

3-105.1 Certificate of Satisfactory Completion

Prior to release of any performance surety the engineer in charge of construction of such improvements shall be required to certify that such improvements have been installed in accordance with provisions of these regulations, the completed development agreement and the approved Construction Plans and specifications. Upon receipt of such certification and recommendations from the Planning Commission, the governing body may accept the dedicated improvements in accordance with the procedures set forth in Section 3-106, ACCEPTANCE OF DEDICATION OFFERS, of these regulations.

3-105.2 Reduction of Performance Bonds

The surety instruments guaranteeing installation of improvements may be reduced upon completion of the base asphalt and again upon completion, dedication and acceptance of such improvements and then only to the ratio that the cost of the public improvements dedicated bears to the total cost of public improvements included in said plan. In no event shall a performance bond be reduced below fifteen (15) percent of the principal amount prior to final acceptance of all items covered under such instrument.

3-106 ACCEPTANCE OF DEDICATION OFFERS

Acceptance of offers of dedication of improvements for public maintenance shall be by action of the governing body. Such action shall be in the form of a resolution recommended by the Planning Commission to the accepting body. Approval by the Planning Commission of a subdivision plan shall not be deemed to constitute or imply an acceptance by the local government or other agency ultimately responsible for acceptance of the facilities of any public way easement or other ground shown on the plan. The Planning Commission may require the plan to be endorsed with appropriate notes to this effect.

3-107 DEFERRAL OR WAIVER OF REQUIRED IMPROVEMENTS

The Planning Commission may defer or waive at the time of Final Plan approval, subject to appropriate conditions, the provision of any or all such improvements as, in its Judgment, are not requisite in the interest of the public health, safety, and general welfare, or which are inappropriate, because of inadequacy or lack of connecting facilities. Whenever it is deemed necessary by the Planning Commission to defer construction of any improvement required herein because of incompatible grades, future planning, inadequate or lack of connecting facilities, or other reasons, the developer shall either pay his share of the costs of the future improvements to the governing body prior to signing of the Final Subdivision Plat or post a bond ensuring completion of said improvements.

3-108 ISSUANCE OF BUILDING PERMITS AND CERTIFICATES OF OCCUPANCY

Where development agreements and surety instruments have been required for a subdivision, or any section of a subdivision, and such are determined to be in default, no building permit or certificate of occupancy shall be issued for any building in the subdivision or any affected section thereof prior to completion and dedication of the improvements to the appropriate governmental unit, as required in the Planning Commission resolution of approval of the Final Subdivision Plan. The extent of public way improvements shall be adequate for vehicular access by the prospective occupant and by police and fire equipment prior to the issuance of a building permit.

No building permit shall be issued for the final ten (10) percent of lots in a subdivision, or if ten (10) percent is less than two (2) lots, for the final two (2) lots of a subdivision, until all public improvements required by the Planning Commission's resolution of final plan approval have been fully completed, dedicated, and accepted by the governing body.

ARTICLE IV

GENERAL REQUIREMENTS AND DESIGN STANDARDS

SECTIONS

- 4-101 General Requirements
- 4-102 General Lot Requirements
- 4-103 Requirements for Dedications, Reservations and Improvements
- 4-104 Requirements for Pedestrian Ways
- 4-105 Streets
- 4-106 Street Design Standards
- 4-107 Street Name, Regulatory and Warning Signs
- 4-108 Private Streets
- 4-109 Blocks
- 4-110 Lot Requirements
- 4-111 Open Space Requirements
- 4-112 Reservations and Easements
- 4-113 Drainage and Storm Sewers
- 4-114 Water Facilities
- 4-115 Sewage Facilities
- 4-116 Public Uses
- 4-117 Nonresidential Subdivisions

4-101 GENERAL REQUIREMENTS

4-101.1 Compliance

Unless otherwise specified in these regulations, all subdivisions shall comply with the requirements of this Article.

4-101.2 Conformance to Applicable Rules and Regulations

In addition to the requirements established herein, all subdivision plans shall comply with all applicable laws, ordinances, resolutions, rules, or regulations, including, but not limited to:

1. All applicable provisions of Tennessee Law, regulations, or policy;
2. All applicable provisions of the zoning ordinance, any building and housing codes, and all other applicable laws or policies of the governing body;
3. The adopted Town Development Plan and Major Street (thoroughfare) Plan;
4. The rules of the County Health Department and the Tennessee Department of Environment and Conservation;
5. The rules, as applicable, of the Federal Highway Administration or Tennessee Department of Transportation, if the subdivision or any lot contained therein abuts a non-local highway; and
6. The standards and regulations adopted by all other boards, commissions, and agencies of the governing body, where applicable.

Plan approval may be withheld if a subdivision is not in conformity with the above rules or with provisions set forth in Section 1-104, POLICY AND PURPOSE, of these regulations.

4-101.3 Self- Imposed Restrictions

If the owner places restrictions on any of the land contained in the subdivision greater than those required by any zoning ordinance or these regulations, such restrictions or reference thereto shall be required to be recorded along with the final subdivision plat with the County Register on a separate form.

4-101.4 Debris and Waste

No cuts trees, timber, debris, earth, rocks, stones, soil, junk, rubbish, or other waste materials of any kind shall be buried in any land or left or deposited on any lot or street at the time of the issuance of a certificate of occupancy for the lot, and removal of such waste shall be required prior to issuance of any certificate of occupancy. Nor shall any such waste be left nor deposited in any area of the subdivision at the time of expiration of the performance bond or dedication of public improvements, whichever is sooner.

4-101.5 Fencing

Each subdivider or developer shall be required to furnish and install all fences wherever the Planning Commission determines that a hazardous condition may exist. Such fences shall be constructed according to standards established by the Planning Commission, as appropriate, and shall be noted as to height and material on the final plat. No certificate of occupancy shall be issued until such fence improvements have been installed.

4-102 GENERAL LOT REQUIREMENTS

4-102.1 Suitability of the Land

Land which the Planning Commission finds to be unsuitable for subdivision or development due to flooding as shown on FEMA maps, steep slopes as shown on topographical maps, rock formations, problem soils, sinkholes, other adverse earth formations or topography, utility easements, or other features which may be harmful to the safety, health, and general welfare of inhabitants of the land and surrounding areas shall not be subdivided or developed unless adequate methods to solve the problems created by the unsuitable land conditions are formulated by the developer and approved by the Planning Commission. Additional technical evaluation, plans, and analyst of a proposed subdivision by a professional engineer specializing in geotechnical evaluations, soils, hydrology, and/ or structures may be required.

4-102.2 Critical Lots

When a proposed lot contains natural or manmade features that affect the feasibility of construction, it shall be designated a critical lot during the conceptual plan or partition review process and subsequent subdivision submittals.

1. A lot shall be designated critical when the lot is created on a natural slope of twenty (20) percent or greater or when it contains natural floodplain.

2. A lot may be designated critical on the basis of any other lot feature(s) that affects the feasibility of construction as listed in Subsection 4-102.1.
3. Lots on steep slopes shall be subject to the hillside development standards of Subsection 3.140.1, C, Hillside Development Standards, of the Zoning Ordinance.
4. Lots in floodplains shall be subject to the floodplain/floodway development standards of Subsection 3.140.1, D, Development Standards for Flood Hazard Areas, of the Zoning Ordinance.
5. Lots with problem soils shall be subject to the development requirements of Subsection 3.140.1, E, Development Standards for Areas of Problem Soil, of the Zoning Ordinance.
6. A star symbol shall be used to identify critical lots on the face of the conceptual plan, development plan, and final plat.

4-102.3 New Critical Lots

Any lot that will be created as a result of the grading process that meets the definition of a critical lot, shall also be identified as such on the final plat, and shall be subject to the applicable development standards of Subsections 4-102.9, Grade Changing, and 4-102.10, Grade Changing Devices.

4-102.4 Prior to Conceptual Plan Approval

Prior to approval of a Conceptual Plan for a subdivision that includes lots designated as critical; the applicant shall provide the Enforcing Officer with a preliminary grading study and a description of the measures to be taken:

1. To protect the natural features of the critical lots.
2. To minimize changes in grade, cleared area, and volume of cut or fill, and to control adverse impacts on the critical lots during and following the period of site disturbance.
3. To align streets to minimize disturbance of slopes.
4. To identify easements along property lines to meet future drainage needs.

4-102.5 Critical Lot Plan Required

Prior to application for a building permit on a lot designated as critical, a plan shall be submitted to the Enforcing Officer for approval as described in Appendix B. The Enforcing Officer may direct a critical lot plan to the Planning Commission for decision.

4-102.6 Conformity to Major Street Plan and Town Development Plan

Subdivisions shall conform to the adopted Major Street Plan and the Town Comprehensive Plan.

4-102.7 Preservation of Natural Cover

Land to be subdivided shall be laid out and improved in reasonable conformity to existing topography, in order to minimize grading, cut and fill, and to retain, insofar as possible, the natural contours, limit storm water runoff, and conserve the natural cover and soil. No topsoil shall be removed from any lots shown on any subdivision plat, except for the purpose of improving such lots and for the layout out of streets shown thereon. Topsoil so removed shall be restored on areas of such lots not occupied by buildings or structures.

4-102.8 Preservation of Existing Features

Existing features which would enhance the attractiveness of the site or the community as a whole, such as meadows, fields, woodlands, hedgerows, individual trees, watercourses, ponds, wetlands, vernal pools, stone walls, historic buildings or sites, scenic viewsheds (into the property) and vistas (from the property), and similar irreplaceable assets, shall be preserved insofar as possible through harmonious design of the subdivision.

4-102.9 Grade Changing

Where grade changing is required in any subdivision, contour grading techniques shall be used, where practicable, to provide a natural-appearing transition between grades. The angle of any graded slope shall be gradually transitioned to the angle of the natural terrain. Slopes of thirty-three (33) percent or less may contain turf but, wherever practicable, vegetation other than turf that increases the natural appearance shall be used. All vegetated embankments shall have a check swale at the top. No reinforced embankment shall exceed sixty-six (66) percent.

4-102.10 Grade Changing Devices

Where development of the land requires grade-changing devices such as retaining walls, they shall be designated on the preliminary grading study and a description, including illustrations, of each device shall be included. For interlocking walls, vines and groundcover to provide a more natural finish to coarse walls is encouraged. Grade changing devices shall:

1. Avoid obstructing driveway connections between building lots for non residential development.
2. Avoid creating precipitous grade changes, including through the use of retaining walls, that could result in safety hazard(s) to occupants of the development or to the general public.
3. Generally limit the height retaining walls in or abutting residential development. Excessive grade changes shall be managed with terraces formed by a series of low retaining walls or by a combination of contoured slopes and low retaining wall(s).

4-102.11 Monuments

Permanent reference monuments of non-degradable material shall be placed in all subdivisions where new streets are to be constructed. All monuments shall be placed on property comers or referenced to property lines or street alignments. Certification by a licensed surveyor of placement of monuments shall be required. Monuments will generally not be required within minor subdivisions (as defined by these regulations) when the

subdivision occurs along existing streets. The Planning Commission retains the right, however, to require monuments within minor subdivisions where flooding or other extraordinary conditions are found to exist. Monuments shall be located and set as follows:

1. Control Monuments

At the discretion of the Enforcing Officer, a minimum of three (3) permanent control monuments, containing both vertical and horizontal data, shall be located within each subdivision where new streets are to be constructed. Such monuments shall be constructed of concrete not less than thirty (30) inches in length; or less than four (4) inches square or five (5) inches in diameter; and marked on top with a cross, brass plug, iron rod, or other durable material securely embedded. Iron Bar Monuments may be used and shall be no less than five-eighths (5/8) inch in diameter and not less than twenty-four (24) inches in length. Both shall have a permanent metal cap with a minimum diameter of two and one-half (2 1/2) inches with the Land Surveyor's name and license number. Monuments shall have horizontal coordinates and vertical elevations shown on the final plan. Reference notes (field ties) defining magnetic bearings and distances to the nearest established street line or official benchmark shall be accurately described on the plan. All control monuments shall be located within dedicated right-of-way along curve points or lot lines and within line of sight of one another. All horizontal and vertical data shall be referenced to TN NAVD83 4100 State Plan Coordinates and North American Vertical Datum 1988 (NAVD88) or current acceptable equivalent. These monuments are to be placed near the entrance to the subdivision and, if possible within a non-fill area or be affixed to natural rock outcrops. The location of all control monuments shall be described on the final plan with words and symbols that facilitate locating them at the site.

2. Internal Monuments and Lot Pins

One (1) internal monument for each four (4) lots located within the subdivision shall be placed within line of sight of one another. Such monuments shall be placed within dedicated right-of-way, when possible, and shall be located within non-fill areas or affixed to rock natural outcrops. An internal monument shall be constructed to the same standards as a control monument minus the elevation data. In all subdivisions, lot comers and all lot line breaks shall be staked by iron rods, pipes, or pins at least eighteen (18) inches long and five-eighths (5/8) inch in diameter. Placement of iron pins under sidewalks should be avoided.

3. Along Rivers and Streams

The lines of lots that extend to rivers or streams shall be monumental in the field by iron pins at least eighteen (18) inches long and five-eighths (5/8) inch in diameter or by round or square iron bars at least eighteen (18) inches long. Such pins shall be placed at the point of intersection of the river or stream and lot line, with a meander line established not more than forty (40) feet back from the bank of the river or stream. At the discretion of the Planning Commission, a control monument meeting the specifications of Subpart 1, above, may be required upon any lot affected by the 100-year floodplain of any stream.

4-102.12 Driveways / Access to Lots

4.102.1201 Minimum Separation Between Residential Driveways

For each permitted residential driveway there shall be a corresponding minimum road frontage of:

- a. at least two hundred (200) feet along routes designated in the Major Thoroughfare Plan as rural arterial highways and six (6) lane urban arterial highways; and
- b. at least one hundred fifty (150) feet along routes designated in the Major Thoroughfare Plan as five (5) lane and three (3) lane urban arterial highways; and
- c. at least one hundred (100) feet along routes designated in the Major Thoroughfare Plan as four (4) lane urban arterial highways; and two (2) lane collector routes.

There shall be not more than one (1) driveway for all other residential lots except circular driveways shall be permitted.

4-102.1202 Minimum Corner Clearance

The minimum corner clearance between proposed new non-residential driveways shall be two hundred-eighty (280) feet for streets designated as "local access" and three hundred-thirty-five (335) feet for streets designated as "secondary and primary collector" streets. In order to ensure adequate storage space for vehicles stopped at a signalized intersection, the Town Engineer may require additional corner clearance. All residential driveways shall be a minimum of fifty (50) feet from the nearest point of curvature.

4-102.1203 Design Standards for Nonresidential Driveways

For access to thoroughfares where the posted speed limit is 35 mph or less, all nonresidential driveways shall be constructed with a minimum horizontal width of twenty-five (25) feet. All drives serving nonresidential property shall be paved with concrete or an asphalt surface. Lanes shall be clearly designated and lane uses shall be clearly and permanently marked. The minimum separation from an intersection and between drives shall be two hundred (200) feet along places and three hundred-thirty-five (335) along all other streets.

Where the posted speed limit is 45 mph or greater, nonresidential driveways shall be constructed with a right turn deceleration lane.

The Town Engineer will review proposed driveway designs for access to other thoroughfares on a case by case basis.

The centerline of every nonresidential two (2) way driveway shall intersect the centerline of the public way at an angle between seventy-five (75) and ninety (90) degrees.

For other nonresidential driveways, the intersection angle shall be subject to the approval of the Planning Commission

4-102.1204 Design Standards for Residential Driveways

Where permitted, residential driveways fronting collector and arterial routes designated in the Major Street Plan shall be designed so as to avoid requiring vehicles to back onto these highways. Any driveway should be constructed in a manner such that the drive has a maximum slope of eight (8) percent for the first fifteen (15) feet (measured from the back of the Town approved sidewalk). Driveways greater than eight (8) percent slope shall be reviewed and approved by the Town Engineer prior to a building permit being issued. In no case shall the driveway slope exceed ten (10) percent in the first fifteen (15) feet from the street. Where the potential exists for gravel or soil to be washed from a driveway onto the public right-of-way such driveways shall be paved or otherwise stabilized for a distance sufficient to prevent material from migrating onto public property.

4-103 REQUIREMENTS FOR DEDICATIONS, RESERVATIONS, OR IMPROVEMENTS

Where a proposed subdivision adjoins or encompasses either a substandard street, or a route depicted upon the Major Street Plan that is to be opened, widened or realigned, the following shall apply.

4-1.03.1 Undeveloped Property

4-103.101 Substandard Streets

Substandard streets encompassed by or adjacent to the proposed subdivision shall be improved by the developer in accordance with the minimum standards set forth in Table 4-1, General Design Standards for Streets, for the portion of such street that is located within the boundaries of the subdivision or the abutting street half.

4-103.102 Planned Routing

When applicable, the layout of a street(s) within a subdivision shall conform to the routing depicted upon the Major Street Plan. The amount of right-of-way for the required street type shall be dedicated up to a maximum of that required for construction of "collector" routes. Where any street so depicted requires a right-of-way greater than that required for construction of a collector route, the developer shall show on the face of the Final Plan an additional area "reserved for future right-of-way" and any required yard area shall be measured from such reservation line.

Regardless of the proposed width or functional character of the planned streets adjacent to or encompassed by a proposed subdivision, the developer will not be required, (except as may be necessitated as a result of an approved traffic impact study), to improve or construct any street greater than that of a "collector street" as defined and depicted in these regulations.

4-103.103 Developed Property

When property containing existing structures is being divided simply to place each structure on a separate lot and a future right-of-way will fall within the footprint of an existing structure, then the subdivider shall be required to note on the face of the plan: "reserved for future right-of-way" any additional area necessary for compliance with the Major Street Plan. The Final Plan shall also contain a note stating, when any existing structure is demolished, the setback requirements for any new structure shall be measured from this reservation line.

4-103.104 Required Improvements or Dedications

All on-site traffic improvements identified as being required in a traffic impact study prepared in accordance with the requirements of Subsection 4-105.2, Traffic Impact Study, shall be made by the developer upon land the developer controls. Any off- site improvements identified in such study shall be made on a pro-rata basis to the extent the subdivision contributes to the requirement for such improvement(s).

4-104 REQUIREMENTS FOR PEDESTRIAN WAYS

4-104.1 Sidewalks Along New Streets

Sidewalks shall be required along both sides of all streets.

4-104.2 Sidewalks Along Existing Streets

Sidewalks shall be required along the proposed subdivision's frontage on existing public streets.

4-104.3 Sidewalk Width

The width of sidewalks shall be as follows. Width shall be exclusive of encroachments such as utility poles, fire hydrants, parking meters, sign standards, street furniture, etc.

SIDEWALK WIDTH

Street classification	Land Use Classification		
	Residential	Commercial	Industrial
Local Access	5 feet	5 feet	5 feet
Secondary Collector	5 feet	5 feet	5 feet
Primary Collector	5 feet	6 feet	6 feet
Arterial Public Way	5 feet	6 feet	6 feet

4-104.4 Design Criteria

Sidewalks shall be included within the dedicated non-traffic way portion of the right-of-way or public access easement. A grassed "tree lawn" at least five (5) feet wide shall separate all sidewalks from adjacent streets.

1. Where extraordinary difficult topographic conditions exist, other design solutions, such as a wider separation, may be used.
2. Where necessary, the Planning Commission may require pedestrian access ways from a public way to schools, parks, playgrounds, or other nearby public ways. To accomplish this purpose, the Planning Commission may require perpetual unobstructed easements at least twenty (20) feet in width.
3. Sidewalks shall be designed and constructed so as to comply with ADA Standards for Accessible Design as published by the U.S. Department of Justice and excerpted from 28 CFR Part 36 (Revised July 1, 1994) and any subsequent amendments or supplements.

4-104.5 Waivers and Alternative Pedestrian Ways

Developers and the Planning Commission may reach alternative arrangements concerning sidewalks where strict compliance with the provisions of this section would be unfair or

cause an undue hardship due to previously approved plats and/or development plans. Such alternative provisions may include: (1) payment to a Town fund for construction of the sidewalks by the Town at this location at a later date; (2) the construction of elsewhere, or (3) the actual construction of sidewalks at another location. In the absence of mutual agreement, the developer shall construct the sidewalks in the manner provided herein.

4-104.6

Maintenance

The lot owner shall maintain grass and vegetation between the roadway and the property line.

4-105 STREETS

4-105.1 General Requirements

4-105.101 Street Names

All streets shall be named and such names shall be subject to the approval of the Planning Commission. Names shall be sufficiently different in sound and spelling from other street names in the Town to avoid confusion. A street which is a continuation of an existing street shall bear the same name. As general policy, the use of personal names for new roads is discouraged. Historical names are preferred or names appropriate to the particular development or general neighborhood.

4-105.102 Grading and Improvement Plan

Streets shall be graded and improved to conform to the standards required by this section and shall be approved as to design and specification by the Town Engineer in accordance with the specifications required herein.

4-105.103 Streets in Floodable Areas

The finished elevation of proposed streets subject to flood shall be no more than one (1) foot below the regulatory flood protection elevation. All drainage structures shall be sufficient to discharge flood flows without increasing flood height. Where fill is used to bring the finished elevation of any street to the required elevation, such fill shall be protected against erosion by rip-rap, vegetative cover, or other methods deemed acceptable by Town Engineer.

4-105.104 Reserve Strips

The creation of reserve strips adjacent to a proposed street in such a manner as to deny access from adjacent property to such street shall not be permitted.

4-105.2 Traffic Impact Study

The purpose of a traffic impact study shall be to identify what improvements, if any, are necessitated to offset the additional traffic generated by a proposed level of development. Such improvements might include the provision of traffic signals, turning lanes or road widening.

4-105.201 Requirements for a Traffic Impact Study

A traffic impact study (TIS) may be required by the Planning Commission or zoning administrator for any development that contains:

- Residential developments with more than one hundred (100) dwelling units;
- Nonresidential developments of more than fifty thousand (50,000)

square feet; or

- Combinations of residential and nonresidential uses that would be expected to generate one thousand (1,000) vehicle trips or more per day, or one hundred (100) or more peak-hour trips;
- Or in the opinion of the Town engineer a TIS is needed.

4-105.202 Levels of Traffic Impact Study Required

Three levels of traffic impact studies have been identified based on the number of trips that a development 1S projected to generate in a twenty-four (24) hour period (See Table 4-105.2).

TABLE 4-105.2

LEVEL OF TRAFFIC IMPACT STUDY REQUIRED	
Twenty-Four Hour Trip Generation	Level of Study Required
1,000 to 3,000 average daily trips	Level 1
3,000 to 6,000 average daily trips	Level 2
6,000 and higher average daily trips	Level 3

- **Level 1**, studies require analysis of each access that the development has to an existing roadway. Access points to be analyzed include public roads, joint permanent access easements, and private driveways.
- **Level 2**, studies require the analysis of each access that the development has to an existing roadway, and to the first control point beyond those access points. A control point is an intersection controlled by a traffic signal or stop sign on the existing roadway onto which the development has access. For

cases where a traffic-control device does not exist, the Town Engineer will determine the extent of the study. If a freeway interchange is near the property to be developed and is not signalized, the Town Engineer will determine if ramps need to be included in the study.

- **Level 3**, studies require a complex traffic access and impact study, addressing each access point, the first control point beyond each access point, and the nearest collector/ collector intersection or street of higher classification or as determined by the Town engineer. The exact area to be studied will be determined by the Town Engineer with input from the individual who is to prepare the study.

4-105.203 Approval of Traffic Impact Study

The traffic impact study shall be approved by the Planning Commission, with all applicable performance requirements incorporated into any site and building plans.

4-105.204 Implementation of a Traffic Impact Study

The traffic impact study may take into account the capital improvements budget and may rely on improvements for which the Town has adopted a resolution appropriating funds. Any required traffic improvements that have not been funded or otherwise completed by the Town shall be completed by the developer prior to the issuance of a use and occupancy permit. When it can be demonstrated that a development will only partially contribute to the need for additional off-site improvements, the Planning Commission may require a pro-rata contribution. The

Town Engineer will certify that all traffic improvements to be provided by the developer or property owner have been properly bonded prior to building permit issuance and completed before a use and occupancy permit shall be Issued.

4-105.3 Arrangement of Streets

1. Streets shall be related appropriately to the topography. Minor streets shall be curved wherever possible to avoid conformity of lot appearance. All streets shall be arranged so as to obtain as many as possible of the building sites at or above the grades of the streets. Grades of streets shall conform as closely as possible to the original topography. A combination of steep grades and curves shall not be avoided.
2. All streets shall be properly integrated with the existing and proposed system of streets and dedicated rights-of-way as established on the Major Street Plan or the Town Development Plan.
3. All streets shall be properly related to special traffic generators, such as industries, business districts, schools, churches, and shopping centers; to population densities; and to the pattern of existing and proposed land uses.
4. Minor streets shall be laid out to conform as much as possible to the topography; to discourage use by through traffic; to permit efficient drainage and utility systems; and to require the minimum number of streets necessary to provide convenient and safe access to property.
5. The use of an interconnected street system shall be encouraged to broadly disperse internal traffic and provide maximum alternatives for access to property.
6. The use of curvilinear streets, cul-de-sac, or "U"-shaped streets shall be encouraged where such use will result in a more desirable layout.
7. Street designs such as loop streets or closes shown in Figure 4-1, are preferred to the use of a

cul-de-sac design. Cul-de-sacs shall be permitted where topographic features or configuration of property boundaries prevent street connections.

8. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, unless prevented by topography or other physical conditions or unless, in the opinion of the Planning Commission, such extension is not necessary or desirable for the coordination of the layout of the subdivision with the existing layout or the most advantageous future development of adjacent tracts. Where streets are extended to property lines, temporary turnarounds shall be required unless the street segment is less than three hundred (300) feet in length. In all cases drainage and utility easements shall be extended to the property lines.
9. In business and industrial developments, the streets and other access routes shall be planned in connection with the grouping of buildings, location of rail facilities, and the provisions of alleys, truck loading and maneuvering areas, and walks and parking areas, so as to minimize conflict of movement between the various types of traffic, including pedestrian traffic.

