

# **SUBDIVISION REGULATIONS**

**PREPARED FOR THE  
SPRING HILL PLANNING COMMISSION**

**PREPARED BY**

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## ARTICLE I

### GENERAL PROVISIONS

#### 1 -101 Title

These regulations shall hereinafter be known and cited as the Subdivision Regulations of Spring Hill, Tennessee.

#### 1-102 Authority

These subdivision regulations are adopted by the Spring Hill Planning Commission (hereinafter referred to as "planning commission"), in pursuance of 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 the plan with the 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 Section 7-101, of these regulations and as required by Sections 13-3-403 and 13-4-303, Tennessee Code, the planning commission has fulfilled the requirements set forth in state law as prerequisites to the adoption of these regulations.

#### 1-103 Jurisdiction

These subdivision regulations shall apply to all subdivisions, as herein defined, located within Spring Hill, Tennessee. No land shall be subdivided within the jurisdictional area until the subdivider submits a plat as required by these regulations, obtains planning commission approval of the plat, and files the approved plat with the county register.

#### 1-104 Policy and Purpose

It is hereby declared to be the policy of the planning commission to consider the subdivision of land and development of a subdivision plat as subject to the control of the adopted land use or community development plan (hereinafter referred to as "land development plan") of the jurisdictional area for orderly, planned, and efficient physical and economical development.

Land to be subdivided shall be of such character that it can be used for building purposes without danger of health, fire, flood, or other menace.

Land shall not be subdivided until proper provisions have been made for drainage, water, sewerage, other public utilities, and for other required public services. The existing and proposed public improvements shall generally conform to and be properly related to the proposals shown in the land development plan.

The regulations herein shall supplement and facilitate the enforcement of the provisions and standards contained in the Zoning Ordinance of Spring Hill, Tennessee (hereinafter referred to as "zoning ordinance").

These regulations are adopted for the following purposes:

- A. To promote the public health, safety, and general welfare of the jurisdictional area.
- B. To guide the development of the jurisdictional area in accordance with the land development plan, considering the suitability of nonresidential and public areas and having regard for the most beneficial land use in such areas.
- C. To provide for adequate light, air, and privacy; to secure safety from fire, flood, and other dangers; and to prevent overcrowding of the land and undue congestion of population.

- D. To enhance the character and economic stability and encourage the orderly, beneficial development of the jurisdictional area.
- E. To conserve the value of land, buildings, and improvements throughout the jurisdictional area and to minimize detrimental conflicts among the uses of land and structures.
- F. To guide public policy private and action providing for transportation, water, sewerage, schools, recreational areas, and other public requirements and facilities.
- G. To provide for the most beneficial relationship between the uses of land and buildings and the efficient traffic movement throughout the jurisdictional area.
- H. To establish reasonable standards of design and procedures for subdivisions and resubdivisions; to further the orderly layout and use of land; and to insure proper legal descriptions and proper monumenting of land.
- I. To insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision.
- J. To prevent the pollution of air, streams, and ponds; to assure the adequacy of drainage facilities; to safeguard the water table; and to preserve the integrity, stability, beauty, and value of the jurisdictional area.
- K. To preserve the natural beauty and topography of the jurisdictional area, and to insure appropriate development with regard to these natural features.
- L. To provide for open spaces through efficient design and layout of the land, including the use of average density in providing for minimum width and area of lots, while preserving the density of land as established in any zoning ordinance.

To encourage subdivision design which would maximize the conservation of all forms of energy.

#### 1-105 Interpretation, Conflict, and Severability

##### 1-105.1 Interpretation

These regulations shall be held to be the minimum requirements for the 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 any 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 in which 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 planning commission 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 planning commission, except as expressly provided otherwise in these regulations.

#### 1-106.1 Previously Approved Subdivisions

##### 1-106.101 Unexpired Preliminary

###### Approval

The approval granted on any plat 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 Approval

In any instance in which the period of preliminary approval shall have passed with some portion of the subdivision not having received final approval, and the applicant wishes an extension of the preliminary approval, the planning commission may:

- (1) 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
- (2) stipulate that the plat is null and void and that a new plat be presented subject to the provisions of these regulations.

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- 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 the adoption of any amendment to these regulations, a public hearing thereon shall be held by the planning commission, as required by Chapter 3, Title 13, Tennessee Code.

### 1- 107.2 Codification and Distribution

Subsequent to the 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 the last revision of the page.
- (2) In Article 7, of these regulations, each adopted amendment shall be numbered consecutively and printed on pages separate from any other amendment and in a manner which 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 if it would affect any map, plan, or plat legally recorded before the adoption of any subdivision regulations, such amendment shall be approved by the planning commission by the same procedure, rules, and regulations as for a subdivision.

### 1-108.2 Procedures for Subdivision Where Future Resubdivision Is Foreseen

Whenever a parcel of land is subdivided and the subdivision plat shows one or more lots containing more than one acre of land or double the minimum required area for any zoning district in which the lot is located, and the planning commission has reason to believe that any such lots) 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. The planning commission may also require that dedications providing for the future opening and extension of such public ways be indicated on the plat.

## 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 the 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

Any plat or any part of any plat may be vacated by the owner of the premises, at any time before the 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. The planning commission shall follow the same procedure for approval of plats. The governing body may reject any such instrument which 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 laid out or described in such plat. When any lot or lots have been sold the plat may be vacated in the manner herein provided only if all of the owners of lots in such platted area join in the execution of such writing.

#### 1-111 Variances

##### 1 - 111. 1 General

If the planning commission finds that extraordinary hardships or practical difficulties may result from strict compliance with these regulations, a variance from these regulations may be granted; provided, such variance shall not have the effect of nullifying the general intent and purpose of these regulations and provided, further, that the planning commission shall not recommend variations unless it shall make findings based upon written evidence presented to it in each specific case that:

- (1) the 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 in which the property is located;
- (2) the 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;
- (3) 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
- (4) the variance will not in any manner alter the provisions of the land development plan, the major street or road plan, or any zoning ordinance.

Where the planning commission concludes that the purpose of these regulations may be specifically served to an equal or greater extent by an alternative proposal, condition, or circumstance, it may approve other variations to these regulations.

##### 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 in letter form. Any condition shown on the plat which would require a variance or modification shall constitute a grounds for disapproval of the plat unless such special application for modification 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.

### 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 building inspector (hereinafter referred to as "the enforcing officer)" to enforce these regulations and to bring to the attention of legal council 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 plat of a subdivision of land within the jurisdictional area shall be received or recorded by the county register until the plat has received final approval of the planning commission in accordance with these regulations, and such approval has been endorsed in writing on the plat by the planning commission secretary in the manner prescribed by Section 2-105 of 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 13-3-410 and 13-4-306, Tennessee Code, the planning commission 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 plat approved by the planning commission or on a public way plat made by the planning commission.

However, the governing body may override the planning commission as provided in Title 13, Tennessee Code.

In case of any state highway constructed or to be constructed within the jurisdictional area 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 the construction of any building or structure located on a lot or plat subdivided or sold in violation of any provision of these regulations.

#### 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 upon which 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 as provided by law, provided, that the provisions of this section relating to access shall not apply to subdivisions of property zoned commercial or industrial and that no building permit shall be withheld in such cases of non-compliance of this section.

Provided, further, that when a permanent easement to a public way is used as access to a lot or tract of land having been or being separated by deed or plat from other property, such easement shall be at least fifty (50) feet in width from and after the time of adoption of these regulations and shall not be used to provide access to more than one lot or tract of land.

The above section shall not be construed to prohibit the development of buildings on lots or tracts with permanent access provided by private ways when such development is in the form of condominium ownership of such private improvements which have been approved by the planning commission and will be in private ownership and control in perpetuity.

### 1- 112.2 Penalties for Violations

#### 1- 112.201 Recording of Unapproved Plats

Any county register receiving, filing, or recording a plat of a subdivision in violation of Section 1-112.103, of these regulations, shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.

#### 1-112.202 Use of Unapproved Plats

Any owner or agent of the owner of any land who violates Section 1- 112.104, of these regulations, shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.

### 1- 112.3 Civil Enforcement

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 Section 1- 112.2 of these regulations.

## ARTICLE II

### PROCEDURES FOR PLAT APPROVAL

#### 2-101 General Procedure

##### 2-101.1 Plat Approval Requirements

Before any contract is executed for the sale of any parcel of land which 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

The planning commission shall classify each subdivision proposal as either major or minor as defined herein.

##### 2-101.201 Review Procedure

The subdivider shall follow the procedure described below in order to secure plat approval.

##### (1) Minor Subdivision

- (a) Preapplication conference with the enforcing officer including submittal of a scale drawing or survey of the proposed subdivision for preliminary discussion and review.
- (b) Submittal of a final plat, prepared, in accordance with the specifications in Section 5-104, herein, for approval by the planning commission.

##### (2) Major Subdivision

- (a) Submittal of a sketch plat of the entire property proposed for development, prepared in accordance with Section 5-101, herein for planning commission approval.
- (b) Submittal of a preliminary plat, prepared in accordance with Section 5-102, herein for planning commission approval.
- (c) Securing of approval from other public agencies.
- (d) Submittal of the final subdivision plat, prepared in accordance with Section 5-104, herein for planning commission approval.

### 2-101.3 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 at which the public hearing on the final subdivision plat, including any adjourned date thereof, is closed, shall constitute the official submittal date of the plat at which the statutory period required in Section 13-3404 and 13-4-304, Tennessee Code, for formal approval or disapproval of the plat shall commence.

### 2-101.4 Policy on Flood Prone Areas

In determining the appropriateness of land subdivision at any site containing a flood prone area, the planning commission, in reviewing any plat, shall consider the policy and purpose set forth in Section 1104, of these regulations, and, additionally:

- (1) the danger to life and property due to the increased flood heights or velocities, either potential or actual, caused by subdivision fill, roads, and intended uses;
- (2) the danger that intended uses or improvements may be swept onto other lands or downstream to the injury of others;
- (3) the adequacy of proposed water supply, sanitation, and drainage systems, and the ability of these systems to function under flood conditions;
- (4) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage upon the individual owner;
- (5) the importance of the services provided by the proposed facility to the community at large;
- (6) the requirements of the subdivision for a waterfront location;
- (7) the availability of alternative locations not subject to flooding for the proposed subdivision and land uses;
- (8) the compatibility of the proposed uses with existing development or development anticipated in the foreseeable future;
- (9) the relationship of the proposed subdivision to the land development plan and the floodplain management program for the area;
- (10) the safety of access to the property for emergency vehicles in times of flood;
- (11) the expected heights, duration, velocity, rate of rise, and sediment transport of the floodwaters expected at the site;
- (12) the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, public ways, and bridges; and
- (13) the effect of the proposed subdivision upon the planning commission's participation in the National Flood Insurance Program, if such planning commission is, or elects to be, in the program.

No subdivision or part thereof shall be approved by the planning commission if proposed levees, fills, structures, or other features within the subdivision will individually or collectively, increase flood flows, heights, duration, or damages. The regulatory limits (the one hundred-year flood level) shall be determined from the latest approved flood study for the jurisdictional area, and any subsequent revisions thereto. Specific engineering studies are to be formulated by the developer in those areas in which flood data are not currently available, if deemed necessary by the planning commission.

In any instance in which the planning commission determines that a proposed subdivision may affect the flood height, velocity, or duration in any flood prone area outside its jurisdiction, the commission shall take all actions necessary and proper to ensure the coordinated review of the development with the appropriate governmental agencies of the affected area.

In approving plans for subdivision of land containing flood prone areas, the planning commission shall ensure that development will proceed in such a way that property lying within any floodway, as defined by these regulations, will be maintained in a manner as prescribed by any zoning ordinance. The planning commission shall also ensure that development within any floodway fringe area (within the one hundred-year flood level) will be protected adequately against potential flood hazards by the methods prescribed in Article 4, of these regulations.

The planning commission shall disapprove the subdivision of any land containing a flood prone area when the commission determines that subdivision plans are not consistent with the policy stated in this section.

#### 2-101.5 Special Provisions Governing Unit Ownership (Condominium) Subdivisions

##### 2-101.501 General Provisions

- A. Intent -- This section is intended to augment the general legislation of Sections 66-27-101 through 66-27-123, Tennessee Code, entitled "Horizontal Property Act," by providing supplemental rules and regulations for the implementation of the act, as specifically authorized in Section 66-27-121. Tennessee Code.
- B. Applicability -- Whenever a developer, the sole owner, or the co-owners of a building or buildings expressly declare through the submission of a master deed, lease, or plat their desire to submit their property to a regime, as established and provided by Sections 66-27-101 through 66-27-123, Tennessee Code, wherein there is established a horizontal property regime, each such condominium or horizontal property regime created under the authority of these provisions for the purpose of sale or transfer of real property is subject to the provisions of these regulations.

##### 2-101.502 Submission of Plat Require

Prior to the sale or transfer of any property incorporated in the property regime, the developer, sole owner, or co-owners of such property shall submit to the planning commission a subdivision plat of such property in the manner prescribed by this article; such plat, if approved, shall be filed with the county register in the manner prescribed by this article.

### 2-101.503 Determination of Subdivision Type

Condominium subdivisions shall be classified by the planning commission during the plat review process as either horizontal condominiums or vertical condominiums as defined in Article 6, of these regulations.

### 2-101.504 Procedure

An applicant seeking approval of a condominium subdivision shall, proceed through the normal procedure for subdivision approval, as set forth in this article.

### 2-101.505 Contents of Plans and Documents

The plats, plans, and documents submitted by an applicant seeking approval of condominium subdivision shall conform with the specifications set forth in Article 5, of these regulations.

## 2-102 Sketch Plat (Major Subdivisions Only)

### 2-102.1 Application Procedure and Requirements

The applicant shall file with the planning commission a sketch plat. The failure of the applicant to satisfy the requirements of this section with full and correct information shall be cause for disapproval of a sketch plat. The sketch plat shall be prepared in accordance with Section 5-101, and:

- (1) be presented at the office of the enforcing officer at least twenty-one (21) days prior to a regular (officially opened) meeting of the planning commission;
- (2) include all land which the applicant proposes to subdivide and all land immediately adjacent, extending two hundred (200) feet therefrom, or of that directly opposite thereto, extending two hundred (200) feet from the public way frontage of such opposite land. The lot pattern of surrounding development shall be shown within that area located within two hundred (200) feet of the proposed development;
- (3) be accompanied by a minimum of twelve (12) copies of the sketch plat as described herein;
- (4) submit electronic copies in pdf format.

### 2-102.2 Administrative Review

An administrative review meeting shall be conducted on the sketch plat and any exhibits submitted in conformance with these regulations. This review shall include the staff assistant to the planning commission and any other appropriate governmental representative. The review shall be held prior to the regularly scheduled planning commission meeting at which the plat is to be reviewed. The findings of the review committee shall be presented to the planning commission.

### 2-102.3 Approval of Sketch Plat

Approval of the sketch plat shall constitute authorization to prepare detailed plans and specifications

#### 2-102.4 Expiration of Approval

The approval of the sketch plat shall expire within one (1) year if no further progress is made toward the development. An extension may be granted upon proper application.

#### 2-103 Preliminary Plat (Major Subdivisions Only)

##### 2-103.1 Application Procedure and Requirements

The applicant shall file with the planning commission a preliminary plat. The failure of the applicant to satisfy the requirements of this section with full and correct information shall be cause for disapproval of a preliminary plat. The preliminary plat shall be prepared in accordance with Section 5-102, and:

- (1) be presented at the office of the enforcing officer;
- (2) include all land which the applicant proposes to subdivide and all land immediately adjacent, extending two hundred (200) feet therefrom, or of that directly opposite thereto, extending two hundred (200) feet from the public way frontage of such opposite land. The lot pattern of surrounding development shall be shown within that area located within two hundred (200) feet of the proposed development;
- (3) be accompanied by a minimum of twelve (12) copies of the preliminary plat as described herein;
- (4) submit electronic copies in pdf format.
- (5) be accompanied by a minimum of three (3) copies of construction plans as described in Section 5-103, of these regulations; and
- (6) be presented to the enforcing officer at least twenty-one (21) days prior to a regular (officially opened) meeting of the planning commission.

##### 2-103.2 Administrative Review

An administrative review meeting shall be conducted on the preliminary plat, construction plans, and any exhibits submitted in conformance with these regulations. This review shall include the staff assistant to the planning commission and any other appropriate governmental representative. The review shall be held prior to the regularly scheduled planning commission meeting at which the plat is to be reviewed. The findings of the review committee shall be presented to the planning commission.

With expert assistance, as necessary, the subdivider shall prepare a report, on any proposed subdivision containing or abutting a floodprone area. Such report shall estimate the discharge of the regulatory flood; determine the specific flooding threat at the site of the proposed subdivision; and indicate whether the subdivision is located in a floodway or floodway fringe area by:

- (1) calculation of water surface elevations and regulatory flood protection elevations based upon a hydraulic analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood;
- (2) computation of the floodway required to convey the regulatory flood without increasing natural flood heights of the regulatory flood more than one (1) foot at any point; and

- (3) unless, otherwise, established, computation of increase in flood heights caused by any encroachment shall be based upon the reasonable assumption that there will be an equal degree of encroachment on both sides of the stream within that reach. No increase in flood storage attributable to encroachments on the floodplain of any river or stream shall be permitted in any one reach or for the cumulative effect of several reaches.

#### 2-103.3 Notice of Hearing

The planning commission shall hold a hearing as required by Chapters 3 and 4, of Title 13, Tennessee Code, on each plat brought before it.

#### 2-103.4 Preliminary Approval

Prior to planning commission approval on a preliminary plat, required construction drawings shall have been submitted, reviewed and approved by the appropriate governmental representative (s). After the planning commission has reviewed the preliminary plat, construction plans, exhibits, and the results of administrative review, the applicant shall be advised of any required changes. The planning commission shall approve, conditionally approve, or disapprove the preliminary plat within thirty (30) days after date of the regular meeting of the planning commission at which the hearing on preliminary approval, including adjourned date thereof, is closed.

A certificate of preliminary approval shall be issued by the secretary of the planning commission, upon demand, and the applicant may proceed to apply for final subdivision plat approval in the manner prescribed by Section 2-104, of these regulations.

After the planning commission approves, conditionally approves, or disapproves the preliminary plat, one copy of the proposed preliminary plat shall be returned to the developer with the date of approval, conditional approval, or disapproval thereon. If a preliminary plat is disapproved the planning commission shall state specific reasons for disapproval which shall be entered into the minutes of the meeting.

Before the planning commission approves a preliminary plat showing land for any public use, the planning commission shall obtain approval for the land reservation from the appropriate governmental agency.

#### 2-103.5 Public Improvements

The planning commission may require that all public improvements be installed and dedicated prior to the signing of the final subdivision plat by the secretary of the planning commission. If the planning commission, salon does not require that all public improvements be installed and dedicated prior to signing of the final subdivision plat, an adequate performance bond shall be approved. The amount of such bond shall be established by the planning commission based upon the recommendation of the appropriate governmental representative (s) or by receipt of cost bids from two (2) or more independent contracting firms equal to the cost of all necessary improvements plus an additional ten (10) percent to cover inflation shall be added. It is the subdivider's, responsibility to furnish these estimates to the planning commission.

Such bond shall be submitted by, the applicant at the time of application for final subdivision plat approval. The planning commission shall require the applicant to indicate on the plat all public ways and improvements to be dedicated; all districts for water, fire, and utility improvements which shall be required to be established or extended; and any

other special requirements deemed necessary by the planning commission in order for the subdivision plat to conform to the major street or road plan and the land development plan for the jurisdictional area.

#### 2-103.6 Effective Period of Preliminary Approval

The approval of a preliminary plat shall be effective for a period of twelve (12) months, at the end of which time final approval of the subdivision plat must have been obtained from the planning commission, although the plat need not have been signed and filed with the county register. Any plat not receiving final approval within the period of time set forth herein shall be null and void, and the developer shall be required to submit a new plat for approval subject to any zoning provisions and the subdivision regulations currently in effect.

#### 2-103.7 Zoning Regulations

Every plat shall conform to any existing zoning regulations and subdivision regulations applicable at the time of proposed final approval, except that any plat which has received preliminary approval shall be exempt from any subsequent amendments to such zoning ordinance or these regulations rendering the plat nonconforming as to bulk, use, or development standards, provided, that final approval is obtained within the effective period of preliminary approval set forth in Section 2-103.6, herein.

### 2-104 Final Subdivision Plat (Minor and Major Subdivision)

#### 2-104.1 Application Procedure and Requirements

A subdivider shall file with the planning commission a final plat. The plat shall be prepared in accordance with Section 5-104, and:

- (1) include the entire subdivision, or section thereof, for which final approval is sought;
- (2) be accompanied by a minimum of twelve (12) copies of the final subdivision plat as described herein.
- (3) submit electronic copies in pdf format.
- (4) comply substantially with the preliminary plat, where such plat is required;
- (5) be presented to the enforcing officer at least twenty-one (21) days prior to the regular meeting of the commission at which it is to be considered;
- (6) 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 plat shall be marked with a notation indicating the formal offers of dedication as shown in Article 5, of these regulations.);
- (7) be accompanied by a performance bond, if required, in a form satisfactory to legal counsel and in an amount satisfactory to the governing body upon recommendation by the appropriate governmental representative. It shall include provisions that the principal of the bond shall comply with all the terms of the resolution of final subdivision plat approval, as determined by the planning commission, including, but without limitations, the performance of all required subdivision and offsite improvements, and that all improvements and land included

- a. in the irrevocable offers of dedication shall be dedicated to the governing body free and clear of all liens and encumbrances on the premise(s);
- (8) be accompanied by written assurance from any public utility companies serving the area of the subdivision that necessary utilities will be installed and by proof that the applicant has submitted petitions in writing for the creation or extension of any utility districts as required by the planning commission upon preliminary plat approval; and
  - (9) be accompanied, if the final plat contains open space, or recreational facilities, or if any portion of the site is in common ownership, by the following documentation for approval by the planning commission:
    - (a) plans for improvement and maintenance of the open space or facilities located thereon;
    - (b) articles of incorporation and bylaws of the co-owners association or other legal entity (where open space or facilities are to be deeded to a co-owners association by 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
    - (c) declaration of covenants 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.

#### 2-104.2 Endorsement of Notations

The notations and certifications required by Section 5-104.3, of these regulations, to appear upon the final plat shall be endorsed by appropriate officials and other persons prior to application for final subdivision plat approval, except that the certificate of planning commission approval shall be signed at the time specified in Section 2105, of these regulations.

#### 2-104.3 Hearing and Decision on Final Plat

The planning commission shall hold a hearing as required by Section 13-4-404 and 13-4-304, Tennessee Code, on each final plat brought before it. The planning commission shall within sixty (60) days after submission of the plat, approve, modify, or disapprove the final subdivision plat by resolution, which shall set forth in detail any conditions to which the approval is subject, or reasons for disapproval.

The failure of the planning commission to act upon a plat within the prescribed time shall be deemed approval of the plat, and in such event, a certificate of approval, entitling the subdivider to proceed as specified in Sections 2-104.4 and 2-105, of these regulations, 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 copy of the final subdivision plat shall be returned to the subdivider with the date of approval, conditional approval, or disapproval noted thereon.