4-105.4 Access to Arterial and Collector Routes

Where a subdivision borders on or contains a proposed arterial or collector route, the Planning Commission may require that access to such streets be limited by one of the following means:

4-105.401 In Residential Areas

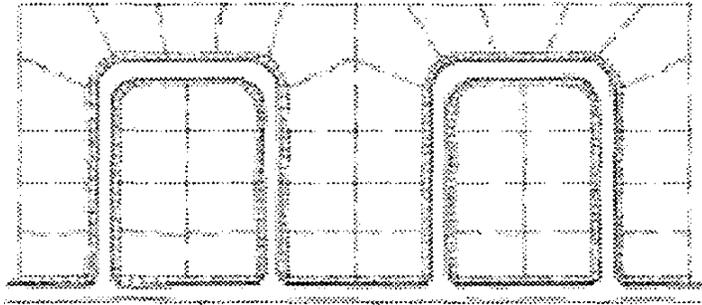
Where a subdivision abuts or contains an existing or proposed arterial or collector street, the Planning Commission may require marginal access streets, reverse frontage with screen planting contained in a non-access reservation along the rear property line, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic. In general, in open field situations, reverse frontage lots with screen planting are to be employed only when it can be demonstrated that it is completely infeasible to construct a "single-loaded" street set back from the existing thoroughfare, with homes facing the thoroughfare across a "foreground meadow".

4-105.402 In Business Areas

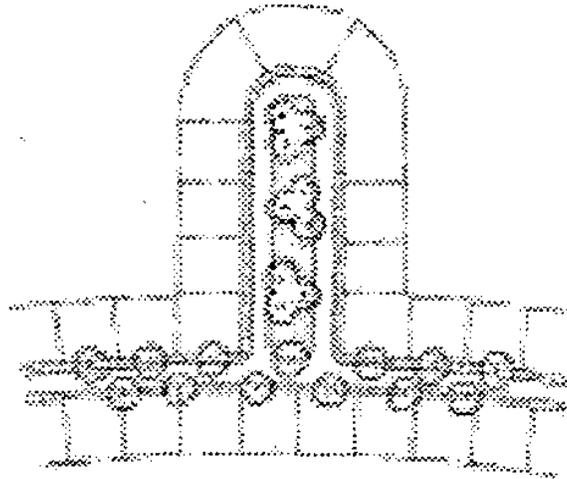
In areas zoned or designed for commercial use, or where a change of zoning is contemplated for commercial use, the Planning Commission may require that the street width be increased or that a service road be constructed to assure the free flow of through traffic without interference by parked or parking vehicles, and to provide adequate and safe parking space for such commercial area.

Figure 4-1

ALTERNATIVES TO CUL-DE-SACS



- Loop Street



- Close

4-106 STREET DESIGN STANDARDS

4-106.1 Purpose

The public way design standards set forth in this section are hereby required in order to provide public ways of suitable location, width, and improvement to accommodate prospective traffic and afford satisfactory access to police, fire-fighting, sanitation, and road-maintenance equipment, and to coordinate public ways so as to compose a convenient and safe system and avoid undue hardships to adjoining properties. These provisions are intended to establish appropriate standards for the design of streets in residential subdivisions that will:

- Promote the safety and convenience of vehicular traffic,
- Protect the safety of neighborhood residents,
- Minimize crime in residential areas,
- Protect the residential qualities of neighborhoods by limiting traffic volume, traffic speed, noise and fumes,

- Encourage the efficient use of land,
- Promote construction methods and criteria that provide high quality and efficient design; to provide for initial cost concerns, future maintenance cost and general liability cost for the community.
- Minimize the construction of impervious surface thereby protecting the quantity and quality of the community's water resources.

- Provide satisfactory access for emergency vehicles.

4-106.2 General Design

The design of all streets shall conform to the general design standards presented within this section and to the detailed criteria found in Tables 4-1 and 4-2 (below).

1. New streets proposed to be created as a part of any development proposal shall be integrated closely with the Town's Major Street Plan. The Major Street Plan shall show the realignment and redesign of certain intersections and road segments to facilitate traffic flow and improve safety.
2. Rectilinear street layouts are generally preferred, with occasional diagonal elements to enhance visual interest, although curvilinear layouts shall be acceptable when designed to interconnect and to produce terminal vistas of protected open space or prominent structures.
3. Residential streets shall be aligned so that their terminal vistas are of greens, other open space, or civic or institutional buildings, wherever possible. Where this is not possible, every effort shall be made to terminate those streets with buildings of above-average size, whose architecture shall be encouraged to be special in one way or another.
4. Streets shall be interconnected as far as practicable (employing cul-de-sacs only where essential), and they may also be supplemented with back lanes or alleys. Where cul-de-sacs are deemed to be unavoidable, continuous pedestrian circulation shall be provided by connecting sidewalks that link the end of the cul-de-sac with the next Street (or open space).

TABLE 4-1

MINIMUM RIGHT-OF-WAY OR EASEMENT AND
PAVEMENT WIDTH (in feet) BY STREET TYPE AND
INTENSITY OF DEVELOPMENT

	Total Lanes	Parking Lanes	Pavement Width	Shoulders	R.O.W
Primary Collector					
No Parking	2	0	20' (22' curbed)	4' grassed	50'
Lots 80' +	2	0	22' (24' curbed)	4' grassed	50'
Lots 40' - 80'	3	1	28' (30' curbed)	4' grassed	50'
Lots <40'	4	2	34' (36' curbed)	4' grassed	50'
Secondary Collector					
Lots 80' +	2	0	20' (22' curbed)	4' grassed	50'
Lots 40' - 80'	3	1	26' (28' curbed)*	4' grassed	50'
Lots <40'	4	2	32' (34' curbed)*	none	60'
Local Access					
Lots 80' +	2	0	20' (22' curbed)	3' grassed	50'
Lots 40' - 80' +	3	2	24' (26' curbed)	4' grassed	50'
Lots <40'	3	2	26' (28' curbed)*	4' grassed	50'
Lanes or Alleys	1	0	12'	2' grassed	20'
Shared Drives	1	0	10'	3' grassed	N/A

*The paved width may be reduced by 6 feet when streets are "single-loaded" (lots on one side only), or when driveways are accessed only from rear service lanes or alleys.

TABLE 4-2

GENERAL DESIGN STANDARDS FOR STREETS

	RESIDENTIAL STREET	NONRESIDENTIAL STREET	K _c	K _s
<u>Design Speed (MPH)</u>				
Local Access Street	30	30	30	40
Sub-Collector Street	35	35	45	50
Collector Street	40	40	70	65
Arterial	*	*	*	*
<u>Maximum Percentage Grade</u>				
Local Access Street	12%	10%		
Sub-Collector Street	10%	7%		
Collector Street	7%	7%		
Arterial	6%	6%		
<u>Minimum Percentage Grade</u>				
All Streets	1%	1%		
<u>Maximum Super-Elevation</u>				
(foot/foot)	0.08	0.08		
<u>Minimum Stopping Sight Distances</u> (in feet)				
Local Access Street	200	200		
Sub-Collector Street	250	250		
Collector Street	300	300		
<u>Minimum Radius of Return at Intersections</u>				
At Right-of-Way	25ft.	40ft.		
At Pavement	30ft.	45ft.		
<u>Maximum Grade at Intersections</u>				
Local Access Street (Within 50ft. from E.O.P.)	6%	6%		
Sub-Collector Street	3%	3%		
Collector Street (Within 100feet from E.O.P.)	3%	3%		
* =As determined by the Major Road and Street Plan				
<u>Pavement Crown</u>				
The paved surface shall slope downward from the centerline of the street outward to the edge of the paved surface on each side at a rate of two (2) percent or as defined in the Hendersonville Construction Manual.				
<u>Stopping Sight Distance</u>				
Measured from a driver's eye (three and one-half (3 1/2)feet above pavement) to a point six (6)inches above the pavement at a required distance based on miles per hour				

5. To the greatest extent practicable, streets shall be designed to have maximum lengths of six hundred (600) feet between intersections, and maximum lengths of twelve hundred (1,200) feet before terminating at three-way "T" intersections or angling off in a diagonal direction. Blocks greater than six hundred (600) feet long shall generally be provided with cross-block pedestrian connections at mid-block locations.
6. Streets shall be laid out to promote pedestrian circulation and ease of access from all points in the residential areas to commercial or institutional facilities.
7. Easements shall be reserved to permit streets to be extended to allow adjoining properties to be connected in the future, if so desired.
8. The street width standards listed below take into account the need for on-street parking spaces, which generally increase as lot widths decrease.

4-106.3 Street Trees

1. The coordinated planting of deciduous shade trees within the right-of-way of all streets is a central unifying feature of development in villages and hamlets.
2. Such trees shall be 2" to 2.5" in diameter, measured at chest height, when planted, and shall be spaced at intervals no greater than forty feet along both sides of each street, including arterial roads, but not including rear access lanes or alleys.
3. Species shall be selected according to the following criteria:
 - a) cast moderate shade to dense shade in summer;
 - b) long-lived (over sixty (60) years);
 - c) mature height of at least fifty (50) feet;
 - d) be tolerant of pollution and direct or reflected heat;
 - e) require little maintenance, by being mechanically strong (not brittle) and insect-and disease-resistant;
 - f) be able to survive two (2) years with no irrigation after establishment; and
 - g) be of native origin, provided they meet the above criteria

Among the species that are recommended are sycamore or London Plane, sweet gum, red maple, green ash, Shademaster golden locust, little leaf linden and Village Green Zelkova. For further relevant information, readers are specifically referred to Street Tree Factsheets, Henry Gershold, Editor, School of Forest Resources, Pennsylvania State University, 1989.

4-106.4 Intersections

1. Pavement shall intersect as nearly as possible to a ninety (90) degree angle for a minimum of one hundred (100) feet from the stop bar. A proposed intersection of two (2) new public ways at an angle of less than seventy-five (75) degrees shall not be permitted. Not more than two (2) public ways shall intersect at any one point, unless specifically approved by the Planning Commission.
2. Centerline off-sets of less than three hundred fifty (350) feet between T-type intersections within public ways shall not be permitted, except where the intersected public ways have separated dual drives without median breaks at either intersection. Where public ways intersect arterial or collector routes, the alignment of such streets shall be continuous. Intersections of arterial or community collector streets shall be at least eight hundred (800) feet apart.
3. Minimum curb or edge of pavement radius shall be determined according to the specifications for the street of higher classification in the street system hierarchy, as specified below.
4. Whenever a proposed street intersects an existing or proposed street of higher order in the street hierarchy, the street of lower order shall be made a stop street. The street of lower order shall also be designed to provide a minimum corner sight distance as specified in Table 4-3. The Town Engineer reserves the right to revise sign placement.
5. Where a public way intersection will involve earth banks or existing vegetation inside any lot corner that would create a traffic hazard by limiting visibility, the sub-divider shall cut such ground or vegetation (including trees) in connection with the grading of the public right-of-way to the extent necessary to provide adequate sight distance. The developer shall provide assurance of continuing maintenance for sight triangle concerns.
6. Intersections shall be designed as shown in Table 4-2, with a grade of one to six percent (1% - 6%).
7. The cross-slope on all public ways, including intersections, shall be two (2) percent or otherwise specified in this document.

TABLE 4-3

MINIMUM INTERSECTION SIGHT DISTANCE "Y"

<u>Major Road Type</u>	<u>Design Speed</u>	<u>Y (in feet)</u>
Higher Order Street	55 mph	610
Higher Order Street	50 mph	555
Higher Order Street	45 mph	500
Primary Collector	40 mph	445
Secondary Collector	35 mph	390
Residential Access Street	25 mph	280

NOTE: The entire area of the clear sight triangle, shall be designed to provide an unobstructed view across it from three and one-half (3 1/2) to all points three and one-half (3 1/2) feet above the roadway along the centerline.

4-106.5 Acceleration and Deceleration Lanes

1. Deceleration or turning lanes may be required by the Town Engineer along existing and proposed streets as determined by a traffic impact study.
2. Deceleration Lanes Shall Be Designed to the Following Standards:
 - (a) On a State Route, the lane shall be designed in conformance with the requirements of the Tennessee Department of Transportation or as approved by the Town Engineer, whichever is greater.
 - (b) The lane width shall be the same as the required width of the roadway moving lanes for its full stacking length.
 - (c) A taper shall begin at the end of the deceleration lane and shall be 8:1 up to thirty (30) mph and 15:1 up to fifty (50) mph.
 - (d) The minimum lane length shall be as follows:

<u>Design Speed of Road</u>	<u>Minimum Deceleration Lane Length</u>
30 mph	235 feet
40 mph	315 feet
50 mph	435 feet

3. Acceleration lanes are also required when indicated as needed by a traffic impact study. The design shall be as per the recommendation of the Town Engineer. As necessary, a paved taper shall be provided for right turns.

4-106.6 Frontage Streets and One- Way Streets

1. Classification and Design of Marginal Access Streets

Frontage or marginal access streets may be utilized as an alternative to creating a row of lots along existing or proposed collector or higher order streets. Marginal access streets shall be classified and designed to conform to the design standards of "Local Access Streets".

- (a) Intersection Spacing

The minimum distance between intersections of the marginal access street with collector streets shall be three hundred-thirty-five (335) feet. Minimum distances with higher order streets shall be determined by the Town Engineer based upon the traffic characteristics of the higher order street.

- (b) Distance Between Travelways

A minimum green space of thirty (30) feet shall be provided between the right-of-way of the marginal access street and the right-of-way of the higher order street.

2. Utilization and Design of One-Way Streets

One-way streets may be permitted as loop streets or marginal access streets where there is need to separate the directional lanes to preserve natural features and/or to avoid excessive grading for street construction on steep slopes. One-way streets shall have a minimum of a twenty (20) foot paved surface and a forty (40) foot right-of-way. Pavement and curb transitions shall be designed and constructed in accordance with standards provided by the Town Engineer.

4-106.7 Arrangement of Dead-End Streets

1. Temporary Stub Streets

(a) Temporary Turnarounds

A temporary turnaround, approved by the Town Engineer, shall be provided on all temporary stub streets exceeding three hundred (300) feet in length, with a notation on the final plat that land outside the normal street right-of-way shall revert to abutting property owners whenever the street is continued. The reconstruction of the temporary turnaround into the normal right-of-way shall be the responsibility of the attaching developer. Temporary turn-arounds shall have a minimum slope of one (1) percent as measured from the center. Additionally, a sign shall be placed, in accordance with the requirements of Section 4-107, STREET NAME, REGULATORY AND WARNING SIGNS, at the terminus of the temporary cul-de-sac that reads as follows: "Temporary Dead-End Street, Street to be extended by the authority of the Town of Kingston Springs"

(b) Local Access Stub Streets

Local Access stub streets may be required, or, such may be permitted but only within subsections of phased development for which the proposed street extension in its entirety has been approved as part of a conceptual plan.

(c) Collector and Lane Stub Streets

Stub streets may be permitted or required by the Town on collector streets provided that the future extension of the street is deemed desirable by the Town and conforms to the adopted Major Street Plan.

2. Permanent Dead-End Public Ways

(a) General Design Standards

Where a public way does not extend beyond the boundary of the subdivision and its continuation is not required by the Planning Commission for access to adjoining property, its terminus shall normally not be nearer to such boundary than one hundred-fifty (150) feet. The Planning Commission may require the reservation of an appropriate easement to accommodate drainage facilities, pedestrian traffic, or utilities. A cul-de-sac turnabout shall be provided at the end of a dead-end public way in accordance with the design standards of these regulations.

(b) Design of Turn-A-Rounds

Permanent dead-end or cul-de-sac streets shall normally not serve more than twenty-four (24) residences. A depth suitable for an adequate building lot may be required to be retained between the terminus of the road and adjoining property. The Planning Commission may require the reservation of a twenty (20) foot wide easement through this property to facilitate pedestrian traffic or utilities. Central planting islands shall be located within the turnarounds of permanent cul-de-sacs. These planting islands shall contain plantings of canopy shade trees. The design of the cul-de-sac shall be such that storm water drains to this central planting island. No curbs are required along the perimeter of these turnarounds. The Planning Commission will consider alternative shapes for terminations when the street is located upon steep slopes and excessive cut or fill will be required to meet the design standards of the typical sections.

4-106.8 Alleys

Alleys may be required where appropriate in all commercial and industrial districts. Alleys are appropriate in residential districts to improve lot access, reduce the number and frequency of driveways entering public or private streets, or reduce the need for topographic disturbance.

4-106.9 Railroads and Limited Access Highways

Railroad right-of-way and limited access highways, where so located as to affect the subdivision of adjoining lands, shall be treated as follows:

1. In residential areas, a buffer strip at least twenty-five (25) feet in depth in addition to the normally required depth of the lot may be required adjacent to the railroad right-of-way or limited access highway. This strip shall be part of the platted lots and shall be designated on the plat: "This strip is reserved for screening. The placement of structures hereon is prohibited."
2. In business, commercial or industrial areas, the nearest street extending parallel or approximately parallel to the railroad shall, wherever practicable, be at a sufficient distance therefrom to ensure suitable depth for commercial or industrial sites.
3. Streets parallel to a railroad, when intersecting a street which crosses the railroad at grade, shall to the extent practicable, be at a distance of at least one hundred fifty (150) feet from the railroad right-of-way. Such distance shall be determined with due consideration of the minimum distance required for future separation of grades by means of appropriate approach gradients.

4-106.10 Bridges

Bridges of primary benefit to the subdivider, as determined by the Planning Commission, shall be constructed at the full expense of the subdivider without reimbursement from the Town. The sharing of expenses for the construction of bridges not of primary benefit to the subdivider, as determined by the Planning Commission, shall be fixed by special agreement between the Board of Commissioners and the subdivider. .

4-107 STREET NAME, REGULATORY AND WARNING SIGNS

4-107.1 Signs for Public Streets

4-107.101 Signage Requirements

All signage shall conform to the current edition of the Manual of Uniform Traffic Control Devices published by the United States Department of Transportation. Temporary signs may be installed and maintained in lieu of permanent signs until curbs are installed and backfilled. Such signs shall meet the same standards for mounting height, size, and legibility as permanent signs but may be mounted on temporary structures. The installation of temporary street name signs shall be verified by written developer/contractor certification to the Enforcing Officer before authorization for building permits may be granted.

4-107.102 Street Name Signs

a. Street Names

All new street names shall be verified with local 911 officials prior to recording the Final Plan.

b. Installation Requirements

The developer shall purchase and install appropriate signs. Written confirmation of this placement shall be required from the Town Engineer prior to recording a Final Plan.

c. Bond

The developer may post a performance bond in lieu of the improvements prior to the recording of the final plat. Street sign bonds may be a part of the original bond covering streets, drainage, water, sewer, etc.

d. Notes

All subdivision plats that require street name signs, or temporary dead-end street signs shall require a note stating: **"No building permit shall be issued for any lot until street name, regulatory and warning signs are installed and verified on all streets on which such lot depends for access."**

4-107.103 Regulatory and Warning Signs

a. Installation Requirements

The developer shall purchase and install appropriate signs. Written confirmation of this placement shall be required from the Town Engineer prior to recording a Final Plan.

b. Bond

The developer may post a performance bond in lieu of the improvements prior to the recording of the Final Plan. Street sign bonds may be a part of the original bond covering streets, drainage, water, sewer, etc.

4-107.2 Street Names, Regulatory and Warning Signs for Private Streets

1. Installation Requirements

The developer shall purchase and install appropriate street name and traffic control signs. Written confirmation of this action shall be required prior to issuance of any building permit or filing of a Final Plan.

2. Bond

The developer may post a performance bond in lieu of the improvements prior to the recording of the Final Plan. Street sign bonds may be a part of the original bond covering streets, drainage, water, sewer, etc.

3. Notes

All subdivision plats that require street name signs, or temporary dead-end street signs shall require a note stating: "No building permit shall be issued for any lot until street name, regulatory and warning signs are installed and verified on all streets on which such lot depends for access."

4-108 PRIVATE STREETS

4-108.1 Generally

Where the ownership, control and maintenance of any street is proposed to remain in private ownership, such street shall be designed and constructed to the standards provided in these regulations. A permanent access easement over such streets shall be provided to each and every parcel or lot that is to gain access therefrom. All such private improvements shall be maintained by the developer/ owner or by a legally established Homeowner's Association or similar group approved by the Planning Commission. The legal documents establishing ownership and maintenance of the easement shall be submitted with the Final Plan for review and approval and shall be recorded with the Final Plan. A bond may be posted to guarantee such improvements in a like manner as required for public streets.

4-108.2 Additional Regulations for Private Streets

Private streets may be included in any subdivision in conformity to these standards so long as the subdivision is included within a PUD, or Conservation Subdivision as defined in Section 8-102, WORDS AND TERMS DEFINED. The private street (or street) shall be identified on the face of the plat as an easement for lot access and as a public utility easement.

1. Unless otherwise approved by the Planning Commission, private streets shall conform to the provisions of Subsection 4-106.2, General Design, of these regulations and in addition the following:

- (a) All hardware such as catch basins, inlets, etc. and all drainage structures shall meet the requirements of these regulations.
 - (b) Up to eight (8) side-by-side parking spaces may be allowed to back directly into the travelway of a loop or permanent dead-end roadway provided that:
 - (i) Such parking is located a minimum of twenty-five (25) feet from any other parking spaces backing into the travelway.
 - (ii) The sight distance along the travelway is adequate for the design speed of the street.
 - (iii) All other parking shall be provided with adequate off-street maneuvering to allow forward entry to the street.
 - (c) All vehicular access to the private street shall be shown on the Development Plan and Final Plan.
 - (d) A bond may be posted in lieu of completion of the required improvements in accordance with the provisions of Article III.
2. The Master Deed, or declaration of covenants, shall contain, in its description of the common element(s), a specific designation of the private street as the responsibility of the Owner's Association and not the Town or County. The Master Deed, or declaration of covenants, shall also provide for a sufficient level of funding to offset the reasonable and foreseeable costs of maintaining the private street.

4-108.3 Private Streets in Rural Areas

Private streets in subdivisions within rural areas (as defined in Section 8-102, WORDS AND TERMS DEFINED, shall conform to the following:

- 1. No more than ten lots may be served by a private street or network of private streets.
- 2. All drainage improvements required shall be completed and certified to be in compliance With the approved drainage plan before the Planning Commission will approve the Final Plan of the proposed subdivision. The Planning Commission may permit a performance bond to be posted in lieu of completion for Final Plan approval.
- 3. When an existing parcel is being subdivided to create two lots, the permanent easement for access to and egress from the new building site shall have a minimum width of twenty (20) feet.
- 4. All private streets serving two lots shall have an all-weather surface not less than eight (8) feet in width.

5. All private streets serving at least three (3) but not more than five (5) lots shall have an all-weather surface consisting of eight inches of gravel, compacted, or any more durable surface.
6. All private streets serving six (6) to ten (10) lots shall be paved with an eight- inch rock base with a double penetration, asphalt surface, or any more durable surface.
7. If a public water supply is available, the Planning Commission may require fire hydrants to be placed to serve the development.
8. The Planning Commission shall require proof that a joint maintenance agreement mutually enforceable and running with the land has been entered into and recorded for the lots served by the private street, prior to final approval of the Final Plan. The joint maintenance agreement shall provide that each owner is jointly and severally liable for the maintenance of the private street and that each owner can enforce contributions to offset the cost of that maintenance, based proportionately on the units served by the private street. The joint maintenance agreement shall also provide that if any owner must pursue legal action to enforce its provisions, he shall be allowed to recover reasonable attorney's fees and associated costs.

4-109 BLOCKS

In blocks longer than eight hundred (800) feet the Planning Commission may require the establishment of easements or public ways through the block to accommodate utilities or pedestrian access. In general, each normal block shall be planned to provide two (2) rows of lots, but irregularly shaped blocks indented by cul-de-sac streets and containing interior parks will be acceptable when properly designed and covered by agreements as to maintenance of interior parks.

4-110 LOT REQUIREMENTS

4-110.1 Lots to be Buildable

The lot size, width, depth, shape and arrangement shall be appropriate for the type of development and use contemplated, and shall be such that there will be no foreseeable difficulties, for reasons of topography or other conditions, in securing building permits to build on all lots in compliance with the Zoning Ordinance, or in providing access to buildings on such lots from an approved street. Dimensions of corner lots shall be large enough to allow for erection of buildings, observing the minimum front yard setback from both streets.

4-110.2 Side Lot Lines

Side lot lines, so far as practicable, shall be at right angles or radial to street lines unless a variation from this rule will give, in the opinion of the Planning Commission, a better street or lot plan. Lot lines shall coincide with Town boundaries rather than cross them. Where extra width has been dedicated for widening an existing street, lot lines shall begin at such extra width line.

4-110.3 Access from Major Streets

Lots shall generally not have their vehicular access from a major street. Where driveway access from a major street may be necessary for several adjoining lots, the Planning Commission shall require that such lots be served by a combined access drive in order to limit possible traffic hazard on such street. (See Subsection 4-105.4, Access to Arterial and Collector Routes.)

4-110.4 Access Across a Watercourse

Where a watercourse separates the buildable area of a lot from the access street, provision shall be made for the installation of a culvert or other structure, of a design approved by the Town Engineer.

4-110.5 Designation of Frontage for Comer Lots

A frontage for a house shall be designated on all comer lots located within any residential subdivision.

4-110.6 Lot Drainage

4-110.601 General

Lots shall be designed so as to provide positive drainage away from all buildings. Drainage of individual lots shall be coordinated with the existing or proposed general storm Drainage pattern for the area. Drainage shall be designed so as to avoid concentration of storm water from each lot to adjacent lots, except within drainage easements or street rights-of-way. Surface water drainage patterns for each and every lot shall be shown on the street and drainage plans. Drainage flow and conveyance arrows shall be indicated on the topographic grading and drainage plan.

It shall be the responsibility of the builder of any building or other structure to design and construct a suitable drainage scheme that will convey surface water, without ponding on the lot or under the building, to the drainage system constructed within the subdivision.

Any sinkhole or natural channel serving as a means of moving ground water into the subterranean system shall be identified on the Final Plan and shall be protected by a structure as approved by the Stormwater Division and the Tennessee Department of Environment and Conservation.

4-110.602 Erosion and Sediment Control

An erosion and sediment control plan shall be presented with the Construction Plans submitted in conformance with Section 2-107, CONSTRUCTION PLANS, of these regulations. All properties adjacent to the site of land disturbance shall be protected from sediment disposition. The developer shall submit copies of any required permits issued by other government agencies such as, but not limited to Notices of Intent and Aquatic Resource Alteration Permits. Copies of supplemental information such as Storm Water Pollution Prevention Plans that are used to obtain these permits shall also be submitted.

4-110.603 Water Bodies and Watercourses

Generally, if a tract being subdivided contains a water body, or portion thereof, such area shall be within jointly held open space. However, the Planning Commission may approve an alternative plan whereby the ownership of and responsibility for safe maintenance of the water body is so placed that it will not become a governmental responsibility. No portion of the minimum area of a lot required under any zoning ordinance may be satisfied by land that is underwater. Where a watercourse separates the buildable area of a lot from the public way to which such lot has access, provisions shall be made for installation of a culvert of adequate overflow size or other structure approved by the Planning Commission.

4-111 OPEN SPACE REQUIREMENTS

4-111.1 Reservation of Land for Recreational Purposes

Areas for parks and playgrounds of reasonable size for neighborhood playgrounds or other recreational uses shall be required. No arbitrary percentage of area shall be insisted upon by the Planning Commission, but in general the developer should set aside not less than ten percent of the area for these purposes. In lieu of a reservation of land, a recreation fee may be paid per the fee schedule established by the governing body, upon a determination by the Planning Commission that a park of suitable size or location cannot be located in the development or is otherwise not practical.

4-111.2 Basic Criteria.

The configuration of proposed Open Space Lands set aside for common use in residential subdivisions shall:

1. Be free of all structures except historic buildings, stone walls, and structures related to the open space uses. The Planning Commission may grant approval of structures and improvements required for storm drainage, sewage treatment and water supply within the open space provided that such facilities would not be detrimental to the intended use of the open space. The Planning Commission may also grant permission to construct small, modest buildings for recreational uses, such as park shelters, etc.
2. Generally not include parcels smaller than three (3) acres, have a length-to-width ratio of less than four to one (4:1), or be less than seventy-five (75) feet in width, except for such lands specifically designed as neighborhood greens, playing fields or trail links.
3. Be directly accessible to the largest practicable number of lots within the subdivision. Non-adjointing lots shall be provided with safe and convenient pedestrian access to Open Space Land.
4. Be suitable for active recreational uses to the extent deemed necessary by the Planning Commission.
5. Be interconnected wherever possible to provide a continuous network within and adjoining the subdivision.

6. Provide buffers to adjoining farmland, parks, preserves or other protected lands.
7. Open Space Lands shall provide for pedestrian pathways for use by the residents of the subdivision. Consideration shall be given to providing for public access on such trails if they are linked to other publicly-accessible pathway systems within the Town. Provisions should be made for access to the Open Space Lands, as required for land management and emergency purposes.
8. Be undivided by public or private streets, except where necessary for proper traffic circulation.
9. Be suitably landscaped either by retaining existing natural cover and wooded areas and/ or landscaping with native trees, shrubs, and wildflowers.
10. Be made subject to such agreement with the Town and such conservation easements duly recorded in the office of the County Recorder of Deeds as may be required by the Planning Commission for the purpose of preserving the common open space for such use, and
11. Be consistent with the Town's Development Plan and its Open Space Plan.

4-111.3 Open Space Land Ownership and Maintenance Standards

4-111.301 Permanent Protection

All Open Space Land shall be permanently restricted from future subdivision and development. Under no circumstances shall any development be permitted in the Open Space at any time, except for those uses listed in Subsection 4-111.2, Basic Criteria, above.

4-111.302 Ownership Options

The following methods may be used, either individually or in Combination, to own common facilities. However, Open Space Land shall be initially offered for dedication to the Town. Common facilities shall not be transferred to another entity except for transfer to another method of ownership permitted under this section, and then only when there is no change in the common facilities or in the open space ratio of the overall development. Ownership methods shall conform to the following:

- a. Fee Simple Dedication to the Town

The Town may, but shall not be required to, accept any portion of the common facilities that the applicant may wish to offer voluntarily, provided that:

- i. There is no cost of acquisition to the Town; and,
- ii. The Town agrees to and has access to maintain such facilities.

b. Condominium Association

Common facilities may be controlled through the use of condominium agreements. Such agreements shall be in accordance with relevant state law. All open land and common facilities shall be held as “common elements”.

c. Homeowners' Association

Common facilities may be held in common ownership by a Homeowners' Association, subject to all of the provisions for homeowners' associations set forth in the following regulations:

- i. The applicant shall provide the Town a description of the organization of the proposed association, including its by- laws, and all documents governing ownership, maintenance, and use restrictions for common facilities.
- ii. The proposed association shall be established by the owner or applicant and shall be operating (with financial subsidization by the owner or applicant, if necessary) before the sale of any dwelling units in the development.
- iii. Membership in the association shall be automatic (mandatory) for all purchasers of dwelling units therein and their successors in title.
- iv. The association shall be responsible for maintenance and insurance of common facilities.
- v. The by-laws shall confer legal authority on the association to place a lien on the real property of any member who falls delinquent is his dues. Such dues shall be paid with the accrued interest before the lien may be lifted.
- vi. Written notice of any proposed transfer of common facilities by the association or the assumption of maintenance for common facilities must be given to all members of the association and to the Town no less than thirty days prior to such event
- vii. The association shall have adequate staff to administer, maintain, and operate such common facilities.

4-111.303 Private Conservation Organization or the Town

With permission of the Town, an owner may transfer fee simple title of the open space or easements on the open space to a private non-profit conservation organization or to the Town provided that:

- The conservation organization is acceptable to the Town and is a bona fide conservation organization intended to exist indefinitely;
- The conveyance contains appropriate provisions for proper reverter or retransfer in the event that the organization or the Town becomes unwilling or unable to continue carrying out its functions.
- The Open Space Land is permanently restricted from future development through a conservation easement and the Town is given the ability to enforce these restrictions; and,
- A maintenance agreement acceptable to the Town is established between the owner and the organization or the Town.

4-111.304 Dedication of Easements to the Town

The Town may, but shall not be required to, accept easements for public use of any portion of the common land or facilities voluntarily offered by the Applicant. In such cases, the facility remains in the ownership of the condominium association, homeowners' association, or private conservation organization while the Town holds the easements. In addition, the following regulations shall apply.

- There shall be no cost of acquisition to the Town.
- Any such easements for public use shall be accessible to the residents of the Town.
- A satisfactory maintenance agreement shall be reached between the owner and the Town.

4-111.4 Open Space Land Maintenance

4-111.401 Responsibility for Maintenance

Unless otherwise agreed to by the governing body, the cost and responsibility of maintaining common facilities and Open Space Land shall be borne by the property owner, condominium association, homeowners' association, or conservation organization.

4-111.402 Open Space Maintenance Plan

The applicant shall, at the time of Development Plan submission, provide a Plan for Maintenance of Open Space Lands and Operation of Common Facilities in accordance with the following requirements. (This Plan may be based on the model by the Natural Lands Trust, Media, PA)

- a. The Plan shall define ownership;
- b. The Plan shall establish necessary regular and periodic operation and maintenance responsibilities for the various kinds of open space (i.e., lawns, playing fields, meadow, pasture, cropland, woodlands, etc.);
- c. The Plan shall estimate staffing needs, insurance requirements, and associated costs, and define the means for funding the maintenance of the Open Space land and operation of any common facilities on an on-going basis. Such funding plan shall include the means for funding long-term capital improvements as well as regular yearly operation and maintenance costs;
- d. At the Town's discretion, the applicant may be required to escrow sufficient funds for the maintenance and operation costs of common facilities for up to one

year; and,

- e. Any changes to the maintenance plan shall be approved by the Planning Commission

4-111.403 Failure to Maintain

In the event that the organization established to maintain the Open Space Lands and the common facilities, or any successor organization thereto, fails to maintain all or any portion thereof in reasonable order and condition, the Town may assume responsibility for maintenance.

4-111.404 Corrective Action in Event of Failure to Maintain

The Town may enter the premises and take corrective action including extended maintenance. The costs of such corrective action may be charged to the property owner, condominium association, Homeowners' Association, conservation organization, or individual property owners who make up a condominium or Homeowners' Association and may include administrative costs and penalties. Such costs shall become a lien on said properties.

4-112 RESERVATIONS AND EASEMENTS

4-112.2 Easements for Utilities and Drainage

4-112.201 Basic Requirement

Where topography or other conditions are such as to make impractical the inclusion of utilities or drainage facilities within street rights of way, perpetual unobstructed easements at least twenty (20) feet in width for such utilities shall be provided across property outside the street lines and with satisfactory access to the street. Such easements shall be centered on rear or side lot lines.

4-112.202 Explanation of Drainage Easements

In any instance where drainage easements are indicated upon a final plat the following notation shall appear:

"The drainage easements (or the drainage discharge points) shown hereon establish the perpetual right to discharge storm water runoff from the highway and from the surrounding area onto and over the affected premises by means of pipes, culverts, or ditches, or a combination thereof, together with the right of the holder of fee title to the highway, or the authorized representatives, to enter said premises for purposes of making such installations and doing such maintenance work as said holder of fee title may deem necessary to adequately drain the highway and surrounding area."

4-112.3 Easements for Pedestrian Access

The Planning Commission may require, in order to facilitate pedestrian access from streets to schools, parks, playgrounds, or other nearby streets, perpetual unobstructed easements at least twenty (20) feet in width. Where blocks exceed 800 feet in length, such pedestrian facilities shall be installed by the developer as mid-block connectors.

4-112.4 Easements for Maintenance of Slopes

4-112.401 Basic Requirement

Where steep slopes beyond the street right of way may require maintenance, an easement may be required for such purpose.

4-112.402 Explanation of Slope Easement

In any instance where drainage easements are indicated upon a final plat the following notation shall appear:

"The slope easements shown hereon convey to the Town of Kingston Springs the right to enter said premises for the purpose of cutting and maintaining a stable earth slope."

4-112.5 Easements for Maintenance of Visibility Triangles

4-112.501 Basic Requirement

Where conditions beyond the street right of way may require protection of visibility triangles, an easement may be required for such purpose.

4-112.502 Explanation of Slope Easement

In any instance where sight easements are indicated upon a final plat the following notation shall appear:

"The slope easements shown hereon establish the perpetual right of the holder of fee title of the highway, or his authorized representatives, to clear, regrade and maintain the area within these easements at such elevation that there is a clear line of sight anywhere across the area between an observer's eye at an elevation of three and one-half (3 1/2) feet above the surface at the nearest edge of the road and an object one (1) foot above the nearest edge of pavement on the intersecting road."

4-112.6 Responsibility for Ownership of Reservations

Title to all reservations, if vested in interests other than the subdivider, shall be clearly indicated on the plat. An explanation of such reservations reading as follows shall appear upon the final plat: "Reserved for highway purposes (or recreation purposes, or other approved purpose)"

4-113 DRAINAGE AND STORM SEWERS

4-113.1 General Design Concept

It is the intention of these regulations that both the rate and **the total amount** of stormwater run-off from development sites be minimized. In general, the primary design concept for stormwater management within new developments is to be premised on use of open space for detention, retention and aquifer recharge. This approach is intended to maximize on-site infiltration of stormwater directly into the community's aquifer recharge system and thereby reduce the need for costly, large-scale stormwater collection systems while simultaneously making dual use of open area as "rain gardens" and bio-retention areas.

4-113.2 Nature of Storm Water Facilities

4-113.201 Location

The subdivider may be required by the Planning Commission to carry away by pipe or open ditch any spring or surface water that may exist either prior to or as a result of the subdivision. Such drainage facilities shall be located in the street right-of-way, where feasible, or in perpetual unobstructed easements of appropriate Width and shall be constructed in accordance with the approved Construction Plans.

4-113.202 Accessibility to Public Storm Sewers

- a. Where a public storm sewer is accessible, the developer shall install storm sewer facilities, or if no outlets are within a reasonable distance, adequate provision shall be made for the disposal of storm waters, subject to the specifications of the Town.
- b. If a connection to a public storm sewer will eventually be provided, as determined by the Planning Commission, the subdivider shall make arrangements for future storm water disposal by a public utility system at the time the plan receives final approval. Provision for such connection shall be incorporated by inclusion in the performance bond required for the Final Plan.

4-113.203 Accommodation of Upstream Drainage Areas

A culvert or other drainage facility shall in each case be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the subdivision. The engineer designing the subdivision shall determine the necessary size of the facility, based on provisions of the Town's construction specifications and assuming conditions of maximum potential watershed development permitted by applicable zoning regulations.

4-113.204 Effect on Downstream Drainage Areas

The Town also shall study the effect of each subdivision on existing downstream drainage facilities outside the area of the subdivision. Where it is anticipated that the additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility, the Planning Commission may withhold approval of the subdivision until provision has been made for adequate improvement of such drainage facilities. No subdivision shall be approved unless adequate drainage will be provided to an adequate drainage watercourse or facility

4-113.3 Dedication of Drainage Easements

4-113.301 General Requirements

Where a subdivision is traversed by a watercourse, drainageway, channel, or stream, there shall be

provided a storm water easement or drainage right-of-way conforming substantially to the lines of such watercourse and of such width and construction as will be adequate for the purpose. Where open drainageways are utilized they shall be designed for the twenty-five (25) year design flood.

4-113.302 Drainage Easements

- a. Where topography or other conditions are such as to make impracticable the inclusion of drainage facilities within a street right-of-way, perpetual unobstructed easements at least ten (10) feet in width for such facilities shall be provided across property outside the street lines and with satisfactory access to streets. Easements shall be indicated on the Development Plans and Final Plans. Drainage easements shall be carried from the street to a natural watercourse or to other drainage facilities.
- b. When a new drainage system is to be constructed which will carry water across private land outside the subdivision, appropriate drainage rights must be secured and indicated on the Final Plans.
- c. The applicant shall dedicate, when required by the Planning Commission, either in fee, or by drainage or conservation easement, the land on both sides of existing watercourses to a distance to be determined by the Planning Commission.
- d. Along watercourses, low-lying lands within any floodway, as has been determined by the Planning Commission pursuant to these regulations, whether or not included in areas for dedication shall be preserved and retained in their natural state as drainage ways.

4-113.303 Ditching

All drainage ditches shall be constructed adjacent to the roadway shoulders and shall feed to and from culverts under or adjacent to the roadway. All such ditches shall be graded in their entirety during the time in which roadways are being graded and such grading is to be completed prior to final inspection of the roadways.

4-113.304 Concrete Ditch Paving

Concrete ditch paving shall consist of the construction of paved ditches on a prepared subgrade. The subgrade shall be shaped and compacted to a firm even surface. All soft material shall be removed and replaced with suitable material and compacted. Concrete ditch pavement shall be four (4) inches in thickness throughout and shall be backfilled immediately after the concrete has set and the forms removed. The backfill material shall be thoroughly compacted. Expansion joints shall be appropriately located.

4-113.305 Culverts and Storm Drains

Pipe culverts and storm drains shall be installed as shown on the subdivision plat and Construction Plans. No metal pipe shall be used without specific approval of the Planning Commission and the Town Engineer. Reinforced concrete pipes shall conform to minimum standards for Class III Reinforced Pipe, AS1M (J6). Concrete headwalls shall be constructed at both ends of cross drains.

4-114 WATER FACILITIES

4.114.1 General Requirements

Necessary action shall be taken by the developer to extend a water supply system capable of providing domestic water use and fire protection in all cases, other than in certain prescribed conditions, as outlined in the R1-A, Zoning District as follows: The installation of servicing fire hydrants shall only be required in all one (1) and two (2) lot subdivisions within R1-A, Zoning Districts, whenever a 6 inch water line is located within five hundred (500) feet of the boundary of any such subdivision. However, all subdivisions of over two (2) lots in the R1A Zoning District shall be served by a public water supply system.

4.114.2 Construction Criteria

All water facilities including fire hydrants shall be subject to the construction standards, material specifications established by the Town. All plans and materials are subject to approval by the Town Engineer and the Tennessee Department of Environment and Conservation. Where required for fire protection water mains shall not be less than six (6) inches in diameter; where water mains are not to be utilized for fire protection, the Planning Commission may approve smaller lines, as necessary, to meet potable water demand.

4.114.3 Special Criteria for Flood Prone Areas

All water systems, whether public or private, located in a flood prone area shall be flood proofed to the regulatory flood protection elevation. All water supply facilities located below the regulatory flood protection elevation shall be designed to prevent the infiltration of floodwaters into the water supply system and discharges from the system into floodwaters.

4.114.4 Fire Hydrants

Fire hydrants shall be required in all subdivisions. Hydrants shall be located no more than one thousand (1,000) feet apart by road and be within five hundred (500) feet of all residential, commercial, or industrial building envelopes or structures, whichever is applicable. This distance shall be measured by road or street. However, the Planning Commission may require closer spacing where physical conditions or types of structures so warrant. To eliminate future public way butting or openings, all underground utilities for fire hydrants, together with the fire hydrants themselves, and all other water supply improvements shall be installed before any final paving of a public way. **(NOTE: For fire protection requirements within the Town of Kingston Springs, see Ordinance No. 06-005, entitled, "An Ordinance Hereby Establishing the Use of Automatic Sprinkler Systems in the Construction of Buildings within the Corporate Limits of the Town of Kingston Springs, Tennessee". Within the unincorporated portion of the Kingston Springs Planning Region, the provisions of Resolution No.5, "Resolution Establishing the Use of Automatic Sprinkler Systems in the Construction of Buildings within Cheatham County, Tennessee", shall apply.)**

4-115 **SEWAGE FACILITIES**

4-115.1 **General Requirements**

The applicant shall install sanitary sewer facilities in a manner prescribed by the regulations of the Tennessee Department of Environment and Conservation and by any other applicable standards and specifications. All plans shall be designed and approved in accordance with the rules, regulations, specifications, and standards, of any applicable governmental agency or appropriate unit thereof.

4-115.2 **Mandatory Connection to Public Sewer System**

1. When public sanitary sewers are accessible to the subdivision, as determined by the Planning Commission, the subdivider shall provide such facilities to each lot therein and shall connect the facilities to the public system. The subdivider shall provide sewers that meet standards set forth in the regulations of the Tennessee Department of Environment and Conservation.
2. All sanitary sewer facilities located in a flood hazard area shall be floodproofed to the regulatory flood protection elevation. All sewer facilities located below the regulatory flood protection elevation shall be designed to prevent infiltration of floodwaters into the sewer system and discharges from the system into floodwaters.
3. All public sanitary sewer systems shall be constructed utilizing materials that are A.S.T.M and/or A.W.W.A approved.

4-115.3 **Individual Disposal System Requirements**

If public sewer facilities are not available and individual disposal systems are proposed the individual disposal system, including the size of the septic tank and size of the tile fields or other secondary treatment device shall be approved by the County Health Department. Unless located within a Conservation Subdivision approved under the authority of Article VI, of these regulations, the entire individual disposal system, including all drainage fields associated therewith, shall be located on the lot with the principal structure such system is to serve.

The Planning Commission may prohibit installation of sewage disposal facilities requiring soil absorption systems where such systems will not function due to high groundwater, flooding, or unsuitable soil characteristics. The Planning Commission may require that the subdivider note on the face of the final plat and any deed of conveyance that soil absorption fields are prohibited in designated areas.

4-115.4 **Design Criteria for Sanitary Sewers**

The design criteria as well as material and construction standards shall be as specified in the **Cheatham County Infrastructure Manual**.

4-116 **PUBLIC USES**

4-116.1 **Plat to Provide for Public Uses**

Except when a developer utilizes planned unit development or density zoning, in which land is set aside by the developer as required by provisions of the zoning ordinance, whenever a

tract to be subdivided includes a school, recreation use, a portion of a major street, or other public uses, as indicated on the adopted Town Development Plan and Major Street Plan or any portion thereof, such tract shall be suitably incorporated by the developer into the design of his subdivision when first presented for review by the Planning Commission. After proper determination of its necessity by the Planning Commission and the appropriate Town official or other agency involved in the acquisition and use of such site and after a determination has been made to acquire the site by the public agency, the site shall be suitably incorporated by the developer into the plat prior to final approval by the Planning Commission and recording of the Final Plan.

4-116.2 Referral to Public Body

The Planning Commission shall refer any plan presented in accordance with Subsection 4-116.1, to the public body concerned with acquisition for its consideration and report. The Planning Commission may propose alternate areas for such acquisition and shall allow the public body or agency sixty (60) days for reply.

4-116.3 Notice to Property Owner

Upon receipt of an affirmative report, the Planning Commission shall notify the property owner and shall designate on all plats any areas proposed to be acquired by public body.

4-116.4 Duration of Land Reservation

The acquisition of land reserved by a public body on the Final Plan shall be initiated within twenty-four (24) months of notification, in writing, from the owner that he intends to develop the land. Such letter of intent shall be accompanied by a plat of the proposed development and a tentative schedule of construction. Failure on the part of the public agency to initiate acquisition within the prescribed twenty four (24) months shall result in the removal of the "reserved" designation from the property involved and the freeing of the property for development in accordance with these regulations.

4-117 NONRESIDENTIAL SUBDIVISIONS

4-117.1 General

If a proposed subdivision includes land that is zoned for a commercial or industrial purpose, the layout of the subdivision with respect to such land shall make such provisions as the Planning Commission may require. A nonresidential subdivision shall be subject to all the requirements of these regulations; as well as such additional standards as set forth by the Planning Commission.

4-117.2 Standards

In addition to the principles and standards in these regulations which are appropriate to the planning of all subdivisions, the developer shall demonstrate to the satisfaction of the Planning Commission that the public way, parcel, and block pattern proposed is specifically adapted to the uses anticipated and takes into account other uses in the vicinity. The following principles and standards shall be observed:

1. Proposed industrial parcels shall be suitable in area and dimensions to the types of nonresidential development anticipated;
2. Special requirements may be imposed by the governing body with respect to any public way, curb, gutter, and sidewalk design and construction specifications;
3. Every effort shall be made to protect adjacent residential areas from potential nuisances from the proposed nonresidential subdivision, including provision of extra depth in parcels backing on existing or potential residential development and provisions for permanently landscaped buffer strips, when necessary; and
4. Public ways carrying nonresidential traffic, especially trucks, normally shall not be extended to the boundaries of adjacent existing or potential residential areas.

ARTICLE V

PLAN CONTENT REQUIREMENTS

SECTIONS

- 5-101 Purposes and Applicability
- 5-102 Conceptual Plans
- 5-103 Development Plans
- 5-104 Construction Plans
- 5-105 Final Subdivision Plans

5-101 PURPOSES AND APPLICABILITY

The provisions of this Article apply to applications for both "Major and Minor" subdivisions submitted under authority of these regulations. For the convenience of applicants, the Town provides a complimentary Plan Requirements Checklist listing all the documents required to be submitted, at each step of the review process. Copies of this checklist are available at the office of the Enforcing Officer. The checklist also facilitates review by staff and officials, as they review each application for completeness and conformance with relevant provisions of these regulations.

5-102 CONCEPTUAL PLANS

5-102.1 General

Conceptual Plans are required for all "Major Subdivisions" as defined in these regulations. The application for a Conceptual Plan shall provide the name and address of the legal owner or equitable owner of the subject property, and the name and address of the applicant if not the same party, plus the plan contents listed below. A deed or agreement of sale evidencing that the applicant is the legal or equitable owner of the land to be subdivided or developed shall be shown.

5-102.101 Plan Preparation

The Conceptual Plan shall be prepared by a Landscape Architect.

5-102.102 Conceptual Plan Contents

The submission requirements for a Conceptual Plan shall consist of the following elements:

- a. Site Context Map
- b. Existing Resources and Site Analysis
- c. The Conceptual Improvements Plan
- d. Preliminary Studies and Reports as required by Subsection 5-102.204, Preliminary Studies and Reports.

5-102.103 Drafting Standards

- a. The plan shall be drawn to a scale of either 1" = 100' or 1" = 200', whichever would fit best on a standard size sheet (24" x 36"), unless otherwise approved by the Planning Commission.
- b. Dimensions shall be set in feet.
- c. Each sheet shall be numbered and the plan shall provide an adequate legend indicating clearly which features are existing and which are proposed.

5-102.2 Conceptual Plan Requirements

The following information is to be provided on the plans and maps as indicated.

5-102.201 Site Context Map

A map showing the location of the proposed subdivision within its neighborhood context shall be submitted. For sites under one hundred (100) acres in area, such maps shall be at a scale not less than 1" = 200', and shall show the relationship of the subject property to natural and man-made features existing within one thousand (1,000) feet of the site. For sites of one hundred (100) acres or more, the scale shall be 1" = 400', and shall show the above relationships within two thousand (2,000) feet of the site. The features that shall be shown on Site Context Maps include topography. (from U.S.G.S. maps), stream valleys, wetland complexes (from maps published by the U.S.D.A Natural Resources Conservation Service), woodlands (from aerial photographs), ridge lines, public roads and trails, utility easements and rights of way, public land, and land protected under conservation easements.

5-102.202 Existing Resources and Site Analysis

For all major subdivisions, (except those in which all proposed lots are to be five (5) acres or greater in area) an Existing Resources and Site Analysis shall be prepared to provide the developer and the community with a comprehensive analysis of existing conditions, both on the proposed development site and within five hundred (500) feet of the site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies and from aerial photographs. Unless, otherwise, specified by the Planning Commission, the graphic portion of such analysis shall generally be prepared at the scale of 1" = 100' or 1" = 200'. The following information shall be included in this document:

- a. A vertical aerial photograph enlarged to a scale not less detailed than 1" = 400', with the site boundaries clearly marked;
- b. A contour base map, the contour lines of which shall generally be at five (5) foot intervals. The source of the topographic information shall be noted on the plan. Where in the opinion of the Planning Commission the topographic information for a site is of critical significance due to exceptionally steep or flat conditions the Commission may require that such information be prepared by a professional land surveyor or engineer from an actual field survey of the site or from stereoscopic aerial photography. In addition to general topographic information, slopes shall be grouped into three classifications;

- slopes of less than fifteen (<15) percent;
 - slopes between fifteen and twenty-five (15-25) percent; and
 - slopes exceeding twenty-five (25>)percent.
- c. The location of significant features such as woodlands, tree lines, open fields or meadows, watershed divides and drainage ways, fences and stone walls, rock outcrops, and existing structures;
- d. The location and delineation of ponds, streams, ditches, drains, and natural drainage swales. The following shall be specifically indicated:
- i. All naturally occurring watercourses that normally contain flowing water during all times of the year, including streams that may dry up during periods of extended drought. These shall include, but not be limited to, perennial streams identified in the most recent Soil Survey of the County.
(Note: Shown as solid lines on Soil Survey Maps)
 - ii. Perennial streams identified on United States Geological Survey Maps (U.S.G.S.). **(Note: Shown as solid blue lines on USGS Maps)**
 - iii. All intermittent watercourses otherwise identified in the most recent Soil Survey of the County, or identified on plans submitted by applicants.
 - iv. All streams having an established floodplain shall be indicated as well as the location and extent of the 100-year floodplains along such streams.
 - v. Vernal pools.
- e. Vegetative cover conditions on the property according to general cover type including cultivated land, permanent grass land, meadow, pasture, old field, hedgerow, woodland and wetland.
- f. An inventory of existing trees with a caliper in excess of that indicated in the following table for the species indicated:

Species	Diameter at Breast Height (dbh)
Eastern Redbud or Flowering Dogwood	4 inches
Sassafras or Water Beech	6
Holly	8
Wild Cherry	10
Red or White Oak	12
Green or White Ash	14
Tulip Poplar or Larch	16
Sycamore	18
White Pine	20

The Planning Commission may waive these tree locational requirements within wetlands, floodplains, on slopes greater than twenty-five (25) percent, and in other areas proposed to be conserved in their natural state.