#### 2-104.4 Vested Right

No vested rights shall accrue to any plat by reason of preliminary or final approval until the actual signing of the plat by the secretary of the planning commission. All requirements, conditions, or regulations adopted by the planning commission, applicable to the particular subdivision or to all subdivisions generally, shall be deemed a condition of approval for any subdivision prior to the time of the signing of the final plat by the secretary of the planning commission. Where the planning commission has required the installation of improvements prior to the signing of the final plat, the planning commission shall not modify unreasonably the conditions set forth in the resolution of final approval

#### 2-105 Signing and Recording of Subdivision Plat

##### 2-105.1 Signing of Plat

- (1) When a bond is required, the secretary of the planning commission shall endorse approval on the plat after the bond has been approved by the planning commission and after all the conditions of the resolution pertaining to the plat have been satisfied.
- (2) When installation of improvements is required, the secretary of the planning commission shall endorse approval on the plat after all conditions of the resolution 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 governing body as shown on certifications by the appropriate governmental representative(s) that necessary land dedications and improvements have been accomplished.
- (3) When the conditions of this section are satisfied, the secretary shall sign the permanent reproducible original of the subdivision plat.

##### 2-105.2 Recording of Plat

It shall be the responsibility of the enforcing officer to file plat with the county register's office within fourteen (14) days of the date of signature. Simultaneously, with the filing of the plat, the enforcing officer shall record the agreement of dedication together with such legal documents as shall be required to be recorded by legal counsel.

##### 2-105.3 Sectionalizing Major Subdivision Plats

Prior to granting final approval of a major subdivision plat, the planning commission may permit the plat to be divided into 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 may require that a performance bond be in such amount as is commensurate with the section or sections of the plat to be filed and may defer the remaining required performance bond principal amount until the remaining sections of the plat are offered for filing. The developer also may file irrevocable offers to dedicate public ways and improvements in the section offered to be filed and defer filing offers of dedication for the remaining sections until such sections, subject to any conditions imposed by the planning commission, shall be granted concurrently with final approval of the plat. Such authorized sections must contain at least ten (10) percent of the total number of lots contained in the proposed plat unless a specific waiver of this requirements is granted by the planning commission.

## ARTICLE III

### ASSURANCE FOR COMPLETION AND MAINTENANCE OF IMPROVEMENTS

#### 3-101 Improvements and Performance Bond

##### 3-101.1 Completion of Improvements

Before the final subdivision plat is signed by the planning commission officer specified in Section 2-105.1, of these regulations, all applicants shall complete, in accordance with the planning commission's decision and to the satisfaction of the appropriate governmental representative, all public way, sanitary, and other improvements, including lot improvements on the individual lots of the subdivision, as required in these regulations and approved by the planning commission and shall dedicate such improvements to the governing body free and clear of all liens and encumbrances on the property and public improvements thus dedicated.

##### 3-101.2 Surety Instrument

The planning commission at its discretion may waive the requirement that the applicant complete and dedicate all public improvements prior to the signing of the final subdivision plat by providing that, as an alternative, the applicant post a bond at the time of submission for final subdivision approval in an amount estimated by the planning commission as sufficient to guarantee to the governing body the satisfactory construction, installation, and dedication of the incompleting portion of required improvements. (See Section 2-103.5).

Such performance bond shall comply with all statutory requirements and shall be satisfactory to legal counsel as to form, sufficiency, and manner of execution, as set forth in these regulations. The period within which required improvements must be completed shall be specified by the planning commission in the resolution approving the final subdivision plat and shall be incorporated in the bond. Such performance bond shall be drawn from a bank, lending institution, or other financial establishment within the State of Tennessee with an agent, of said lender, within a fifty (50) mile radius of the City of Spring Hill.

Such bond shall be approved by the governing body as to amount and conditions. The planning commission may, upon proof of difficulty, recommend to the governing body extension of the completion date set forth in such bond for a maximum period of one (1) additional year. The governing body may accept at any time during the period of such bond a substitution of principal.

##### 3-101.3 Temporary Improvements

The applicant shall build and pay for all costs of temporary improvements required by the planning commission, and shall maintain them to a reasonable satisfaction for the period specified by the planning commission. Prior to construction of any temporary facility or improvement, the applicant shall file with the governing body a separate suitable bond for temporary facilities, which shall ensure that the temporary facilities will be properly constructed, maintained, and removed.

##### 3-101.4 Costs of Improvements

All required improvements shall be made by the applicant at his expense. Any provisions for reimbursement by the governing body or any utility agency shall be stipulated clearly in the provisions of any bonds.

### 3-101.5 Governmental Units

Governmental units to which these bonds and contract provisions apply may file, in lieu of said contract or bond, a certified resolution or ordinance from officers or agencies authorized to act in their behalf agreeing to comply with the provisions of this article.

### 3-101.6 Failure to Complete Improvements

In subdivisions for which no performance bond has been posted, if the improvements are not completed within the period specified by the planning commission in the resolution approving the plat, the approval shall be deemed to have expired. In those cases in which a performance bond has been posted and required improvements have not been installed within the terms of such performance bond, the governing body thereupon may declare the bond 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.

### 3-101.7 Acceptance of Dedication Offers

Acceptance of formal offers of dedication of public ways, easements, and parks shall be by formal action of the governing body. Such action shall be in the form of a resolution recommended by the planning commission to the governing body. The approval by the planning commission of a subdivision plat shall not be deemed to constitute or imply an acceptance by the local government of any public way, easement, or other ground shown on the plat. The planning commission may require the plat to be endorsed with appropriate notes to this effect.

## 3-102 Inspection of Improvements

### 3-102.1 General Procedure

The planning commission may provide for inspection of required improvements during construction and ensure their satisfactory completion. If the appropriate governmental representative finds upon inspection that any of the required improvements have not been constructed in accordance with the governing body's construction standards and specifications, the applicant shall be responsible for completing the improvements to the required standards. Whenever the cost of improvements is covered by a performance bond, the applicant and the bonding company shall be liable severally and jointly for completing said improvements according to specifications.

### 3-102.2 Release or Reduction of Performance Bond

#### 3-102.201 Certificate of Satisfactory Completion

The governing body shall not accept dedication of required public improvements nor release nor reduce a performance bond until the appropriate governmental representative submits a certificate stating that all required improvements have been satisfactorily completed, and until the applicant's engineer or surveyor has certified to the planning commission and the appropriate governmental representative (through submission of a detailed "as built" survey of the subdivision indicating location, dimensions, construction materials, and any other information required by the planning commission) that the layout and the line and grade of all public improvements are in accordance with the approved construction plans for the subdivision. Upon such approval and recommendation, the governing body, thereafter, may accept the dedicated improvements in accordance with the procedures set forth in Sections 1-112.106 and 3-101.7, of these regulations.

### 3-102.202 Reduction of Performance Bond

A performance bond may be reduced upon actual dedication and acceptance of public improvements and then only to the ratio that the public improvement dedicated bears to the total public improvements for the plat. In no event shall a performance bond be reduced below twenty-five (25) percent of the principal amount prior to final acceptance of all items covered under the bond.

### 3-103 Maintenance of Improvements

The applicant shall be required to maintain all improvements including all lot improvements, until acceptance of the public improvements by the governmental body.

The applicant may be required to file a maintenance bond with the planning commission prior to dedication, in an amount considered adequate by the appropriate governmental representative and in a form satisfactory to legal counsel in order to assure the satisfactory condition of the required improvements, including all lot improvements, for a period of one year after the date of acceptance of the public improvements by the governing body.

### 3-104 Deferral or Waiver of Required Improvements

The planning commission may defer or waive at the time of final 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 the construction of any improvement required herein because of incompatible grades, future planning, inadequate or lack of connecting facilities, or for other reasons, the developer shall either pay his share of the costs of the future improvements to the planning commission prior to signing of the final subdivision plat by the appropriate governmental representative(s) or post a bond or other surety instrument ensuring completion of said improvements upon demand of the governing body.

### 3-105 Escrow Deposits for Lot Improvements

#### 3-105.1 Acceptance of Escrow Funds

Whenever, by reason of the season of the year, any lot improvements required by these regulations cannot be performed, the enforcing officer nevertheless may issue a certificate of occupancy upon accepting a cash escrow deposit in an amount to be determined by the appropriate governmental representative for the cost of such improvements; provided, there otherwise is no danger to the health, safety, or general welfare. The performance bond covering such lot improvements shall remain in full force and effect.

#### 3-105.2 Procedures on Escrow Fund

All required improvements for which escrow moneys have been accepted by the enforcing officer at the time of issuance of a certificate of occupancy shall be installed by the developer within a period of nine (9) months from the date of deposit and issuance of the certificate of occupancy. In the event that the improvements have not been installed properly at the end of the time period, the enforcing officer shall provide written notice of two (2) weeks to the developer requiring him to install the improvements, and in the event they are not installed properly, in the judgment of the enforcing officer, he may request the governing body to proceed to install or to contract for the installation of the necessary improvements in a sum not to exceed the amount of the escrow deposit.

At the time of the issuance of the certificate of occupancy for which escrow moneys are being deposited, the applicant shall obtain and file with the enforcing officer, prior to obtaining the certificate of occupancy, a notarized statement from the purchaser(s) of the premise authorizing the enforcing officer to install the improvements at the end of the nine (9) month period in the event the improvements have not been installed properly by the developer.

### 3-106 Issuance of Building Permits and Certificates of Occupancy

- (1) Where a performance bond has been required for a subdivision, or any section of a subdivision, no certificate of occupancy for any building in the subdivision or section thereof shall be issued prior to the completion and dedication of the improvements to the appropriate governmental unit, as required in the planning commission's resolution of final approval of the subdivision plat.
- (2) 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 an occupancy certificate
- (3) No building permit shall be issued for any lot in any subsequent phases of a subdivision until all public improvements required by the planning commission have been fully completed in the previous phase, dedicated, and accepted by the governmental body.

### 3-107 Building Performance Bond

In a phase of a subdivision where public improvements have been fully completed, dedicated, and accepted by the City, but for which undeveloped lots remain, the builder shall be required to post with the City a continuous non-revocable surety bond in the amount of five thousand dollars (\$5,000.00) prior to issuance of a building permit. This bond may be posted to cover up to five (5) outstanding "building permits at any time. This bonding will be used to ensure adherence to all building codes requirements (including such items as underpinning and decking), proper installation of any required landscaping, and correction to any damage caused to the road and drainage system and/or other installed improvements such as headwalls, pipes, and driveways. This bond would be released when the last structure intended to be built is completed, and has received its occupancy permit.

### 3-108 Utility Performance Permit

In a phase of a subdivision where public improvements, as required in these regulations, have been fully completed, dedicated, and accepted by the City, but for which undeveloped lots remain, the agent representing utilities, not provided by the City (including electrical, gas, cable, and telephone service), shall be required to obtain a one-time permit from the Building Permit division prior to any installation work being performed after the date of final adoption of this resolution. The fee for such permit shall be \$25.00.

### 3-109 Utility Performance Bond

In a phase of a subdivision where public improvements, as required in these regulations, have been fully completed, dedicated, and accepted by the City, but for which undeveloped lots remain, the agent representing utilities, not provided by the City (including electrical, gas, cable, and telephone service), shall be required to post with the City a continuous non-revocable surety bond in the amount of \$5,000. This bonding will be used to ensure correction to any damage caused to the roadway and drainage system as a result of installation of any main and/or service lines. This bond would be released when the last intended structure is serviced.

## ARTICLE IV

### REQUIREMENTS FOR IMPROVEMENTS, RESERVATIONS, AND DESIGN

#### 4-101 General Requirements

##### 4101.1 Conformance to Applicable Rules and Regulations

In addition to the requirements established herein, all subdivision plats 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) any zoning ordinance, any building and housing codes, and all other applicable laws or policies of the planning commission;
- (3) the adopted general plan and major road or street (public way) plan;
- (4) the rules of the county health department and the Tennessee Department of Health and Environment;
- (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 nonlocal highway; and
- (6) the standards and regulations adopted by all other boards, commissions, and agencies of the planning commission, where applicable.

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

##### 4-101.2 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 recorded with the county register on a separate form, along with the final subdivision plat in the office of the county register.

##### 4-101.3 Monuments

The subdivider shall place permanent reference monuments on the subdivision as required herein and as approved by a licensed surveyor. Monuments shall be located and set as follows.

- (1) Monuments shall be located on public way right-of-way lines, at public way intersections, and sections, and at the beginning and ending point of curves. All monuments shall be spaced so as to be within sight of each other.
- (2) The external boundaries of a subdivision shall be monumented in the field by monuments of stone or concrete not less than four (4) feet in length; not 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. These monuments shall be placed not more than fourteen hundred (1,400) feet apart in any straight line and at all corners or breaks at each end of all curves, at the point where a curve changes its radius, at all angle points in any line, and at all angle points along a meander line, said points to be not less than twenty (20) feet back from the bank of any river or stream, except that when such comers or points fall within a

public way or proposed future public way, the monuments shall be placed on the side line of the public way.

- (3) All internal boundaries and those comers and points not referred to in the preceding paragraph shall be monumented in the field by like monuments as described above. Such monuments shall be placed at each end of all curves, at a point where a river changed its radius, and at all angle points in any line. All lot comers not falling on any of the above described points shall be marked by iron rods, pipe, or pins at least eighteen (18) inches long and five-eighths (5/8) inch in diameter.
- (4) The lines of lots that extend to rivers or streams shall be monumented in the field by iron pins at least eighteen (18) inches long and five-eighth (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 less than twenty (20) feet back from the bank of the river or stream.
- (5) All monuments and pins shall be properly set in the ground and approved by a surveyor or an engineer engaged in the practice of civil engineering prior to the time the planning commission recommends approval of the final plat or release of the bond where bond is made in lieu of improvements.

#### 4-101.4 Character of the Land

Land which the planning commission finds to be unsuitable for subdivision or development due to flooding, improper drainage, steep slopes, rock formations, adverse earth formations or topography, utility easements, or other features which would 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 are formulated by the developer and approved by the planning commission, upon recommendation of any staff assistant serving the planning commission and/or other governmental representative, if any, to solve the problems created by the unsuitable land conditions. Such land shall be set aside for such uses as will not involve such a danger.

Where protection against flood damage is necessary, in the opinion of the planning commission, flood-damage protection techniques may include, as deemed appropriate by the planning commission:

- (1) the imposition of any surety and deed restrictions enforceable by the planning commission to regulate the future type and design of uses within the flood prone areas; and
- (2) flood protection measures designed so as\* not to increase, either individually or collectively, flood flows, height, duration, or damages, and so as not to infringe upon the regulatory floodway.
- (3) installation of flood warning systems.
- (4) the use of fill, dikes, levees, and other protective measures.
- (5) the use of flood-proofing measures, which may include:
  - (a) anchorage to resist flotation and lateral movement.
  - (b) installation of watertight doors, bulkheads, shutters, or other similar methods of closure.

- (c) reinforcement of walls to resist water pressures.
- (d) use of paints, membranes, or mortars to reduce seepage through walls.
- (e) addition of mass or weight to structures to resist flotation.
- (f) installation of pumps to lower water levels in structures.
- (g) construction of water supply and waste treatment systems so as to prevent the entrance of or contamination of flood waters.
- (h) installation of pumps or comparable facilities for subsurface drainage systems to relieve external foundation wall and basement flood pressures.
- (i) building design and construction to resist rupture or collapse caused by water pressure of floating debris.
- (j) installation of valves or controls on sanitary and storm drains which permit the drains to be closed to prevent backup of sewage and stormwater into buildings or structures.
- (k) location and installation of all electrical equipment, circuits, and appliances so that they are protected from inundation by the regulatory flood.
- (l) location of storage facilities for chemicals, explosives, buoyant material flammable liquids, or other toxic materials which would be hazardous to the public health, safety, and welfare at or above the regulatory flood protection elevation, or design of such facilities to prevent flotation of storage containers or damage to storage containers which could result in the escape of toxic materials.

The acceptability of any flood protection methods formulated by the subdivider or his agent shall be determined by the planning commission, which shall be guided by the policies set forth in Section 1-104 and Subsection 2-101.4, of these regulations.

#### 4-101.5 Subdivision Name

The proposed name of the subdivision shall not duplicate or too closely approximate phonetically the name of any other subdivision in the area covered by these regulations. The planning commission shall have authority to designate the name of the subdivision which shall be determined at sketch or preliminary plat approval.

#### 4-101.6 Hillside Slope Areas

Hills constitute significant natural topographic features of the community and create aesthetic settings, often visible citywide. In order to insure hillside preservation, the regulations of this section are established to recognize development in hilly areas; special considerations shall be given for unique situations which result from the slope of the land. Where areas are developed on hillsides, such features as geological and special soil conditions may cause serious consequences, such as adverse effects from destruction of natural scenic beauty and unsightly developments, increased erosion, fire, or flood hazards, property damage from extensive soils slippage and subsidence, and sewage disposal or traffic circulation problems.

1. Hillsides having less than twenty (20) percent slopes shall be governed by the base zoning district.

2. Developments containing natural slopes of twenty (20) to twenty five (25) percent, shall meet the following minimum requirements.
  - a. Maximum density, regardless of the base zoning district, shall be 50% of the designated base zone.
  - b. The area shall contain no more than thirty three (33) percent of the impervious areas (buildings, streets, sidewalks, parking lots, etc.).
  - c. A geo-technical report (by a licensed professional engineer, in the State of Tennessee, specializing in geo-technical soils analysis and investigations) shall be submitted for review and approval by the Planning Commission. The report shall include, at a minimum, identification of unstable soils and rock formations with recommendations and design details on stabilization of the unsuitable soils. The report should also identify any areas which are unsuitable for development.
  - d. Structural building heights shall not exceed fifteen (15) feet below the top of any hill crest.
3. All areas containing slopes of greater than twenty five (25) percent shall be permanently maintained (in its natural state) and designated by a preservation easement.
4. Any areas requiring stabilization by means of retaining walls, rip-rap stone, or applied concrete shall be screened by landscaping buffers and materials as approved by the Planning Commission.
5. All materials utilized for stabilization methods by means of retaining walls, rip-rap stone, or applied concrete shall be reviewed and approved by the Planning Commission.
6. Retaining walls exceeding 4 feet in height shall be designed by a licensed professional engineer in the State of Tennessee who specializes in structural engineering.
7. Streets shall not exceed the maximum permitted grades for streets as described in the Subdivision Regulations. The maximum slope permitted on a driveway shall be fourteen (14) percent and shall have landings at the top and bottom to prevent vehicles from scraping pavement.
8. Cut and fill shall be minimized by the following existing contours to the greatest extent possible. Street and driveway constructions shall minimize scars from cuts and fill and shall avoid permanent hillside scarring.
9. A site plan for each lot shall be required. The following is a list of additional information which shall be required on the site plan:
  - a. Drawn to scale of one (1) inch equals twenty (20) feet.
  - b. Name, address, telephone number, and seal of the professional engineer, licensed in the State of Tennessee, drawing the plan.
  - c. Existing land contours, showing vertical intervals no greater than two (2) feet, shall be from a field-run survey.
  - d. Boundary information, including bearings, curve data, and distances, as shown by the recorded final subdivision plat.
  - e. Building footprint with the finished floor elevation and driveway plan and profile.

- f. An inventory of existing trees of twenty four (24) inches or larger in diameter at breast height (DBH), and delineating those trees to be removed and those to be preserved. These trees shall be plotted on the site plan.
- g. Temporary construction entrance and details.
- h. Existing and proposed drainage structures.
- i. Ditches and swales to direct and redirect storm water runoff, types of stabilization if greater than three-to-one (3:1) slopes, and provide details, such as geotechnical fabric, sod, rip-rap stone, engineered terrace walls, or other approved methods.
- j. Proposed grading to direct surface runoff away from structures, provide positive drainage for the entire site, and indication that surface runoff will not be directed to adjacent properties.
- k. A schedule of maintenance and all forms of erosion/siltation controls necessary to control surface runoff.
- l. The grade at the driveway entrance shall prevent roadway drainage from flowing into the driveway and lot.
- m. Ditches shall be a minimum of ten (10) feet from structures.
- n. The site plan shall be checked against construction plans for utility conflicts, including grading and services that were to be completed by the construction of the subdivision.
- o. Utility locations, including but not limited to, cable, gas, sewer, telephone, and water.
- p. Verify site information with adjoining property improvements.
- q. Turnaround areas at garages shall provide a minimum distance of thirty (30) feet from the face of structures to the edge of the driveway.
- r. Retaining walls over four (4) feet height shall be designed by a licensed professional engineer in the State of Tennessee and specializing in design of structural retaining walls.
- s. A geotechnical report to indicate any unstable soil types with recommended stabilization methods.

#### 4-101.7 Development Near or Contiguous to National Register or Historic Homes

Development near or contiguous to National Register or Historic Sites, (as identified in the book of "National Register Properties 1995" with subsequent amendments and/or as determined by the City of Spring Hill Planning Commission to have Historical Value to the City, community, or neighborhood), shall be developed in accordance with the Design Review Guidelines described below, requirements of this resolution, and with all other requirements of the City of Spring Hill Planning Commission.

#### 4-101.8 Design Reviews Guidelines

Design Review Guidelines are a commonly-used tool for shaping the character of new development. They are most frequently used by local governments to implement the design standards of an overlay or special designated district, which does not affect the

underlying base district provisions related to permitted land uses and similar issues. Such design standards typically address building setbacks, heights, architectural forms, porches, building materials, site features, and other design elements, and their most common application occurs in the form of historic areas governed by Historic Commission. The Historic Commission will review the proposed designs within the historic areas and must approve prior to the development. While design standards are often mandatory, they are sometimes voluntary. In addition to the public sector's long-standing use of design guidelines, private developers can implement such standards for new development through legally-binding covenants and deed restrictions.

#### 4-101.9 The Purpose of Design Reviews Guidelines

The purpose of the Design Reviews Guidelines as implemented by the Historic Commission is to provide direction for those involved in the development process contiguous to and near National Register and Historic Sites. In comparison with many other design guidelines, these are not as prescriptive because of the nature of rural settings. In establishing standards for infill development within, adjacent to, or near existing historic district, the design context permits the development of prescriptive numeric standards based upon existing design characteristics. There shall also be review of each proposed development by the Historic Commission to ensure that it is consistent with and does not impact the historic site, district, character, or aesthetic value.

#### 4-102 Lot Requirements

##### 4-102.1 Lot Arrangement

The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography, flood hazards, or other conditions in securing building permits to build on all lots in compliance with any zoning ordinance and state and county public health department regulations and in providing driveway access to buildings on such lots from an approved public way.

Where reasonably feasible lot arrangement shall be such that building sites will afford maximum utilization of energy conservation measures, such as providing for solar access purposes.

Where a lot in any flood prone area must be improved to provide a building site free from flooding, such improvements shall be made outside the floodway by elevation or fill to at least the regulatory flood protection elevation (one hundred-year flood) for a distance extending at least twenty-five (25) feet beyond the limits of intended structures and, additionally, extending a sufficient distance to include areas for subsurface sewage disposal if the lot is not to be connected to a public sanitary sewer system. Any fill shall be protected against erosion by riprap, vegetative cover, or other methods deemed acceptable by the planning commission.