- g. Soil series, types and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service in the published soil survey for the county. Where any form of sewage disposal other than public sewer service is proposed the soil information shall be in the form of a "high intensity soil survey" (as defined by the UDSA NRCS).
- h. Ridge lines and watershed boundaries shall be identified.
- i. A viewshed analysis showing the location and extent of views into the property from public roads and parks
- j. All existing man-made features including but not limited to streets, driveways, farm roads, woods roads, buildings, foundations, walls, wells, drainage fields, dumps, utilities, fire hydrants, and storm and sanitary sewers.
- k. Geologic formations on the proposed development parcel, including rock outcroppings, cliffs, sinkholes, and fault lines, based on available published information or more detailed data obtained by the applicant.
- l. Locations of all historically significant sites or structures on the tract, including but not limited to stone walls, earthworks, and graves.
- m. All easements and other encumbrances of property that are or have been filed of record with the County Recorder of Deeds shall be shown.
- n. Total acreage of the tract, plus the Adjusted Tract Acreage (see Section 6-305, DENSITY DETERMINATION, of Section 6-300, CONSERVATION DESIGN OVERLAY DISTRICT, of the Zoning Ordinance) and all other information necessary to determine the density, with detailed supporting calculations.

5-102.203 The Conceptual Improvements Plan

Conceptual Improvements Plans shall be prepared in the form of an **overlay sheet**. The purpose of presenting the information in this format is to enable the applicant to demonstrate how well the proposed development avoids impacting the underlying resources and what opportunities have been taken to improve existing site conditions. The Conceptual Plan Overlay Sheet shall include the following information:

- a. Historic resources, trails and significant natural features, including topography, areas of steep slope, wetlands, 100-year floodplains, swales, rock outcroppings, vegetation, existing utilities, and other site features, as indicated on the Existing Resources and Site Analysis Plan.
- b. Existing and approximate proposed lot lines and areas of proposed lots.
- c. Approximate location, alignment and width of all proposed streets and street rights-of-way, including all street extensions or spurs that are necessary to provide adequate street connections and facilities to adjoining development or undeveloped areas; preliminarily-engineered profiles for proposed streets.
- d. Approximate location of proposed swales, drainage easements, and other stormwater management facilities.
- e. The conceptual layout of proposed sewage systems, including but not limited to the tentative locations of sewer mains and any pumping facilities.
- f. The conceptual layout of proposed water distribution facilities including water mains, fire hydrants, storage tanks and, where appropriate, wells or other water sources.
- g. Approximate location and dimensions of proposed playgrounds, public buildings, public areas and parcels of land proposed to be dedicated or reserved for public use.
- h. Utilities and Easements
 - i. Exact locations of existing utility easements and approximate locations of proposed utility easements.
 - ii. Approximate layout of all proposed sanitary and storm sewers and location of all inlets and culverts, and any proposed connections with existing facilities. (These data may be on a separate plan.)
 - iii. The tentative location of proposed on-site sewage and water facilities.

5-102.204 Preliminary Studies and Reports

When required by the Planning Commission, the Conceptual Plan submission shall include one or more of the following studies to assist in determination of the impact of the application upon municipal services and facilities:

- a. Sewer and water feasibility report.
- b. Traffic Impact Study.

5-103 THE DEVELOPMENT PLAN

5-103.1 General

Development Plans are required for all "Major Subdivisions", as defined in these regulations.

5-103.101 Purpose of Development Plan

The Development Plan is intended to contain sufficient detailed engineering information to divulge the ultimate operation and appearance of the proposed development.

5-103.102 Plan Preparation

Development Plans shall be prepared by individuals who are licensed to perform the necessary design services.

5-103.103 Development Plan Contents

The submission requirements for a Development Plan shall consist of the following elements as described herein:

- a. The Preliminary Improvements Plan
- b. Preliminary Open Space Ownership and Management Plan
- c. Proposed Community Association Documents

5-103.104 Drafting Standards

- a. Graphic portions of the plan shall be drawn to a scale of either 1"= 100' or 1"= 200', whichever would fit best on a standard size sheet (24" x 36"), unless otherwise approved by the Planning Commission.
- b. Dimensions shall be set in feet.
- c. Each sheet shall be numbered and the plan shall provide an adequate legend indicating clearly which features are existing and which are proposed.

5-103.2 Project Phasing

Where the applicant proposes to install improvements in phases, he shall submit with the Development Plan a drawing of the entire property with the proposed sections or phases delineated thereon.

5-103.3 Development Plan Content

The following information is to be provided on the plans and maps as indicated.

5-103.301 General Information

The following information concerning the site and the individuals submitting the proposed development is required.

- a. the name and address of the owner(s) of land to be subdivided, the developer if other than the owner, and the land surveyor preparing the plan;
- b. A Site Context Map containing the information required by Subsection 5-102.201;
- c. the names of all adjoining property owners of record, or the names of adjoining developments;
- d. the names of adjoining public ways;
- e. the date of the plan, approximate true north point, scale, and title of the subdivision;
- f. the zoning classification of all lots, as well as an indication of all uses other than residential proposed by the applicant;
- g. map parcel numbers of original parcels included within the development as recorded on the land tax maps of the county.

5-103.302 The Preliminary Improvements Plan

The following information concerning the proposed development is required.

- a. the location and dimensions of all boundary lines of the property, figured to the nearest on hundredth (1/100) of a foot;
- b. contours at vertical intervals of not more than two (2) feet where the proposed subdivision has an average slope of five (5) percent or less, or at vertical intervals of not more than five (5) feet where the average slope exceeds five (5) percent (contours to be field surveyed or taken from aerial maps or other information acceptable to the Planning Commission);
- c. the location of existing public ways, easements, water bodies, wetlands, streams, and other pertinent features, such as swamps, railroads, buildings, parks, cemeteries, drainage ditches, and bridges;
- d. the location and width of all existing and proposed easements, alleys, and other public ways, and building setback lines;
- e. the location, dimension, and area of all proposed or existing lots;
- f. the location and dimension of all property proposed to be set aside for park or playground use or other public or private reservation, with designation of the purpose thereof, and conditions, if any, of the dedication or reservation;
- g. the limits of floodway and floodplain and the associated one-hundred year regulatory flood elevation and regulatory flood protection elevation, of one (1) foot above the elevation of the 100-year regulatory flood;

- h. the location and dimensions of all required stream buffers;
- i. limit-of-disturbance line (must be exact in relation to the retention of existing trees proposed to be saved).
- j. sufficient data to determine readily the general location, bearing, and length of all lines necessary to reproduce such lines within the area to be subdivided; and
- k. name of the subdivision and all new public ways, as approved by the Planning Commission.

5-103.303 Plan Notations

The following notations shall appear on the Development Plan: a.

- explanation of all easements (drainage, access etc.); b.
- explanation of reservations;
- c. for any lot where public sewer or water systems are not available, the following:
 - i. areas to be used for sewage disposal including acceptable data to show that the site can be served effectively by a septic system;
 - ii. water wells (existing and proposed).
- d. a form for endorsement of Planning Commission approval of the Development Plan that shall read as follows:

This Development Plan was approved by the Kingston Springs Regional Planning Commission, with such exceptions or conditions as indicated in the minutes of the commission on _____(date). No grading or construction shall take place until Construction Plans and a Development Agreement required by the Subdivision Regulations are approved.

Planning Commission Secretary

5-103.304 Preliminary Design Certification

As an integral element of the Development Plan, the applicant shall submit to the Planning Commission a "Preliminary Design Certification" stating that the approximate layout of proposed streets, lots, and open space complies with the

zoning and subdivision regulations. This certification requirement is meant to provide the Planning Commission with assurance that the proposed plan can be accomplished within current regulations. The certification shall also note any variances needed to implement the plan as presented.

5-103.4 Preliminary Open Space Ownership and Management Plan

Within any development where open space is proposed the following shall be provided. Using the Development Plan as a base map, the boundaries, acreage and proposed ownership of all open space areas shall be shown. In addition, the applicant shall also submit a Preliminary Open Space Ownership and Management Plan detailing the entities responsible for maintaining various elements of the property, and describing management objectives and techniques for each part of the property. Where a Community Association is to be responsible for the care and maintenance of the open space, draft documents required by Subsection 5-103.5, Preliminary Community Association Documents, shall be presented as part of the plan.

5-103.5 Preliminary Community Association Documents

A Community Association Document, also known as a Homeowner's Association Document or a Condominium Association Document, shall be provided for all subdivisions that propose lands or facilities to be used or owned in common and not deeded to the Town. The elements of the Community Association Document shall include, but shall not necessarily be limited to the following:

1. A description of all lands and facilities to be owned by the Community Association. This description shall include a map of the proposal highlighting the location of those lands and facilities.
2. Statements setting forth the powers, duties, and responsibilities of the Community Association, including the services to be provided.
3. A Declaration of Covenants, Conditions, and Restrictions, giving perpetual easement to the lands and facilities owned by the Community Association. The Declaration shall be a legal document which also provides for automatic Association membership for all owners in the subdivision or land development and shall describe the mechanism whereby owners participate in the Association, including voting, elections, and meetings. Furthermore, it shall give power to the Association to own and maintain the common property and to make and enforce rules.
4. Statements prescribing the process by which Community Association decisions are reached and setting forth the authority to act.
5. Statements requiring each owner within the subdivision to become a member of the Community Association.
6. Statements setting cross covenants or contractual terms binding each owner to all other owners for mutual benefit and enforcement.
7. Requirements for all owners to provide a pro rata share of the cost of the operations of the Community Association.

8. A process of collection and enforcement to obtain funds from owners who fail to pay required assessments.
9. A process for transition of control of the Community Association from the developer to the unit owners.
10. Statements describing how the lands and facilities of the Community Association will be insured, including limit of liability.
11. Provisions for the dissolution of the Community Association, in the event the Association should become enviable.

5-104 CONSTRUCTION PLANS

5-104.1 General

Construction Plans drawn at a scale of no more than fifty (50) feet to one (1) inch shall be prepared for all improvements required by these regulations. Approval of Construction Plans must precede any clearing, grading, or site construction. The territory included within Construction Plans shall correspond to that included within the Development Plan.

5-104.2 Plan Preparation

All Construction Plans shall be prepared and stamped by a Tennessee Licensed Engineer engaged in the practice of civil engineering.

5-104.3 Features

The standards and content for construction drawings may be found within The Cheatham County Infrastructure Design Manual.

5-104.4 Development Agreements to Accompany Construction Plans

Drafts of proposed development agreements prepared on forms provided by the Town shall accompany all submittals of Construction Plans. The development agreements shall reference the design incorporated within the approved Construction Plans and shall be sufficient in form to assure that the methods and materials meet or exceed minimum standards established by the Town. The development agreement shall be sufficient to assure construction of the following:

1. All off-site improvements required to serve the development.
2. All on-site improvements located within the section of the project contained within the Construction Plans, including improvements that are required to serve future portions of the development not contained within the plans.
3. All improvements required to serve the lots shown on the plan and are not constructed and offered for public acceptance prior to or concurrently with submittal of Final Plans covering such lots.

5-104.5 Storm Water Report

A comprehensive storm water report shall accompany the Construction Plans. As a minimum this report shall include the all information required by The Kingston Springs Storm Water Design Manual. In any instance where either Aquatic Resource Alteration Permits (ARAP) or 404 Permits are required such shall be obtained and submitted with the Storm Water Report.

5-104.6 Storm Water Pollution Prevention Plan

A draft Storm Water Pollution Prevention Plan meeting the specifications established by the Tennessee Department of Environment and Conservation shall be presented with the construction plan. No grading shall be conducted until such plan is approved.

5-105 FINAL SUBDIVISION PLANS

5-105.1 General

Final Plans are required for both "Major and Minor Subdivisions", as defined in these regulations.

5-105.101 Plan Preparation

The Final Plan shall be prepared by a licensed surveyor.

5-105.102 Final Plan Contents

The submission requirements for a Final Plan shall consist of the following elements, and shall be prepared in accordance with the drafting standards and plan requirements described herein:

- a. The Final Plat
- b. Final Open Space Ownership and Management Plan c.
Final Community Association Documents
- d. Formal Irrevocable Offers of Dedication
- e. Final Drafts of Covenants, Conditions and Restrictions

5-105.103 Drafting Standards

- a. Graphic portions of the plan shall be drawn to a scale of either 1"= 100' or 1" = 200', whichever would fit best on a standard size sheet (24" x 36"), unless otherwise approved by the Planning Commission.
- b. Dimensions shall be set in feet.
- c. Each sheet shall be numbered and the plan shall provide an adequate legend indicating clearly which features are existing and which are proposed.

5-105.2 Project Phasing

When the Final Plan is to be approved in segments or phases such phasing shall correspond to that approved in the Development Plan.

5-105.3 The Final Plat

In the case of major subdivisions, the final plat shall correspond with the design and construction details and standards established within the approved construction drawings and Development Plan. Final plats shall include the following information.

5-105.301 General Information

The following information concerning the site and the individuals submitting the proposed development is required.

- a. the name and address of the owner(s) of land to be subdivided, the developer if other than the owner, and the land surveyor preparing the improvements plat;
- b. A Site Context Map containing the information required by Subsection 5-102.201;
- c. the names of all adjoining property owners of record, or the names of adjoining developments;
- d. the names of adjoining public ways;
- e. the date of the plat, approximate true north point, scale, and title of the subdivision;
- f. the zoning classification of all lots, as well as an indication of all uses other than residential proposed by the applicant;
- g. map parcel numbers of original parcels included within the development as recorded on the land tax maps of the county.

5-105.302 The Final Improvements Design

The following information concerning the proposed development is required:

- a. The exact boundary lines of the tract, determined by a field survey, showing an les to the nearest minute and distance to the nearest one hundredth (1/100) of a foot. The adjusted accuracy of the survey shall meet or exceed the standards set forth in Title 62, Chapter 18, of the Tennessee Code, for a Category II (Suburban Subdivision).
- b. The location of all public ways, easements, water bodies, streams or rivers, railroads, parks, and cemeteries.
- c. The limits of floodway and floodway fringe areas and the regulatory flood elevation and regulatory flood protection elevation as determined by the Planning Commission.

- d. The location and width of all easements and rights-of-way for public ways, as well as the building setback lines on all lots.
- e. The location, dimensions, and area of all lots. All dimensions shall be field run to the nearest one hundredth (1/100) of a foot and angles to the nearest minute. Lot areas shall be shown to the nearest tenth (1/10) of a square foot.
- f. The location, area, and dimensions, to the accuracy set forth in Item e, above, of all property to be set aside for park or playground use or other public or private reservation, with a designation of the purpose, thereof, and conditions, if any, of the dedication or reservation.
- g. Sufficient data to determine readily the location, bearing, and length of all lines necessary to reproduce such lines upon the ground. This shall include the radius, central angle, and tangent distance for the centerline of the curved public ways and curved property lines that are not the boundary of curved public ways. The location of all monuments and pins shall be indicated on the plat.
- h. The names of all public ways.
- i. The zoning classification of all lots
- j. The total acreage within the subdivision.
- k. Lot numbers and street numbers.
- l. The line size and location of water and sewer facilities.
- m. The location of all fire hydrants.
- n. The diameter and width of all driveway culverts.
- o. For any lot where a public sewer or water system is not available, the following shall be shown:
 - i. areas to be used for sewage disposal; and
 - ii. water wells (existing and proposed).
- p. Applicable certificates shall appear upon the final plat. All required certificates shall bear the signature of the approving or authorizing agent at the time of application for final plan approval, except that the form for endorsement of the Planning Commission's approval for recording shall appear unsigned at the time of application for approval.

5-105.303 Plat Notations

The following notations shall appear on the Final Plat:

- a. Explanation of all easements (drainage, access etc.); (See Section 4-112, RESERVATIONS AND EASEMENTS.
- b. Explanation of reservations; (See Subsection 4-112.6, Responsibility for Ownership of Reservations.
- c. For any lot where public sewer or water systems are not available, the following:
 - i. areas to be used for sewage disposal including acceptable data to show that the site can be served effectively by a septic system;
 - ii. water wells (existing and proposed).

5-105.4 Final Open Space Ownership and Management Plan

Within any development where open space is proposed, documents creating a Final Open Space and Management Plan shall be an integral element of the Final Subdivision Plan. Such Formal Open Space and Management Plan shall be accompanied, if the Final Plan contains jointly held open space, recreational facilities, or any portion of the site that is held in common ownership, by the following documentation for approval by the Planning Commission:

- 1. A survey indicating the precise boundaries, exact acreage, and proposed ownership of all open space areas,
- 2. A narrative report shall also be prepared indicating how and by whom such open space areas will be managed,
- 3. Articles of incorporation and by-laws of the co-owners association or other legal entity (where open space or facilities are to be deeded to a co-owners association or similar organization acting on behalf of the joint owners of said property) charged with improving or maintaining the open space or facilities, and declaration of covenants and restrictions pertaining to each and every property within the subdivision; and
- 4. Declaration of covenants, conditions and restrictions pertaining to open space and facilities which assure the continued use of said facilities for the purpose intended, where open space or facilities are to be retained by the developer.

5-105.5 Final Community Association Documents

In any instance where a community association is to be created final drafts of community association documents shall accompany the Final Plan.

5-105.6 Formal Irrevocable Offers of Dedication

Where improvements are to be dedicated the Final Plan shall be accompanied by formal irrevocable offers of dedication to the public of all public ways and uses, utilities, parks, and easements, in a form approved by legal counsel, as applicable. (The subdivision plan shall be marked with a notation indicating the formal offers of dedication).

ARTICLE VI
CONSERVATION SUBDIVISIONS

SECTIONS

- 6-101 Purposes and Applicability
- 6-102 Approval Procedures
- 6-103 Lot Requirements
- 6-104 Design Process for Conservation Subdivisions
- 6-105 Planning and Design Standards for Conservation Subdivisions
- 6-106 Street Design in Conservation Subdivisions
- 6-107 Conservation Lands
- 6-108 Standards for Conservation Lands
- 6-109 Homeowners' Association
- 6-110 Ownership of Lands and Facilities Held in Common
- 6-111 Conservation Easement Holder
- 6-112 Maintenance of Conservation Lands, Commonly Held Lands and Facilities

6-101 PURPOSES AND APPLICABILITY

6-101.1 Purpose

These standards are intended to conserve significant Conservation Lands (see definition), both upland and lowland, consistent with the preservation goals and policies contained in the Town's Development Plan, and in a manner that respects the equity of landowners and the ability of developers to subdivide land at the density normally permitted in the underlying zoning district. It accomplishes this objective through the application of conservation design principles in new subdivisions.

In conformance with the Town Development Plan and with state enabling legislation, the purposes of this section also include:

1. To conserve open land, including those areas containing unique and sensitive natural features such as woodlands, steep slopes, streams, floodplains and wetlands, by setting them aside from development;
2. To provide greater design flexibility and efficiency in the siting of services and infrastructure, including the opportunity to reduce length of roads, utility runs, site grading, and the amount of paving required for residential development;
3. To reduce erosion and sedimentation by retention of existing vegetation, and minimization of development on steep slopes;
4. To promote the infiltration of stormwater on-site, thereby helping to recharge groundwater supplies.
5. To provide for a diversity of lot sizes, building densities, and housing choices to accommodate a variety of age and income groups, and residential preferences, so that the community's population diversity may be maintained;

6. To implement adopted Town policies to conserve a variety of irreplaceable and environmentally sensitive resource lands, including provisions for reasonable incentives to create a greenway system for the benefit of present and future residents;
7. To minimize impacts on environmental resources (sensitive lands such as wetlands, floodplain, and steep slopes) and disturbance of natural or cultural features (such as mature woodlands, hedgerows and tree lines, critical wildlife habitats, historic buildings, and fieldstone walls); as well as to provide opportunities to enhance or restore existing resources that have been diminished or degraded through past land management practices;
8. To protect areas of the Town and planning region with productive agricultural soils for continued or future agricultural use;
9. To create neighborhoods with direct visual access to open land, with amenities in the form of neighborhood open space, and with a strong neighborhood identity;
10. To provide for the conservation and maintenance of open land within the Town to achieve the above-mentioned goals and for active or passive recreational use by residents;
11. To conserve scenic views and elements of the Town's rural character, and to minimize perceived density, by minimizing views of new development from existing roads.

6-101.2 Application

Conservation Subdivisions are subject to the requirements of Section 6-300, entitled, CONSERVATION DESIGN OVERLAY DISTRICT (CDOD), of the Zoning Ordinance.

6-102 APPROVAL PROCEDURES

6-102.1 General

Approval of Conservation Subdivisions shall follow the approval procedures set out in Article II, of these regulations.

6-102.2 Additional Requirements and Review for the Conceptual Plan

In addition to standard subdivision review, review of the Conceptual Plan for a Conservation Subdivision shall include:

1. Location of the boundaries of the areas to be included as Conservation Lands as described in Subsections 6-107.1, Primary Conservation Areas, and 6-107.2, Secondary Conservation Areas.
2. Location of all areas proposed for grading, and other land disturbance with respect to notable features of natural, historical, or cultural significance identified by the applicant as part of the "Existing Resources and Site Analysis" required by Subsection 5-102.202.

3. Proposal for minimization of development impacts on resources to be conserved.
4. Evaluation of the proposed areas to provide additions to the existing open space network and greenway systems and to provide parks, green spaces and other open spaces.

6-102.3 Additional Requirements and Review for the Development Plan

In addition to standard subdivision review, review of the Development Plan for a Conservation Subdivision shall include:

1. A description of the measures to be taken to minimize and control adverse impacts on the Conservation Lands during and following the period of site disturbance and construction.
2. Evaluation of the Preliminary Conservation Ownership and Management Plan outlining the entities proposed to be responsible for maintaining various elements of the property and describing proposed management objectives and techniques.

6-102.4 Additional Requirements and Review for the Final Subdivision Plan

In addition to the Final Plan requirements listed in Article V, a Final Conservation Ownership and Management Plan, detailing the precise boundaries and exact acreage of all proposed Conservation Lands and the entities to be responsible for maintaining various elements of the property and describing proposed management objectives and techniques shall be required. Conservation Lands shall be shown as open space on the final plat. The location of all operating parts of any individual sewage disposal systems situated on lands held in common and any easements shall be shown on the final subdivision plat.

6-103 LOT REQUIREMENTS

6-103.1 Lot Yield

To determine the maximum density of the Conservation Subdivision see Section 6-305, Density Determination, of Section 6-300, of the Zoning Ordinance.

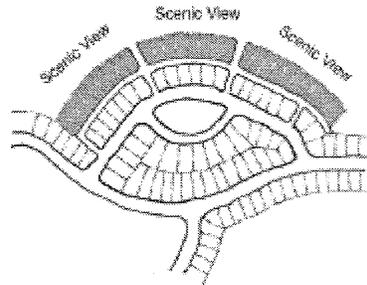
6-103.2 Lot Dimensions

The lot dimensions shall be as described in Section 6-304, DIMENSIONAL STANDARDS, of the Zoning Ordinance.

6-103.3 Lot Frontage

Each lot shall have frontage on a street or onto Conservation Lands. The street frontage on the Conservation Lands shall be of sufficient width to allow direct pedestrian access from each lot to the street. Lots fronting onto Conservation Lands shall have convenient vehicular access to a street or to a permanent easement via an alley or shared driveway.

FIGURE 6-1
LOT FRONTAGE ON CONSERVATION LANDS



6-103.4 Lot Frontage on Open Space

The Planning Commission may consider a Conservation Subdivision with lots fronting onto Conservation Lands with vehicular access from an alley, as illustrated in Figure 6-1. All alleys in Conservation Subdivisions are subject to the requirements of Subsection 6-106.3, Requirements for Alleys.

6-103.5 Multiple Lots on a Common Access Easement

Multiple lots may share a common access easement when doing so is the only way to develop permitted densities without disturbing Conservation Lands as described in Subsections 6-107.1 and 6-107.2. Each of the following restrictions shall apply:

1. Up to ten (10) lots may share a common access easement.
2. The lots shall be designed to ensure the health, safety, and welfare of future residents of the development in terms of access by service and emergency vehicles, pedestrian safety, and compliance with other applicable sections of the zoning ordinance.
3. For common access easements longer than one-hundred fifty (150) feet that terminate in a dead-end, a vehicle turnaround shall be provided.

6-103.6 Front Setbacks for Residential Buildings

The minimum front setback for residences with front-facing garages shall be the greater of forty (40) feet or that required by the applicable zoning provision. Except as provided for residences with front-facing garages, the maximum front setback shall be twenty (20) feet.

6-104 DESIGN PROCESS FOR CONSERVATION SUBDIVISIONS

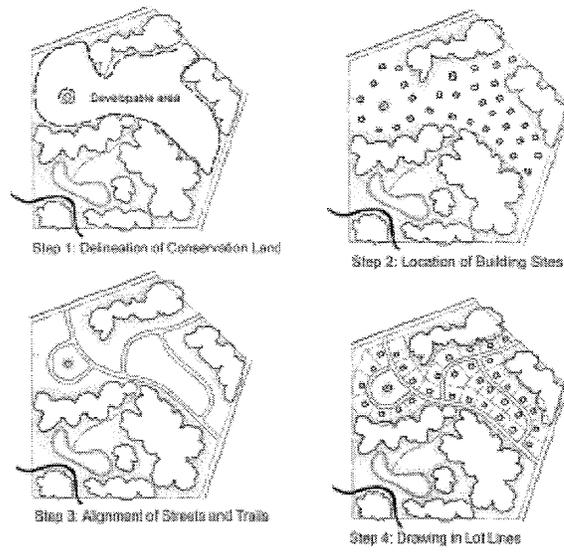
All Conceptual Plans for Conservation Subdivisions shall include documentation of a four-step design process in determining the layout of proposed Conservation Lands, house sites, streets and lot lines as described below and illustrated in Figure 6-2.

Step 1: Delineation of Conservation Lands

- 1) The percentage and acreage of required Conservation Lands shall be calculated by the applicant and submitted as part of the Conceptual Plan. Street rights-of-way shall not be counted towards the required minimum Conservation Lands.
- 2) Lands to be included as Conservation Lands shall be determined in the following manner:
 - a) All Primary Conservation Areas
 - b) If the Primary Conservation Areas do not make up at least fifty (50) percent of the tract, Secondary Conservation Areas shall be delineated to meet at least the minimum area percentage requirements. Secondary Conservation Areas shall be chosen for inclusion based on the priorities determined in Subsection 6-107.2, the configuration of the tract, the tract's context to adjacent resource areas, and the applicant's subdivision objectives.

FIGURE 6-2

FOUR STEP DESIGN PROCESS FOR CONSERVATION SUBDIVISIONS



- c) Conservation Lands situated outside of individual development lots shall be delineated in a manner clearly indicating their boundaries as well as types of resources included within them.

Step 2: Location of Building Areas

Potential building areas shall be tentatively located using the map delineating Conservation Lands, supplemented by existing conditions data required for Conceptual Plan approval. Buildings should generally be located no closer than one-hundred (100) feet from Primary Conservation Areas and fifty (50) feet from Secondary Conservation Areas, taking into consideration the potential negative impacts of residential development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences. Locating building areas on ridges, hilltops, along peripheral public streets or in other visually prominent areas should be minimized.

Step 3: Alignment of Streets and Trails

After designating the building areas, a street plan shall be designed to provide vehicular access to each building area, complying with the standards in these Subdivision Regulations and bearing a logical relationship to the topography of the property. Impacts of the street plan on proposed Conservation Lands shall be minimize, particularly with respect to crossing environmentally sensitive areas such as wetlands, streams, and slopes exceeding fifteen (15) percent. Street connections shall minimize the number of cul-de-sacs and facilitate access to and from building areas in different parts of the property and adjoining properties.

Step 4: Drawing in the Lot Lines

Upon completion of the Preceding three steps, lot lines shall be drawn as required to delineate the boundaries of individual residential lots.

6-105 PLANNING AND DESIGN STANDARDS FOR CONSERVATION SUBDIVISIONS

In addition to the requirements contained in the Articles I through V, for all subdivisions, the following standards shall apply to Conservation Subdivisions.

6-105.1 General Standards to Minimize Adverse Impacts

All subdivisions and land developments shall avoid or minimize adverse impacts on the Town's natural, cultural, and historic resources, as defined below.

6-105.2 Groundwater Resources

To ensure that the Town's limited groundwater resources are protected for purposes of providing water supplies to its residents and businesses and to protect the base flow of surface waters, these standards shall be applied in conjunction With those provided for in other sections of this regulation, dealing with groundwater conservation and replenishment.

The Proposed subdivision and development of any tract shall be designed to cause the least practicable disturbance to natural infiltration and percolation of precipitation to the groundwater table through careful planning of land disturbance activities and the placement

of streets, buildings, and other impervious surfaces in locations other than those identified on the Existing Resources and Site Analysis Map as having the greatest permeability where precipitation is most likely to infiltrate and recharge the groundwater.

6-105.3 Stream Valleys, Swales, Springs, and Other Lowland Areas

The Town's Open Space Plan describes and maps stream valleys (which include stream channels and flood plains), swales, springs, and other lowland areas as resources that warrant restrictive land use controls because of flooding hazards to human life and property, their groundwater recharge functions, their importance to water quality and the health of aquatic communities, and their wildlife habitats. They are generally poorly suited for on-site subsurface sewage disposal systems.

The following activities shall be minimized:

1. Disturbance to streams and drainage swales.
2. Disturbance to year-round wetlands, areas with seasonally high water tables, and areas of surface water concentration.
3. Because of their extreme limitations, stream valleys, swales, and other lowland areas warrant designation as Conservation Lands. They may also require adjoining buffer lands to be included in the open space as determined by an analysis of the protection requirements of such areas on a case-by-case basis. In certain instances, seasonal high water table soils may be excluded from the open space where it can be demonstrated that they are suitable for low-density residential uses and conventional on-site sewage systems.

6-105.4 Woodlands

Woodlands occur extensively throughout the Town, often in association with stream valleys and wet areas, poor and erodible agricultural soils, and moderate to steep slopes.

1. Woodland conditions within the Town vary with respect to species composition, age, stocking, and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands in the Town represent one or more of the following resource values.
 - (a) As soil stabilizers, particularly on moderate to steep slopes, thereby controlling erosion into nearby streams, ponds, impoundments, and roads. Closely related function is their enhancement of groundwater recharge.
 - (b) As a means of ameliorating harsh microclimatic conditions, in both summer and winter.
 - (c) As a source of wood products (i.e., poles, saw timber, veneer, and firewood.)
 - (d) As habitats for woodland birds, mammals, and other wildlife.
 - (e) As recreation resources for walkers, equestrians, picnickers, and other related outdoor activities.

- (f) As visual buffers between areas of development and adjacent roads and properties.
2. Because of their resource values, all woodlands on any tract proposed for subdivision or land development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as either Conservation Lands or as development lands. Evaluation criteria shall include:
- Configuration and size.
 - Present conditions (i.e., stocking, health, and species composition).
 - Site potential (i.e., the site's capabilities to support woodlands based on its topographic, soil, and hydrologic characteristics.)
 - Ecological functions (i.e., in protecting steep slopes and erodible soils, maintaining stream quality, and providing for Wildlife habitats).
 - Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas.
3. In designing a subdivision and land development plan for any tract, the applicant shall be guided by the following standards:
- (a) To the maximum extent possible healthy woodland exceeding one (1) acre shall be preserved and designated as Conservation Lands. Proposed site improvements shall be located, designed, and constructed to minimize the loss or degradation of woodland areas.
- (b) Subdivisions shall be designed to preserve woodlands along roadways, property lines, and lines occurring within a site such as streams, swales, stone fences, and hedgerows. Such lines and the native vegetation associated with them shall be preserved as buffers between adjacent properties and between areas being subdivided within a property. Preservation shall include ground, shrub, understory, and canopy vegetation.
- (c) Disturbance or removal of woodlands occupying environmentally sensitive areas shall be undertaken only when approved by the Planning Commission and on a limited, selective basis to minimize the adverse impacts of such actions. This shall include but not necessarily be limited to vegetation performing important soil stabilizing functions on wet soils, stream banks, and sloping lands.
- (d) No clearing or earth disturbance (except for soil analysis for proposed sewage disposal systems) shall be permitted on a site before approval of the Development Plan and accompanying land development agreements. The determination of sight distance clearances along roadways shall be made graphically and not by clearing on site prior to Final Plan approval.

6-105.5 Upland Rural- Agricultural Areas

These areas comprise fields, pastures, meadows, and former agricultural areas in early stages of woodlands succession. With fences, stone walls, tree copses, and hedgerows, typically bordered by stream valleys and upland woodlands. These constitute the Town's historic working landscape, dotted with historic houses, barns, and other structures. They give the Town much of its rural character. They also contain the greatest concentration of prime agricultural soils. Because of their openness and high visibility, development in these areas is likely to be most readily seen and disruptive to the historic landscape. They sometimes provide habitat for wildlife, in conjunction with nearby woodlands and stream valleys. However, it is recognized that these areas also frequently offer the fewest constraints for development.

1. Several elements of these working landscapes lend themselves to incorporation into the Town's open space network. These include prime agricultural soils and natural features that visually punctuate the landscape, such as hedgerows, tree copses, stone walls, and visually prominent places such as knolls and hilltops.
2. These areas can also accommodate development, with preferred locations being the nonprime agricultural soils and lower topographic settings where development will be visually less obtrusive. Compact clustered residential designs, with coordinated architectural and landscape architectural themes, are encouraged in highly visible locations where future development cannot be avoided (such as at the far edge of open fields).

6-105.6 Steep Slopes

Moderately sloping lands (fifteen (15) to twenty-five (25) percent) and steeply sloping lands (over twenty-five (25) percent) are prone to severe erosion if disturbed. Erosion and the resulting overland flow of soil sediments into streams, ponds, and public roads are detrimental to water quality and aquatic life and a potential hazard to public safety. Areas of steep slope shall be preserved as required below.

1. All grading and earthmoving on slopes exceeding fifteen (15) percent shall be minimized.
2. No site disturbance shall be allowed on slopes exceeding twenty-five (25) percent, except grading for a portion of a driveway accessing a single-family dwelling when it can be demonstrated that no other routing that avoids slopes exceeding twenty-five (25) percent is feasible.
3. On slopes of fifteen (15) to twenty-five (25) percent, the only permitted grading beyond the terms described above shall be in conjunction with the siting of a single-family dwelling, its access driveway, and the septic system (which should typically be designed with a long, narrow drainage field following the land contours).
4. Grading or earth moving on all sloping lands shall be in accordance with the standards established in Subsection 4-102.9, Grade Changing. Roads and driveways shall follow the line of existing topography to minimize the required cut and fill. Finished slopes of all cuts and fills shall be as required to minimize disturbance of natural grades.

6-105.7 Significant Natural Areas and Features

Natural areas containing rare or endangered plants and animals, as well as other features of natural significance, exist throughout the Town. Some of these have been carefully documented, whereas for others, only their general locations are known. Subdivision applicants shall take all reasonable measures to protect significant natural areas and features either identified by the Town's map of potential conservation areas or by the applicant's "Existing Resources and Site Analysis Map" by incorporating them into proposed Conservation Lands or avoiding their disturbance in areas proposed for development.

6-105.8 Historic Structures and Sites

Plans requiring subdivision and land development approval shall be designed to protect existing historic resources of all classes. The protection of an existing historic resource shall include the conservation of the landscape immediately associated with and significant to the resource to preserve its historic context. Where, in the opinion of the Planning Commission, a plan will have an impact on a historic resource, the developer shall mitigate that impact to the satisfaction of the Commission by modifying the design, relocating proposed lot lines, providing landscape buffers, or using other approved means.

6-105.9 Historic Rural Road Corridors and Scenic Viewsheds

The Town contains a number of historic rural roads in various locations. All applications for subdivision and land development shall attempt to preserve the scenic visual corridors along such roads by incorporating them into greenway areas or otherwise providing site designs to minimize their intrusion. In instances where such designs fail to protect the viewsheds along these corridors, applicants will be required to provide naturalistic landscape buffers to minimize their adverse visual impacts.

6-105.10 Rural Siting Principles

The following guidelines shall apply to the siting of residential and non-residential uses.

1. Wherever feasible, retain and reuse existing old farm roads and lanes rather than constructing new roads or driveways. This minimizes clearing and disruption of the landscape and takes advantage of the attractive way that old lanes are often lined with trees and stone walls. (This is not appropriate where reuse of a road would require widening in a manner that destroys trees or stone walls.)
2. Preserve stone walls and hedgerows. These traditional landscape features define outdoor areas in a natural way and create corridors useful for wildlife. Using these features as property lines is often appropriate, as long as setback requirements do not result in constructing buildings in the middle of fields.
3. Avoid placing buildings in the middle of open fields. Place them either at the edges of fields or in the ecologically least significant parts of wooded areas. Septic systems and leach fields should, however, generally be located in open fields, when possible, where soil conditions are likely to be better.

4. Use existing vegetation and topography to buffer and screen new buildings if possible. Site buildings in groups or tuck them behind treelines or knolls rather than spreading them out across the landscape in a "sprawl" pattern.
5. Minimize clearing of vegetation at the edge of the road, clearing only as much as is necessary to create a driveway entrance with adequate sight distance. Create curves in driveways to increase the screening of buildings.
6. Site buildings so that they do not protrude above treetops and crestlines of hills as seen from public places and roads. Use vegetation as a backdrop to reduce the prominence of the structure. Wherever possible, open up views by selective cutting of small trees and pruning lower branches of large trees, rather than by clearing large areas or removing mature trees.
7. Minimize crossing of steep slopes with roads and driveways. When building on slopes, take advantage of the topography by building multi-level structures with entrances on more than one level (e.g., walk-out basements, garages under buildings), rather than grading the entire site flat. Use the flattest portions of the site for subsurface sewage disposal systems and parking areas.

6-105.11 Location of Utility Systems

Since the most suitable conditions for wells and sewage disposal systems are generally not well distributed throughout a site, conservation design allows smaller lots to be concentrated where the best conditions exist. To facilitate the creation of smaller lots which can comply with Health Department standards for wells and sewage disposal systems, such facilities may be located within the Conservation Lands. The systems may be owned and maintained by individual property owners or by a Homeowners' Association.

6-106 STREET DESIGN IN CONSERVATION SUBDIVISIONS

6-106.1 General Design Parameters

The street network shall be designed to:

- Preserve existing tree lines, hedgerows, and watercourses.
- Minimize alteration of natural, cultural, or historic features.
- Promote pedestrian movement.
- Secure the view to prominent natural vistas.
- Minimize crossing of Primary Conservation Areas.

6-106.2 Detailed Design Elements

1. The street network shall form a connected pattern.
2. The street pattern shall be designed to respect and follow existing terrain as much as possible to minimize earthmoving and disturbance of the existing topography.

3. Streets may take the form of a two way street, a pair of one-way streets on either side of a landscaped median or a one-way loop street around a small neighborhood green.
4. Streets may be designed using the appropriate street types contained in these regulations. (See Subsection 4-106.2, General Design, and accompanying Tables 4-1 and 4-2.)
5. Connections shall be provided to existing or proposed through-streets or collectors adjacent to the subdivision, wherever practicable.
6. Cui-de-sacs are generally prohibited and shall be permitted only where all other street design alternatives, such as loop streets or closes shown in Figure 6-3, are not feasible and one of the following two conditions exists:
 - where natural features such as wetlands or steep slopes exist or other primary or secondary conservation areas that are not desirable to remove.
 - where connection to an existing or planned street is blocked by an existing permanent structure, an existing or planned freeway, or a protected open space area.

6-106.3 Requirements for Alleys

Alleys shall be strongly encouraged where practicable to reduce the need for curb cuts. The following standards shall apply to alleys within conservation subdivisions:

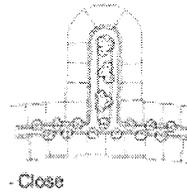
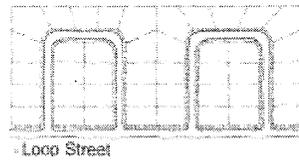
- Alleys, wherever practicable, shall connect with streets at their ends and dead-end alleys shall be avoided.
- Turnarounds shall be provided if a dead-end alley is longer than one hundred-fifty (150) feet.
- Alleys may contain turn and intersections with other alleys provided service vehicles can be accommodated.
- Alleys shall serve as a utility corridor and wherever practicable, utilities shall be located to the rear of buildings.
- The right-of-way of the alley shall be a minimum of twenty (20) feet.
- Public alleys shall be approved by the Town.
- For all lots where the distance from the dwelling unit to the street via the alley may be greater than one hundred-fifty (150) feet, the alley shall serve as a fire lane as well as providing vehicular access to dwelling units.

6-107 CONSERVATION LANDS

Conservation Lands are the undisturbed areas of at least fifty (50) percent of the tract to be set aside. Conservation lands are made up of Primary and Secondary Conservation Areas. All lands identified as Primary Conservation Areas shall be designated as Conservation Lands. If the Primary Conservation area makes up less than fifty (50) percent of the tract, the balance of the required Conservation Lands shall be made up of Secondary Conservation Areas.

FIGURE 6-3

ALTERNATIVES TO CUL-DE-SACS



6-107.1 Primary Conservation Areas

The following shall be considered Primary Conservation Areas and shall be included as Conservation Lands, unless the applicant demonstrates that this provision would be counter to the purposes of a Conservation Subdivision:

- The 100-year floodplain.
- All perennial and intermittent streams and associated floodways with a seventy-five (75) foot corridor measured from the outer edge of the floodway.
- Contiguous slopes over twenty (20) percent.
- Wetlands.
- Known habitat for rare, threatened, or endangered species.
- Archaeological sites, cemeteries and burial grounds.

6-107.2 Secondary Conservation Areas

Secondary Conservation Lands shall be prioritized on the tract in terms of their highest to least suitability for inclusion in the Conservation Lands. The following shall be considered Secondary Conservation Areas and shall be included in the Conservation Lands to meet at least minimum area percentage requirements for conservation lands:

- Existing healthy, native forests of a least one (1) acre contiguous area.
- Prime farmland soils and land in agricultural use.
- Designated historic and specimen trees.
- Other significant natural features and scenic viewsheds.
- Existing and planned trails that connect the tract to neighboring areas
- Contiguous slopes between fifteen (15) and twenty (20) percent.
- Significant historical and cultural sites.

6-108 STANDARDS FOR CONSERVATION LANDS

A major element of conservation subdivision design is to identify sensitive natural features of a site and to protect them and preserve their continuity both within the site and where they continue into adjacent lands. These lands should be delineated on the subdivision maps and permanently preserved as "open space". Conservation Lands shall be subject to the following standards.

6-108.1 Minimum Area

Designated Conservation Lands shall include at least the minimum percentage of the site required by Section 6-107, CONSERVATION LANDS.

6-108.2 Uses Permitted on Conservation Lands

The following uses are permitted on Conservation Lands:

1. Conservation of open land in its natural state (for example, woodland, fallow field, or managed meadow);
2. Agricultural and horticultural uses, including raising crops or livestock, wholesale nurseries, associated buildings, excluding residences that are specifically needed to support an active, viable agricultural or horticultural operation. Specifically excluded are commercial livestock operations involving swine, poultry, mink, and other animals likely to produce highly offensive odors.
3. Pastureland for horses used solely for recreational purposes. Equestrian facilities shall be permitted but may not consume more than half of the minimum required Conservation Lands.
4. Silviculture, in keeping with established standards for selective harvesting and sustained-yield forestry.
5. Neighborhood open space uses such as village greens, commons, picnic areas, community gardens, trails, and similar low-impact passive recreational uses, specifically excluding motorized off-road vehicles, rifle ranges, and other uses similar in character and potential impact as determined by the Planning Commission.
6. Active non-commercial recreation areas, such as playingfields, playgrounds, courts, and bikeways, provided such areas do not consume more than half of the minimum required Conservation Lands or five acres, whichever is less. Playingfields, playgrounds, and courts shall not be located within two hundred (200) feet of abutting properties. Parking facilities for the same shall also be permitted, and they shall generally be gravel-surfaced, unlighted, properly drained, provide safe ingress and egress, and contain no more than ten parking spaces.
7. Golf courses may comprise up to half of the minimum required Conservation Lands, but shall not include driving ranges or miniature golf. Their parking areas and any associated structures shall not be included within the minimum Conservation Lands requirement; their parking and access ways may be paved and lighted.
8. Water supply and sewage disposal systems, and stormwater detention areas designed, landscaped, and available for use as an integral part of the Open Space.
9. Easements for drainage, access, sewer or water lines, or other public purposes;
10. Underground utility rights-of-way. Above-ground utility and street rights-of-way may traverse conservation areas but shall not count toward the minimum required Conservation Lands.
11. Single-family residences on large "conservancy lots" of at least ten acres. Such lots may also have one accessory dwelling unit.

6-108.3 Design Standards for Conservation Lands

1. Conservation Lands shall be laid out to ensure that an interconnected network of open space will be provided, to the greatest extent practicable, considering both lands within the proposed subdivision and lands adjacent to it. The required Conservation Lands shall consist of Primary Conservation Areas, all of which must be included, and Secondary Conservation Areas. Primary areas include those areas listed in Subsection 6-107.1, Primary Conservation Areas. Secondary areas include other special features of the property that would ordinarily be overlooked or ignored during the design process.
2. Conservation Lands may be owned and maintained by a Homeowners' Association, land trust, another conservation organization recognized by the Town, or by a private individual (when properly protected by an approved conservation easement). In no case, however, shall less than thirty (30) percent of the land comprising the "Adjusted Tract Acreage" be available for the common use and passive enjoyment of the subdivision residents. These ownership options may be combined so that different parts of the Conservation Lands may be owned by different entities.
3. Up to ten (10) percent of the total tract acreage may be subject to the Town's public land dedication requirement (typically to provide potential connections with the Town's long-range trail network).
4. Buffers for Adjacent Public Parkland: Where the proposed development adjoins public parkland, a natural buffer at least one-hundred-fifty (150) feet deep shall be provided within the development along its common boundary with the parkland, within which no new structures shall be constructed, nor shall any clearing of trees or understory growth be permitted (except as may be necessary for street or trail construction). Where this buffer is not wooded, the Town may require vegetative screening to be planted, or that it be managed to encourage natural forest succession through "no-mow" policies and the periodic removal of invasive alien plant and tree species.

6-108.4 Other Requirements

1. No portion of any building lot may be used for meeting the minimum required Conservation Lands, except within "conservancy lots" of at least ten (10) acres on approved conservation easements. However, active agricultural land with farm buildings, excluding areas used for residences, may be used to meet the minimum required Conservation Lands.
2. Pedestrian and maintenance access, excluding those lands used for agricultural or horticultural purposes, shall be provided to Conservation Lands in accordance with the following requirements.
 - (a) Each neighborhood shall be provided with at least one centrally located access point a minimum of thirty-five (35) feet in width per fifteen (15) lots.
 - (b) Access to Conservation Lands used for agriculture may be appropriately restricted for public safety and to prevent interference with agricultural operations.
 - (c) All Conservation Lands that are not wooded or farmed shall be suitably landscaped.

6-108.5 Open Space Design, Connection and Access

When locating Conservation Lands the applicant shall:

1. Clearly delineate through signage or other means boundaries between individual development lots and Conservation Lands
2. Connect proposed Conservation Lands to any neighboring areas of open space or protected areas whenever possible.
3. Develop a pathway system connecting Conservation Lands accessible to neighborhood residents and connecting these areas to neighborhood streets and to planned or developed trails on adjacent tracts.
4. Ensure the portion of Conservation Lands designed to provide plant and animal habitat be kept as intact as possible and trails shall be designed to avoid fragmenting these areas.
5. Every effort shall be made to ensure that Conservation Lands are contiguous and narrow or isolated fragments of Conservation Lands shall be avoided.

6-109 HOMEOWNERS' ASSOCIATION

6-109.1 Homeowners' Association Required

A Homeowners' Association shall be established and membership in the association shall be mandatory for all purchasers of homes in the development and their successors.

6-109.2 By-Laws

The Homeowners' Association By-Laws, guaranteeing continuing maintenance of the open space and other common facilities, and the declaration of covenants, conditions, and restrictions of the Homeowners' Association shall be submitted for approval to the Enforcing Officer as part of the information required for the Development Plan.

6-109.3 Required Information

The Homeowners' Association By-Laws or the declaration of covenants, conditions and restrictions of the Homeowners' Association shall contain the following information:

- The legal description of the common land including any working agricultural uses as appropriate.
- A description of common facilities.
- The restrictions placed upon the use and enjoyment of the lands or facilities.
- Persons or entities entitled to enforce the restrictions.
- A mechanism to assess and enforce the common expenses for the land or facilities including upkeep and maintenance expenses, real estate taxes, and insurance premiums.

- A mechanism for resolving disputes among the owners or association members.
- The conditions and timing of the transfer of ownership and control of land and facilities to the association.
- Any other matter the developer deems appropriate.

6-110 OWNERSHIP OF LANDS AND FACILITIES HELD IN COMMON

6-110.1 Ownership Alternatives

The following provisions apply to the ownership of Conservation Lands within Conservation Subdivisions. The designated lands held in common, common open space and common facilities may be owned and managed by a Homeowners' Association or a combination of Homeowners' Association and the Town or an individual or group of individuals or wholly by the Town, an individual or group of individuals.

6-110.2 Homeowners' Association

Any land dedicated to a sewage disposal system or a conventional storm-water management device that requires a disturbance to the land shall be owned by the Homeowners' Association and shall be considered lands held in common.

6-110.3 Individual/Entity Ownership

An individual, a group of individuals, a nonprofit organization or a public body may hold fee simple title to the Conservation Lands not owned by the Homeowners' Association subject to use of the land in conformance with the Conservation Lands Management Plan, or granting of a permanent conservation easement to a third party.

6-110.4 Legal Instrument for Permanent Protection

Any Conservation Lands for which no conservation easement is granted to a third party (party other than owner of fee simple) shall be protected in perpetuity by a condition in the deed that any use of Conservation Lands not in conformance with the Conservation Lands Management Plan shall cause that land to revert back to its original owner, his heir or assigns, or by restrictive covenants in the deed that require use of Conservation Lands in conformance with the Conservation Lands Management Plan.

6-111 CONSERVATION EASEMENT HOLDER

6-111.1 Conservation Easement Holder Alternatives

The Conservation Easement on the Conservation Lands not owned by the Homeowners' Association shall be held by one of the following:

6-111.101 A Nonprofit Organization

A nonprofit organization devoted to conservation and preservation may be designated as the holder of the Conservation Easement for the Conservation Land not owned by the Homeowners' Association. The organization shall be acceptable to the Town Attorney. The focus of the conservation and preservation activities of the nonprofit shall include one or more of the following:

- i. Historic sites.
- ii. Archeological sites.
- iii. Agricultural uses.
- iv. Natural and hazard areas including:
 - Perennial and intermittent streams and associated floodways.
 - Floodplains.
 - Steeply sloped land.
 - Wetlands.
 - Known habitat for rare, threatened, or endangered species.
 - Forested or meadowlands.

6-111.102 Public Agency

A Public Agency involved in Conservation and Preservation may be designated as the holder of the Conservation Easement for the Conservation Land not owned by the Homeowners' Association.

6-111.2 Conservation Easement Holder in Place

The conservation easement holder shall be in place before building permits are issued.

6-112 MAINTENANCE OF CONSERVATION LANDS, COMMONLY HELD LANDS, AND FACILITIES

6-112.1 Conservation Lands Management Plan

A Conservation Lands management plan, approved by the Planning Commission shall be required that:

1. Allocates responsibility and guidelines for the maintenance and operation of the Conservation Lands, lands held in common and any facilities, including provision for ongoing maintenance and for long-term capital improvements.
2. Estimates the cost and staffing requirements needed for maintenance, operation, and insurance and outlines the means by which such funding shall be obtained or provided.
3. Provides that any changes to the management plan be approved by the Planning Commission.
4. Provides for enforcement of the management plan.

6-112.2 Maintenance of Natural Features

Natural features shall be maintained in their natural condition. The cost and responsibility of maintaining Conservation Lands and any facilities located thereon shall be borne by the property owner(s) as described in Section 6-110, OWNERSHIP OF LANDS AND FACILITIES HELD IN COMMON. Permitted modifications include:

- Reforestation.
- Woodland management.
- Pasture or cropland management.
- Buffer area landscaping.
- Stream bank protection.
- Wetlands management.
- Trails management.

6-112.3 Tax Assessment of Conservation Lands

Once a legal instrument for permanent protection has been placed upon the Conservation Lands, the tax assessor shall be notified of the reduction in development rights in order to initiate reassessment of the conservation lands to reflect the more limited use.