In nonresidential building sites outside a floodway but subject to flooding, the use of structural floodproofing methods specified in Subsection 4-101.4, of these regulations, as an alternative to landfill, may be approved by the planning commission, as provided in Subsection 2-101.4, of these regulations.

##### 4-102.2 Lot Dimensions

Lot dimensions shall comply with the minimum standards of any zoning ordinance, where applicable. Where lots are more than double the minimum area required by any zoning ordinance, the planning commission may require that such lots be arranged so as to allow further subdivision and the opening of future public ways where they would be necessary to

serve such potential lots, all in compliance with any zoning ordinance and these regulations. Where solar access is a primary consideration, side lot lines shall generally run from due north to due south, regardless of the resulting angle of incidence with a public way. A variation of up to twenty-five (25) degrees east or west of this axis is permitted; further variations may be allowed, but only to provide a better public way or lot plan.

Dimensions of the corner lots shall be large enough to allow for erection of buildings, observing the minimum front yard setback requirements from both public way rights-of-way.

Depth and width of properties reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide for the off-street parking and loading facilities required for the type of use and development contemplated, and as established in any zoning ordinance.

Where no zoning ordinance is in effect, and public sewerage is not available (as determined by the planning commission), the minimum lot area shall be twenty thousand (20,000) square feet; it shall be larger than the minimum, if required by local health authority.

#### 4-102.3 Building Setback Lines

In the case of electric transmission lines where easement widths are not definitely established, a minimum building setback line from the center of the transmission line shall be established as follows:

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

#### 4-102.4 Double Frontage Lots and Access to Lots

##### 4-102.401 Double Frontage Lots

Double frontage and reversed frontage lots shall be avoided except where necessary to provide separation of residential development from traffic arterials, or to overcome specific disadvantages of topography and orientation.

##### 4-102.402 Access from Arterial or Collector Public Way

The planning commission may require that lots shall not derive access exclusively from arterial or collector public ways. Where driveway access from such public ways may be necessary for several adjoining lots, the planning commission may require that the lots be served by a combined access drive in order to limit possible traffic hazards. Driveways shall be designed and arranged so as to avoid requiring vehicles to back onto arterial or collector public ways.

#### 4-102.5 Soil Preservation, Grading, Erosion Control, and Seeding

##### 4-102.501 Soil Preservation and Final Grading

No certificate of occupancy shall be issued until final grading has been completed in accordance with the approved construction plan.

Topsoil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide cover on the lots, cover between any sidewalks and curbs, and be stabilized by seeding or planting.

#### 4-102.502 Lot Drainage

Lots shall be laid out so as to provide positive drainage away from all buildings; individual lot drainage shall be coordinated with the general storm drainage pattern for the area.

#### 4-102.6 Debris and Waste

No cut trees, timber, debris, junk, rubbish, or other waste materials of any kind shall be buried in any land or left or deposited on any lot or public way 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. Neither 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.

#### 4-102.7 Fencing

Each subdivider or developer shall be required to furnish and install all fences wherever the planning commission determines that a hazardous condition exists. Such fences shall be constructed according to standards established by the planning commission, as appropriate, and shall be noted on the final plat as to height and required materials. No certificate of occupancy shall be issued for any affected lot until such fence improvements have been installed.

#### 4-102.8 Water Bodies and Watercourses

If a tract being subdivided contains a water body, or portion thereof, lot lines shall be so drawn as to distribute the entire ownership of the water body among the fees of adjacent lots. 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 more than ten (10) percent of the minimum area of a lot required under any zoning ordinance may be satisfied by land which is under water. Where a watercourse separates a buildable area of a lot from the public way by which it has access, provisions shall be made for installation of a culvert or other structure approved by the planning commission and no certificate of occupancy shall be issued for a structure on such a lot until the installation is completed and approved by the planning commission and/or the appropriate governmental representative.

### 4-103 Public Ways

#### 4-103.1 General Requirements

##### 4-103.101 Frontage on Improved Public Way

No subdivision shall be approved unless the area to be subdivided shall meet the requirements for access set forth in Subsection 1-112.107, of these regulations or, if any new street construction or improvement is involved, a street approved and dedicated as provided in Articles 2 and 3, of these regulations. Any such public way must be suitably improved to the standards required by this article or be bonded by a performance bond required under these regulations, with the roadway and right-of-way widths required by this article or the major street or road plan.

##### 4-103.102 Grading and Improvement Plan

Public ways 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 appropriate

governmental representative in accordance with the specifications required herein. No surface shall be applied to the base of any proposed public way prior to the approval of the final plat of the subdivision or of the final approval of any section of the subdivision in question without having been properly inspected.

#### 4-103.103 Improvements in Floodable Areas

The finished elevation of proposed public ways subject to flood shall be no more than one (1) foot below the regulatory flood protection elevation. The planning commission may require profiles and elevations of public ways to determine compliance with this requirement. 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 public way to the required elevation, such fill shall not encroach upon a floodway, and the fill shall be protected against erosion by rip-rap, vegetative cover, or other methods deemed acceptable by the planning commission.

#### 4-103.104 Topography and Arrangement

- (1) All public ways shall be arranged so as to obtain as many of the building sites as possible at or above the grades of the public ways. Grades of public ways shall conform as closely as possible to the original topography. A combination of steep grades and curves shall not be permitted. Specific design standards are contained in Subsection 4-103.2, of these regulations.
- (2) The use of public ways running in a east-west direction and lots on a north south axis is encouraged for energy conservation of developments.
- (3) All public ways shall be properly integrated with the existing and proposed system of public ways and dedicated rights-of-way as established on the major street or road plan or the land development plan.
- (4) All public ways shall be properly related to special traffic generators, such as industries, business districts, schools, churches, and shopping areas or centers; to population densities; and to the pattern of existing and proposed land use.
- (5) Minor public ways 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 ways necessary to provide convenient and safe 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) Proposed public ways 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 subdivision design with the existing layout or the most advantageous future development of adjacent tracts.
- (7) In business and industrial developments, public ways and other access routes shall be planned in connection with the grouping of buildings, location of rail facilities, and the provision 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.

#### 4-103.105 Blocks

- (1) Blocks shall have sufficient width to provide for two (2) tiers of lots of appropriate depth. Exceptions to this prescribed block width may be permitted in blocks adjacent to major public ways, railroads, or waterways.
- (2) The lengths, widths, and shapes of blocks shall be determined with due regard to:
  - (a) provision of adequate building sites suitable to the special needs of the type of use contemplated;
  - (b) any zoning requirements as to lot sizes and dimensions;
  - (c) needs for convenient access, circulation, control, and safety of vehicular and pedestrian traffic; and
  - (d) limitations and opportunities of topography.
- (3) Block lengths in residential areas shall not exceed sixteen hundred (1,600) feet nor be less than two hundred (200) feet, except as the planning commission deems necessary to secure efficient use of land or desired features of the public way pattern. Wherever practicable, blocks along arterial or collector routes shall not be less than one thousand (1,000) feet in length.
- (4) Blocks designed for industrial or commercial uses shall be of such length and width as may be deemed suitable by the planning commission.
- (5) In any long block, the planning commission may require the reservation of an easement through the block to accommodate utilities, drainage, facilities, and/or pedestrian traffic.

A pedestrian walkway, not less than ten (10) feet wide, may be required by the planning commission through the approximate center of any block more than eight hundred (800) feet long, where deemed essential to provide circulation or access to a school, playground, shopping center, transportation facility, or other community facility.

#### 4-103.106 Access to Arterials and Collectors

Where a subdivision borders on or contains an existing or proposed arterial or collector route, the planning commission may require that access to such public way be limited by:

- (1) the subdivision of lots so as to back on the arterial or collector route and front on a parallel minor route;
- (2) a series of cul-de-sac, "U" shaped public ways, or short loops entered from and designed generally at right angles to such a parallel public way, with the rear lines of their terminal lots backing onto the arterial or collector route; or
- (3) a marginal access or service public way, separated from the arterial or collector route by a planting or grass strip and having access thereto at suitable points.

The number of residential or local public ways entering on arterial or collector routes shall be kept to a minimum.

#### 4-103.107 Reserve Strip

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

However, in extraordinary circumstances the planning commission may allow creation of a reserve strip to enable a more appropriate pattern of lots or public ways. Where such is created the planning commission must agree to any and all future depositions of same. A notation to this effect shall be entered on the final plat or approved as an auxiliary instrument attached thereto.

#### 4-103.108 Arrangement of Continuing and Dead-End Public Ways

- A. Arrangement of Continuing Public Way -- The arrangement of public ways shall provide for the continuation of major public ways between adjacent properties when such continuation is necessary for convenient movement of traffic, effective fire protection, efficient provision of utilities, and when such continuation is in accordance with the major street or road plan. If the adjacent property is undeveloped and the public way must be a dead-end public way temporarily, the right-of-way shall be extended to the property line. A temporary cul-de-sac, temporary T-, or L-shaped turnout shall be provided on all temporary dead-end public ways as required in the following turnout standards, with a notation on the subdivision plat that land outside the normal public way right-of-way shall revert to abutting property owners whenever the public way is continued.

The planning commission may limit the length of temporary dead-end public ways in accordance with the design standards of these regulations.

- B. Dead-End Public Way - 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 fifty (50) feet. However, the planning commission may require the reservation of an "appropriate easement to accommodate drainage facilities, pedestrian traffic, or utilities. A cul-de-sac turnout shall be provided at the end of a dead-end public way in accordance with the design standards of these regulations.

For greater convenience to traffic and more effective police and fire protection, permanent dead-end public ways shall, in general, be limited in length in accordance with the design standards of these regulations.

#### 4-103.2 Design Standards

##### 4-103.201 Purpose

In order to provide public ways of suitable location, width, and improvement to accommodate prospective traffic and afford satisfactory access to police, firefighting, 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, the public way design standards set forth in this section are hereby required. (Public way classification shall be as indicated on the land development plan or major street or road plan; otherwise, the public way shall be classified by the planning commission according to the definitions in Article 6 of these regulations.)

##### 4-103.202 General Design

The general design of all public ways shall conform to the standards in the table on the following pages.

#### 4-103.203 Intersections

- (1) Public ways shall be laid out so as to intersect as nearly as possible at right angles. A proposed intersection of two (2) new public ways at an angle of less than seventy-five (75) degrees shall not be permitted. An oblique public way should be curved approaching an intersection and should be approximately at right angles for at least one hundred (100) feet therefrom. Not more than two (2) public ways shall intersect at any one point unless specifically approved by the planning commission.
- (2) Proposed new intersections along one side of an existing public way shall coincide, wherever practicable, with any existing intersections on the opposite side of such public way. Jogs within public ways having center line offsets of less than one hundred fifty (150) feet 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, their alignment shall be continuous. Intersections of arterial or collector public ways shall be at least eight hundred (800) feet apart.
- (3) Minimum curb radius at the intersection of two (2) minor public ways shall be twenty-five (25) feet, and minimum curb radius at an intersection involving a collector public way shall be thirty (30) feet. Alley intersections and abrupt changes in alignment within a block shall have the corners cut off in accordance with standard engineering practice to permit safe vehicular movement.
- (4) 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 subdivider 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.
- (5) Intersections shall be designed with a flat grade wherever practical. In hilly or rolling areas, at the approach to an intersection, a leveling area shall be  
  
provided having not greater than a two (2) percent grade for a distance of sixty (60) feet, measured from the nearest right-of-way line of the intersecting public way.
- (6) The cross-slope on all public ways, including intersections, shall be three (3) percent or less.

#### 4-103.204 Excess Right-of-Way

A slope easement in excess of the right-of-way designated in these regulations may be required whenever, due to topography, additional width is necessary to provide adequate earth slopes. Such slopes shall not be less than three to one (3:1). Where solid rock is encountered slopes shall be one-half to one (1/2: 1).

#### 4-103.205 Railroads and Limited Access Highway

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

- a. 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."
- b. In commercial or industrial areas, the nearest public way 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 usage.
- c. Public ways parallel to a railroad, when intersecting a public way 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.

#### 4-103.206 Bridge

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 planning commission. 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 planning commission and the subdivider. The cost shall be charged to the subdivider pro rata as to the percentage of his development so served.

## GENERAL DESIGN STANDARDS FOR PUBLIC WAYS

IMPROVEMENT	RESIDENTIAL PUBLIC WAY	NONRESIDENTIAL PUBLIC WAY (INDUSTRIAL, COMMERCIAL: OTHER)
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### Minimum Right-of-Way Width (in Feet)

<u>Minor/Local</u> (Urban & Rural)	50	50
<u>Collector</u>		
Urban 2-Lane with Bike Lane	60	60 or (See *Below)
Urban 2-Lane without Bike Lanes	60	60 or (See *Below)
Rural 2-Lane	60	60 or (See *Below)
Urban 3-Lane	70	70 or (See *Below)
Urban with Median	70	70 or (See *Below)
<u>Arterial</u>		
Urban	80	80 or (See *Below)
Rural	80	80 or (See *Below)

### Minimum Width of Roadway or Paved Area (in Feet) not Including Parking Requirements

	<u>Ditch Section/Curb &amp; Gutter</u>	<u>Ditch Section/Curb &amp; Gutter</u>
<u>Minor/Local</u> (Urban & Rural)	22 (plus shoulders)	24 (plus shoulders)
<u>Collector</u>		
Urban 2-Lane with Bike Lane	34	(See *Below)
Urban 2-Lane without Bike Lanes	26	(See *Below)
Rural 2-Lane	26 (plus bike lanes)	(See *Below)
Urban 3-Lane	36	(See *Below)
Urban with Median	40	(See *Below)
<u>Arterial</u>		
Urban	36	(See *Below)
Rural	36 (plus bike lanes)	(See *Below)

### Maximum Percentage Grade

Minor/Local (Urban & Rural)	10	6
Collector	7	6
Arterial	6	5

### Pavement Crown

The paved surface shall slope downward from the centerline of the street outward to the edge of the paved surface on each side 2/5ths of an inch per foot.

### Minimum Center Line Radius of Curve (in Feet)\*\*

Minor/Local (Urban & Rural)	100	200
Collector	200	200
Arterial	500	500

\* As determined by appropriate governmental representative.

\*\* Applies where a deflection angle of 15 degrees or more in the alignment of pavement occurs.

**(Continued)**  
**GENERAL DESIGN STANDARDS FOR PUBLIC WAYS**

IMPROVEMENT	RESIDENTIAL PUBLIC WAY	NONRESIDENTIAL PUBLIC WAY (INDUSTRIAL, COMMERCIAL: OTHER)
<u>Minimum Length of Vertical Curves</u>		
Minor/Local	100 feet, but not less than 20 feet for each algebraic difference in grade.	
Collector	100 feet, but not less than 20 feet for each algebraic difference in grade.	
Arterial	300 feet, but not less than 50 feet for each algebraic difference in grade.	
<u>Minimum Length of Tangents Between Reverse Curves (in Feet)</u>		
Minor/Local	100	200
Collector	100	200
Arterial	300	400
<u>Minimum Sight Distance (in Feet)*</u>		
Minor/Local	200	250
Collector	240	250
Arterial	300	400
Intersection	Across Corners 75 Feet Back	Across Corners 75 Feet Back
<u>Minimum Turnaround on Cul-de-sacs on Minor/Local Ways (in Feet)</u>		
Right-of-way Diameter	100	160
Pavement Diameter	80	140
<u>Length of Cul-de-sac</u>		
Permanent	Serving no more than 14 dwelling units and not exceeding 700 feet in length.	
Temporary	Serving no more than 26 dwelling units and not exceeding 1,000 feet in length.	
<u>Minimum Radius (in Feet) of Return at Intersections</u>		
At Right-of-way	25	30
At Pavement	30	50

\* **The sight distance is measured from a point 4 1/2 feet above the center line of the roadway surface to a point 4 inches above the center line of the roadway surface.**

#### 4-103.3 Right-of-Way Width Dedication on Existing Public Ways

Where a subdivision adjoins an existing narrow public way or where the major street or road plan or any zoning setback provisions indicate plans for realignment or widening of a public way that would require use of some of the land in the subdivision, the subdivider shall be required to dedicate, at his expense, areas for widening or realigning such public way as set forth below:

1. the entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing public way; or
2. when the subdivision is located on only one side of an existing public way, one-half (1/2) of the required right-of-way, measured from the centerline of the existing pavement, shall be provided.

#### 4-103.4 Public Way Surfacing and Improvements

After underground utilities have been installed, the subdivider shall construct curbs or curbs with gutters, where required, and shall surface or cause to be surfaced public ways to the widths prescribed in these regulations. No public way shall be surfaced until preliminary approval of the subdivision plat has been obtained. Surfacing shall be of such character as is suitable for the expected traffic. Types and methods of paving shall be according to the specifications of the planning commission but in no event shall such construction be below the construction specifications set forth in Appendix A, of these regulations. Adequate provisions shall be made for culverts or other drains, and bridges, as required.

All public ways pavements, shoulders, drainage improvements and structures, any curb turnabouts, and sidewalks shall conform to all construction standards and specifications adopted by the planning commission and shall be incorporated into the construction plans required to be submitted by the developer for plat approval.

#### 4-104 Road Construction Specifications

The road construction specifications are included in these regulations as Appendix A, and are adopted as a part hereof. These specifications shall be the minimum standards for any subdivision within the jurisdictional area.

#### 4-105 Driveway Curb Cut

The driveway curb cut detail specifications for cuts in the roadway concrete curb are included in these regulations as Appendix C, and are adopted as a part hereof. These specifications shall be the minimum standards for any subdivision within the jurisdictional area.

#### 4-106 Drainage and Storm Sewers

##### 4-106.1 General Requirements

The planning commission shall not approve any plat of a subdivision which does not make adequate provisions for stormwater or floodwater run-off channels or basins. The stormwater drainage system shall be separate and independent from any sanitary sewer

## 4-106.2 Nature of Stormwater Facilities

### 4-106.201 Location

The subdivider may be required by the planning commission to transport by pipe or open ditch any spring or surface water that may exist prior to or as a result of the subdivision. Such drainage facilities shall be located in the public way right-of-way, where feasible, or in perpetual unobstructed easements of appropriate width and shall be constructed in accordance with the construction specifications contained in these regulations.

### 4-106.202 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 stormwaters, subject to the specifications of the appropriate governmental representative; inspection of facilities shall be conducted by the enforcing officer to assure compliance.
- b. If a connection to a public storm sewer will be provided eventually, as determined by the planning commission, the subdivider shall make arrangements for future stormwater disposal by a public system at the time the plat receives final approval. Provisions for such connection shall be incorporated by inclusion in the performance bond required for the final subdivision plat.

### 4-106.203 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. Necessary facilities shall be sized based on the construction specifications and assuming conditions of maximum potential watershed development permitted by any zoning ordinance.

### 4-106.204 Effect on Downstream Drainage Areas

The planning commission 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 in such sum as the planning commission shall determine. No subdivision shall be approved unless adequate drainage will be provided to an adequate drainage watercourse or facility.

### 4-106.205 Areas of Poor Drainage

Whenever a plat is submitted for an area which is subject to flooding, the planning commission may approve such subdivision; provided, that the applicant fills the affected floodway fringe area of said subdivision to place public way elevations at no less than two (2) feet above the regulatory flood elevation and first floor elevations (including basements) at no less than two (2) feet above the regulatory flood elevation. The plat of such subdivision shall provide for a floodway along the bank of any stream or watercourse of width sufficient to contain or move the water of the regulatory flood, and no fill shall be placed in the floodway; neither shall any building nor flood-restrictive structure be erected or placed therein. The boundaries of the floodway and floodway fringe area, and the regulatory flood elevation, shall be

determined by the planning commission based upon the review specified in Subsection 2-103.2, of these regulations and the submission of flood data in construction plans as specified in Section 5-103, of these regulations.

#### 4-106.206 Floodplain Areas

The planning commission may when it deems it necessary for the health, safety, or welfare of the present and future population of the area or necessary to the conservation of water, drainage, and sanitary facilities, prohibit the subdivision of any portion of the property which lies within the floodplain of any stream or drainage course. The regulatory floodway shall be preserved from any and all destruction or damage resulting from clearing, grading, or dumping of earth, waste material, or stumps. Any subdivision which contains flood prone land shall be subject to the special provisions set forth in Subsections 2-101.4; 4-101.4; Section 4-104 and Subsection 4-105.2, of these regulations.

#### 4-106.207 Stormwater Drainage Calculations Specifications

The guidelines and requirements for submittal review of stormwater drainage calculations are included in these regulations as Appendix D, and are adopted as a part hereof. These specifications shall be the minimum standards for any subdivision within the jurisdictional area.

### 4-106.3 Dedication of Drainage Easements

#### 4-106.301 General Requirements

Where a subdivision is traversed by a watercourse, drainageway, channel, or stream here shall be provided a stormwater easement or drainage right-of-way conforming substantially to the lines of such watercourse and of such width and construction as will be adequate. Where open drainageways are utilized they shall be designed for the twenty-five (25) year frequency flood.

#### 4-106.302 Drainage Easements

- a. Where topography or other conditions are such as to make impracticable the inclusion of drainage facilities within a public way right-of-way, perpetual unobstructed easements at least ten (10) feet in width, for such facilities shall be provided across property outside the public way lines and with satisfactory access to public ways. Easements shall be indicated on the preliminary and final plats. Drainage easements shall be carried from the public way 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 plat.
- 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 an existing watercourse to a distance to be determined by the planning commission.
- d. Along watercourses, low-lying lands within any floodway, as determined by the planning commission pursuant to Section 2-103, of these regulations, whether or not included in areas for dedication, shall be preserved and retained in their natural state as drainage ways.

#### 4-106.303 Ditching Concrete Ditch Paving, and Culverts and Storm Drains

The design and construction details of drainage facilities shall be in accordance with the provisions of these regulations. The design and construction details of all such facilities shall be approved by the appropriate governmental representative.

#### 4-107 Water Facilities

##### 4.107.1 General Requirements

1. Necessary action shall be taken by the developer to extend a water supply system capable of providing domestic water use and fire protection through the development and providing connection of the system to adjoining properties as required by the Planning Commission.
2. Where a public water main is within reasonable access of the subdivision, as determined by the planning commission, the subdivider shall install adequate water facilities, including fire hydrants, subject to construction and material specifications approval of the planning commission, the Tennessee Department of Health and Environment and these regulations.
3. Water mains shall not be less than six (6) inches in diameter.
4. All water systems, whether public or private, located in a flood prone area shall be floodproofed 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.
5. All water lines shall be located outside the pavement in roadways and shall be allowed only within the roadway right-of-ways or on easements.

##### 4-107.2 Fire Hydrant

Fire hydrants shall be required in all subdivisions; they shall be located no more than one thousand (1,000) feet apart and be within five hundred (500) feet of any residential commercial or industrial lot. However, the planning commission may require closer spacing where physical conditions or types of structures so warrant. To eliminate future public way cutting 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 shown on the subdivision plat, unless otherwise approved by the planning commission.

#### 4-108 Sewage Facilities

##### 4-108.1 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.

##### 4-108.2 Mandatory Connection to Public Sewer System

1. When public sanitary sewers are within reasonable access of the subdivision, as determined by the planning commission, the subdivider shall provide

sanitary sewer facilities to each lot therein and shall connect the facilities to the public system. The subdivider shall provide sewers which 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.