ARTICLE VII
DEFINITIONS

SECTIONS

- 7-101 Usage
- 7-102 Words and Terms Defined

7-101 USAGE

1. For the purpose of these regulations certain numbers, abbreviations, terms, and words used herein shall be used, interpreted, and defined as set forth in this article.
2. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense and words used in the plural include the singular; the word "herein" means "in these regulations"; and the word "regulations" means "these regulations".
3. A "person" includes a corporation, a partnership, and an unincorporated association of persons, such as a club; "shall" is always mandatory; a "building" or "structure" includes any part thereof; "used" or "occupied", as applies to any land or building, shall be construed to include "intended, arranged, or designed to be used or occupied".

7-102 WORDS AND TERMS DEFINED

Abutting. Lots that are touching or sharing a common point or line but does not include lots that are across a public way from each other.

Access. The place, means, or way by which pedestrians, bicyclists, and/or vehicles have safe, adequate, and usable ingress and egress to a property or use. A private access is an access not in public ownership or control by means of deed, dedication, or easement.

Adjacent. Lots that are touching or sharing a common point or line including lots that are across a public way from each other.

Alley. A low volume lane intended to provide access to the rear or side of lots or buildings and not intended for the purpose of through vehicular traffic.

Applicant. The owner or optionee of land proposed to be subdivided or his/her authorized representative, also referred to as subdivider or subdivider agent. See "Subdivider and Subdivider Agent".

Arterial Street. See "Street, Arterial."

Block. A tract of land bounded by streets or by a combination of streets and public lands, cemeteries, railroad rights-of-way, shorelines of waterways or any other barrier to the continuity of development.

Block Face. A single boundary of a block described in the definition of a block. A block face is opposing when it is across a public street.

Bond, Performance. An agreement and security to assure construction of roads, water and sewer systems or other public facilities in a form specified by Article III, of these regulations. (See Public Improvements.)

Building. Any structure built for the support, shelter, or enclosure of persons, animals, chattels, or movable property of any kind. The term includes any permanent structure including mobile homes.

Building Envelope. The area formed by the front, side and rear building restrictions or setback lines on a lot within which the principal buildings must be located.

Building Site. Land occupied or intended to be occupied by a building and interrelated buildings, together with all open space required to meet the provisions of any applicable zoning ordinance, which is located on a lot that has been lawfully created and meets all criteria of the local government for the intended use.

Capital Improvements Program. A schedule of all future projects, listed in order of construction priority, together with cost estimates and the anticipated means of financing each project. All major projects requiring the expenditure of public funds, over and above the annual local government operating expenses, for the purchase, construction, or replacement of the physical assets for the community are included.

Collector Street. See "Street, Collector."

Common Open Space. Any portion of a condominium site or a subdivision that is held in joint ownership by property owners or a Homeowners' Association and is intended for the use or enjoyment of the occupants. Common Open Space can include property that is left in a natural state and has primarily scenic value. Land to accommodate required subdivision infrastructure, including green infrastructure such as planting strips, street medians/islands, and conventional stormwater management devices, is excluded from common open space calculations. Conventional stormwater management devices are those designed to hold water for an extended period of time and require disturbance of the land in order to meet detention requirements. (See "Lands Held in Common")

Complete Application. The completed form or forms and all accompanying documents, maps, exhibits and fees required of an applicant, including all information required by the Submittal Checklist available from the Enforcing Officer.

Conceptual Plan. A plan drawn to scale that shows street, lot, and open space layouts, public dedications, and reservations, if any, and proposed environmental changes to the tract. It includes topographical information, existing site conditions, analysis, and off-site conditions of a minimum of 300 feet beyond the property boundaries.

Condominium. Joint domain (joint ownership) also horizontal property regime.

Conservation Easement. The grant of a property right or interest from the property owner to a unit of government or nonprofit conservation organization stipulating that the described land shall remain in its natural, scenic, open or wooded state, precluding future or additional development. The land may contain historic structures and archaeological sites.

Conservation Land. The portion of undeveloped land within a conservation subdivision that has been designated, dedicated, reserved or restricted in perpetuity from further development and is set aside under a conservation easement.

Conservation Subdivision. A residential development where at least fifty (50) percent or more of the land area is designated as undivided, permanent open space or farmland, thereby permanently protecting agriculturally, environmentally, culturally or historically significant areas within the tract. The subdivision is characterized by compact lots, common open space, and the preservation maintenance of natural, historical, and cultural resources. Conservation Subdivisions are an alternative approach to the conventional lot-by-lot division of land in rural areas that spreads development evenly throughout a parcel with little regard to impacts on the natural and cultural features of the area.

Construction Plan. The maps or drawings indicating the specific location and design of improvements to be installed in a subdivision or development.

Conventional Subdivision. A lot-by-lot division of land that spreads development evenly throughout a parcel, minimum lot size determined by underlying zoning

Cul-de-sac Street. See "Street, Permanent Dead End".

Deed Restriction. A restriction on the use of a property set forth in the deed.

Developer. The owner of land proposed to be subdivided or his authorized representative.

Drive. A way or place in private ownership and used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons that is not designed nor eligible to become a public right-of-way in the future.

Easement. Authorization by a property owner creating the right for the use by another, for a specified purpose, of any designated part of his property.

Engineer. See "Registered Engineer".

Equal Degree of Encroachment. The delineation of floodway limits so that floodplain lands on both sides of a stream are capable of conveying a proportionate share of flood flows. This is determined by considering the hydraulic conveyance of the floodplain along both sides of a stream for a significant reach.

Escrow. A deposit of cash with the county in lieu of posting a performance or maintenance bond.

External Subdivision Boundary. All points along the periphery of a subdivision.

Final Subdivision Plan. The final map or drawing and accompanying materials, described in these regulations, on which the subdivider's plan of the subdivision is presented to the Planning Commission and which, if approved, may be submitted to the Register of Deeds for recording.

Flood. A temporary rise in stream level that results in inundation of areas not ordinarily covered by water.

Flood Hazard Boundary Map. An official map on which the boundaries of the floodplain areas having special flood hazards have been delineated.

Flood Hazard or Flood Prone Area. The maximum area of the floodplain that, on the average, is likely to be flooded once every one hundred (100) years (i.e., that has a one (1) percent chance of being flooded in any year).

Floodplain. A land area adjoining a river, stream, watercourse, bay, or lake which is likely to be flooded. It is composed of a floodway and floodway fringe.

Flood Profile. A graph showing the water surface elevation or height or a particular flood event for any point along the longitudinal course of a stream. The flood profile is determined through the use of standard open-channel hydraulic calculations.

Floodproofing. Any combination of structural and nonstructural additions, changes, or adjustments to properties and structures which reduce or eliminate potential flood damage to lands; water facilities, sanitary facilities, and other utilities; structures; and contents of buildings; and which prevent pollution of floodwaters from such natural or man-made sources.

Floodway. The stream channel and adjacent overbank areas required to carry and safely discharge the 100-year flood without increasing flood levels more than one (1) foot above natural flood levels.

Floodway Fringe. The area adjoining a watercourse which, although not lying within a floodway, has been or may hereafter be covered by a 100-year flood.

Frontage. That side of a lot abutting on a street and ordinarily regarded as the front of the lot, but it shall not be considered as the ordinary side of a corner lot.

Frontage Street. See "Street, Frontage."

Grade. The slope of a road, other public facility, or terrain generally specified in percentage terms.

Governing Body. The chief legislative body of the community.

Greenway. An open space conservation area approved by the local government that provides passive recreational opportunities, pedestrian and/ or bicycle paths, and/ or protection of sensitive natural features, farmland, scenic views, and other unique features

Greenway Conservation Easement. A nonpossessory interest in real property imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural scenic, or open space values of real property; assuring its availability for agricultural, forest, recreational or open space use, protecting natural resources; or maintaining air and/or water quality.

Highway, Limited Access. A freeway or expressway providing a traffic-way for through traffic, in respect to which owners or occupants of abutting property or lands and other persons have no legal right of access to or from the traffic-way, except at such points and in such manner as may be determined by the public authority having jurisdiction over such traffic-way.

Hollow Core Turn- Around. The turn-around area of a permanent dead-end street (also, referred to as a cul-de-sac) that includes an interior landscaped island in the center of the turn-around.

Homeowners' Association. An incorporated community association responsible for the maintenance and management of commonly owned properties or facilities.

Improvements. See "Lot Improvement" or "Public Improvement".

Individual Sewage Disposal System. A septic tank and disposal field, seepage tile sewage disposal system, or any other sewage treatment device other than a public treatment system, that serves an individual lot.

Internal Subdivision Boundary. All points within a subdivision such as lot comers, street lines, etc., which do not constitute external boundaries.

Jurisdictional Area. Planning boundary(s) established in keeping with Sections 13-3-102, 13-3-201, and 13-3-301, Tennessee Code.

Lands Held in Common. Lands held in common are all lands held by a Homeowners' Association or equivalent and includes: lands designated as Common Open Space (see "Common Open Space" and "Common Open Space- Conservation Subdivision"); land used for the provision of infrastructure common to all subdivisions such as roads, sidewalks, planting strips, stormwater facilities, _planted portion of hollow-core turnarounds, closes and eyebrows; and land used for drainage fields for individual sewage disposal systems.

Land Surveyor. See "Registered Land Surveyor".

Landscape Buffer. A required yard located at the perimeter of the lot containing landscaping, berms, walls, or fences that shield use of adjacent properties from those uses occurring on the subject property.

Level of Service (LOS). A standard comparing a roadways traffic load to the roadways capacity. The Level of Service range, from LOS A (free flow) to LOS F (forced flow). The factors affecting LOS are numerous but include the lane widths, number of lanes, parking, bus stops, percentage of trucks, types of traffic controls, etc., LOS is determined using the procedures described in the Highway Capacity Manual (HCM) published by the Transportation Research Board (1RB).

Local Street. See "Street, Local".

Loop Street. See "Street, Loop".

Lot. A tract, plot, or portion of a subdivision or parcel of land intended as a unit for the purpose, whether immediate or future, for transfer of ownership or for creation of a building site.

Lot, Corner. A lot situated at the intersection of two streets the longest dimension of which is to be considered the side.

Lot, Double Frontage. A lot other than a comer lot that has frontage on two or more streets that do not intersect at a point abutting the property.

Lot, Flag. A lot, which has a minimum frontage on a public or private street that is reached via a private drive or lane and otherwise meets the dimension standards of the Zoning Ordinance.

Lot, Through. See "Lot, Double Frontage".

Lot Improvement. Any building, structure, work of art, or other object or improvement constituting a physical betterment of real property, or any part of such betterment.

Major Street. A street that is classified as a collector or arterial street according to these regulations or by the Major Street Plan. See "Street, Arterial," "Street, Collector," and "Major Street Plan".

Major Street Plan. The plan adopted by the Planning Commission, pursuant to Sections 13-3-402 and 13-4-302, Tennessee Code, showing, among other things, "the general location, character, and extent of public ways... (and) the removal, relocation, extension, widening, narrowing, vacating, abandonment or change of use of existing public ways..."

Major Subdivision. See "Subdivision, Major".

Minor Subdivision. See "Subdivision, Minor".

Off-Site (Also Off-Site Improvements). Any premises not located within the area of the property to be subdivided, whether or not in the same ownership of the applicant for subdivision approval.

Open Space. Open space includes, but is not limited to, parks, plazas, courtyards, playing fields, trails, greenways, and golf course. Open space may be public or privately held and may be used for active or passive recreation.

Owner. Any person, group of persons, firm or firms, corporation or corporations, or any other legal entity having legal title to or sufficient proprietary interest in the real property, including contracts to purchase.

Parcel. A single piece of land separately owned, either publicly or privately, and may be converted into a building site.

Pedestrian Access. Pedestrian accesses are accessways that provide direct and continuous pedestrian passage through blocks. They are designed to provide continuous pedestrian routes by connecting a public street to another public street or a residential area, neighborhood activity center, an industrial or commercial center, a transit facility, a park, a school, open space, or a trail facility.

Performance Bond. See "Bond".

Permanent Dead-End Street. See "Street, Permanent Dead-End".

Planning Commission. A public planning body established pursuant to Title 13, Chapters 2 or 5, Tennessee Code, to execute a partial or full planning program within authorized area limits.

Private Street. See "Street, Private".

Public Improvement. Any drainage ditch, roadway, Parkway, sidewalk, pedestrian way, tree, lawn, off-street parking area, lot improvement, or other facility for which the local governing body may ultimately assume responsibility for maintenance and operation.

Public Way. Any publicly owned street, alley, sidewalk, or right-of-way which provides for movement of pedestrians or vehicles.

Register of Deeds. The County Register of Deeds.

Registered Engineer. An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code, to practice in Tennessee.

Registered Land Surveyor. A land surveyor certified and registered by the State Board of Land Survey Examiners pursuant to Section 62-1803, Tennessee Code, to practice in Tennessee.

Registered Landscape Architect. Landscape architect certified and licensed by the State Board of Landscape Architects pursuant to Section 62-203, Tennessee Code, to practice in Tennessee.

Regulatory Flood. The one-hundred (100) year flood.

Regulatory Flood Protection Elevation. The elevation of the regulatory flood plus one (1) foot of freeboard to provide a safety factor.

Resubdivision. A change of any approved or recorded subdivision plat if such change affects any street layout on such map, or any area reserved thereon for public use, or any lot line, or if it affects any map or plan legally recorded prior to the adoption of any regulations controlling subdivisions.

Right-of-Way. A strip of land occupied or intended to be occupied by public facilities such as streets, crosswalks, railroads, electric transmission lines, oil or gas pipelines, water mains, sanitary or storm sewer lines, or for another special use. The usage of the term "right-of-way," for land platting purposes, shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or area of such lots or parcels.

Sanitary Sewer. A system of subterranean conduits that carries liquids or other waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (that carry surface water) and septic tanks or leech fields (that hold refuse liquid and waste matter on site).

Setback. The distance between a building wall and the nearest public way right-of-way.

Sidewalk. That portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for use by pedestrians.

Special Flood Hazard Map. The official map designated by the Federal Insurance Administrator to identify floodplain areas having special flood hazards.

Start of Construction. The first use of permanent construction materials on a site, such as the pouring of slabs or footings or any work beyond the state of excavation.

Street, Arterial. Any United States or state numbered route, controlled-access highway, or other major radial or circumferential street or highway designated by government within their respective jurisdictions as part of a major arterial system of streets or highways.

Street, Collector. A street whose principal functions include providing access to abutting properties and collection and distribution of traffic between local streets and the Arterial Street System.

Street, Close. A "U" shaped loop street having two open ends, each end generally connecting with the same street. Property fronts on the outside of the "U" but the interior of the "U" is a natural or landscaped open space. The close street is used as an alternative to cul-de-sacs in areas where it is difficult to provide a through street.

Street, Cul-De-Sac. See "Street, Permanent Dead-End".

Street Design (Standard Specifications and Details). The standards for engineering design and construction of roads, highways, streets, alleys, and related structures within a public street right of way or in an easement created to grant public use of a street.

Street, Eyebrow. An informal open space created along a street that preserves an existing natural feature that is in the path of the street.

Street, Frontage. A minor street giving access to lots usually running parallel to an arterial street. **Street,**

Local. A street whose principal function is providing access to individual properties.

Street, Loop. A local service street that originates from and returns to the same street.

Street, Minor Local. A dead-end or loop street providing service to no more than fifty (50) single-family residential lots or sixty-five (65) multi-family units.

Street Plan, Neighborhood. The pattern and hierarchy of streets that provide structure to a compact, walkable neighborhood. The organic network, curvilinear network, orthogonal grid, and diagonal network are types of neighborhood street plans that provide good connectivity, multiple routes, and efficient low-speed vehicular movement.

Street, Permanent Dead-End. A street or a portion of a street with only one vehicular-traffic outlet. Also referred to as a cul-de-sac street. (See also "Hollow Core Turn-Around".)

Street, Private. A way or place in private ownership and used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons. A private street is not maintained by the local government.

Street Right-of-Way Width. The distance between property lines measured at right angles to the centerline of the road.

Street, Temporary Dead-End. A local or collector, closed-end street that is only acceptable as a temporary street condition. Temporary dead-end streets are similar to cul-de-sacs except that they provide a temporary turnaround circle at their closed end. Temporary dead-end streets are designed to provide for future connections.

Street Trees. Species and varieties of trees identified and acceptable to the local government and utility providers for installation in a planting strip or sidewalk tree well within a street right-of-way. Street trees are a street architecture element and are provided to enhance the pedestrian experience and to enclose the space of the street.

Structure. Anything constructed above or below ground.

Subdivider. Any person who having an interest in land, causes it, directly or indirectly, to be divided, also referred to as applicant. See "Applicant".

Subdivider Agent. Any person who represents or acts for or on behalf of a subdivider or developer in selling, leasing, or developing or offering to sell, lease, or develop any interest, lot, parcel, unit, site, or plot in a subdivision, except an attorney-at-law whose representation of another person consists solely of rendering legal service.

Subdivision. "Subdivision" means the division of a tract or parcel of land into two (2) 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. (See Sections 13-3-401 and 13-4-301, Tennessee Code.)

Subdivision, Major. Any subdivision in which:

- (a) A public or private street is constructed or is required to be widened and no extension of public facilities is required,

- (b) Completion of public improvements (other than individual on-lot storm water management systems) or guarantee thereof is required;
- (c) Earthmoving activities will take place except that incidental to construction of a single-family dwelling on each lot; and
- (d) The dedication of a right-of-way or easement for construction of a public water or sewer distribution lines.

Subdivision, Minor. A division of land where the conditions for major subdivision review, as set out for a "Major Subdivision" are not present.

Subdivision, Partition. A division of land, fronting on an existing standard street and no new streets are proposed, creating not more than two (2) lots and not requiring public facilities or utility extensions. Partitions that require a variance or waiver from these regulations shall be deemed to be a minor or a major subdivision.

Substandard Street. Substandard meaning of less pavement, right-of-way width, construction technique, or otherwise non-conforming With current Standard Specifications and Details as is required by these regulations for the applicable class of street.

Substantial Completion. Where the stage of constructions of public facilities has progressed to the point of rendering the facility usable for the intended purpose. Project or construction activity is complete except for cleanup, minor landscaping, etc.

Temporary Improvement. Any improvement built and maintained by a subdivider during construction not intended to be a permanent structure or facility.

Town Development Plan. The official statement of the Planning Commission which sets forth major policies concerning future development of the jurisdictional area and meeting the provisions set forth in Sections 13-3-301, 13-3-302, and 13-4-102, Tennessee Code.

Tract. A specified stretch of land to be subdivided.

Unified Plat of Subdivision. A property plat(s) approved by the Planning Commission and recorded by the Register of Deeds which either creates new lots or rerecords existing lots for the purpose of achieving a coordinated and inter-related form of development and/or manner of operation, utilizing the plat to identify and establish by appropriate notes and legal cross references those development or operational opportunities and/or limitations as authorized by the Zoning Ordinance and assigned to the subject lots by the owner(s) of the property.

Water Body. A standing pool of water such as a lake or pond either natural or manmade with or without a defined inlet or outlet.

Water Course. A natural or manmade channel for the movement of water.

Yard. The area of any lot where building is restricted by the Zoning Code, including front and side yards which shall remain unobstructed by buildings, and rear yard which shall remain unobstructed by the principal building.

Zoning Ordinance. The Zoning Ordinance adopted by the local government.

ARTICLE VIII

ADOPTION OF REGULATIONS AND AMENDMENTS

8-101 NOTICE OF PUBLIC HEARING FOR AMENDMENTS TO THE SUBDIVISION REGULATIONS

8-101.1 Notice of Public Hearing for Amendments to the Subdivision Regulations

Prior to the consideration of amendments to the regulations or new regulations, the Planning Commission shall set a date for a public hearing. The public hearing shall be advertised in the body of one newspaper of general circulation thirty (30) days prior to the date of the public hearing. (Section 13-4-303 (c), Tennessee Code Annotated)

8-102 ORIGINAL ENACTMENT

8-102.1 Original Enactment

In order that land shall be subdivided in accordance with the objectives and standards set forth in these regulations, these Subdivision Regulations are hereby adopted this ____ day of the month of _____, 2006, and shall be in full force and effect _____.

8-102.2 Public Hearing

Pursuant to Section 13-4-303 (c), Tennessee Code, a public hearing was held on these regulations on _____, 2006, at _____ p.m., at City Hall in Kingston Springs, Tennessee.

8-102.3 Public Hearing Notice

Notice of the Public Hearing was given by publication in the _____, on _____, 2006.

8-102.4 Signatures

Original signatures are on file at the Kingston Springs City Hall.

Chairman

Date

ATTEST:

Secretary

Date

APPENDIX A
STREET CONSTRUCTION SPECIFICATIONS

**SPECIFICATIONS FOR STONE BASE
C-W MIXTURE SURFACE**

SECTION I

GENERAL

A. JURISDICTION

These rules and regulations governing the construction of roads and streets shall apply within the planning jurisdiction.

B. PURPOSE

The purpose of these specifications is to establish standards of design and construction, including construction procedures and quality of materials, that are adequate to assure the safety, convenience, and welfare of the people within the planning jurisdiction.

C. DEFINITIONS

1. Local Government - The city or county government having jurisdiction within the area where a development is located.
2. Local Government Engineer - That individual designated by the local government to receive and review plans submitted in conformance with the provisions of this section.
3. Engineer - An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-2-101, Tennessee Code annotated.
4. Enforcing Officer - That individual designated by the chief executive officer of the local government to enforce these provisions.
5. Standard Specifications - Standard Specifications for Road and Bridge Construction, Tennessee Department of Transportation, Bureau of Highways, Nashville, Tennessee, March 1, 1981, and subsequent revisions and additions.
6. A.A.S.H.T.O. - American Association of State Highway and Transportation Officials.
7. A.S.T.M. - American Society for Testing Materials.
8. Basic Regulations - The basic subdivision regulations of Kingston Springs to which this material is attached as an appendix.

D. APPROVALS

All construction plans shall be prepared and submitted to the local government engineer. The content and submission procedure shall be as set forth in SECTION II, PLANNING.

E. ACCEPTANCE

Acceptance for public maintenance of any facilities or improvements located within any subdivision may only be accomplished by formal action of the governing body in the manner established in Subsection 3-101.7, Basic Regulations. Any approval of plans, etc., submitted in conformance with these provisions, shall not in any manner bind or presuppose acceptance of these facilities by the governing body.

F. RESPONSIBILITY FOR COMPLIANCE

In all matters involving enforcement of, or compliance with, the provisions contained herein, the subdivider (as defined in Basic Regulations, Section 6-102) is considered as the party legally responsible for performance; and the use of engineers, contractors, or other agents shall in no way diminish or absolve the subdivider of this basic responsibility.

SECTION II

PLANNING

A. PLAN PREPARATION

All construction plans for improvements within land subdivisions shall be prepared by engineers registered to practice within the State of Tennessee. The plans shall bear the stamp and signature of the individual responsible for their preparation.

B. CONTENT

The information set forth in Section 5-103, Basic Regulations, shall be required upon each and every plan submitted hereunder. In any instance where special conditions may warrant, additional data may be required.

C. SUBMISSION, REVIEW, AND APPROVAL

When the plans are complete, with all required data entered there on, they shall be submitted to the local government engineer for review and comment prior to formal presentation before the planning commission. If the local government engineer finds that the plans are in order and all required information is presented, he shall forward the plans to the planning commission for review and approval. Should any disagreement between the local government engineer and the subdivider (or his engineer) arise as to the nature of, or requirement for, any particular improvement or facility, the plans may be forwarded to the planning commission for arbitration of the dispute.

Action by the planning commission may come in the form of unconditional approval of the plans as submitted, conditional approval, or disapproval. Should the commission's action come in the form of conditional approval, the applicant may modify and resubmit the plans to the local government engineer for further review. Should the local government engineer find that the conditions established by the commission have been met, he may so certify in which instance the plans shall be considered approved. Should the commission act to conditionally approve the plans and no subsequent action is pursued by the subdivider (or his engineer) for a period of six (6) months following the date on which action was taken by the planning commission, the plans shall become null and void and any subsequent action shall require submission of new plans.

D. ACTION UPON APPROVAL

Once the plans have received approval as set forth above, construction may begin.

SECTION III
TYPICAL SECTIONS

DRAWING A-1	-	DETAIL OF STANDARD LADDER BARS
DRAWING A-2	-	COMBINATION MANHOLE – INLET
DRAWING A-3	-	COMBINATION M. H. INLET – SHALLOW TYPE
DRAWING A-4	-	DETAILS OF SINGLE INLET
DRAWING A-5	-	DETAILS OF SINGLE INLET
DRAWING A-6	-	DETAILS OF DOUBLE INLET
DRAWING A-7	-	DETAILS OF DOUBLE INLET
DRAWING A-8	-	DETAILS OF TRIPLE INLET
DRAWING A-9	-	REINFORCED CONCRETE HEADWALL
DRAWING A-10	-	AREA DRAIN
DRAWING A-11(A)	-	STRAIGHT HEADWALL FOR CIRCULAR PIPE
DRAWING A-11(B)	-	MITERED HEADWALL
DRAWING A-12	-	REINFORCED CONCRETE HEADWALL
DRAWING A-13	-	STANDARD CONCRETE SIDEWALK
DRAWING A-14	-	CURB DETAILS
DRAWING A-15	-	STANDARD DRIVEWAY RAMPS
DRAWING A-16	-	TYPICAL CURB AND GUTTER INLET CASTINGS
DRAWING A-17	-	CONCRETE LINED DITCH
DRAWING A-18	-	TYPICAL STABILIZED DITCH SECTION
DRAWING A-19	-	TYPICAL PAVEMENT SECTION
DRAWING A-20	-	RESIDENTIAL STREETS
DRAWING A-21	-	COMMERCIAL AND INDUSTRIAL STREETS
DRAWING A-22	-	MINOR STREET – SUBCOLLECTOR
DRAWING A-23	-	COLLECTOR

DRAWING A-1
DETAIL OF STANDARD LADDER BARS

DRAWING A-2
COMBINATION MANHOLE – INLET

DRAWING A-3

COMBINATION M. H. INLET – SHALLOW TYPE

DRAWING A-4
DETAILS OF SINGLE INLET

DRAWING A-5
DETAILS OF SINGLE INLET

DRAWING A-6
DETAILS OF DOUBLE INLET

DRAWING A-7
DETAILS OF DOUBLE INLET

DRAWING A-8
DETAILS OF TRIPLE INLET

DRAWING A-9
REINFORCED CONCRETE HEADWALL

DRAWING A-10
AREA DRAIN

DRAWING A-11(A)
STRAIGHT HEADWALL FOR CIRCULAR PIPE

DRAWING A-11(B)
MITERED HEADWALL

DRAWING A-12
REINFORCED CONCRETE HEADWALL

DRAWING A-13
STANDARD CONCRETE SIDEWALK

DRAWING A-14
CURB DETAILS

DRAWING A-15
STANDARD DRIVEWAY RAMPS

DRAWING A-16

TYPICAL CURB AND GUTTER INLET CASTINGS

DRAWING A-17
CONCRETE LINED DITCH

DRAWING A-18
TYPICAL STABILIZED DITCH SECTION

DRAWING A-19
TYPICAL PAVEMENT SECTION

RESIDENTIAL STREETS

COMMERCIAL AND INDUSTRIAL STREETS

MINOR STREET – SUBCOLLECTOR

COLLECTOR

SECTION IV

MATERIALS SPECIFICATION AND CONSTRUCTION PROCEDURES

A. PRELIMINARY WORK

1. Location and Protection of Underground Utilities

Prior to beginning excavation or grading, the subdivider shall determine, insofar as possible, the actual locations of all underground utilities in the vicinity of his operations and shall clearly mark them so that they can be avoided by equipment operators. Where such utility lines or services appear to lie in the path of construction, they shall be uncovered in advance to determine their exact location and depth and to avoid damage due to excavation or grading operations. Existing facilities shall be protected during construction or removed and replaced in equal condition, as necessary.

Should any existing utility line or service be damaged during or as a result of the subdivider's operations, the subdivider shall take such emergency measures as may be necessary to minimize damage and shall immediately notify the utility agency involved. The subdivider shall then repair the damage to the satisfaction of the utility agency or shall pay the utility agency for making the repairs. In all cases the damaged structure shall be in as good or better condition as before the damage occurred.

2. Surveying and Staking

The subdivider shall be responsible for his own surveys and establish his own grades unless otherwise directed by the enforcing officer.

3. Removal of Obstructions

The subdivider shall be responsible for the removal, safeguarding, and replacement of fences, walls, structures, culverts, street signs, billboards, shrubs, mailboxes, or other obstructions which must be moved to facilitate construction. Such obstructions shall be restored to at least their original condition.

4. Clearing and Grubbing

The subdivider shall be responsible for cutting, removing, and disposing of all trees, brush, stumps, roots, and weeds within the construction area. Disposal shall be by means of chippers, landfills, or other approved methods not in conflict with state or local ordinances.

Care shall be taken to avoid unnecessary cutting or damage to trees not in the construction area. The subdivider shall be responsible for loss or damage to trees outside the permanent easement or rights-of-way.

5. Traffic Control and Safety

The subdivider shall provide and maintain access to and from all properties along the line of his work. The subdivider shall also provide temporary bypasses and bridges where necessary to route traffic and shall maintain them in a safe and usable condition whenever, in the opinion of the enforcing officer, detouring of traffic to parallel routes cannot be done without hardship or excessive increase in travel by the public.

Where single-lane bypasses are provided the subdivider shall furnish signalmen to control traffic operations and minimize delays.

The subdivider shall provide, erect, and maintain adequate barricades, warning signs, and lights at all excavations, closures, detours, points of danger, and uncompleted pavement.

B. ROADWAY CONSTRUCTION

1. Stripping, Stockpiling, and Placing Topsoil

All topsoil shall be stripped within the street right-of-way and from any other area designated by the enforcing officer. Topsoil shall be stored in stockpiles. All organic matter within the right-of-way shall be stripped and disposed of unless directed otherwise by the enforcing officer.

A two (2) or three (3) inch layer of topsoil shall be placed where seeding is required or where required by the enforcing officer.

After the stockpiled topsoil has been placed as specified above, the area where the topsoil was stockpiled shall be neatly graded and dressed.

2. Excavation

Excavation shall conform to limits indicated on the plans. Excavation materials shall be removed in such manner that the slopes can be neatly trimmed. Excavation shall not be made below grade except where rock or stone masonry is encountered or undercutting of unstable materials is required. Materials removed below grade shall be replaced with approved materials thoroughly compacted. Where borrow materials are required to complete embankments or fills the subdivider shall be responsible for providing them.

Rock excavation shall be removed to a minimum depth of twelve (12) inches below the subgrade and backfilled with approved materials which shall be thoroughly compacted.

Where a spring or seepage water is encountered that is not provided for on drainage plans it shall be reported to the enforcing officer.

3. Fills and Embankments

Embankment and fill materials shall be free from frost, stumps, trees, roots, sod, or muck. Only materials from excavation or borrow pits, or other materials approved by the enforcing officer shall be used. Materials shall not be placed on frozen ground.

Where excavated materials are used in fill construction and the materials consist of earth and various grades of rock, the fills shall be carefully constructed with the larger or hard rock on the bottom followed by the smaller or soft rock and finally the earth fill to provide a well-compacted and void-free embankment.

All depressions or holes below the natural ground surface, whether caused by grubbing, rock removal, undercutting, or otherwise, shall be filled with suitable materials and compacted to ground surface before fill construction is started.

Backfilling around a structure shall have been completed and thoroughly compacted to ground surface before any embankment materials are placed thereon.

Embankments shall be so constructed that adequate surface drainage will be provided at all times.

Fill areas shall be compacted by a sheep's foot roller, to a density of not less than ninety-five (95) percent of optimum density and each lift of fill materials shall be rolled until the roller "walk out".

The finished grade shall be test rolled with a truck to be selected by the enforcing officer. Any areas found to be soft or "pumping" shall be cut out and replaced with suitable materials in lifts, each lift shall be compacted until the excavation has been brought back to finish grade.

Fill materials shall be placed in eight (8) inch lifts, maximum thickness. Where excavated materials consist mainly of rock too large to be placed in the normal eight (8) inch thickness without crushing or further breaking down the pieces, such materials shall be placed in the fill in layers not exceeding three (3) feet in depth. No rock larger than eighteen (18) inches in dimension shall be placed in fill. Care shall be taken to fill all voids between large rock and to assure that fill materials are compacted such that settling is minimized. Compaction of the top six (6) inches of cuts or fills shall be accomplished with pneumatic-tire rollers.

Backfill around structures shall be of crushed stone or earth meeting the approval of the enforcing officer; and the fill shall be placed and compacted in eight (8) inch lifts and brought up evenly on all sides of the structure.

4. Undercutting

This work shall consist of the removal and disposal of unsatisfactory materials below grade in cut sections or areas upon which embankments are to be placed. It shall also include undercutting for pipes and box culverts where required.

Known areas to be undercut shall be designated on the materials approved by the enforcing officer. The backfill materials shall be placed in eight (8) inch lifts and compacted as specified for fill construction.

Disposal of unsatisfactory materials shall be approved by the enforcing officer.

5. Subgrade Considerations

The subgrade shall be prepared in reasonably close conformity with the lines and grades as shown on the plans.

Grading of subgrade shall be performed in such manner as to provide ready drainage of water. Ditches and drains shall be maintained to provide proper drainage during construction.

Hauling over finished subgrade shall be limited to that which is essential for construction purposes, and all ruts or rough places that develop in a completed subgrade shall be smoothed and recompact. Soft areas shall be removed and replaced with crushed stone or as directed by the enforcing officer.

The subgrade shall have a six-inch crown at the roadway centerline.

The subgrade shall be checked and approved by the enforcing officer for adherence to the plans before any base materials are placed.

6. Shoulders and Slopes

All shoulders and slopes shall be trimmed and shaped to conform with the cross sections shown on the plans and as specified in Section C-5, below. Rock cuts shall be sealed of all loose fragments, projecting points, etc., so as to leave a clean and neat appearance. Shoulders shall be completed where required as shown on the plans and shall be double bituminous surface treated, with care being taken to protect the surface and edges of pavement. Shoulder materials shall be placed in uniform layers and compacted by overlapped rolling of both base course and pavement. The finished shoulder shall be firm against the pavement.

C. PREPARATION OF SUBGRADE

1. Fill material shall be evenly and uniformly spread in layers not to exceed eight (8) inches in thickness over the entire width and thickness of the embankment section. Each layer shall be thoroughly rolled with an approved sheeps foot or pneumatic tired roller. If in the opinion of the towns' consulting engineer, the soil is too dry, water will be added by a pressure distributor or other approved method. Soils which are too wet will be allowed to dry before compaction and further filling is attempted.
2. Fills shall be compacted to ninety-five (95) percent of the maximum dry density according to standard proctor density (ASTM-D-698-latest edition) material used. Subgrade density tests shall be conducted by a local testing laboratory, approved by the town and licensed by the State of Tennessee, being furnished at the expense of the developer/owner and two copies of said report submitted directly to the towns consulting engineer and the Town of Kingston Springs. The developer/owner shall

request in writing to the City Manager of Kingston Springs when (the date envisioned) any inspection by the towns' consulting engineer of the subgrade is desired. A minimum of one subgrade density test for every constructed subdivision street and/or one thousand (1,000) feet of roadway therein shall be required.

It shall be the responsibility of the towns' consulting engineer to decide after the filing of the request for inspection by said developer/owner, the location of all test area(s) as well as the time or date the testing by an approved testing laboratory shall be conducted.

The developer/owner shall be responsible for reimbursing the Town of Kingston Springs for all costs engendered by the Towns' consulting engineer, with respect to the evaluation of the test site(s), as well as the required laboratory testing report.

If in the findings of the test report and the review of such report any repetition of such test is required, the cost of such test, as well as the test and subgrade review fees of the towns' consulting engineer shall be borne solely by the project developer/owner.

3. If rock is encountered it shall be removed to a depth of at least twelve (12) inches below the subgrade of the road, and suitable backfill material will be used to build the cut section up to proposed grade.
4. The finished subgrade shall provide for super-elevation and crown of the roadway. D.

BASE AND PAVING

1. Typical Section

The type base and surface to be used shall be shown on the approved plans and shall not vary from the typical roadway sections of these specifications. The placement of all base and surface materials shall be at the expense of the developer/owner. Test of the subgrade by a private testing laboratory, shall be submitted to the towns' consulting engineer for approval prior to placement of the base course.

2. Crush Stone Pug Mill Mix to Be Used in Roadway Base Construction

- a. After the subgrade has been inspected and approved, by the towns' consulting engineer or his authorized representative, a base shall be constructed of the width and thickness indicated in the roadway typical sections.
- b. Description: Crushed stone base (Pug Mill Mix) shall consist of a base course constructed with an approved mixture of crushed stone, water, an calcium chloride, bonded by rolling and/or vibratory compaction; maintained under traffic; and inconformity with the lines, grades, and cross sections as indicated on the plans.
- c. Scope: These specifications cover the quality, gradation, and mixing of materials composing Pug Mill Mix to be used in roadway base courses.

- d. Materials: All materials used in this construction, in addition to the general requirements of these specifications, unless otherwise stipulated, shall conform to the technical specifications as set forth below:

Aggregates for Mineral Aggregate Base and Surface Courses shall be crushed stone, crushed slag, crushed or uncrushed gravel, or crushed or uncrushed chert, together with such material as manufactured sand or other fine materials naturally contained, or added thereto as needed to conform with these specifications.

- (1) The aggregate for mineral aggregate base and surface courses shall consist of hard durable particles or fragments of stone, slag, gravel, or chert, and other finely divided mineral matter. Individual materials shall meet the requirements specified below:
- (2) Crushed stone shall be free of slit and clay. The coarse aggregate portion of the stone shall have a percentage of wear of not more than fifty, and when subjected to five alternations of the sodium sulfate soundness test, the weighted percentage of loss shall not exceed fifteen.
- (3) Crushed slag shall be free of silt and clay and shall meet the quality requirements of crushed stone. It shall be reasonably uniform in density and shall have a dry rodded weight of at least seventy pounds per cubic foot.
- (4) Crushed gravel and crushed chert shall be screened and all oversize material shall be crushed and fed uniformly back over the screen. The coarse aggregate portion (retained on the No. 4 sieve) shall have a percentage of wear of not more than thirty (30). The portion of the material passing the No. 40 sieve shall be non-plastic, or shall have a liquid limit of not more than twenty-five and a plasticity index of not more than six.

If fine aggregate, coarse aggregate or binder, in addition to that present in the base material, is necessary in order to meet the gradation requirements, or for satisfactory bonding of the material, it shall be uniformly blended with the base course material at the mixing plant by a mechanical feeder to maintain a uniform flow on the belt to the mixer. Blending of materials on the stockpiles or in the pits by bulldozer, clamshell, dragline or similar equipment will not be permitted.

The composite gradation of this aggregate shall be as follows:

Total per Cent by Weight, Passing Sieves

<u>Grading</u>	<u>1 1/2"</u>	<u>1"</u>	<u>3/4"</u>	<u>3/8"</u>	<u>No. 4</u>	<u>No. 16</u>	<u>No. 100</u>
D	100	85- 100	60- 95	50- 80	40- 65	20- 40	9- 18

- (5) Calcium Chloride will be incorporated in the crushed stone aggregate base material mixture at a rate of approximately 0.06 bag of Type two (2) (concentrated) per ton of aggregate (based upon a bag weight of 80 pounds this will be approximately 5 pounds of calcium chloride per ton of aggregate). Calcium chloride used shall conform to the requirements of AASHOM-144.
- (6) Water shall be incorporated in the crushed stone aggregate base material mixture during the mixing operation in the amount necessary to provide a moisture content satisfactory for compacting. Water used in the mixing process shall be reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable matter, or other substances injurious to the finished product. Water will be tested in accordance with AASHO T 26. Water known to be of potable quality may be used without test. Where the source of water is relatively shallow, the intake shall be so enclosed as to exclude silt, mud, grass, or other foreign materials.

The mixture shall be deposited uniformly on the subgrade from spreader boxes in a minimum of two equal layers. After each layer is deposited, it shall be smoothed to grade and cross-section with a power grader and rolled.

The compacted dry weight per cubic foot of material in each layer shall not be less than ninety-eight (98) percent of that determined as an average of maximum compaction for the material in use. The determination of the average maximum compacted dry weight (pounds per cubic foot) shall be calculated by multiplying the Specific Gravity of the mineral aggregate by fifty-three (53). This compacted density requirement shall apply regardless of the type of compaction used. Testing shall be conducted by a State licensed testing laboratory, approved by the Town, and shall be at the expense of the developer/owner. Two copies of said test report shall be furnished for approval; one copy going to the towns' consulting engineer, and the other to the Town of Kingston Springs. The developer/owner shall request in writing to the City Manager of Kingston Springs when (the date envisioned) any inspection by the towns' consulting engineer of the base is desired. A minimum of one compaction test is required in every subdivision development requiring a new street, with such test(s) being conducted at least every one thousand (1,000) feet of roadway therein.

It shall be the responsibility of the towns' consulting engineer to decide after the filing of the request for inspection by said developer/owner, the location of all test

area(s) as well as the time or date the testing by approved testing laboratory shall be conducted.

The developer/owner shall be responsible for reimbursing the Town of Kingston Springs for all costs engendered by the Towns' consulting engineer, with respect to the evaluation of the test site(s), as well as the required laboratory testing report.

If in the findings of the test report and the review of such report any repetition of such test is required, the cost of such test, as well as the test and subgrade review fees of the towns' consulting engineer shall be borne solely by the project developer/owner.

3. Penetration Paving

(a) Prime Coat

After the base stone has been prepared as outlined above, a bituminous prime coat shall be applied uniformly over the surface of the base by the use of an approved bituminous distributor. The prime coat shall be applied at the rate of the three-tenths (3/10) gallon per square yard, using Grade RC-70 or RC-250, or refined tat Grade RT-2, RT-3, or emulsified asphalt, Grade AE-P. If, after the bituminous materials have been applied, they fail to penetrate before the time that the roadway is to be used by traffic, dry cover materials shall be spread at a rate established by the enforcing officer, (between eight (8) and twelve (12) pounds per square yard) to prevent damage to the primed surface. An excess of cover materials shall be avoided. No succeeding stage of construction shall be placed upon the prime coat until it has properly cured. Aggregate for cover materials shall be Size No. 78 or 8.

In addition to these general requirements, unless otherwise stipulated, all materials and methods of installation shall conform to the technical specifications set forth in Section 402, Standard Specifications.

(b) "C-W" Mixture Surface Treatment

After the prime coat has been installed in the manner set forth above, a surface treatment of 2 1/2 inches of Grading "C-W" Mixture shall be installed.

In addition to these requirements, unless otherwise stipulated, all materials and installation method shall conform to the technical specifications set forth in Section 307, Standard Specifications.

4. Shoulders

Shoulder construction shall be completed by blading, moistening as necessary, and by thoroughly compacting. The shoulders shall be the width and thickness shown on the typical section as required herein and covered with a prime coat of bituminous materials at a rate of between 0.38 and 0.42 gallons per square yard.

All materials and methods of installation shall conform to the technical specifications set forth in Section 402, Standard Specifications.

E. DRAINAGE SYSTEM DESIGN

1. Ditching and Channelization

This work shall consist of the construction of ditches adjacent to roadway shoulders and feeding to and from culverts under or adjacent to the roadway. All drainage ditches shall be graded in their entirety during the time the roadways are being graded; such grading shall be completed prior to final inspection of the roadways.

2. Stabilization of Ditches

All open ditches shall be stabilized in accordance with the following requirements:

Size of Nearest Culvert (Upstream)	Seeding Required	Sod Required	To Be Concrete Lined
	Grades	Grades	Grades
Exceeding 15"	1.00%-3.00% Grades	3.00%-12.00% Grades	12.00% Grades
Exceeding 18" thru 24"	1.00%-1.50% Grades	1.50%-7.00% Grades	7.00% Grades
Exceeding 30" thru 36"	1.00%-1.50% Grades	1.00%-4.00% Grades	4.00% Grades
Exceeding 42" thru 72"		2.50% or Less	2.50%

3. Concrete Ditch Pavings

Concrete ditch paving shall consist of the construction of paved ditches on a prepared subgrade. The subgrade shall be shaped and compacted to a firm even surface. All soft materials shall be removed and replaced with acceptable materials and shall be compacted as directed by the enforcing officer.

Concrete ditch pavement shall be four (4) inches in thickness throughout and shall be backfilled immediately after the concrete has set and the forms have been removed. The backfilled materials shall be thoroughly compacted. Expansion joints shall be located as directed by the enforcing officer.

4. Culverts and Storm Drains

This work shall consist of the construction of pipe culverts and storm sewers as shown on the plans.

Driveway culverts shall be a minimum diameter of eighteen (18) inches and a minimum length of twenty (20) feet; cross drains shall be a minimum diameter of eighteen (18) inches.

Reinforced concrete pipes shall conform to minimum standards for Class III, Reinforced Pipes, A.S.T.M. C76. Corrugated metal pipes shall conform to Section 915.02 or 915.04, Standard Specifications and to gage as follows:

Rounded Corrugated Metal Pipes	
Size	Gage
15" - 24"	16
30"	14
36" - 48"	12
54" - 72"	10
78" - 84"	8

Arch Corrugated Metal Pipes	
Size	Gage
18" x 11" - 22" x 13"	16
25" x 16" - 36" x 22"	14
43" x 27" - 65" x 40"	12
72" x 44" or Larger	10

For pipes smaller than forty-eight (48) inches in diameter, a minimum cover of one (1) foot, exclusive of base and paving, is required from top of pipes to finished subgrade. A minimum cover of two (2) feet is required for pipes forty-eight (48) inches in diameter and larger. All pipes shall be built on straight line and grade and shall be laid with the spigot end pointing in the direction of the flow, with the ends fitted and matched to provide tight joints and smooth uniform invert.

Pipes shall be bedded on a six (6) inch thickness of Class B materials and backfilled to a depth of thirty (30) percent of the diameter of the pipes. Recesses shall be dug in the bedding materials to accommodate the bell. Class B bedding shall be Size No. 7, as shown in Chart No. 903.23, Standard Specifications. Culverts and storm drains in existing roadways shall be backfilled to the depth of the cut.

5. Headwalls

Concrete headwalls shall be constructed at both ends of cross drains as shown and detailed on the standard drawings included herein. Headwalls (also referred as "endwalls", "pipe endwalls", and "pipe headwalls") shall be constructed at each pipe outlet or inlet, including driveway culverts, that does not begin or end in a fixed structure. Examples of fixed structures are inlets, junction boxes, box culverts or

approved blind connections to larger pipes. Headwalls shall be constructed in accordance with the standard drawings that are a part of these regulations. Headwalls may be of Type I (headwall with wingwalls), Type II (straight headwall) or Type III (flush mitered headwall).

6. Catch basins

This work shall consist of constructing catch basins complete with inlets, outlets, and inverts. Tops and inlets shall be constructed to conform to the roadway grade so that drainage can easily be caught and no ponding created. Catch basins shall be constructed as shown and detailed on the standard drawings contained herein.

7. Box Culverts and Bridges

Design of box culverts and bridges shall be submitted to the enforcing officer for approval before any construction is permitted.

8. Roadside Ditches

Roadside ditches, in conventional sections, shall be built to a grade that will permit good drainage, and in no case shall the slope of the ditch be less than one percent (a fall of 1.00 foot in 100 feet). All drainage ditches shall be stabilized to prevent erosion as indicated in these specifications.

9. Changes in Water Channels

Where the subdivider rechannelizes water through a subdivision he will be responsible for replacing cross drains under public streets, as directed by the enforcing officer. This work shall be done at the expense of the subdivider.

F. FINAL, DRESSING, SEEDING, AND SODDING

1. Final Dressing

This work shall consist of dressing all slopes and areas to within reasonable close conformity to the lines and grades indicated on the plans, or as directed by the enforcing officer. Final dressing shall be performed by hand or machine to produce a uniform finish to all parts of the roadway including embankments, ditches, etc. Rock cuts shall be cleaned of all loose fragments; side slopes shall be laid back to a three to one (3:1) slope and seeded as described in these specifications.

The entire right-of-way shall be cleaned of all weeds and brush and all structures both old and new shall be cleared of all brush, rubbish, sediment, or other objectionable materials.

2. Seeding

In all areas damaged or disturbed by the construction operation where established ground cover was present before beginning of construction, the subdivider shall be responsible for restoring the ground cover after completion of construction, unless noted otherwise on drawings. All areas seeded shall be graded smooth prior to seeding and the subdivider shall be responsible for maintenance of the smooth finished grade until grass is established.

After designated areas have been carefully hand graded, soil shall be prepared for fertilizing and seeding. Fertilizer shall be a standard commercial fertilizer Grade 15-15-15 or equivalent, and shall be applied at a rate of not less than ten (10) pounds per one thousand (1,000) square feet. The fertilizer shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of approximately one half (1/2) inch. The subdivider shall be responsible for any regrading or reseeding required to produce an acceptable grass cover. Rutting and washing shall be restored by reseeding and strawing; in areas of extreme erosion sodding may be required.

The seed shall be as follows:

<u>Name</u>	<u>Percent by Weight</u>
Lespedeza	20
Sericea Lespedeza	15
Kentucky 31 Fescue	40
English Rye	15
White Dutch Clover	5
Weeping Love Grass	5
Kentucky 31 Fescue	55
Redtop	15
English Rye	20
White Dutch Clover	5
Weeping Love Grass	5

The seed shall be sown uniformly at the rate of one and one-half (1 1/2) pounds per one thousand (1,000) square feet.

3. Sodding

Sodding shall consist of furnishing and placing sod at all locations shown on the plans, or as directed by the enforcing officer. Work shall include the furnishing and placing of new sod, consisting of live, dense, well-rooted growth of permanent grasses free from Johnson Grass and other obnoxious grasses or weeds, well suited for the soil on which it is placed. All sod shall be cleanly cut in strips having a uniform thickness of not less than two and one-half (2 1/2) inches. Sod shall be set when the soil is moist and favorable to growth. No setting shall be done between October 1 and April 1, without permission of the enforcing officer.

The area to be sodded shall be brought to the lines and grades shown on the plans, or as directed by the enforcing officer.

The surface of the ground to be sodded shall be loosened to a depth of not less than one (1) inch with a rake or other device. If necessary, it shall be sprinkled until saturated for a minimum depth of one (1) inch and kept moist until the sod is placed. Immediately before placing the sod, fertilizer and lime shall be applied uniformly to the prepared surface of the ground. Fertilizer shall be applied at the rate of eight (8) pounds of Grade 15-15-15, or equivalent, per one thousand (1,000) square feet.

Sod shall be placed as soon as practical after removal from the point of origin, it shall be kept in a moist condition during the interim. Sod shall be carefully placed by hand on the prepared ground surface with the edges in close contact and, as far as possible, in a position to break joints. Each strip of sod laid shall be fitted into place and tamped. Immediately after placing, the sod shall be thoroughly wetted and rolled with an approved roller. On slopes of two to one (2:1) or steeper, pinning or pegging may be required to hold the sod in place.

The sod shall be watered for a period of two (2) weeks. The subdivider shall not permit any equipment or materials to be placed on any planted area and shall erect suitable barricades and guards to prevent equipment, labor, or the public from traveling on or over any area planted with sod.

SPECIFICATIONS FOR CONCRETE STREETS

SECTION ONE - GUIDE SPECIFICATIONS

100. GENERAL PROVISIONS

101. SCOPE OF WORK.

The work to be done under this contract includes the furnishing of all labor, materials, and equipment necessary for the construction for the proposed improvements in substantial accordance with the Drawings and Specifications. Methods of construction will generally be left to the Contractor as long as satisfactory progress is made and good workmanship is produced.

102. CONSTRUCTION CONDITIONS.¹

It is required that each bidder will examine the Drawings and Specifications for this work and make a personal examination of the site of the proposed work and its surroundings. He will also familiarize himself with local ordinances and see that all required permits are obtained prior to construction.

103. EXPERIENCE AND FINANCIAL STATEMENT.

If required by the Owner, each bidder under consideration shall submit a statement attesting his qualifications to complete the project. This shall include his experience, equipment, and financial status.

104. ENGINEER'S RESPONSIBILITY.

This work shall be subject to the approval of the Engineer, or his representative, who shall determine the amount, quality, acceptability, and fitness of the several kinds of work and materials to be furnished hereunder and who shall decide all questions which may arise as to measurement of quantities and fulfillment of the requirements of the specifications. The Engineer is the Owner's authorized representative on the job.

105. CONSTRUCTION STAKES.

The Owner will furnish and set construction stakes establishing lines and grades and will furnish the Contractor with all necessary information relating to lines and grades. The Contractor shall be held responsible for the reasonable preservation of all such stakes. All restaking necessary due to the Contractor's negligence will be done by the Owner at the Contractor's expense.

106. RELOCATION OF UTILITIES.

Conflicting utilities will be relocated in advance of construction by the Owner in accordance with Contractor's schedule.