#### 4-108.3 Individual Disposal System Requirements

If public sewer facilities are not available and individual disposal systems are proposed, lot areas shall not be less than the minimums specified in these regulations; all pertinent soil absorption tests shall be made as directed by the county environmentalist and the results submitted to the county health department for approval.

The individual disposal system, including the size of the septic tank and size of the tile fields or other secondary treatment device, also shall be approved by the county health department.

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 plat and any deed of conveyance that soil absorption fields are prohibited in designated areas.

All field lines for individual disposal systems (septic tanks) installed on lots of approved subdivisions shall be required on the same Subdivision Lot as the structure to be served by such system. If the individual disposal system fails, it will be the responsibility of the ' property owner to incur any costs for alternative sewerage disposal system including public sanitary sewer service.

#### 4-108.4 Design Criteria for Sanitary Sewers

##### 4-108.401 General

These design criteria are not intended to cover extraordinary situations. Deviations can be allowed and may be required in those instances where considered justified by the planning commission.

##### 4-108.402 Design Factors

Sanitary sewer systems shall be designed for the ultimate tributary population based upon appropriate plans and zoning regulations. Due consideration may be given to any current zoning regulations and approved planning reports, where applicable. Sewer capacities shall be adequate to accommodate the anticipated maximum hourly quantity of sewage and industrial wastes, together with an adequate allowance for infiltration and other extraneous flow. The unit design flows presented hereinafter should be adequate in each case for the particular type of development indicated. Sewers shall be designed for the total tributary area using the following criteria.

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**SEWER DESIGN FLOWS**

**Building Type**

One and Two Family Dwellings .....	0.02 cubic feet per second (c.f.s. per acre)
<b>Apartments</b>	
One and Two Story .....	0.02 c.f.s. per acre
Three through Six Stories .....	0.03 U.s. per acre
<b>Commercial</b>	
<b>Small Stores, Offices, Miscellaneous Business, and Shopping Centers</b> .....	
Industrial .....	0.02 U.s. per acre
.....	As initially
.....	determined by
.....	appropriate
.....	governmental
.....	representative

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4-108.403     Location

Sewer lines shall be located under the pavement in roadways.

4-109     Pedestrian and Alternative Ways

4-109.1 Sidewalk Requirements

Sidewalks shall be included within the dedicated, non-pavement right-of-way of all public ways classified as an arterial or collector public way as shown on the Official Spring Hill Thoroughfare Plan or as determined by the Planning Commission during the conceptual planning stage. Concrete curbs are required for all public ways where sidewalks are to be constructed. Sidewalks shall generally be required on both sides of a street, but the Planning Commission may waive requirements for sidewalks on one or both sides of the street based on densities of development, anticipated traffic volumes and street lengths and connections. Sidewalks shall be constructed of concrete or other masonry material (brick, stone, etc.). Sidewalk location, width and material shall be delineated on both the preliminary plat and the final plat. Wherever sidewalks are provided, the design guidelines, that follow, shall govern; additional construction detail is provided in Appendix E, of these regulations.

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**SIDEWALK DESIGN**

**Class of Street Sidewalk Width**

	<b><u>Residential Public Way</u></b>	<b><u>Nonresidential Public Way (Industrial, Commercial; Other)</u></b>
<b>Minor Public Way</b>	<b>4 feet wide</b>	<b>6 feet wide</b>
<b>Collector Public Way</b>	<b>5 feet wide</b>	<b>6 feet wide</b>
<b>Arterial Public Way</b>	<b>5 feet wide</b>	<b>6 feet wide</b>

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#### 4-109.2 Pedestrian Accesses

The planning commission may require, in order to facilitate pedestrian access from the public way to schools, parks, playgrounds, or other nearby public ways, perpetual unobstructed easements at least twenty (20) feet in width. Easements shall be indicated on the plat.

#### 4-109.3 Alternative Pedestrian Ways

Within Planned Unit Developments (PUD's) approved under provisions of the Zoning Ordinance, the Planning Commission may approve pedestrian walkways at locations other than along rights-of-way of streets. Within these developments, pedestrian walkways may be provided within a system of pathways located within areas of commonly held open space. Within such developments, the Planning Commission shall approve the plan of pedestrian walkways upon recommendation of the City Engineer. Wherever walking trails or pedestrian ways are required; construction details are provided in Appendix E, of these regulations.

#### 4-110 Utility Easements

- A. On all preliminary and final plats, developers are required to dedicate easements for public utilities. Such easement shall be at least ten (10) feet wide along all street rights-of-way and along all rear lot lines, except for across-lot easements which shall be at least twenty (20) feet wide. Such easements shall also be required along all side lot lines and shall be at least five (5) feet wide. The subdivider shall take such actions as are necessary to ensure the coordination and continuation of utility easements established on adjacent properties with those proposed within his development. Easements shall be indicated on the plats.
- B. Temporary construction easements exceeding the width of permanent easements may be required as necessary until completion of any one (1) project. Developers shall be required to install a stone base a minimum of one hundred (100) feet from an existing roadway along any temporary construction entrance.

#### 4-111 Public Uses

##### 4-111.1 Plat to Provide for Public Uses

Whenever a tract to be subdivided includes a school, recreation use, a portion of a major public way, or other public use, as indicated on the land development plan and/or major street or road plan, or any portion thereof, such tract shall be suitably incorporated by the developer into his plat when first presented for review by the planning commission.

After proper determination of its necessity by the planning commission and the appropriate governmental representative (s) 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 plat.

##### 4-111.2 Referral to the Governmental Agency Concerned

The planning commission shall refer any plat presented in accordance with Subsection 4111. 1, to the governmental agency concerned with acquisition of the land. The planning commission may propose alternate areas for such acquisition and shall allow the appropriate governmental agency thirty (30) days for reply.

Among the areas which the planning commission may propose for public acquisition, when the commission deems it appropriate and consistent with the policies and purposes set forth in these regulations, is any land within a floodway or floodway fringe determined according to the procedure outlined herein.

The acquiring agency's recommendation, if affirmative, shall include a map showing the boundaries and area of the parcel to be acquired and an estimate of the time required to complete the acquisition.

#### 4-111.3 Notice to Property Owner

Upon receipt of an affirmative report, the planning commission shall notify the property to be acquired by any governmental agency. Upon such designation by the planning commission, any reserved portion of any floodway or floodway fringe shall not be altered from its natural state by the development in any manner whatsoever, except upon written approval of the planning commission.

#### 4-111.4 Duration of Land Reservation

The acquisition of land reserved by a governmental agency on the final plat 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 a proposed development and a tentative schedule of construction. Failure on the part of the governmental 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.

#### 4-112 Preservation of Natural Features and Amenities

Existing features which would add value to residential development or to the area as a whole, such as trees, watercourses and falls, historic spots, and similar irreplaceable assets, shall be preserved in the design of the subdivision, as required by the planning commission. No change of grade of the land shall be affected nor shall any natural features be removed or relocated until a preliminary subdivision plat has been approved by the planning commission.

On all preliminary and final plats, where a creek is located on any lot or portion of a lot within a proposed subdivision, the developer shall dedicate easements twenty (20) feet in width on each side of any natural edges thereof. Such easements being for floodways, public utilities and riparian protection within which no use may be made or allowed of the area by the property owner that will cause change or damage to the creek or its banks and within which public authority may repair and restore damage to creeks and their banks.

For the purpose of this section, the natural edge of any creek shall be determined by the planning commission or the Building Inspector. Easements shall be indicated on all plats.

#### 4-113 Nonresidential Subdivisions

##### 4-113.1 General

If a proposed subdivision includes land which 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 also shall be subject to all the requirements of site plan approval set forth in any zoning ordinance. Site plan approval may proceed simultaneously at the discretion of the planning commission. A nonresidential subdivision shall be subject to all the requirements of these regulations, as well as such additional standards set forth by

the planning commission, and shall conform to the proposed land development plan, major street or road plan, and any zoning ordinance.

#### 4-113.2 Standards

In addition to the principles and standards in the regulations, which are appropriate to the planning of all subdivisions, the subdivider 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 areas and dimensions to the types of nonresidential development anticipated;
2. public way rights-of-way and pavements shall be adequate to accommodate the type and volume of traffic anticipated;
3. special requirements may be imposed by the governing body with respect to any public way, curb, gutter, and sidewalk design and construction specifications;
4. special requirements may be imposed by the governing body with respect to the installation of public utilities, including water, sewer, and stormwater drainage;
5. every effort shall be made to protect adjacent residential areas from potential nuisance from the proposed nonresidential subdivision, including the provision of extra depth in parcels backing on existing or potential residential development and provisions for permanently landscaped buffer strips, when necessary; to protect the character of residential areas and conserve property values; and
6. public ways carrying nonresidential traffic, especially trucks, normally shall not be extended to the boundaries of adjacent existing or potential residential areas.

#### 4-114 Street Signs, Subdivision Signs, and Street Light

##### 4-114.1 Street Signs

Street signs designating the name of streets in the subdivision shall be required in all subdivisions. Street signs designating the name of streets shall be placed at each intersection within the subdivision indicating the names of the streets at the points of intersection. The street signs shall be constructed and be of the same size as street signs then currently placed and in use by the City of Spring Hill or such design as may be approved by the planning commission.

##### 4-114.2 Subdivision Sign

For all major subdivisions, at least one (1) identification sign shall be required at a main entrance to the subdivision. The location and size of all identification signs, in regard to main subdivision entrances, shall be shown on the preliminary and final plats approved by the planning commission. Such signs shall be located at the primary entrance(s) to the subdivision or at the beginning of the street upon which the subdivision connects directly to an arterial or collector street. Signs for such developments shall not exceed one hundred sixty (160) square feet of face divided

among not more than four (4) sign faces. No single sign face shall exceed eighty (80) square feet.

Temporary signs, announcing the subdivision of land, shall not exceed forty (40) square feet and may be erected until the permanent sign is installed.

#### 4-114.3 Street Light

Street lights shall be required in all subdivisions. Street lights shall be located at all intersections and no more than five hundred (500) feet apart along all other street lines; however, the planning commission may require a closer spacing where physical conditions or types of structures so warrant.

Street lights shall be of standard COBRA HEAD, 400 WATT MERCURY VAPOR DESIGN, mounted on wooden poles with six (6) to twelve (12) foot arms installed at locations to be determined by the preceding description.

In all case where the developer elects to install decorative or other lighting not mounted on wooden poles, nor considered standard by the City, the Developer and/or Homeowners Association shall be forever responsible for the maintenance of such lights.

Any alternative fixture must provide the same intensity and lighting radius as streetlights provided by the City. After all approved installations, the Developer shall give title of ownership of the system to the City. The applicable electric system shall exclusively maintain the system for the City and billing for the maintenance shall be at cost, when performed and energy shall be flat-billed to avoid metering.

All street lights are to be installed prior to the final subdivision plat being signed by the planning commission officer specified in Section 2-105.1 of these Regulations. The installation of street lights shall be completed within the same time frame, as well as meeting the same satisfaction requirement, as the completion of all other improvements outlined in Article III of these Regulations. The street lights shall be operational upon the issuance of the first certificate of occupancy in each subdivision phase.

#### 4-115 Headwall and Mailbox Construction

The developer shall impose by subdivision restrictions and by plat notations, a requirement that all headwalls in or near public road rights-of-way shall comply with Tennessee Department of Transportation requirements. The construction specifications of headwall details for driveway and storm drainage culverts are included in these regulations as Appendix C, and are adopted as a part thereof. These specifications shall be the minimum standards for any subdivision within the jurisdictional area. In addition to all other general requirements, all mail receptacles shall comply with regulations established by the county highway department for road in their jurisdiction.

## ARTICLE V

### SPECIFICATIONS FOR DOCUMENTS TO BE SUBMITTED

#### 5-101 Sketch Plat

##### 5-101.1 General

Sketch plats submitted to the planning commission, prepared in pen or pencil, shall be drawn to a convenient scale no smaller than two hundred (200) feet to an inch.

##### 5-101.2 Features

The sketch plat shall show:

1. a scale drawing of the property and the names of the owners of adjoining property;
2. size of the original tract(s) being subdivided;
3. notation of any existing legal rights-of-way or easements, or other encumbrances affecting the property;
4. approximate topography of the site, at no more than five (5) foot intervals, extended into adjacent properties;
5. any areas which may be affected by flooding;
6. general public way and lot patterns;
7. proposed phasing, if any;
8. vicinity map of property;
9. location, size, type and current condition of existing trees with a diameter at breast height (DBH) of eighteen (18) inches or more indicating whether the tree is proposed to remain or be removed; however, for land over two (2) acres, sampling methods or an aerial view of the property may be used if approved by the Planning Department, provided that the sampling specimen trees shall be plotted or the aerial view of the property is sufficient to identify existing trees;
10. Location, dimension and area of buffer yards, if any;
11. date and approximate north point;
12. name of owner;
13. name of plat designer; and
14. zoning classification.

#### 5-102 Preliminary Plat

##### 5-102.1 General

The preliminary plat shall be prepared by a surveyor, landscape architect, architect, land planner, or engineer engaged in the practice of civil engineering, at a convenient scale no smaller than two hundred (200) feet to an inch. The plat may be prepared in pen or pencil,

and the' sheets shall be numbered in sequence if more than one sheet is used. The map prepared for the preliminary plat may be used for the final subdivision plat and should be permanently reproducible.

#### 5-102.2 Features

The preliminary plat shall include:

1. the location of the property to be subdivided with respect to surrounding property(s) and public way(s);
2. the names of all adjoining property owners of record, or the names of adjoining developments;
3. the names of adjoining public ways;
4. the location and dimensions of all boundary lines of the property, figured to the nearest hundredth (100th) of a foot;
5. the location of existing public ways, easements, water bodies, streams, and other pertinent features, such as swamps, railroads, buildings, parks, cemeteries, drainage ditches, and bridges, as determined by the planning commission
6. the location, size, type and current condition of existing trees with a diameter at breast height (DBH) of eighteen (18) inches or more indicating whether the tree is proposed to remain or be removed; however, for land over two (2) acres, sampling methods or an aerial view of the property may be used if approved by the Planning Department, provided that the sampling specimen trees shall be plotted or the aerial view of the property is sufficient to identify existing trees;
7. the location, dimension and area of buffer yards, if any;
8. the location and width of all existing and proposed easements, alleys, and other public ways, and building setback lines;
9. the location, dimension, and area of all proposed or existing lots;
10. culverts, driveway tiles, associated drainage structures sized along with necessary easements; electrical and telephone easements;
11. the position of all existing or proposed buildings within proposed condominium developments;
12. 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;
13. the limits of floodway and floodway fringe areas and the associated regulatory flood elevation and regulatory flood protection elevation, as determined according to flood maps or flood studies as required;
14. the name and address of the owner(s) of land to be subdivided, the subdivider if other than the owner, and the land surveyor or other person preparing the plat;
15. the date of the plat, approximate true north point, scale, and title of the subdivision;

16. sufficient data to determine readily the general location, bearing, and length of all lines necessary to reproduce such lines upon the ground;
17. name of the subdivision and all new public ways, as approved by the planning commission;
18. the zoning classification of all zoned lots, as well as an indication of all uses other than residential proposed by the subdivider;
19. the distance and bearing of one of the corners of the boundary of the subdivision to the nearest intersection of existing public ways and to the original corner of the original survey of which it is a part;
20. key map showing relation of the subdivision to all public ways, railroads, and water courses in all directions to a distance of at least one-half (1/2) (suggested scale: one (1) inch to one thousand (1,000) feet);
21. 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 photographs acceptable to the planning commission);
22. map parcel numbers as recorded on the land tax maps of the county;
23. The following notations:
  - (a) explanation of drainage easements;
  - (b) explanation of site easements;
  - (c) explanation of reservations; and
  - (d) for any lot where public sewer or water systems are not available, the following:
    - (i) areas to be used for sewage disposal and their percolation results, or if the planning commission desires, any other acceptable data to show that the site can be served effectively by septic tanks;
    - (ii) water wells (existing and proposed); and
    - (iii) rock outcroppings, marshes, springs, sinkholes, natural storm drains, and other outstanding topographical features;
24. draft of proposed restrictive covenants, if any, to be imposed and designation of areas subject to special restrictions; and
25. a form for endorsement of planning commission approval of the preliminary plat which shall read as follows:

Approved by the \_\_\_\_\_ Planning Commission,  
with such exceptions or conditions as are indicated in the minutes of the Commission on

\_\_\_\_\_  
Date

Preliminary plat approval shall not constitute final approval for recording purposes.

## 5-103 Construction Plans

### 5-103.1 General

Construction plans shall be prepared for all improvements required by these regulations. Plans shall be drawn at a scale of no more than fifty (50) feet to an inch. Plans shall be in compliance with the specifications in Article IV, of these regulations. Approval of plans must precede actual construction, and no final plat shall be considered by the Planning Commission until the required plans have been approved. The construction plans shall be prepared and stamped by a licensed engineer engaged in the practice of civil engineering.

### 5-03.2 Features

The following shall be shown on the construction plans.

1. Profiles showing existing and proposed elevations along centerlines of all public ways.
2. Where a proposed road intersects an existing public way or ways, the elevation along the centerline of the existing public way within one hundred (100) feet of the intersection.
3. Approximate radii of all curves, lengths of tangents, and central angles on all public ways.
4. Proposed public ways, as required by the planning commission; where such are required, horizontal stationing shall be at fifty (50) foot intervals and cross-sectional elevations shall be to an accuracy of one tenth (1/10) foot vertical on a line at right angles to the center line of the public way at the following points: the centerline of the public way, each property line, and points twenty-five (25) feet inside each property line.
5. Plans and profiles indicating the locations and typical cross-section of public way pavements, including curbs and gutters, sidewalks, drainage easements, rights-of-way, manholes, and catch basins.
6. The location of public way signs.
7. The location, size, and invert elevations of existing and proposed sanitary sewers, stormwater drains, and fire hydrants, showing connection to any existing or proposed utility system.
8. Exact location and size of all water, gas, or other underground utilities or structures.
9. Location, size, elevation, and other appropriate description of any existing facilities or utilities, including but not limited to, existing public ways, sewers, drains, water mains, easements, water bodies, streams, and other pertinent features, such as swamps, railroads, buildings, and features noted on the land development plan or major street or road plan.
10. Landscaping plan including calculations of green space areas; landscaping and/or screening features including the type, number, caliper and location of plantings, details of materials to be used in buffer yards; if any, and provisions or agreements for the maintenance of the green space.

11. The water elevations of adjoining lakes or streams and the approximate high- and low-water elevations of such lakes or streams shall be shown. All elevations shall be referred to the U.S. G. S. datum plane.
12. If the subdivision borders a lake, river, or stream, the distance and bearings of a meander line established not less than twenty (20) feet back from the ordinary high-water mark of such waterways.
13. The developer shall prepare for any portion of a subdivision containing a flood prone area, or an area known to be subject to flooding, information necessary for the planning commission to determine the suitability of the particular site for the proposed development, as follows:
  - (a) plans in triplicate drawn to scale showing the nature, location, dimensions, and elevation of any part of the subdivision within a flood prone area; existing or proposed structures or building sites, fill storage of materials and floodproofing measures, as specified in these regulations; and the relationship of the above to the location of the stream channel, floodway, floodway fringe, the regulatory flood elevation, and the regulatory flood protection elevation;
  - (b) a typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information, if required by the planning commission;
  - (c) surface-view plans showing elevations and contours of the ground;
  - (d) pertinent structures, fill, or elevations of public ways;
  - (e) water supply, sanitary facilities, soil types, and other pertinent information, as required by the planning commission; and
  - (f) specifications for building construction and materials, flood proofing, filling, dredging, grading, storage of materials, water supply, and sanitary facilities.
14. Contours at the same vertical interval as on the preliminary plat.
15. In addition to the other requirements of this section, construction plans for condominium subdivisions shall contain "as built" drawings of all. Underground utilities, regardless of proposed ownership, and the construction design of all public facilities which are proposed for dedication to the governing body.
16. A notation of construction plans approval by appropriate persons or governmental representatives.
17. Title, name, address, stamp and signature of engineer who prepared the plans
18. Date of plans, including any revision dates.
19. Stormwater drainage plans and calculations as required in Appendix D.

## 5-104 Final Subdivision Plat

### 5-104.1 General

The final subdivision plat shall be prepared on transparent drafting material at a scale no smaller than two hundred (200) feet to the inch on sheets of county register plat book size. The use of an appropriate smaller scale may be permitted for lots larger than two (2) acres. When more than one (1) sheet is required, an index sheet of the same size shall be filed showing the entire subdivision with the sheets numbered in sequence.

Construction plans, if required as described in Section 5-103 of these regulations, shall have been approved prior to planning commission approval of the final subdivision plat.

### 5-104.2 Features

The final plat shall include:

1. The location of the property to be subdivided with respect to surrounding property(s) and public ways.
2. The names of all adjoining property owners of record or the names of adjoining developments.
3. The names of adjoining public ways.
4. The exact boundary lines of the tract, determined by a field survey, showing angles to the nearest minute and distance 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 the category of survey required by these regulations. The category of survey shall be determined according to the average size of lots (see Table below) within the proposed subdivision.

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#### ACCURACY OF SURVEYS\*

Category I	Urban and Subdivision
Category II	Suburban and Subdivision
Category III	All Other Surveys

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**NOTE:** Surveys must meet the minimum accuracy requirements provided above for the category where the survey is located. The category (I, II or III as defined above) must be determined by the surveyor to the best of his knowledge and belief at the time of the survey. Nothing in this rule shall preclude a surveyor from using a greater degree of accuracy than that required as a minimum for any category provided above.

A distance and bearing shall be provided which will link a point on the boundary of the subdivision to a monument in the right-of-way of the nearest prominent public way intersection.

5. The location of all public ways, easements, water bodies, large streams or rivers, railroads, parks, and cemeteries.
6. The limits of floodway and floodway fringe areas and the regulatory flood elevation and regulatory flood protection elevation; as determined by the planning commission.
7. The location and width of all easements and rights-of-way for public ways, as well as the building setback lines on all lots.
8. The location, dimensions, and area of all lots. All dimensions shall be field run to the nearest one hundredth of a foot and angles to the nearest minute. Lot areas shall be shown to the nearest tenth of a square foot.
9. The location, area, and dimensions, to the accuracy set forth in Item 8 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.
10. The location, dimension and area of buffer yards, if any;
11. The final plat of a condominium subdivision shall contain, in addition to the other information required by this section:
  - (a) an "as-built" building location and boundary survey, to "American Land Title Association" or other similar standards, showing complete and accurate dimensions and angles of the boundary of the parcel(s) on which the condominium is located, together with exterior dimensions and locations relative to those boundaries of the building(s) which constitute the condominium subdivision;
  - (b) some sort of datum plane or other suitable vertical location reference. In meeting these requirements, it is only necessary that the upper and lower Limits of each level of each condominium unit be identified specifically in relation to the vertical reference, (e.g., an appropriate permanent monument or other acceptable: reference datum or fixed known point). Elaborate exterior elevations and architectural detail are not necessary to satisfy this requirement; and
  - (c) copies of deed covenants, the charter and by-laws of any homeowners' association established; and special information which the planning commission may require to protect the rights of future owners of the condominium or the public in general.
12. The name and address of the owner(s) of the land being subdivided.
13. The name and address of the subdivider if other than the owner.
14. The name and stamp of the land surveyor or other person preparing the plat.
15. The date of the plat, approximate true north point, scale, and title of the subdivision.
16. 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.

17. The names of all public ways.
18. The zoning classification of all lots, as well as an indication of uses other than residential proposed by the subdivider.
19. The total acreage within the subdivision.
20. Lot numbers, where required.
21. The line size and location of water and sewer facilities.
22. The location of all fire hydrants.
23. The diameter and width of all driveway culverts.
24. For any lot where public sewer or water system is not available, the following shall be shown:
  - (a) areas to be used for sewage disposal and
  - (b) water wells (existing and proposed).
25. Applicable certifications in the form reproduced in this section 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 plat 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.
26. State Department of Health and Environment, public water and sewer design layout and approval stamps, if applicable; also, actual design plans for filing in appropriate governmental representative's office.
27. Commitment notes may be printed or stamped on the final plat reflecting location and dimension of easements, or extent of other agreements or factual data, in lieu of drafted illustration, when applicable, and as approved by the planning commission.

#### 5-104.3 Plat Certificates

1. Certification showing that the applicant is the landowner; that he offers for dedication public ways, rights-of-way, and any site for public use; and that he consents to the subdivision plan.

**CERTIFICATE OF OWNERSHIP AND DEDICATION**

I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon as evidenced in Book Number \_\_\_\_\_, Page \_\_\_\_\_, County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

\_\_\_\_\_ 20\_\_\_\_\_  
Date Owner

\_\_\_\_\_  
Title (if acting for partnership or corporation)

- 2. Certification by a registered land surveyor as to the accuracy of the land survey.

**CERTIFICATE OF SURVEY ACCURACY**

I (we) hereby certify that to the best of my (our) knowledge and belief this is a true and accurate survey of the property shown hereon; that this is a Class " \_\_\_\_\_ " Land Survey as defined in Title 62, Chapter 18, Tennessee Code, and that the ratio of precision is greater than or equal to : \_\_\_\_\_

\_\_\_\_\_ 20\_\_\_\_\_  
Date Registered Land Surveyor - Number

- 3. Certification by appropriate governmental or quasi- governmental official(s) that sewage disposal and/or water system(s) has/have been installed.

**CERTIFICATE OF APPROVAL OF WATER SYSTEM**

I hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled \_\_\_\_\_ has/have been installed in accordance with current local and state government requirements, or a sufficient bond or other surety has been filed to guarantee said installation.

\_\_\_\_\_, 20\_\_\_\_\_  
Date Name, Title and Agency or Authorized Approving Agent

**CERTIFICATE OF APPROVAL OF SEWER SYSTEMS**

I hereby certify that the sewer systems outlined or indicated on the final subdivision plat entitled \_\_\_\_\_ have been installed in accordance with current local and state government requirements or a sufficient bond or cash has been filed which will guarantee said installation.

Sewer System \_\_\_\_\_, 20\_\_\_\_\_  
Date Name, Title, and Agency of Authorized Approving Agent

**CERTIFICATE OF APPROVAL  
PRIVATE SUBSURFACE SEWAGE DISPOSAL**

General approval is hereby granted for lots proposed hereon as being suitable for subsurface sewage disposal with the listed and/or attached restrictions.

Before the initiation of construction, the location of the house or other structures and plans for the subsurface sewage disposal system shall be approved by the local health authority.

\_\_\_\_\_, 20\_\_\_\_  
Date Local Health Authority

- 4. Certification on the final plat by appropriate governmental representative that the subdivider has complied with one of the following:
  - (a) installation of all public way improvements in accordance with the requirements of these regulations; or
  - (b) in lieu of compliance with subdivision improvement requirements, certification that surety has been posted by the subdivider in an amount approved by appropriate governmental representative to guarantee completion of all improvements.

**CERTIFICATE OF APPROVAL  
OF PUBLIC WAYS FOR BOND POSTING**

I hereby certify: (1) that all designated public ways on this final subdivision plat have been installed in an acceptable manner and according to the specifications of the \_\_\_\_\_ Subdivision Regulations, or (2) that a performance bond or other surety has been posted with the planning commission to guarantee completion of all required improvements in case of default.

\_\_\_\_\_, 20\_\_\_\_  
Date Appropriate Governmental Representative

- 5. For a subdivision containing common open space or facilities, certification on the final plat of dedication of common areas in accordance with procedures established in these regulations.

**CERTIFICATION OF COMMON AREAS DEDICATION**

\_\_\_\_\_ in recording this plat has designated certain areas of land shown hereon as common areas intended for use by the homeowners within for recreation \_\_\_\_\_ (Name of Subdivision) and related activities. The above described areas are not dedicated for use by the general public, but are dedicated to the common use of the homeowners within the named subdivision.

"Declaration of Covenants and Restrictions," applicable to the above named subdivision, is hereby incorporated and made a part of this plat.

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

- 6. Certification on the final plat of planning commission approval for recording of the plat.

**CERTIFICATE OF APPROVAL FOR RECORDING**

I hereby certify that the subdivision plat shown hereon has been found to comply with the \_\_\_\_\_ Subdivision Regulations, with the exception of such variances, if any, as are noted in the minutes of the planning commission, and that it has been approved for recording in the Office of the County Register.

\_\_\_\_\_ 20\_\_\_\_  
Date Secretary, Planning Commission

- 7. Notation of Possible Flooding -- If any portion of the land being subdivided is subject to flooding as defined in these regulations, a notation shall be made on the plat that development or modification of the land within any floodway delineated within plat is prohibited and that development within floodway fringes delineated on the plat shall be done in such a manner that any structure shall be protected against flood damage to at least the regulatory flood protection elevation, which elevation shall be stated in the notation. Any additional restrictions imposed by the planning commission upon development within flood prone areas also shall be indicated on the plat.
- 8. Notation of Health Restrictions -- Any modifications or limitations which may be imposed by the state or county health department shall be clearly indicated on the plat.
- 9. Notation of Private Restrictions -- Private restrictions and trusteeships and their periods of existence shall be indicated on the plat. Should these restrictions or trusteeships be of such length as to make their lettering impracticable and thus necessitate the preparation of a separate instrument, reference to such instrument shall be made on the plat or, if the restrictions and trusteeships are of record, the plat shall note where they are recorded.

**5-105 Form of Dedication Offer**

The form of the offer of irrevocable dedication, required by Subsection 2-104. 1, Item 5, of these regulations, shall be as reproduced in this section and approved by the city attorney. The form may be modified as required by the city attorney.

Copies of this form may be obtained at the office of the enforcing officer.

**FORM FOR OFFER OF IRREVOCABLE DEDICATION**

**AGREEMENT** made this \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_, having its office and place of business at \_\_\_\_\_ Tennessee, hereinafter designated as the "local government".

**WHEREAS**, the \_\_\_\_\_ Planning Commission is in the process of approving a subdivision plat entitled \_\_\_\_\_ dated \_\_\_\_\_ and made by \_\_\_\_\_ and \_\_\_\_\_

**WHEREAS**, said map designates certain public improvements consisting of \_\_\_\_\_ to be dedicated to the City of \_\_\_\_\_ free and clear of all encumbrances and liens, pursuant to the requirements of the planning commission and the local government; and

**WHEREAS**, the developer, simultaneously herewith, shall post a performance bond with the city for the construction, maintenance, and dedication of said improvements, if required;

**WHEREAS**, the developer is desirous of offering for dedication the said improvements and land to the city more particularly described in Schedule \_\_\_\_\_ attached hereto;

**WHEREAS**, the developer has delivered deeds of conveyance to the city for the said land and improvements as described herein;

**NOW, THEREFORE**, in consideration of the sum of one dollar (\$1.00) lawful money of the United States paid by the city to the developer and other good and valuable consideration, it is mutually **AGREED** as follows:

- A. The developer herewith delivers to the city deeds of conveyance for the premises described in Schedule \_\_\_\_\_ attached hereto, said delivery being a formal offer of dedication to the city until the acceptance or rejection of such offer of dedication by the city.
- B. The developer agrees that said formal offer of dedication is irrevocable and can be accepted by the city at the time.
- C. The developer agrees to complete the construction and maintenance of the land and improvements pursuant to the performance bond and the requirements of the \_\_\_\_\_ Planning Commission and any ordinances, regulations, requirements, covenants, and agreements that may be imposed by the city with respect thereto and, upon acceptance by the city of the offer of dedication, furnish to the city a sworn statement certifying that the premises are free and clear of all liens and encumbrances and shall furnish to the city a check for all necessary fees and taxes to record the deeds heretofore delivered.
- D. That this irrevocable offer of dedication shall run with land and shall be binding on all assigns, guarantees, successors, or heirs of the developer.

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

\_\_\_\_\_  
Developer

**(CORPORATE SEAL)**

ATTEST: \_\_\_\_\_

FOR THE CITY OF:  
SPRING HILL  
\_\_\_\_\_

BY: \_\_\_\_\_

\_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_

**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 \_\_\_\_\_, 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.

\_\_\_\_\_  
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 said that he resides in \_\_\_\_\_; that he is the \_\_\_\_\_ of \_\_\_\_\_ 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.

\_\_\_\_\_  
INDIVIDUAL

## ARTICLE VI

### DEFINITIONS

#### 6-101 Usage

- A. 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.
- B. 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".
- C. 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".

#### 6-102 Words and Terms Defined

Alley - A public or private right-of-way primarily designed to serve as secondary access to the side or rear of those properties whose principal frontage is on some other street.

Applicant - The owner of land proposed to be subdivided or his authorized representative. Consent shall be required from the legal owner of the premise(s).

Architect - An architect or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Title 62, Chapter 2, Tennessee Code, to practice in Tennessee.

Arterial Street or Road - A major public way intended to move traffic to and from major industrial areas or a route for traffic between communities or large areas and which has an average daily traffic count in excess of three thousand (3,000).

Block - A tract of land bounded by public ways or by a public parks, cemeteries, railroad rights-of-way, or shorelines or waterways or a combination of such.

Bond - An instrument with a clause, with a sum of money fixed as a penalty, binding the parties to pay the same: conditioned, however, that the payment of the penalty may be avoided by the performance by some one or more of the parties of certain acts.

Building - Any structure built for the support, shelter, or enclosure of persons, animals, chattels, or movable property of any kind; the term includes a mobile home.

Capital Improvements Program - A proposed schedule of 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 of the community are included.

Collector Street or Road - A major public way intended to move traffic from local ways to arterial routes. Collector routes serve a neighborhood or large subdivision(s), and normally have an average daily traffic count ranging from one thousand and one (1,001) to three thousand (3,000).

Common Elements - Any portion of a condominium which is held in common by owners of condominium units. These elements may be either general common elements or limited common elements, as defined below.

General Common Elements - Any of the common elements of a condominium which are held in joint ownership by all owners of the condominium.

Limited Common Elements - Any of the common elements of a condominium which are reserved for use by the owner of a particular condominium unit or group of units.

Condominium - A form of ownership of less than the whole of a building or system of buildings under the provisions of Title 66, Chapter 27, Tennessee Code, which provides the mechanics and facilities for formal filing and recoordination of divided interests in real property, whether the division is vertical or horizontal.

Condominium Subdivision - The subdivision of property through the establishment of a condominium or horizontal property regime.

Horizontal Condominium Subdivision - A subdivision where each unit occupies some ground space.

Vertical Condominium Subdivision - A subdivision of a multi-story building in which one (1) or more units do not occupy ground space.

Condominium Unit - A space conveyed by separate title and located within a condominium structure.

Construction Plan - The maps or drawings accompanying a subdivision plat and showing the specific location and design of improvements to be installed in the subdivision in accordance with the requirements of the planning commission.

Contractor - An individual, firm, or corporation with whom an owner or authorized agent has executed a work agreement.

County Environmentalist - An agent designated to administer local and/or state health regulations.

Cul-de-sac - A minor street having only one outlet and having an appropriate terminal for the safe and convenient reversal of traffic movement, definition includes: dead end, turn-around, or turn-about.

Design Specifications - Written descriptions of a technical nature of materials, equipment, construction systems, standards, and workmanship required for a project intended for local government 'Ownership or maintenance.

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

Dwelling Unit - A room, or rooms connected together constituting a separate, independent housekeeping establishment for owner occupancy, rental or lease on a daily, weekly, monthly, or longer basis; physically separated from any other room(s) or dwelling units which may be in the same structure; and containing independent cooking and sleeping facilities.

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

Enforcing Officer - The building inspector or such person designated by the chief executive officer to be responsible for enforcing the provisions of these regulations.

Engineer - An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Title 62, Chapter 2, Tennessee Code, to practice in Tennessee.

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 fiduciary agreement with the local government in lieu of actual performance and intended to assure performance. An escrow account may be provided as a bond subject to agreement of the planning commission.

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

Final Subdivision Plat - 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 for approval and which, if approved by the commission, is recorded with the county register of deeds.

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

Flood Frequency - The statistically determined average for how often a specific flood level or discharge may be equaled or exceeded.

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 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.

Floodplain Management Program - The overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, building code regulations, health regulations, zoning ordinance regulations, and these subdivision regulations.

Flood Profile - A graph showing the water surface elevation or height of 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 foot above natural flood levels.

Floodway Encroachment Limits - The lines marking the limits of floodways on official federal, state, and local floodplain maps.

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 a public way ordinarily regarded as the front of the lot. It shall not be considered as the ordinary side of a corner lot.

General 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.

Governmental Agency - Any public body other than the governing body.

Governing Body - The chief legislative body of any government.

Governmental Representative - An outside person or designated local official or employee authorized to act on behalf of the governing body in making determinations regarding legal, public works, planning, community development, or other public business.

Grade - The slope of a public way specified in percentage terms.

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

Horizontal Property Ac. "The Tennessee Horizontal Property Act" as codified in Title 66, Chapter 2, Tennessee Code.

Individual Sewage Disposal System -A septic tank, seepage tile sewage disposal system, or any other sewage treatment device other than a public treatment system approved by the appropriate governmental representative.

Internal Subdivision Boundary - All points within a subdivision which do not constitute external boundaries.

Joint Ownership - Joint ownership among persons shall be construed as the same owner for the purpose of imposing subdivision regulations.

Jurisdictional Area - Planning boundary(s) established in keeping with Sections 13-3-102, 13-3-301, and 13-3-302, Tennessee Code.

Land Development Plan - An element of the general plan which sets out a plan or scheme of future land usage.

Land Surveyor - A land surveyor certified and registered by the State Board of Land Survey Examiners pursuant to Title 62, Chapter 18, Tennessee Code, to practice in Tennessee.

Legal Counsel - The person, designated by the governing body to provide legal assistance for the administration of these and other regulations.

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

**Lot, Corner** - A lot situated at the intersection of two (2) public ways.

**Lot Improvement** - Any building, structure, place, work of art, or other object or improvement of the land on which they are situated constituting a physical betterment of real property, or any part of such betterment.

**Major Street or Road** - A public way which is classified as a collector or arterial public way according to these regulations or by the major street or road plan for the jurisdictional area.

**Major Street or Road Plan** - The plan adopted by the planning commission, pursuant to Section 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** - All subdivisions not classified as minor subdivisions including but not limited to subdivisions of five (5) or more lots or subdivisions of any size requiring any new or improved road, the extension of government facilities, or the creation of any public improvements, or containing any flood prone area.

**Minor Street or Road** - A public way which is not classified as an arterial or collector.

**Minor Subdivision** - Any subdivision containing less than five (5) lots fronting on an existing public way; not involving any new or improved public way, the extension of public facilities, or the creation of any public improvements, and not in conflict with any provision of the adopted general plan, major street or road plan, zoning ordinance, or these regulations.

**National Flood Insurance Program** - A program established by the U.S. Government in the National Flood Insurance Act of 1968, and expanded in the Flood Disaster Protection Act of 1973, in order to provide a flood insurance at rates made affordable through a federal subsidy in local political jurisdictions which adopt and enforce floodplain management programs meeting the requirements of the National Flood Insurance Program regulations. The program regulations are found at 24 Code of Federal Regulations, Chapter X, Subchapter B.

**Offsite** - Any premise not located within the area of the property to be subdivided, whether or not in the same ownership of the applicant for subdivision approval.

**One Hundred-Year Flood** - A flood having an average frequency of occurrence of once in 100 years, although it may occur in any year. It is based on statistical analysis of stream flow records available for the watershed and analysis of rainfall and runoff characteristics in the general region of the watershed.

**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.

**Performance Bond** - See "Bond".

**Perimeter Street** - Any existing street to which the parcel of land to be subdivided abuts on only one side.

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.

Preliminary Plat - The preliminary drawing or drawings, described in these regulations, indicating the proposed manner of layout of the subdivision to be submitted to the planning commission for approval.

Premise(s) - A tract of land together with any buildings or structures which may be thereon.

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 government may ultimately assume the responsibility for maintenance and operation or which may affect an improvement for which government responsibility is established.

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

Reach - A hydraulic engineering term to describe longitudinal segments of a stream or river. A reach generally includes the segment of the flood hazard area where flood heights are influenced by a man-made area where flood or natural obstruction. In an urban area, the segment of a stream or river between two (2) consecutive bridge crossings typically would constitute a reach.

Regulatory Flood - The one hundred-year flood.

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

Resubdivision - A change in a map of any approved or recorded subdivision plat altering the number of lots incorporated within the confines of the original plat.

Right-of-Way - A strip of land occupied or intended to be occupied by a public way crosswalk, railroad, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer line, 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 shall not be included within the dimensions or areas of such lots or parcels.

Sale or Lease - Any immediate or future transfer of ownership, including contract of sale or transfer, of an interest in a subdivision or part thereof, whether by metes and bounds, deed, contract, plat, map, or other written instrument.

Same Owners - Ownership by the same person, corporation, firm entity, partnership, or unincorporated association or ownership by different corporations, firms, partnerships, entities, or unincorporated associations, in which a stockholder, partner, associate, or a member of his family owns an interest in each corporation, firm, partnership, entity, or unincorporated association.

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

Sketch Plat - A sketch preparatory to the preliminary plat (or final subdivision plat, in the case of minor subdivisions).

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

Staff Assistant to the Planning Commission - The person(s) employed by the local governing body to assist the planning commission in planning and land use regulation activities.

Start of Construction - For purposes of subdivision control any alteration of the original surface area of the land, from and after the date of adoption of these regulations.

Structure - Anything constructed above or below ground.

Subdivider - Any person who (1) having an interest in land, causes it, directly or indirectly, to be divided into a subdivision or who (2) directly or indirectly, sells, leases, or develops, or offers to sell, lease, or develop, or advertises for sale, lease, or development, any interest, lot, parcel site, unit, or plot in a subdivision or who (3) engages, directly or indirectly, or through an agent in the business of selling, leasing, developing, or offering for sale, lease, or development a subdivision or any interest, lot, parcel site, unit, or plot in a subdivision or who (4) is directly or indirectly controlled by or under direct or indirect common control with any of the foregoing.

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 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 in an instance where only legal counsel is provided.

Temporary Improvement - Any improvement built and maintained by a subdivider during construction of the subdivision and prior to release of the surety for completion of required improvements.

Twenty-Five Year Flood - A flood having an average frequency of occurrence of once in twenty-five (25) years.

Water Surface Elevation - The heights in relation to mean-sea-level expected to be reached by floods of various magnitudes and frequencies at pertinent points in the floodplain. Also the level of natural flows or collectors or water which may be expected to be found above or below surface.

Zoning Ordinance or Resolution - A statute, legally adopted pursuant to Title 13, Chapters 4 or 7, Tennessee Code, for the purpose of regulating by district, land development or use for a designated area.

**ARTICLE VII**

**ADOPTION OF REGULATIONS AND AMENDMENTS**

7-101 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 26th day of August, 1985, and immediately shall be in full force and effect. Pursuant to Sections 13-3-403 and 13-4-303, Tennessee Code, a public hearing was held on these regulations on August 26, 1985, at 6:00 p.m., Bank of Spring Hill, Spring Hill, Tennessee, notice of which was given by publication in The Daily Herald, Columbia, Tennessee.

\_\_\_\_\_  
William H. Slattery  
Chairman

\_\_\_\_\_  
August 26, 1985  
Date

ATTEST:

\_\_\_\_\_  
Mark Ide, Secretary

\_\_\_\_\_  
August 26, 1985  
Date

**APPENDIX A**

**DRAINAGE DESIGN AND  
STREET CONSTRUCTION SPECIFICATIONS**

**SPRING HILL, TENNESSEE**

## DRAINAGE DESIGN

### A. ROADWAY DRAINAGE

1. All roadway drainage shall be by gutters, with curbs. No open ditches shall be allowed.
2. The requirements for driveway culverts are a minimum diameter of 18 inches, and a minimum length of 16 feet; for cross-drains a minimum diameter of 18 inches.
3. All drainage pipes are to be reinforced concrete and shall conform to minimum standards for Class III Reinforced Pipes, ASTM C76.
4. PIPES: All pipe shall be built on straight line and grade, and shall be laid on a firm base, but not on rock. Pipe shall be laid with the spigot end pointing in the direction of the flow and with the ends fitted and matched to provide tight joints and a smooth uniform invert. Bedding material for pipe culverts shall consist of sand or natural sandy soil, all of which passes a 3/8-inch sieve and not more than 10% passes a No. 200 sieve; or stone, gravel, chert or slag meeting the grading requirements for either grading C, D, or E of Subsection 903.05 of Standard Specifications.

Where a free drainage bedding or backfill material is required, the material shall be crushed stone, crushed slag, or washed gravel meeting the requirements of Subsection 903.17 of Standard Specifications.

5. Concrete headwalls will be constructed at both ends of cross-drains and driveway pipes. Stone and mortar headwalls will not be permitted.
6. Bridges and box culverts shall be constructed to the same width as the typical section of the roadway under which it is to be placed, also five foot walks to be provided on each side of structure.
7. All inlets, castings, area drains, manholes, or junction boxes shall be of the type and grade as shown on the Standard Drawings on these Specifications.
8. All manholes, castings, valve boxes, which are located within the roadway, shall be finished to the elevation of the finished paving. Adjustment of any of the above shall be completed prior to placing the final paving.
9. Where the developer re-channelizes water through a subdivision he will be responsible if necessary for upsizing cross-drains under streets, as directed by the City Representative. This work will be done at the expense of the Developer.

### B. DRAINAGE THROUGH LOTS (OPTION 1)

1. Cross drains or other drains through private property requiring a pipe size of 36" in diameter, or less, shall be extended to the drainage easement or property line, and adequate headwalls shall be provided as specified in APPENDIX B. DRAINAGE DESIGN AND STREET CONSTRUCTION SPECIFICATIONS, Section A. ROADWAY DRAINAGE. If the planning commission allows ditching through private property instead of piping, then the

drainage ditch shall be stabilized by sodding or lining with concrete and constructed as approved by the City Representative.

2. Parallel ditches behind and adjacent to curb-and-gutter streets will not be permitted.
3. Where wet weather springs or other subsurface water is encountered during construction, perforated pipe shall be installed as directed by the City Representative and shall be installed at the expense of the Developer or Contractor, even though it does not appear on the approved plans.