¹ **Where plan review and/or permits are required by any governmental agency, the owner should submit plans and obtain permits where possible before bid time.**

107. CONTRACTOR'S ORGANIZATION.

The Contractor shall have a competent supervisor on the site during the progress of the work who shall act for the Contractor in all matters concerning the work. He shall have the authority to receive directions and to act upon directions for the Owner through the Owner's authorized representative.

The Contractor shall keep available on the site a set of Plans and Specifications in good condition.

108. TRAFFIC CONTROL.

The Contractor shall maintain during the construction such barricades, lights, flagmen, and other protective devices as specified for the project and as required by the local governing authority.

109. PROTECTION AGAINST DAMAGES TO WORK.

The Contractor shall retain ownership and responsibility for loss or damage to the work during construction. With the final acceptance of the work or its use by the owner other than by mutual agreement for limited residential access, the ownership and responsibility for loss or damage caused by other than improper workmanship or materials shall pass from the Contractor to the Owner.

110. SANITARY REGULATIONS.

The Contractor shall provide a sufficient number of toilets for the use of the employees and shall maintain them without nuisance and without offense to the public or to residents in the vicinity of the work.

111. CLEANUP.

The Contractor shall maintain the site in a reasonable clean and neat manner during construction. The Contractor shall clean streets, sidewalks, curbs, lawns, and other areas disturbed by the Contractor's operation and shall repair all damage such that all affected areas are restored equal to their original appearance and condition.

112. SPECIAL PROVISIONS.

Any work not covered in these Specifications or deviations from these Specifications shall be detailed by Special Provisions.

200. EXCAVATION

201. GENERAL.

Excavation shall consist of all work required to construct the earth grade to the lines, grades and cross sections called for on the Plans and in accordance with these Specifications. Other forms of excavation may be designated as borrow, peat, and unsuitable materials, and shall be paid at the contract unit price for these items. Excavation shall be performed in a manner and sequence that will provide and maintain drainage. All earth and other material shall be excavated to depth and width of the cross section as given on the plans. Sufficient material shall be excavated to provide for the setting of forms or operation of slipform paving equipment. All work shall be done to the line and grade as established on the Plans and in accordance with the grade stakes set. Topsoil shall be stockpiled for use in backfilling behind curbs or as otherwise directed in the Special Conditions.

202. DISPOSAL OF EXCAVATED MATERIALS.

All materials excavated and not required for use on the project shall become the property of the Contractor unless otherwise noted and be disposed of at his discretion, responsibility, and expense.

203. TREE AND STUMP REMOVAL

All trees or stumps within the designated roadway limits, except those that are designated to remain, shall be removed.

204. UNFORESEEN OBSTACLES.

Unforeseen obstacles such as buried rock, tree stumps, foundation walls, or other hidden obstacles which differ from expected excavation conditions will be considered extra work and will be paid for at the agreed prices stipulated in the order authorizing the extra work.

205. MEASUREMENT.

Excavation shall be determined by the "average end area" method for all material measured in its original position, included above the base between an area 24 inches behind the back of curbs. The average end area method shall be computed using a minimum of three elevations, one at each side and one at the center line, at a maximum of 50 -foot intervals. Tree and stump removal shall be measured by the diameter inch at an elevation of 18 inches above the original ground level.

206. PAYMENT.

Excavation will be paid for at the contract unit price(s) per cubic yard for each class of excavation. Tree and stump removal will be paid for at the contract unit price per diameter inch.

300. EMBANKMENT AND BORROW

301. EMBANKMENT.

Embankments shall be formed of materials capable of being compacted per Section 303. Where possible, approved materials natural to the site shall be used to form the embankment.

302. BORROW.

In the event sufficient acceptable filling material is not obtainable within the limits of this contract to provide all the fill required, the Contractor shall furnish such additional approved filling material to complete the designated work.

303. COMPACTION.

Materials shall be placed and compacted in layers not greater than eight (8) inches in thickness that can be compacted to a minimum density of 95 percent based on Method AASHTO T-99 (Standard Proctor) at a moisture content within 3 percent of optimum.

400. SUBGRADE PREPARATION

401. GENERAL.

The bottom of the excavation for the pavement or top of the earthfill will be known as the pavement subgrade and shall conform to the lines, grade, and cross sections shown on the plans.

Prior to placing the concrete, the subgrade shall be tested for conformance with the cross section shown on the Plans. If necessary, material shall be removed or added as required to bring all portions of the subgrade to the correct elevation. It shall then be thoroughly compacted to meet requirements of Section 303. "Compaction". Concrete shall not be placed on any portion of the subgrade which has not been tested for correct elevation. The subgrade shall be cleared of all loose material. At any time that trucks cause rutting or displacement of the subgrade material, the subgrade shall be reshaped and compacted. The subgrade shall be in a noise condition at the time the concrete is placed.

402. UTILITY TRENCH BACKFILL.

402.1 EARTH BACKFILL.

All utility trenches shall be backfilled and finished to grade with soil similar to that adjacent to the trench, if suitable, or with approved granular backfill. Backfill shall be compacted to a minimum density of 95 percent Standard Proctor (see Section 303. "Compaction") in all trenches within the area to be paved and to 90 percent proctor in the area beneath a line extended at 45 degrees to the horizontal from the back of the curb and within 10 feet of the back of the curb. Jetting will be permitted provided it complies with Section 303 "Compaction".

402.2 FLOWABLE LOW-STRENGTH MORTAR BACKFILL.

Flowable low-strength mortar backfill may be used as an alternate for backfilling utility trenches. The desired consistency is achieved using a mix of the following proportions per cubic yard:

Quantity of Dry Material/Cubic Yard

Cement	100 lbs.	Cement	50 lbs.
Fly Ash (F)	200 lbs.	Fly Ash (C)	150 lbs.
Sand (SD)	2927 lbs.	Sand	3018 lbs.
Water	50 gals.	Water	50 gal.

It is intended that the sand be a fine sand that will stay in suspension in the mortar to the extent required to obtain a flowable consistency. Fine aggregate gradations meeting the following specifications provided satisfactory results:

Sieve Size	% Passing
3/4	100
200	0 - 10

500. MATERIALS FOR CONCRETE PAVEMENT

501. PROPORTIONING.

The actual proportions of cement, fine aggregate, coarse aggregate, water and admixtures to be used for various mixes shall be determined by the ready mixed concrete producer or an approved testing laboratory in accordance with the American Concrete Institute (ACI) Standard 318-83, Section 4.3, so as to produce the most economical and workable concrete for the purpose intended. Materials or mixes not currently approved (cement, coarse aggregate, fine aggregate, etc.) shall be submitted by the successfully bidder to the testing laboratory at least 45 days prior to usage or within 7 days following award in quantities suitable for testing.

502. MATERIALS.

502.1 AGGREGATE.

Shall conform to ASTM-C-33.

502.2 ADMIXTURES.

Air entraining admixtures shall conform to ASTM-C-260. Type A, Type D, and Type E water reducing admixtures shall conform to ASTM-C-494. Fly ash shall conform to ASTM-618, Type F or C.

502.3 MATERIALS FOR CURING CONCRETE.

Membrane curing compounds for concrete shall be the pigmented type conforming to the requirements of AASHTO-M-148 and/or ASTM-C-309.

502.4 JOINT SEALING COMPOUND.

Where joints are required to be sealed, sealing material for filling pavement joints shall meet the requirements of ASTM D3405 or D1190. Alternatively, low-modules materials such as silicone, hot or cold-poured rubberized asphalt or nitrile rubber meeting the manufacturers specifications may be used.

502.5 WATER.

If the water is of questionable quality, it shall be tested in accordance with AASHTO-T-26, "Standard Method of Test for Quality of Water to be Used in Concrete."

503. STRENGTH REQUIRED.

All concrete placed shall have a required average compressive strength of 4000 fcr)² psi at 28 days. Conformance to strength requirements shall be determined by ASTM-C-39.

² **Note to Specifier fcr = required compressive strength of concrete, psi (ACI214-83).**

504. AIR CONTENT.

The air content of the plastic concrete shall be uniform and shall be 6.0 percent plus or minus 1.5 percent.

505. SLUMP.

Slump shall be held to a maximum of 3" without the addition of water reducing admixtures. Manufacturer's recommendations shall be followed when these admixtures provide increased slump.

506. WATER/CEMENT RATIO.

Shall conform to ACI 201.2R.

600. EQUIPMENT

601. GENERAL.

All equipment necessary for the proper preparation of the subgrade, placing, finishing, and curing of the concrete pavement shall be on the project in good working condition before the Contractor will be permitted to begin placing concrete. Throughout the construction of the project, the Contractor shall maintain the equipment in good working condition to assure the proper prosecution of the work.

602. FORMS.

Unless special provision is made for use of wood, all side forms for this work shall be of metal of a depth at least equal to the edge thickness of the pavement, except that it is permissible to increase the depth of forms by fastening boards under the forms. The sections shall have a length of at least ten feet, except on curves of less than 150-foot radius, where other materials may be used as provided in Section 603. Forms with a height of eight or more inches shall have a base width of at least eight inches.

Other forms shall have a minimum base width of six inches. When set to grade and staked in place, the maximum deviation of the top surface of any section from a straight line shall not exceed 1/8 inch.

The method of connection between sections shall be such that the joint formed shall be free from play or movement in any direction. The bracing and support must be ample to prevent the deflection of the forms under the pressure of the concrete or the weight or thrust of the machinery operating on the forms.

603. FLEXIBLE FORMS.

Flexible steel or wood forms may be used only when specifically provided for on the plans for Special Provisions with the exception that their use is herein approved for all curves having a radius of less than 150 feet. Wood forms shall be equal in depth to the edge thickness of the pavement. Forms shall be held by stakes and securely braced at any point where necessary so that no movement will result from pressure of the concrete or the weight or thrust of machinery operation on the forms.

604. FINISHING EQUIPMENT.

The Contractor shall provide mechanical equipment of either the slipform or form paving type which will strike off, consolidate, and finish the pavement to the required cross section.

605. VIBRATORS.

When required, approved vibrators for consolidating concrete along the faces of forms and adjacent to joints shall be provided.

606. CONCRETE SAWS.

The concrete saw shall be capable of cutting hardened concrete neatly to the dimensions specified on the Plans. The saw shall be equipped with a suitable guard.

607. JOINT SEALING EQUIPMENT.

Sealing equipment shall be capable of installing the sealant in joints in accordance with the manufacturer's recommendations.

608. MEMBRANE SPRAYER.

A pressure sprayer capable of applying a continuous uniform film will be required.

609. OTHER EQUIPMENT.

The Contractor shall also furnish all other equipment, small tools, and supplies which are necessary to the proper prosecution of the work.

700. MIXING AND PLACING

701. GENERAL.

Concrete pavement shall be constructed on the prepared subgrade in accordance with these Specifications and in reasonably close conformance with the lines, grades, thickness, and typical cross sections shown on the Plans.

702. TRANSPORTING CONCRETE.

Concrete may be transported any distance providing it is discharged on the grade with the slump within the required slump range and meets time requirements of Section 702.1. If additional water is required to maintain the specified slump of concrete transported in truck mixers, it may be added with the permission of the Engineer. In this case, a minimum of 20 additional revolutions of the mixer drum at mixing speed shall be required before discharge of the concrete.

702.1 CONCRETE TIME LIMIT.

The length of time that the concrete can be held in the truck shall conform to the following:

1. Air temperature 45 degrees F. to 80 degrees F. - 90 minutes maximum.
2. Air temperature over 80 degrees F. with a retarder added to the mix - 90 minutes maximum.
3. Air temperature over 80 degrees F. without a retarder added to the mix - 60 minutes maximum.

703. PLACING CONCRETE.

The concrete shall be deposited on the grade in such a manner as to require as little rehandling as possible. It shall be deposited in successive batches in a continuous operation. The concrete shall be consolidated by suitable means so as to preclude the formation of voids or honeycomb pockets.

704. PLACING IN COLD WEATHER.

The Contractor shall be responsible for protecting concrete placed in cold weather and any concrete damaged by frost action shall be removed and replaced at his expense.

705. PLACING ON FROZEN SUBGRADE.

No concrete shall ever be placed on a frozen subgrade.

800. FINISHING

801. GENERAL.

The concrete shall be struck-off, consolidated, and finished with mechanical equipment in such a manner that after final finishing, it shall conform to the pavement cross section shown on the Plans. Hand finishing will be permitted in narrow widths, areas of irregular dimensions, and in the event of breakdown of the mechanical equipment, to finish the concrete already deposited on the grade.

802. FINAL SURFACE FINISH.

The final surface of the pavement shall have a uniform, skid-resistant texture. The method of texturing shall be approved by the Engineer, and he may require changes in the final finishing procedure as required to produce the desired final surface texture. A burlap drag finish is recommended for municipal pavements.

803. PAVEMENT EXPOSED TO RAIN DURING CONSTRUCTION.

The Contractor shall have always available materials to protect the surface of the plastic concrete against rain. Areas of the pavement surface where the texture has been damaged by the protective cover shall be retextured and cured unless the concrete has hardened. Areas of pavement surface that exhibit a smooth sandy appearance after the rain ceases shall be textured and cured. An attempt shall be made to impart the specified texture to these areas before applying the membrane

curing material. No other remedial work shall be required. Areas that have suffered some surface erosion and have coarse aggregate exposed shall be reworked by hand methods or with the finishing machine when the form paving method is used. Fresh concrete containing the same materials and properties as the pavement concrete shall be added to maintain an adequate supply in front of the screens or machine to assure replacement of the concrete eroded from the surface. The surface shall then be textured and cured as specified.

If pavement edges have been severely eroded and the concrete has not set, the edges shall be repaired by setting side forms and replacing eroded concrete. After the side forms are set, fresh concrete shall be placed and finished prior to texturing and curing. After the pavement has hardened, remedial work shall not be permitted. Areas that do not comply with the Specifications shall be corrected after the curing period has terminated.

900. CURING

901. GENERAL.

After finishing operations have been completed and immediately after the free water has left the surface, the surface of the slab and the sides of the slab shall be coated and sealed with a uniform layer of membrane curing compound applied at the rate of not less than one gallon per 200 square feet of surface. If using fixed form construction, curing compound shall be applied to the sides of the slab at the time of form removal.

Areas in which the curing membrane is damaged within a period of three days shall be resprayed with curing compound.

1000. JOINTS

1001. GENERAL.

Transverse and longitudinal joints shall be constructed to the dimensions and at the spacing shown on the Plans. Transverse joints shall extend the entire width of the pavement and through the curbs. Joints may be formed in the plastic concrete or sawed after the concrete has hardened.

Formed joints may be constructed by installing a parting strip to be left in place or by depressing an approved tool into the plastic concrete.

Sawing of joints shall begin as soon as the concrete has hardened sufficiently to permit sawing without excessive raveling and before uncontrolled cracking occurs. If necessary, the sawing operations shall be carried on both day and night, regardless of weather conditions.

1002. CONSTRUCTION JOINTS.

All longitudinal joints may be construction joints at the contractor's option. Transverse construction joints shall be installed whenever the placing of concrete is suspended a sufficient length of time that the concrete may begin to harden.

1003. JOINT SEALING.

When required, joints shall be sealed before the pavement is exposed to traffic, including construction traffic. Prior to sealing, all foreign material shall be removed from the joints and the joints shall be thoroughly dry.

1100. FINAL ACCEPTANCE

1101. GENERAL.

Before the pavement will be considered for acceptance, all items shall be completed in substantial accordance with the Plans and Specifications. Equipment, surplus materials, and construction debris shall be removed for the project.

1102. OPENING TO TRAFFIC.

The pavement shall be closed to traffic after the concrete is placed until it reaches a compressive strength of 1500 psi under ordinary field conditions. This does not include the sawing and sealing equipment or other light miscellaneous equipment.

1103. TOLERANCE IN PAVEMENT THICKNESS.

Before final acceptance of the pavement, its thickness shall be determined by coring at 400-foot intervals in each lane placed and determining the depth of each core by average measurements of the core in accordance with AASHTO-T-148.

The Contractor will pay for the initial cores or test. The Contractor shall also pay for extra or exploratory cores or tests to determine the extent of areas deficient in thickness.

SECTION TWO - TESTING AND INSPECTION

I. TESTING LABORATORY:

The Owner will employ and pay for the services of an independent testing laboratory to perform specified services in conjunction with the Engineer.

II. QUALIFICATIONS OF LABORATORY:

- A. Meet the basic requirements of ASTM-E-329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as used in Construction."
- B. Testing Equipment:
 - 1. Calibrated at maximum 12-month intervals by devices of accuracy traceable to either:
 - a. National Bureau of Standards
 - b. Accepted value of natural physical constants
 - 2. Submit copy of certificate of calibration made by accredited calibration agency.

III. LABORATORY DUTIES/LIMITATIONS OF AUTHORITY:

- A. Cooperative with Engineer, Contractor, and Suppliers. Provide qualified personal promptly on notice.
- B. The following testing services shall be performed by the designated agency:
 - 1. Secure composite samples in accordance with ASTM-C-172.
 - 2. Mold and cure four specimens from each sample in accordance with ASTM-C-31.
 - 3. Test specimens in accordance with ASTM-C-39. Two specimens shall be tested at 28 days and two shall be tested at the direction of the Engineer.
 - 4. Make one strength test for each 300 cubic yards or fraction thereof of each mix design of concrete placed in any one day.
 - 5. Determine slump for each strength test and whenever consistency of concrete appears to vary using ASTM-C-143.
 - 6. Determine total air content of normal weight concrete sample for each strength test in accordance with ASTM-C-231. Air shall be taken first load every day and every subsequent 75 yards.

7. Determine temperature of concrete sample for each strength test.
 8. Yield test run at least once daily with strength test according to ASTM-C-138.
- C. Promptly notify Engineer and Owner of irregularities or deficiencies of work which are observed during performance of services.
- D. Promptly distributed copies of reports of inspections and tests as follows:
1. Two (2) copies to the Engineer.
 2. One (1) copy to the Ready Mixed Concrete Supplier.
 3. One (1) copy to the Owner.
 4. One (1) copy of all reports to the Contractor.
 5. One (1) copy of all reports to the City. E.

Reports shall contain the following information:

1. Date issued.
2. Project title and number.
3. Testing laboratory name and address.
4. Name and signature of inspector.
5. Date of inspection or sampling.
6. Record of temperature and weather.
7. Date of test.
8. Identification of product and specification section.
9. Location of project.
10. Type of inspection or test.
11. Observations regarding compliance with contract documents. F.

Perform additional services as required by Owner.

- G. Laboratory is not authorized to:
1. Release, revoke, alter, or enlarge on requirements of contract documents.
 2. Approve or accept any portion of work.
 3. Perform any duties of the Contractor.

IV. CONTRACTOR'S RESPONSIBILITIES:

- A. Cooperative with laboratory personnel, provide access to work with manufacturer's operations.
- B. Provide to laboratory preliminary representative samples of materials to be tested in required quantities.
- C. Furnish copies of mill test reports.
- D. Notify laboratory sufficiently in advance of operations to allow for assignment of personnel and scheduling tests.
- E. Employ and pay for services of a separate, equally qualified, independent testing laboratory to perform additional inspections, sampling, and testing required:
 - 1. For contractor's convenience.
 - 2. When initial tests indicate work does not comply with contract documents if he so chooses.

SECTION THREE - DESIGN THICKNESS

Concrete pavement thickness shall be designed in accordance with the most recent AASHTO design formula. In order to conform with AASHTO, the following steps must be followed:

STEP I - MATERIAL

Concrete used for paving shall conform to requirements as laid out in Sections 502.1, 502.2, 502.3, 502.4, 502.5, 502.6, 503, 504, 505, and 506.

STEP II - SUBGRADE

Determine the existing soil characteristic and bearing value from the following table and refer to the appropriate design chart (see Step V) for corresponding K. value.

TABLE
RELATIONSHIPS BETWEEN SOIL TYPES AND BEARING VALUES

STEP III - TRAFFIC VOLUME

Next, from the following table estimate traffic volume and axle load distribution during the design life chosen. Streets shall be designed for an expected life of thirty (30) years.

TABLE
18 KIP EQUIVALENTS

STEP IV - RELIABILITY

50% Reliability - Driveways, Parking Lots.

80% Reliability - All streets with less than 7000 Average Daily Traffic (ADT).

95% Reliability - All streets with more than 7000 ADT.

STEP V - PAVEMENT THICKNESS

Thickness is read from the depth charts on the following page either left or right depending on the presence or absence of curb and gutter and under the appropriate reliability. Unless otherwise approved, all municipal paving shall have curb and gutter.

SUBSOIL K-60

SUBSOIL K-100

SUBSOIL K-200

SECTION FOUR - STANDARD DETAILS

JOINT TYPES

SECTION FIVE - DRAINAGE STRUCTURES

See Section E., entitled, Drainage System Design, of this Appendix, for specifications relating to drainage. Required standard details relating to drainage facilities are cited in Section III, herein, entitled, Typical Sections.

PAVEMENT CROSS-SECTION

**INTEGRAL CURB PAVEMENT – JOINT DETAILS
(FOR RESIDENTIAL STREETS)**

APPENDIX B
FORMS OF PERFORMANCE BONDS

FORMS OF PERFORMANCE BONDS

KINGSTON SPRINGS MUNICIPAL PLANNING COMMISSION

KNOW ALL MEN BY THESE PRESENTS, That We, _____,
as Principals, _____, State of _____,
and the _____ INSURANCE COMPANY, a _____
Corporation authorized to do business in the State of Tennessee, having an office and place of
business at _____, as Surety, are held and firmly bound unto the
City/County of _____, as obligee, in the sum of _____
Dollars (\$ _____) lawful money of the United States, for the payment
whereof to the Obligee, the Principal and the Surety bind themselves, their heirs, executors,
administrators, successors, and assigns, jointly and severally, firmly to these presents:

WHEREAS, application was made to the Kingston Springs Planning Commission for approval of a
subdivision shown on plat entitled, " _____

_____, filed with the Planning Commission Chairman of the
City of Kingston Springs, on _____ 20____, said final plat being approved by the
Kingston Springs' Planning Commission upon certain conditions, one of which is that a
performance bond amount of _____ DOLLARS (\$ _____) is to be
filed with the planning commission and accepted by the City of Kingston Springs, upon the
recommendation of the planning commission, guarantee certain improvements as cited hereafter in the
subdivision named above.

WHEREAS, there are approximately _____ feet in length and _____ feet in
width in said streets and curbs, and _____ feet of inch water line, and
_____ feet of _____ inch sewer line, and other improvements as follows
_____, not yet completed,
and that the total cost of providing these facilities would be as follows:

A.	Street and Curbs	\$ _____
B.	Water Lines	\$ _____
C.	Sewer Lines	\$ _____
D.	Other	\$ _____
	TOTAL	\$ _____

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the above named principal shall within one (1) year from the date hereof (time may be extended for one (1) year only beyond this period by the local governing body upon the recommendation of the Planning Commission with the consent of the parties) will and truly make and perform the required improvements and construction of public improvements in said subdivision in accordance with the local government specifications and the Resolution of _____, 20____, then this obligation is to be void; otherwise to remain in full force and effect.

It is hereby understood and agreed that in the event that any required improvements have not been installed as provided by said resolution, within the term of this performance bond, the governing body may thereupon declare this bond to be in default and collect the sum remaining payable thereunder, and upon receipt of the proceeds thereof, the local government shall install such improvements as covered by this bond and commensurate with the extent of building development that has taken place in the subdivision but not exceeding the amount of such proceeds.

Principal

Principal

Insurance Company

BY: _____
Attorney-in-Fact

BOND NO. _____

**ACKNOWLEDGEMENT:
COPARTNERSHIP**

STATE OF TENNESSEE

(COUNTY OF _____) SS.:

On this _____ day of _____, 20____, before me personally appeared _____, to me known and known to me to be one of the firm of _____, described in and who executed the foregoing instrument, and he thereupon acknowledged to me that he executed such instrument as and for the act and deed of said firm.

INDIVIDUAL

STATE OF TENNESSEE

(COUNTY OF _____) SS.:

On this _____ day of _____, 20____, before me personally appeared _____ to me known and known to me to be the individual described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same.

CORPORATE

STATE OF TENNESSEE

(COUNTY OF _____) SS.:

On this _____ day of _____, 20____, before me personally appeared

_____, to me known, who, being by me first duly sworn, did depose and say that he resides in _____; that he is the of _____, corporation described in and which executed the foregoing instrument; that he knows the corporate seal of said corporation; that the corporate seal affixed to said instrument is such corporate seal; that it was so affixed by order and authority of the Board of Directors of said corporation, and that he signed his name thereto by like order and authority.

IRREVOCABLE DOCUMENTARY LETTER OF CREDIT
KINGSTON SPRINGS MUNICIPAL PLANNING COMMISSION

1. DATE OF ISSUE _____
2. CREDIT NO. OF ISSUING BANK _____
3. CREDIT NO. OF ADVISING BANK _____
4. ADVISING BANK _____
5. ACCOUNTEE _____
6. BENEFICIARY, MAIL TO _____
7. LATEST PERFORMANCE DATE _____
8. LATEST DATE FOR NEGOTIATION _____
9. MAXIMUM AMOUNT _____

10. SPECIFIC IMPROVEMENTS INCLUDED IN MAXIMUM AMOUNT:

There are approximately _____ feet in length and _____ feet in width in said streets and curbs, and _____ feet of inch water line, and _____ feet of _____ inch sewer line, and other improvements as follows _____, not yet completed, and that the total cost of providing these facilities would be as follows:

A. Street and Curbs	\$ _____	B.	
Water Lines	\$ _____	C.	
Sewer Lines	\$ _____	D.	
Other	\$ _____		
TOTAL	\$ _____		

11. We hereby issue this documentary letter of credit in your (the beneficiary's) favor which is available against your drafts at _____ drawn on _____ Bank, Credit No. _____, accompanied by the following document: A Certificate of Default signed under oath by the Chairman of the Kingston Springs Municipal Planning Commission and the chief executive of the city government (being the City of Kingston Springs, certifying that the Accountee has not complied with the terms of the agreement between the Planning Commission and the Accountee and the amount of approximate damage to the county government, which amount shall be identical to the face amount of the accompanying draft.

12. SPECIAL CONDITIONS

We hereby engage with the bona-fide holders of all drafts or documents presented under and in compliance with the terms of this Letter of Credit that such drafts or documents will be duly honored upon presentation to us. The amount of each drawing must be endorsed on the reverse of this letter of credit by the negotiating bank.

The advising bank is requested to advise this letter of credit without engagement of their part.

Bank

Authorized Signature, Issuing Bank

Authorized Signature, Issuing Bank