C. DRAINAGE THROUGH LOTS (OPTION 2)

This specification applies to high density polyethylene corrugated pipe with an integrally formed smooth waterway. Nominal sizes for which this specification is applicable are 4-inch diameter. Sizes 4-36 inch (N-12) shall have a full circular cross-section, with an outer corrugated pipe wall and an essentially smooth inner wall (waterway). Corrugations for these sizes may be either annular or spiral. Sizes 42 and 48 inch (N-12 HQ shall consist of an essentially smooth waterway braced circumferentially with circular ribs which are formed simultaneously with an essentially smooth outer wall. All sizes shall conform to the AASHTO classification "Type S" (which describes pipe with a smooth waterway).

Pipe manufactured for this specification shall comply with the requirements for test methods, dimensions, and markings found in AASHTO Designations M252 and M294. Pipe and fittings shall be made from virgin PE compounds which conform with the requirements of cell class 324420C as defined and described in ASTM D3350.

The minimum parallel plate stiffness values when tested in accordance with ASTM D2412 shall be as follows:

<u>Diameter</u>	<u>Pipe Stiffness</u>	<u>Diameter</u>	<u>Pipe Stiffness</u>
4"(100 mm)	50 psi (340 kN/m <sup>2</sup> )	18" (450 mm)	40 psi (280 kN/m <sup>2</sup> )
6"(150 mm)	50 psi (340 kN/m <sup>2</sup> )	24" (500 mm)	34 psi (240 kN/m <sup>2</sup> )
8"(200 mm)	50 psi (340 kN/m <sup>2</sup> )	30" (750 mm)	28 psi (200 kN/m <sup>2</sup> )
10"(250 mm)	50 psi (340 kN/m <sup>2</sup> )	36" (900 mm)	22 psi (150 kN/m <sup>2</sup> )
12"(300 mm)	50 psi (340 kN/m <sup>2</sup> )	42" (1050 mm)	19 psi (140 kN/m <sup>2</sup> )
15"(375 mm)	42 psi (290 kN/m <sup>2</sup> )	48" (1200 mm)	17 psi (120 kN/m <sup>2</sup> )

The fittings shall not reduce or impair the overall integrity or function of the pipe line. Fittings may be either molded or fabricated. Common corrugated fittings include inline joint fittings, such as couplers and reducers, and branch or complimentary assembly fittings such as tees, wyes, and end caps. These fittings may be installed by various methods, such as snap-on, screw-on, bell and spigot, and wrap around. Couplings shall provide sufficient longitudinal strength to preserve pipe alignment and prevent separation at the joints. Only fittings supplied or recommended by the pipe manufacturer shall be used. Where designated on the plans, a neoprene or rubber gasket shall be supplied. Installation of the pipe specified above shall be in accordance with ASTM Recommended Practice D2321 as covered elsewhere in these specifications.

\*AASHTO M 294-921 is currently written to include sized 12"-36", 42" and 48" N-12 meet all the performance requirements.

D. STABILIZATION OF DITCHES

If open ditches are allowed by the planning commission, then they shall be stabilized by sodding or lining with concrete.

1. Sodding

a. Definitions:

- (1) Area sodding shall consist of planting an entire area with sod.
- (2) Strip seeding shall consist of planting narrow strips in continuous lines.
- (3) Spot sodding shall be planted as indicated on the plans.
- (4) Sod, strip sod, or spot sod shall be planted on areas indicated on the plans and in accordance with these specifications, and/or as directed by the City Representative.

b. Materials

- (1) Sod shall consist of a live, dense, well rooted growth of permanent grasses, free from Johnson grass, Nut grass, and other obnoxious grasses, of suitable character for the purpose intended and for the soil in which it is to be planted. It shall be uninjured at the time of planting.
- (2) Sod containing Bermuda grass will be accepted only when indicated on the plans or when approved by the City Representative. If Bermuda grass is approved, it shall be native to the area.
- (3) Sod must be free of weeds, bind weeds, or other matter which has a tendency to kill the grass.
- (4) Sod for area sodding shall be least eight (8) inches wide and twelve (12) inches long and shall have at least a three (3) inch thickness of dirt on its roots.
- (5) Sod for strip sodding shall be at least three (3) inches wide and twelve (12) inches long and have at least a three (3) inch thickness of dirt on its roots.
- (6) Sod for spot sodding shall be least three (3) inches square and have at least a three (3) inch thickness of dirt on its roots.
- (7) Fertilizer used with area sodding, or spot sodding shall comply with paragraph d, page 27 of these specifications.

c. Planting Season and Soil Conditions:

- (1) Unless otherwise permitted in writing by the City Representative operations shall be limited to March 1st through November 1st.
- (2) All sod shall be planted only when the soil is moist and otherwise favorable to growth.

d. Area Sodding

- (1) The area to be sodded shall be constructed to the lines and grades indicated on the plans.
- (2) The surface shall be loosened to a depth of not less than three (3) inches with a rake or other device.
- (3) If necessary it shall be sprinkled until saturated at least one (1) inch in depth, and kept moist until the sod is placed thereon.
- (4) Immediately before placing sod, the fertilizer shall be uniformly applied at the rate of 500 pounds per acre.
- (5) The entire area shall be thoroughly covered with sod.
- (6) Sod shall be placed on the prepared surface with the edges in close contact. Each sod lad shall be fitted in the space and shall be pounded into place with wooden tamps or other approved implements.
- (7) The sod shall be maintained moist from the time of removal until reset, but shall be placed as soon as I practicable after removal from the place where it was growing. Immediately after placing, it shall be rolled or hand tamped to the satisfaction of the City Representative.
- (8) On steep slopes, or where necessary, pinning or pegging win be required to hold the sod in place.

e. Strip Sodding:

- (1) Strip sod shall be laid in continuous line not more than twelve inches apart.
- (2) Before placing strips, the furrows shall be thoroughly watered and fertilizer applied uniformly in the furrows at the rate of 500 pounds per acre.
- (3) The sodding strips shall be reset as soon as practicable after removal from the location where they were growing and shall be maintained moist until they are reset.
- (4) After setting, the strips shall be lightly covered with earth and thoroughly rolled or hand tamped.
- (5) After tamping or rolling the sod shall be carefully raked in order to break up the crust of earth formed by rolling or tamping.

f. Spot Sodding:

- (1) The area to be spot sodded shall be constructed to the lines and grades indicated on the plans.
- (2) Holes shall be dug not less than four (4) inches square and four (4) inches deep and not more than twelve inches apart.
- (3) The entire area shall be thoroughly wetted until holes hold water to one-third of their depth.
- (4) Fertilizer shall be applied after wetting at the rate of 500 pounds per acre. One half of the fertilizer shall be evenly distributed and placed in the holes dug for the spot sodding.
- (5) After sod has been placed in holes, any openings around the sod shall be filled and the entire area thoroughly rolled and raked as set out in the above paragraphs 4 and 5, under Strip Sodding.

g. Watering and Maintenance:

- (1) The sod shall be watered for a period of two weeks after setting.
- (2) The Developer shall not allow any equipment or material on any planted area and shall erect barricades and guards if necessary, to prevent his equipment, labor or the public from traveling on/or over any planted area.
- (3) It shall be the obligation of the Developer to secure an acceptable growth of grass before final acceptance of the project.

2. Concrete Lined Ditches

All open ditches which require concrete lining shall be placed in accordance with approved details. The excavated area for concrete lining shall be inspected and approved by a representative of the City prior to placing of concrete.

Ditches that require lining with concrete shall be lined to a height above the bottom of the ditch, not less than one-half (1/2) the diameter of the nearest culvert upstream. However, in no case shall the lining extend less than one foot above the bottom of the ditch.

## STREET CONSTRUCTION SPECIFICATIONS

A. CLEARING AND GRUBBING:

Before grading is started, the entire street right-of-way including side slopes, shall be cleared of all objectionable matter, such as trees, stumps, roots, weeds, heavy vegetation, etc.

B. STAKING:

On all curb-and-gutter streets, centerline offset blue top stakes shall be set along both sides at 50 foot intervals.

C. PREPARATION OF SUBGRADE:

All open cut excavation trenches utilized to install utilities, piping, etc. (and areas as identified by the City's Representative) located within the roadway, shoulder, subgrade, and base areas shall be completely backfilled with either suitable subgrade material (at maximum lift thicknesses of 8-inches and compacted to 95 percent standard proctor density) or No. 67 stone. If suitable materials are used to backfill trench areas then the contractor shall retain (at his expense) a certified geotechnical engineer registered in the state of Tennessee to perform compaction tests at a maximum distance of 500-feet on each 8" lift or at lesser intervals as may be directed by the City's Representative. All roadway base areas shall be completely backfilled with No. 67 (TDOT) mineral aggregate stone. The top 12-inches of the trench area's stone backfill shall consist of compacted Class A Grade D crushed stone compacted to 95% standard proctor density.

Fill material shall be evenly and uniformly spread in layers not to exceed 8 inches in thickness over the entire width and thickness of the embankment section. Each layer shall be thoroughly rolled with an approved sheep's foot or pneumatic tires roller. If in the opinion of the City Representative, the soil is too dry, water will be added by a pressure distributor or other approved method. Soils which are too wet shall be allowed to dry before compaction is attempted.

Fills shall be compacted to 95 percent of Standard Optimum Proctor Density. Subgrade density tests shall be conducted by a local testing laboratory approved and licensed by the State of Tennessee and shall be furnished at the expense of the Developer. A minimum of one subgrade density test for every 500 feet of roadway will be required.

If rock is encountered it shall be removed to a depth of at least 12 inches below the grade of the road, and suitable backfill material will be used to build the cut section up to proposed grade.

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.

2. Crushed Stone Pug Mill Mix to be used in Roadway Base Construction:

- a. After the subgrade has been proof rolled, inspected and approved, by the City Representative, a base shall be constructed at a compacted thickness of 8-inches. The standard proctor compacted density of the base stone shall be a minimum of 95%. The width of the roadways will be as indicated on the roadway cross-section drawings located within Appendix A.
- b. Description: Mineral Aggregate Base (Pug-Mill-Mix) shall consist of a base course constructed with an approved mixture of crushed stone, water, and calcium chloride, bonded by rolling and/or vibratory compaction; maintained under traffic; and in conformity with the lines, grades, and cross-section 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 in Section 303 TDOT Standard Specifications.

The mixture shall be deposited uniformly on the subgrade from spreader boxes to an approximate depth of four inches. After each layer is deposited it shall be smoothed to grade and cross-section with a power grader or roller.

Where curb and gutter construction is used, the final base course shall be compacted and finished to an elevation 3-1/2" below the front edge of the concrete gutter.

3. Prime Coat:

The base, prepared as outlined herein, shall be sprinkled lightly with water to settle any loose dust. A bituminous prime coat shall then 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 0.30 gallon per square yard, using emulsified asphalt in accordance with Section 402 Prime Coat of the TDOT Standard Specifications. The prime coat shall be applied to the approved base stone by means of tanker truck spray equipment and wand or by equipment specifically designed for this type application.

In addition to the general requirements of these specifications, unless otherwise stipulated, all material shall conform to the technical specifications as set forth in Section 904.03 of the TDOT Standard Specifications.

4. Asphaltic Concrete Base - Grading "A" Mixture:

- a. Materials: Asphaltic Concrete Base shall conform to gradation and type of composition of materials as set forth in Section 307 and 903.06 of the TDOT Standard Specifications. The asphaltic concrete base may be used in addition to the required pug mill mix base stone on Industrial Roadways, Arterial Roadways, or heavily traveled Collector Roadways as required and approved by the City of Spring Hill.

b. Method of Placement:

- (1) Scope: Asphaltic Concrete base shall consist of a base course of asphaltic concrete laid hot. It shall be constructed on a designated surface, conforming to the lines, grades, and cross-sections indicated on the plans, or as directed by the City Representative.
- (2) Placing: The surface area over which asphaltic concrete base is to be placed shall be swept clean of all foreign or objectionable matter as directed by the City Representative. The mixture shall be dumped in an approved mechanical spreader or as specified. The speed of the mechanical spreader shall be regulated so that the material will be smooth and of such depth that when compacted, the course will conform to cross-sections, grade, and contour required. In areas where the use of machine spreading is impractical the mixture may be spread by hand, in which case the mixture shall be dumped on approved dump boards, outside the area to be spread. The mixture shall be distributed into place by means of shovels and spread with rakes thoroughly combed in a uniformly loose layer of such thickness that when compacted, it will conform to the required grade and thickness. Contact surfaces of previously constructed pavements shall be saw cut true and uniform and painted with a thin, uniform coat of hot asphalt cement just before mixture is placed. Surfaces of subgrade or base courses shall be treated with a bituminous prime coat if indicated on the standard drawings or directed by the City's representative.

If the mechanical finishing machine spreads and finishes only part of the required width and a longitudinal joint is necessary, the spread shall not progress along one lane long enough to permit the edge to become chilled before spreading the adjacent lane.

- (3) Compact Mixture: Rollers shall meet requirements as set forth in Section 407.07. Rolling of the mixture shall begin as soon after spreading as it will bear a roller without undue displacement or hair cracking. Rolling shall start longitudinally at the extreme sides of the lanes and proceed toward the center of the pavement overlapping on successive trips by at least one-half the width of the rear wheel of the roller. Alternate trips of the roller shall be of slightly different lengths. The mixture shall be subjected to diagonal rolling, crossing the cause shall at once be corrected by the use of rakes and fresh mixture where required. To prevent 'adhesion of the mixture to the roller, the wheels shall be kept properly moistened. The rollers shall be in good condition, suitable for rolling bituminous pavement, and shall be operated by competent and experienced personnel. Places not accessible to the roller shall be compacted by hand tampers. Hand tampers shall weigh not less than 25 pounds and shall have a tamping face area of not more than 50 square inches. Skin patching on an area that has been rolled will not be permitted.

Any mixture that becomes mixed with foreign material or in any way defective shall be removed, replaced with fresh mixture and compacted to a density of the surrounding area.

The wearing course or binder course shall not be opened to travel until the material has set to the point where it will not pick-up under traffic.

All "dripping," fat and lean areas, and defective construction of any description shall be replaced at the Contractors expense.

Depressions which develop before the completion of the rolling shall be remedied by loosening the mixture laid and adding new mixture to bring such depressions to a true surface. Should any depressions remain after the final compaction has been obtained, the full depth of mixture shall be removed and replaced with sufficient new mixture to form a true and even surface. All high spots, high joints, and honeycombs shall be corrected as directed by the City Representative.

Joints shall comply with the same uniformity of texture, density, etc., as the other sections of the surface.

- (4) Edges of Pavement: The outside edges of the pavement shall be hand tamped and trimmed neatly to line or gutter edge while the course is being furnished.

5. Asphaltic Concrete Binder Grading "C" & "CW" Mixture:

- a. Materials: Asphaltic Concrete Binder shall conform to gradation and type of composition of materials as set forth in Section 307 of the TDOT Standard Specifications.

- b. Method of Placement:

- (1) Scope: Asphaltic Concrete Binder shall consist of a binder course of asphaltic concrete laid hot. It shall be constructed with an average weight of not less than 200 pounds per square yard of hot asphaltic concrete on a designated surface, conforming to the lines, grades, and cross-sections indicated on the plans, or as directed by the City Representative.

Placing: The surface area over which a hot bituminous surface is to be placed shall be swept clean of all foreign or objectionable matter. The mixture shall be dumped in an approved mechanical spreader shall be regulated so that surface speed of the mechanical spreader shall be regulated so that surface course will be smooth and of such depth that when compacted the course will conform to cross-section, grade, and contour required. In areas where the use of machine spreading is impractical the mixture may be spread by hand, in which case the mixture shall be dumped on approved dump boards outside the area to be spread.

The mixture shall be distributed into place by means of shovels and spread with rakes thoroughly combed in a uniformly loose layer of such thickness that when compacted, will conform to the required grade and thickness. Contact surfaces of previously constructed pavements shall be saw cut true and uniform and painted with a thin, uniform coat of hot asphalt cement just before mixture is placed. Surfaces of subgrade or base courses shall be treated with a bituminous prime coat prior to installation of the asphaltic concrete binder layer, as indicated or directed.

If the mechanical finishing machine spreads and finishes only part of the required width and a longitudinal joint is necessary, the spread shall not progress along one lane long enough to permit the edge to become chilled before spreading the adjacent lane.

- (3) Compact Mixture: Rollers shall meet requirements as set forth in Section 407.07. Rolling of the mixture shall begin as soon after spreading as it will bear a roller without undue displacement or hair cracking. Rolling shall start longitudinally at the extreme sides of the lanes and proceed toward the center of the pavement overlapping on successive trips by at least one-half the width of the rear wheel of the roller. Alternate trips of the roller shall be of slightly different lengths. The mixture shall be subjected to diagonal rolling, crossing the cause shall at once be corrected by the use of rakes and fresh mixture where required. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened. The rollers shall be in good condition, suitable for rolling bituminous pavement, and shall be operated by competent and experienced personnel. Places not accessible to the roller shall be compacted by hand tampers. Hand tampers shall weigh not less than 25 pounds and shall have a tamping face area of not more than 50 square inches. Skin patching on an area that has been rolled will not be permitted. Any mixture that becomes mixed with foreign material or in any way defective shall be removed, replaced with fresh mixture and compacted to a density of the surrounding area.

The initial or breakdown rolling shall be followed by additional rolling, of as many complete coverage's as the City Representative may direct, with a pneumatic tired roller.

The final rolling shall be done with a tandem or three wheel roller.

The wearing course or binder course shall not be opened to travel until the material has set to the point where it will not pick-up under traffic.

During the rolling operation the developer will be required to have a separate operator for each roller required for the project.

All "dripping", fat, lean areas, and defective construction of any description shall be replaced at the Developers expense. Depressions which develop before the completion of the rolling shall be remedied by loosening the mixture laid and adding new mixture to bring such depressions to a true surface. Should any depressions remain after the final compaction has been obtained, the full depth of mixture shall be removed and replaced with sufficient new mixture to form a true and even surface. All high spots, high joints, and honeycombs shall be corrected as directed by the City Representative.

- (4) Edges of Pavement: The outside edges of the pavement shall be hand tamped and trimmed neatly to line or gutter edge while the course is being furnished.

- (5) Sampling Pavements and Mixtures: At the request of the City of Spring Hill, core samples will be required for both the base stone, asphaltic concrete base and/or the asphaltic concrete binder layer and shall be performed at intervals not to exceed 200-feet or at lesser intervals as directed by the City of Spring Hill's Representative. These core samples shall be performed by a certified geotechnical engineer registered in the state of Tennessee. The geotechnical engineer shall report his findings (by means of a written report) of the core samples to the City of Spring Hill and shall report the composition, thickness, and density of both the base stone, asphaltic concrete base layer and/or asphaltic concrete binder layer. Suitable sized core samples shall be removed at locations as directed and overseen by the City's Representative. The Contractor shall be responsible for the cost of the geotechnical engineering, removal of the core samples, and replacement of both base stone and asphalt layers upon completion of the cores. If the deficiency in composition, density, and thickness exceeds the requirements specified for installation, the base stone and asphaltic layers shall be removed and replaced by the Contractor as directed by the City's Representative. Only these materials that have been demonstrated by tests as satisfactory for the intended use will be accepted. The asphaltic surface layer shall not be installed without the approval of the core samples report (as indicated above) by the City of Spring Hill's Representative.

A certified design mix report of the proposed asphaltic concrete binder shall be submitted to the City's Representative two weeks prior to installation. The certified design mix report shall indicate that the proposed design mix conforms to gradation and type of composition of materials as set forth in Section 307 and 903.06 of the TDOT Standard Specifications. No design mix which is not certified will be allowed to be installed. No design mix which contains recycled pavement is allowed.

6. Asphaltic Concrete Surface Grading "D" & "E" Mixture:

- a. Materials: Asphaltic Concrete Binder shall conform to gradation and type of composition of materials as set forth in Section 411 of the TDOT Standard Specifications.
- b. Method of Placement:
- (1) Scope: Asphaltic Concrete Surface shall consist of a surface course of asphaltic concrete laid hot. It shall be constructed with an average weight of not less than 200 pounds per square yard of hot asphaltic concrete on a designated surface, conforming to the lines, grades, and cross-sections indicated on the plans, or as directed by the City Representative.

Placing: The surface area over which a hot bituminous surface is to be placed shall be swept clean of all foreign or objectionable matter. The mixture shall be dumped in an approved mechanical spreader shall be regulated so that

surface speed of the mechanical spreader shall be regulated so that surface course will be smooth and of such depth that when compacted the course will conform to cross-section, grade, and contour required. In areas where the use of machine spreading is impractical the mixture may be spread by hand, in which case the mixture shall be dumped on approved dump boards outside the area to be spread.

The mixture shall be distributed into place by means of shovels and spread with rakes thoroughly combed in a uniformly loose layer of such thickness that when compacted, will conform to the required grade and thickness. Contact surfaces of previously constructed pavements shall be saw cut true and uniform and painted with a thin, uniform coat of hot asphalt cement just before mixture is placed. Surface layers to be installed on binder course layers or asphaltic bases shall be treated with a bituminous tack coat, as indicated or directed.

If the mechanical finishing machine spreads and finishes only part of the required width and a longitudinal joint is necessary, the spread shall not progress along one lane long enough to permit the edge to become chilled before spreading the adjacent lane.

- (3) Compact Mixture: Rollers shall meet requirements as set forth in Section 407.07. Rolling of the mixture shall begin as soon after spreading as it will bear a roller without undue displacement or hair cracking. Rolling shall start longitudinally at the extreme sides of the lanes and proceed toward the center of the pavement overlapping on successive trips by at least one-half the width of the rear wheel of the roller. Alternate trips of the roller shall be of slightly different lengths. The mixture shall be subjected to diagonal rolling, crossing the cause shall at once be corrected by the use of rakes and fresh mixture where required. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened. The rollers shall be in good condition, suitable for rolling bituminous pavement, and shall be operated by competent and experienced personnel. Places not accessible to the roller shall be compacted by hand tampers. Hand tampers shall weigh not less than 25 pounds and shall have a tamping face area of not more than 50 square inches. Skin patching on an area that has been rolled will not be permitted. Any mixture that becomes mixed with foreign material or in any way defective shall be removed, replaced with fresh mixture and compacted to a density of the surrounding area.

The initial or breakdown rolling shall be followed by additional rolling, of as many complete coverage's as the City Representative may direct, with a pneumatic tired roller.

The final rolling shall be done with a tandem or three wheel roller.

The wearing course or binder course shall not be opened to travel until the material has set to the point where it will not pick-up under traffic.

During the rolling operation the developer will be required to have a separate operator for each roller required for the project.

All "dripping," fat, lean areas, and defective construction of any description shall be replaced at the Developers expense. Depressions which develop before the completion of the rolling shall be remedied by loosening the mixture laid and adding new mixture to bring such depressions to a true surface. Should any depressions remain after the final compaction has been obtained, the full depth of mixture shall be removed and replaced with sufficient new mixture to form a true and even surface. All high spots, high joints, and honeycombs shall be corrected as directed by the City Representative.

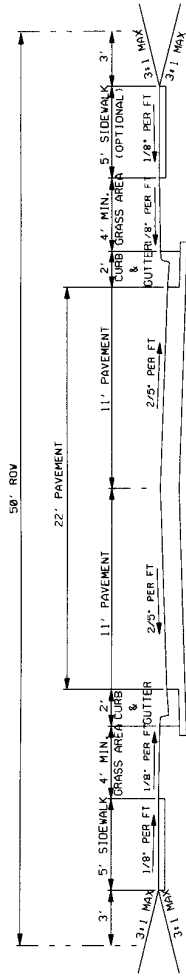
- (4) Edges of Pavement: The outside edges of the pavement shall be hand tamped and trimmed neatly to line or gutter edge while the course is being furnished.
- (5) Sampling Pavements and Mixtures: The City of Spring Hill's Representative must approved the core samples report of the base stone, asphaltic concrete base and/or asphaltic concrete binder layer prior to the contractor installing the asphaltic concrete surface layer. If the roadway is indicating areas of failure prior to the City's acceptance of the roadway then additional core samples will be required to include the base stone, asphaltic base layer and/or asphaltic binder layer and the asphaltic surface layer. The cores shall be performed at intervals as directed by the City's Representative. These core samples shall be performed by a certified geotechnical engineer registered in the state of Tennessee. The geotechnical engineer shall report his findings (by means of a written report) of the core samples to the City of Spring Hill and shall report the composition, thickness, and density of both the base stone, asphaltic concrete base and/or asphaltic concrete binder layer, and asphaltic concrete surface layer. Suitable sized core samples shall be removed at locations as directed and overseen by the City's Representative. The Contractor shall be responsible for the cost of the geotechnical engineering, removal of the core samples, and replacement of base stone, asphaltic concrete base and/or asphaltic concrete binder layer, and asphaltic concrete surface layer upon completion of the cores. If the deficiency in composition, density, and thickness exceeds the requirements specified, the base stone and asphaltic layers shall be removed and replaced by the Contractor as directed by the City's Representative. Subgrade stabilization may also be required prior to rebuilding the failing sections. Only the design mixes and materials that have been demonstrated by certified tests and reports as be satisfactory for the intended use will be accepted.

A certified design mix report of the proposed asphaltic concrete surface layer shall be submitted to the City's Representative two weeks prior to installation. The certified design mix report shall indicate that the proposed design mix conforms to gradation and type of composition of materials as set forth in Section 411 and 903.11 of the TDOT Standard Specifications.

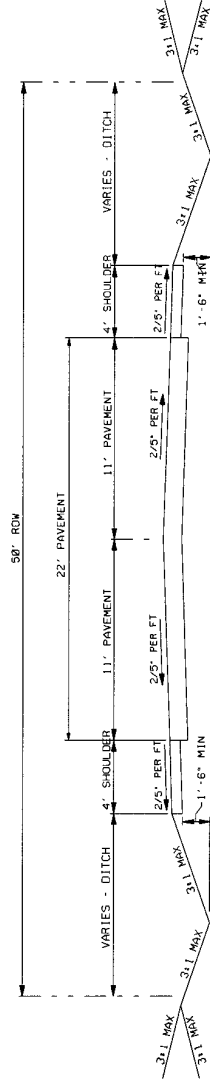
Design mixes which are not certified and approved by the City will not be allowed to be installed. Design mixes which contain recycled pavements are not allowed.

7. Shoulders

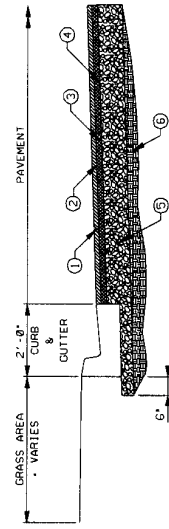
The shoulders on a conventional roadway section (not containing extruded concrete curbing or concrete curb and gutter sections) shall be a minimum width of three feet wide. The shoulders shall meet the same roadway specifications and requirements as previously described and shall be constructed as part of the usable roadway section and shall include; a compacted subgrade, 8-inches of compacted base stone, an asphaltic concrete binder layer, with an asphaltic concrete surface layer. Shoulders may be required to be a minimum of four feet wide on each side as determined by the City of Spring Hill.



LOCAL STREET - URBAN

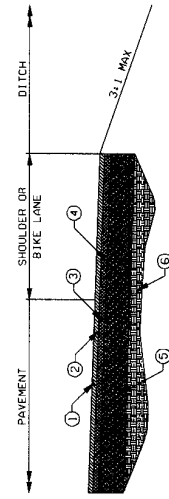


LOCAL STREET - RURAL



ROADWAY COMPOSITION DETAIL

N.T.S.



ROADWAY COMPOSITION DETAIL

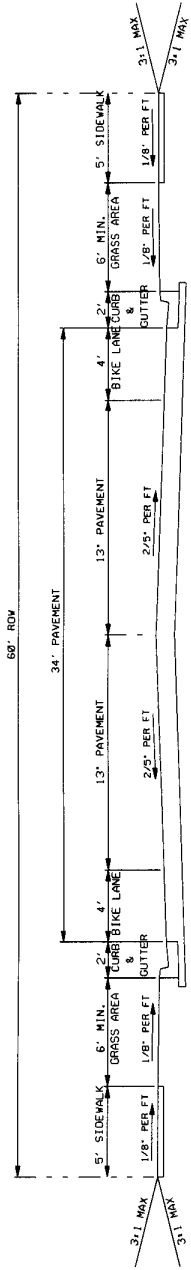
N.T.S.

- ① 1.5" ASPHALTIC CONCRETE SURFACE (TODT TYPE 411-E)
- ② TACK COAT (0.10 GAL./S.Y.)
- ③ 2" ASPHALTIC CONCRETE BINDER (TODT TYPE 307-B)
- ④ BITUMINOUS PRIME COAT (0.30 GAL./S.Y.)
- ⑤ 8" CRUSHED STONE
- ⑥ COMPACTED SUBGRADE

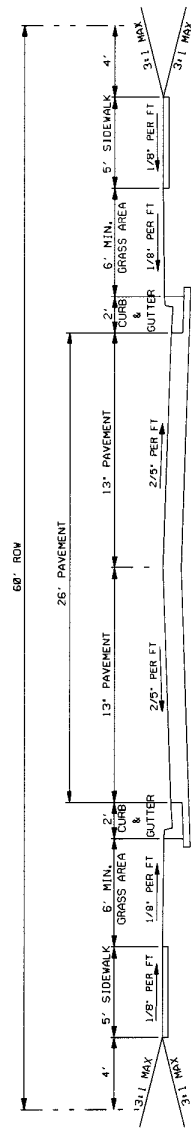


CITY OF SPRING HILL  
MAJOR THOROUGHFARE PLAN  
STREET CROSS-SECTIONS

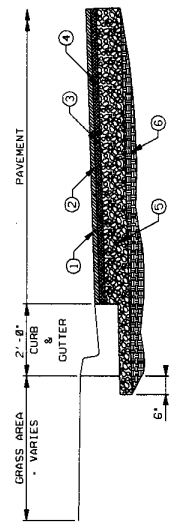
LOCAL STREET CROSS-SECTIONS



COLLECTOR STREET - URBAN 2-LANE WITH BIKE LANES



COLLECTOR STREET - URBAN 2-LANE WITHOUT BIKE LANES



ROADWAY COMPOSITION DETAIL

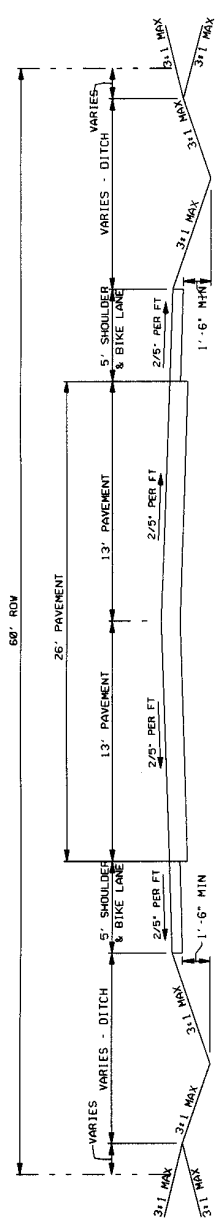
N.T.S.

- ① 1.5" ASPHALTIC CONCRETE SURFACE (100T TYPE 411-E)
- ② TACK COAT (0.10 GAL./S.Y.)
- ③ 2" ASPHALTIC CONCRETE BINDER (100T TYPE 307-B)
- ④ BITUMINOUS PRIME COAT (0.30 GAL./S.Y.)
- ⑤ 8" CRUSHED STONE
- ⑥ COMPACTED SUBGRADE

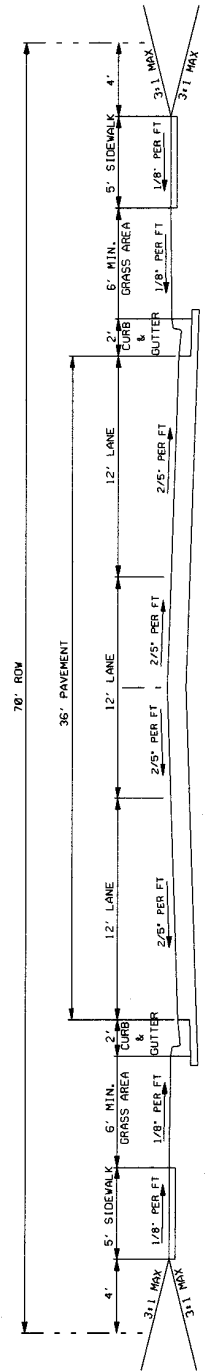


CITY OF SPRING HILL  
MAJOR THOROUGHFARE PLAN  
STREET CROSS-SECTIONS

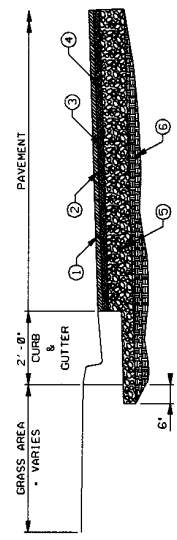
COLLECTOR STREET CROSS-SECTIONS  
SHEET 1 OF 3



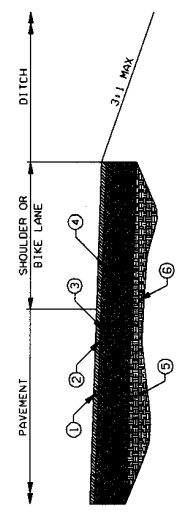
COLLECTOR STREET - RURAL 2-LANE



COLLECTOR STREET - URBAN 3-LANE



ROADWAY COMPOSITION DETAIL  
N.T.S.

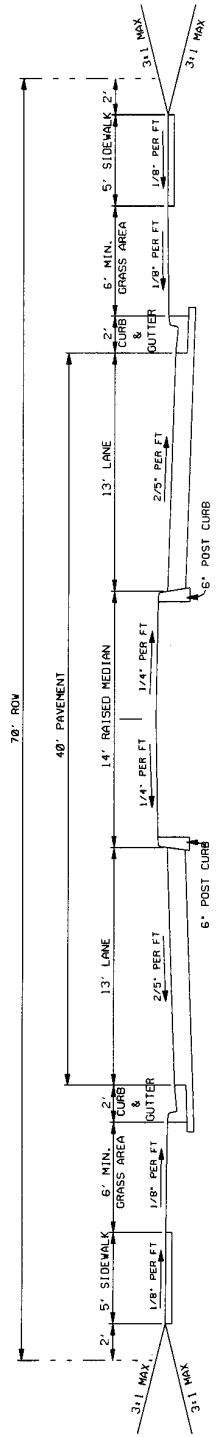


ROADWAY COMPOSITION DETAIL  
N.T.S.

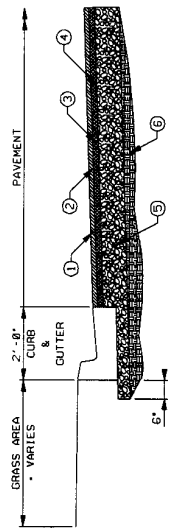


CITY OF SPRING HILL  
MAJOR THOROUGHFARE PLAN  
STREET CROSS-SECTIONS

COLLECTOR STREET CROSS-SECTIONS  
SHEET 2 OF 3



COLLECTOR STREET - URBAN WITH MEDIAN



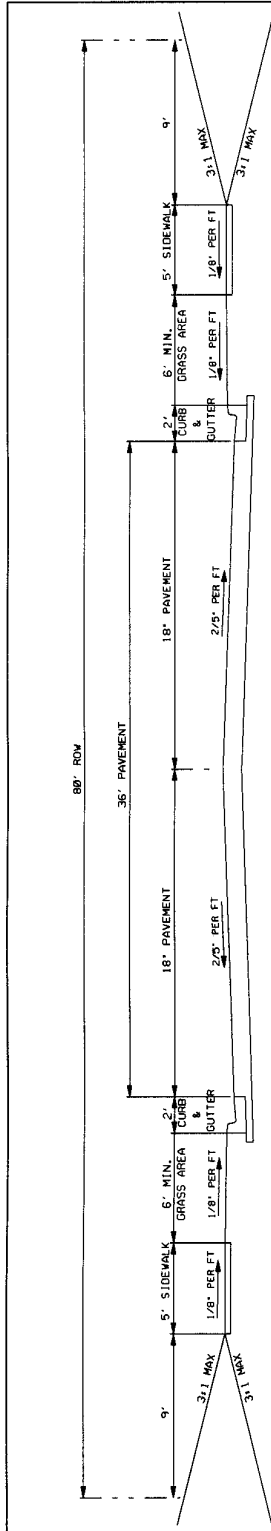
- ① 1.5" ASPHALTIC CONCRETE SURFACE (TDDT TYPE 411-E)
- ② TACK COAT (0.10 GAL./S.Y.)
- ③ 2" ASPHALTIC CONCRETE BINDER (TDDT TYPE 307-B)
- ④ BITUMINOUS PRIME COAT (0.30 GAL./S.Y.)
- ⑤ 8" CRUSHED STONE
- ⑥ COMPACTED SUBGRADE

ROADWAY COMPOSITION DETAIL  
N.T.S.

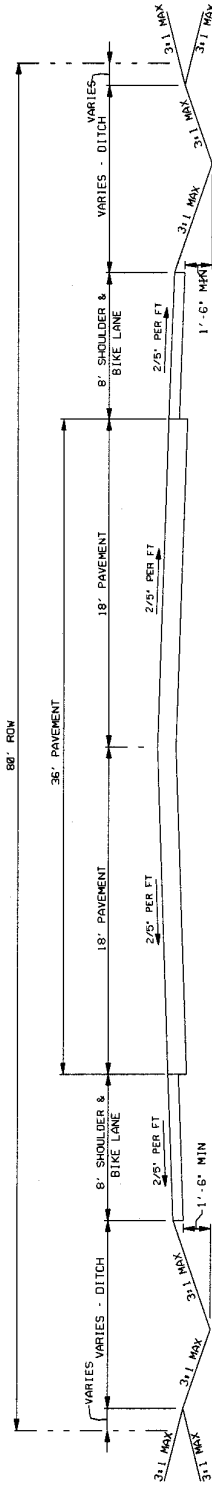


CITY OF SPRING HILL  
MAJOR THOROUGHFARE PLAN  
STREET CROSS-SECTIONS

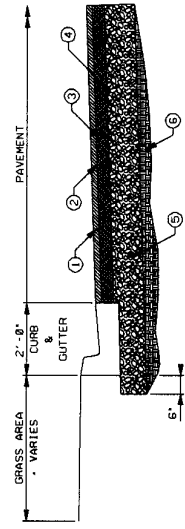
COLLECTOR STREET CROSS-SECTIONS  
SHEET 3 OF 3



ARTERIAL STREET - URBAN



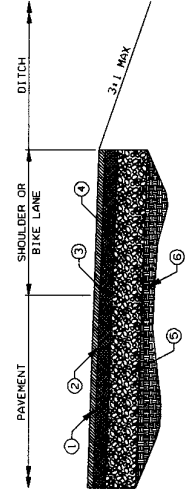
ARTERIAL STREET - RURAL



ARTERIAL ROADWAY COMPOSITION DETAIL

N.T.S.

- ① 2" ASPHALTIC CONCRETE SURFACE (TODD TYPE 411-0)
- ② TRUCK COAT (0.10 GAL./S.Y.)
- ③ 4" ASPHALTIC CONCRETE BINDER (TODD TYPE 387-8M)
- ④ BITUMINOUS PRIME COAT (8.38 GAL./S.Y.)
- ⑤ 18" CRUSHED STONE
- ⑥ COMPACTED SUBGRADE



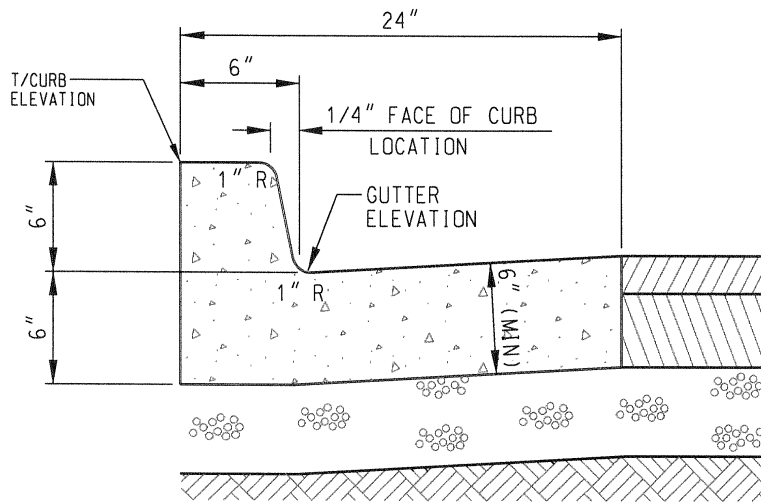
ARTERIAL ROADWAY COMPOSITION DETAIL

N.T.S.



CITY OF SPRING HILL  
MAJOR THOROUGHFARE PLAN  
STREET CROSS-SECTIONS

ARTERIAL STREET CROSS-SECTIONS



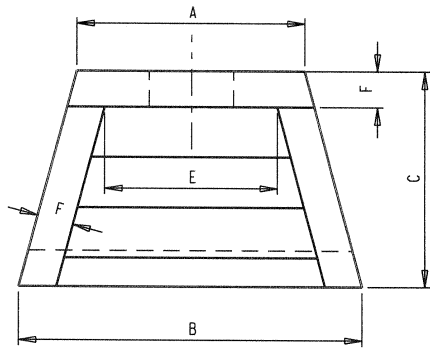
NOTES:

1. CONTRACTION JOINTS: 1/2 " WIDE, FULL DEPTH, AT MAXIMUM OF 50' LONGITUDINAL INTERVALS, AT ALL ABUTTING STRUCTURES, DRIVEWAYS AND TANGENT POINTS OF RADIUS RETURNS.
2. TOOLED CURB CONTROL JOINTS: 1/4 " WIDE, 1" DEEP, 5' O.C.
3. ALL CONCRETE TO COMPLY WITH ACI 318 WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 Psi. AT 28 DAY TEST.
4. CONCRETE TO BE AIR-ENTRAINED WITH AN AIR CONTENT OF 4-6%.
5. JOINTS TO BE FILLED WITH BITUMINOUS EXPANSION MATERIAL.

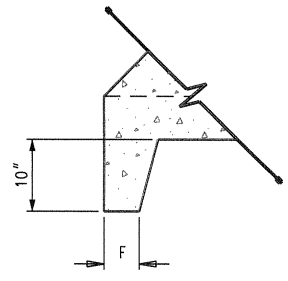
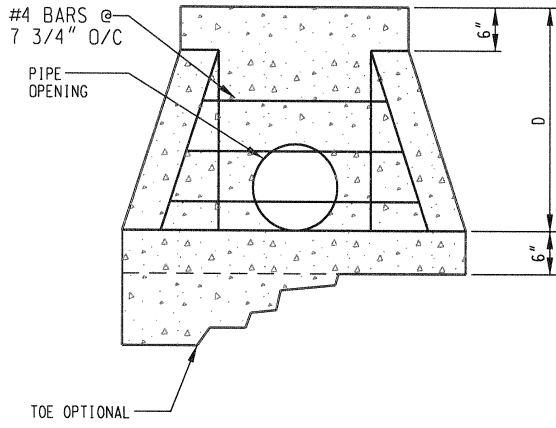
**CURB AND GUTTER DETAIL**

N.T.S.

APPENDIX B  
HEADWALL  
CONSTRUCTION SPECIFICATIONS  
SPRING HILL, TENNESSEE



DIM.	SIZE:			
	4'	6'	8'	10'
A	32"	48"	72"	96"
B	48"	72"	96"	120"
C	30"	44"	50"	56"
D	25"	36"	52"	66"
E	24"	36"	59"	83"
F	5"	8"	8"	8"
MAX./DPG	18"	26"	40"	60"
WT./#	1090	3130	5625	8575

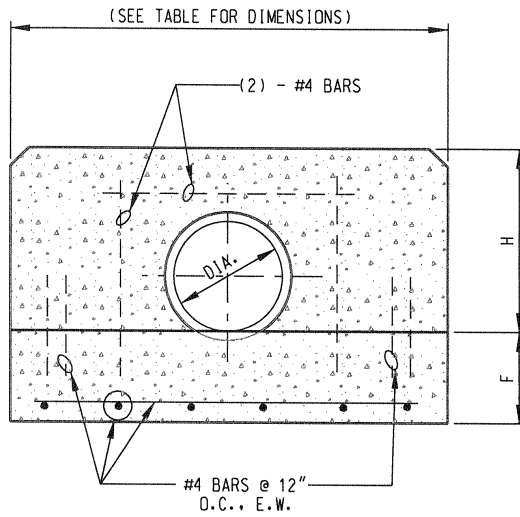


\* 0" ON 4' WINGED HEADWALL

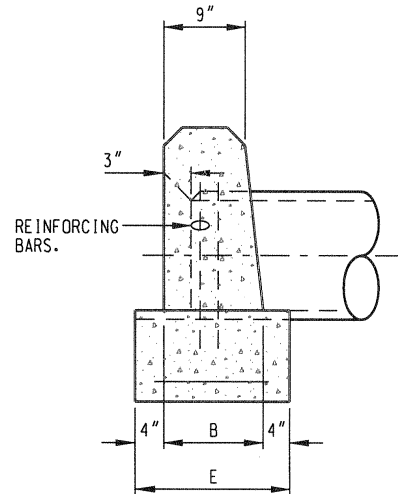
NOTE:  
 REFERENCE CLOUD CONCRETE  
 PRODUCTS DRAWING SW-300  
 CONCRETE: 4500 P.s.i. @ 28 DAYS  
 REINFORCED WITH #4 BAR - GR. 60

**WINGED HEADWALL DETAIL**

N.T.S.



**FRONT ELEVATION:**



**END ELEVATION:**

PIPE SIZE		DIMENSIONS				
		WALL		FOOTING		
DIA. (IN.)	AREA (SQ FT)	G	H	B	E	F
18	1.77	6'-0"	2'-6"	1'-3"	1'-11"	1'-3"
24	3.14	8'-0"	3'-0"	1'-4"	2'-0"	1'-4"
30	4.91	10'-0"	3'-6"	1'-6"	2'-2"	1'-6"
36	7.07	12'-0"	4'-0"	1'-8"	2'-4"	1'-8"
42	9.62	14'-0"	4'-6"	1'-10"	2'-6"	2'-0"
48	12.57	16'-0"	5'-0"	2'-1"	2'-9"	2'-0"
54	15.90	18'-0"	5'-6"	2'-4"	3'-0"	2'-0"
60	19.63	20'-0"	6'-0"	2'-6"	3'-2"	2'-0"

**NOTES:**

1. SEE PLAN FOR LOCATION, ELEVATION, AND SIZE OF PIPE.
2. ALL CONCRETE TO COMPLY WITH ACI 318 WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 Psi AT 28 DAY TEST.
3. ALL EXPOSED EDGES TO HAVE 3/4" CHAMFERS.
4. REINFORCEMENT: 2" CLEAR WHEN FORMED. 3" CLEAR WHEN POURED ON GROUND.
5. EXTERIOR SURFACES TO HAVE RUB FINISH.

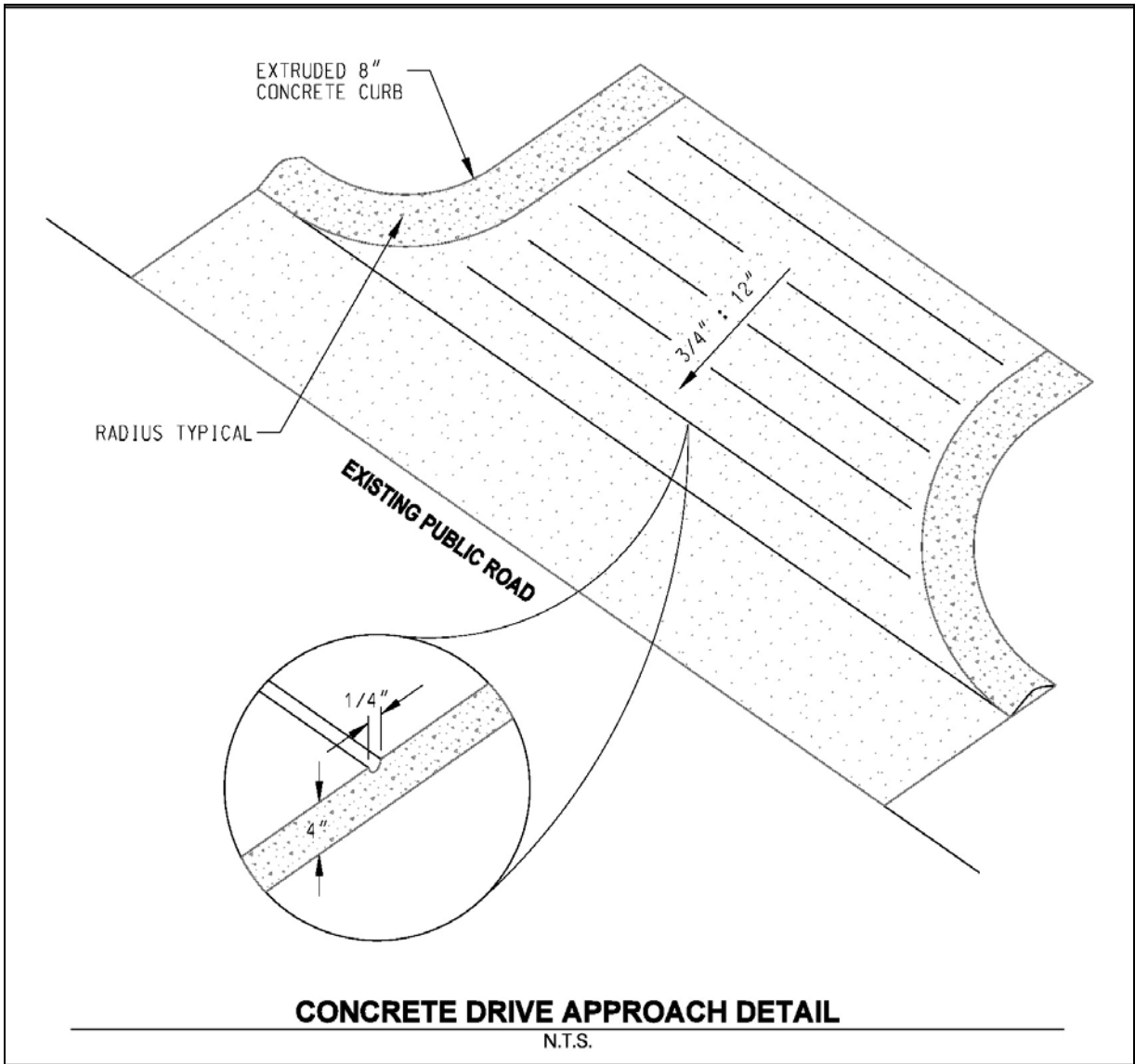
**STRAIGHT HEADWALL DETAIL**

N.T.S.

**APPENDIX C**

**DRIVEWAY CURB CUT  
CONSTRUCTION SPECIFICATIONS**

**SPRING HILL, TENNESSEE**



**APPENDIX D**

**STORMWATER  
DRAINAGE CALCULATIONS**

**GUIDELINES AND REQUIREMENTS  
FOR SUBMITTAL REVIEW**

**SPRING HILL, TENNESSEE**

## STORMWATER DRAINAGE CALCULATIONS SUBMITTAL GUIDELINES AND REQUIREMENTS

### A. Off-Site Contributing Flows

1. A copy of USGS quad sheet showing delineation of each off-site area in conjunction with delineation of actual on-site proposed development.
2. Calculations showing total off-site contributing flows ( $Q_{\text{off-site}}$ ) based on a 25-year storm event rainfall intensity. The following items are to be included in calculating each off-site contributing flow:
  - Direct runoff coefficient (C) based on topographic features of the off-site area.
  - Time of concentration ( $t_c$ ) based on rainfall travel from the most remote point in the basin to the subdivision or development. Show horizontal and vertical distance traveled.
  - Rainfall intensity (i) of a 25-year storm event based on the time of concentration ( $t_c$ ).
  - Size of off-site area (A) in acres.

### B. On-Site Contributing Flows (Post-Development)

1. Contoured drainage plan with delineation of total on-site drainage area. Mini-basins are also to be delineated, showing areas which contribute flow to each storm drainage component.
2. Calculations showing contributing flows from each mini-basin based on a 25-year storm event rainfall intensity. The following items are to be included in calculating each mini-basin flow ( $Q_1, Q_2, Q_3, \text{etc.}$ ):
  - Direct runoff coefficient (C) based on developed topographic features
  - Time of concentration ( $t_c$ ) of each mini-basin based on rainfall travel within the mini-basin, show horizontal and vertical travel distance traveled.
  - Rainfall intensity (i) of a 25-year storm event based on the time of concentration ( $t_c$ ).
  - Size of mini-basin area (A) in acres.

### C. Table of Storm Drainage Flows

A storm drainage flow table shall be submitted and shall include the following for each storm drainage component.

- Storm drainage pipe number (as shown on the drainage plan).
- Contributing flows ( $Q_1, Q_2, Q_3, \text{etc.}$ ) and any off-site flows which enter the storm drainage pipe being considered.
- Total flow (QT) as determined by the sum of the contributing flows.
- Storm drainage pipe size (inches).

- Storm drainage pipe slope (percent).
- Manning's roughness factor (n) of the pipe.
- Full Pipe capacity (cfs).

D. On-Site Flows (Pre-Development)

1. A copy of USGS quad sheet showing delineation of on-site area prior to development (same as Section A. 1. On-site delineation).
2. Calculations showing total on-site flows ( $Q_{\text{on site(predevelopment)}}$ ) prior to development, based on a 25-year \*storm event rainfall intensity. The following items are to be included in calculating the on-site pre-development flow:
  - Direct runoff coefficient (C) based on pre-development topographic features of the on-site area.
  - Time of concentration ( $t_c$ ) based on rainfall travel from the most remote point on-site to the on-site drainage outlet point. Show horizontal and vertical distance traveled.
  - Rainfall intensity (i) of a 25-year storm event, based on the time of concentration ( $t_c$ ).

E. Detention Basin Volume

Detention basins are to be constructed in order to prevent impact of receiving waterways, streams and wet weather drainage ditches due to upstream developments. The following methodology shall be included within the detention basin volume calculations:

- Volume of the detention basin shall be sufficient to detain increased flows due to the on-site development for a 25-year storm event duration. The detention basin shall also be designed and sized to route a 100-year storm event. Volume shall be calculated as follows:
- $\text{Volume} = (Q_{\text{post-development}} - Q_{\text{pre-development}}) \times t_c \text{ (seconds)}$

Where:

Increased peak storm drainage flow of the proposed on-site development is the difference between on-site pre-development flow and post-development flow.

Storm event duration is the period of time equivalent to the time of concentration ( $t_c$ ), of the entire drainage basin, in which the increased flows will be realized during a 25-year storm event.

F. Detention Basin Discharge

The discharge structure shall be a “V”– notch weir or rectangular weir design as to allow no more discharge from the detention basin than the total flows realized prior to development for the 2,5,10 and 25-years rainfall events. The detention basin shall be capable of discharging and routing the 100-year rainfall event and is calculated as follows:

- $\text{Pre-development flow} = Q_{\text{off-site}} + Q_{\text{on-site (pre-development)}}$

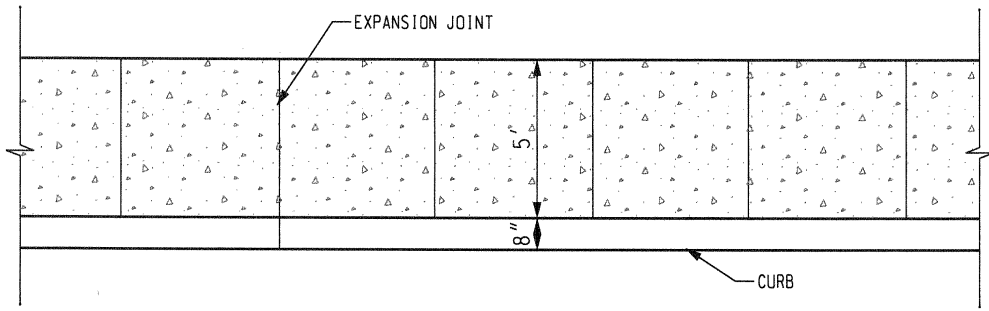
The following items shall be included within the detention basin discharge calculations:

- Pre-development flow calculations.
- Discharge pipe size (inches).
- Discharge pipe slope (percent).
- Manning's roughness factor (n) of the discharge pipe.
- Full Pipe capacity (cfs).

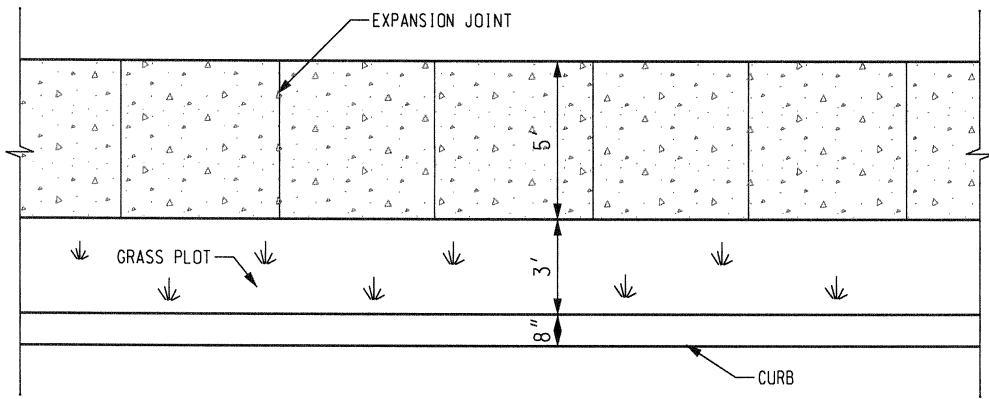
**APPENDIX E**

**STANDARD SIDEWALK / WALKING TRAIL  
CONSTRUCTION SPECIFICATIONS**

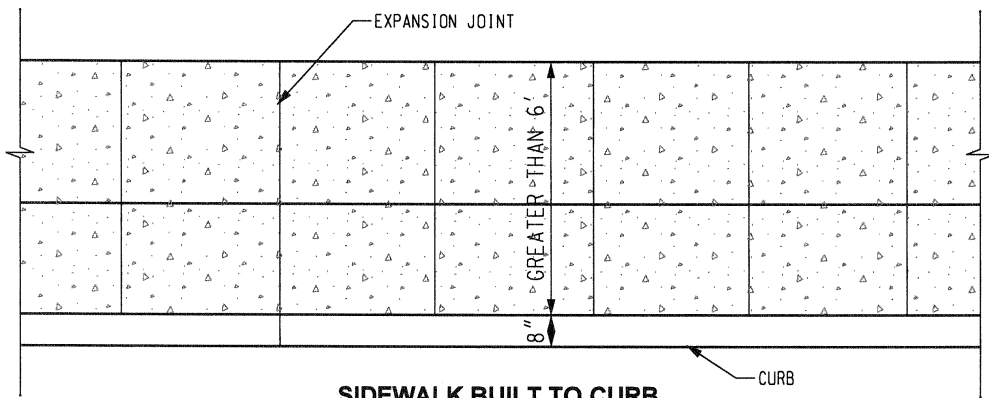
**SPRING HILL, TENNESSEE**



**5' SIDEWALK BUILT TO CURB**



**5' SIDEWALK WITH GRASS PLOT**



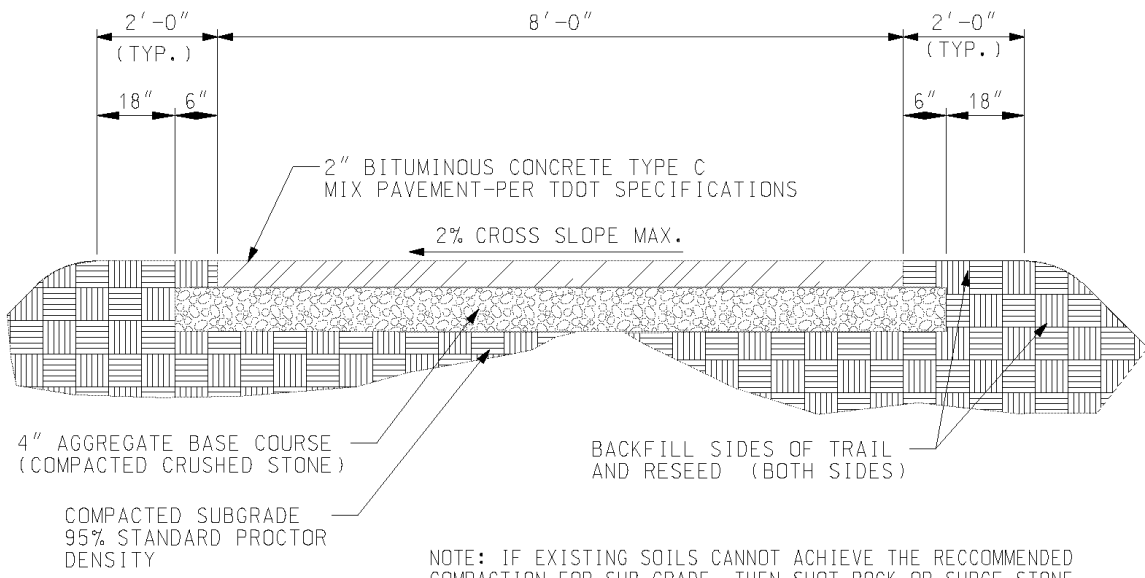
**SIDEWALK BUILT TO CURB  
(WIDTH GREATER THAN 6')**

**NOTES:**

1. EXPANSION JOINTS TO BE SPACED A MAXIMUM OF 25' APART OR AS DIRECTED BY THE ENGINEER TO MATCH CURB EXPANSION JOINTS WHERE SIDEWALK IS BUILT TO CURB.
2. CONSTRUCTION JOINTS ARE REQUIRED TO JOIN CURB RAMPS WITH SIDEWALKS.
3. THE CROSS SLOPE SHALL NOT EXCEED 2%.
4. ADA ACCESSIBLE RAMPS WITH A MAXIMUM 1:12 SLOPE AND A 36" MINIMUM CLEAR WIDTH SHALL BE CONSTRUCTED AT ALL INTERSECTIONS IN COMPLIANCE WITH FEDERAL REGULATIONS.

**STANDARD CONCRETE SIDEWALK**

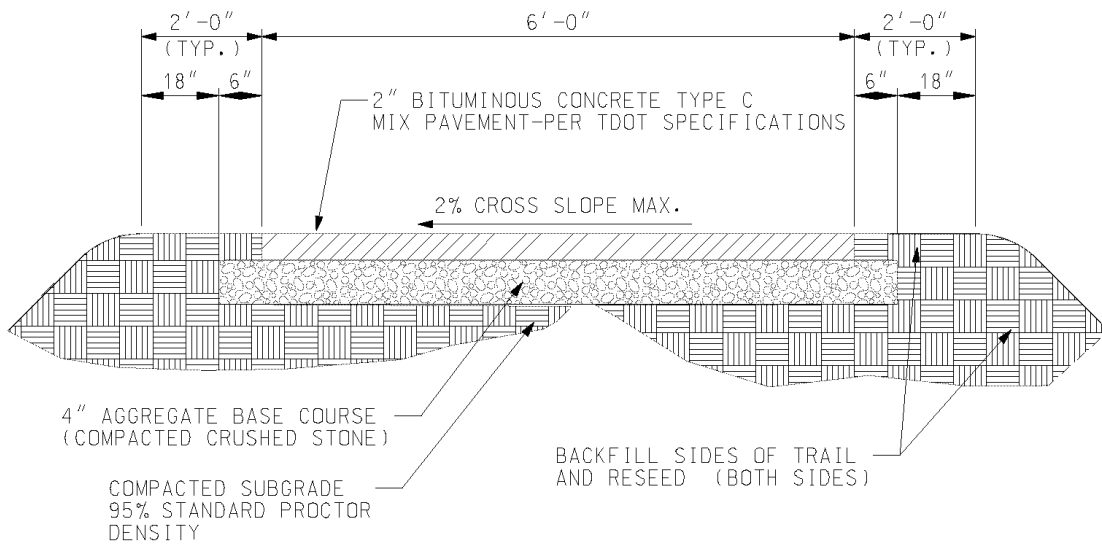
N.T.S.



NOTE: IF EXISTING SOILS CANNOT ACHIEVE THE RECCOMENDED COMPACTION FOR SUB-GRADE, THEN SHOT ROCK OR SURGE STONE SUB-GRADE STABILIZATION CAN BE UTILIZED.

**CITY OF SPRING HILL**  
**8' WIDE ASPHALT RECREATIONAL TRAIL**  
**(TWO-WAY BIKE)**

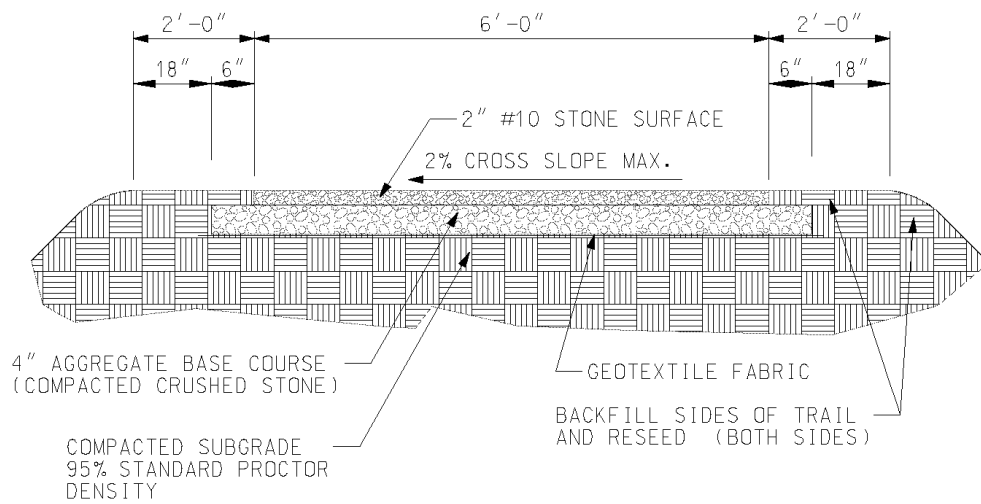
N.T.S.



NOTE: IF EXISTING SOILS CANNOT ACHIEVE THE RECOMMENDED COMPACTION FOR SUB-GRADE, THEN SHOT ROCK OR SURGE STONE SUB-GRADE STABILIZATION CAN BE UTILIZED.

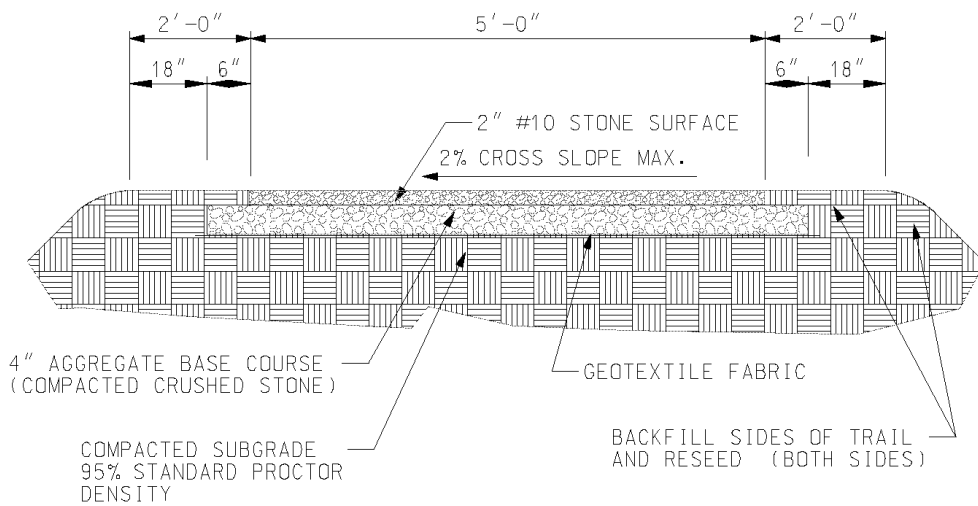
**CITY OF SPRING HILL**  
**6' WIDE ASPHALT RECREATIONAL TRAIL**  
**(ONE-WAY BIKE)**

N.T.S.



NOTE: IF EXISTING SOILS CANNOT ACHIEVE THE RECOMMENDED COMPACTION FOR SUB-GRADE, THEN SHOT ROCK OR SURGE STONE SUB-GRADE STABILIZATION CAN BE UTILIZED.

**CITY OF SPRING HILL**  
**6' WIDE WALKING TRAIL**  
 N.T.S.



NOTE: IF EXISTING SOILS CANNOT ACHIEVE THE RECOMMENDED COMPACTION FOR SUB-GRADE, THEN SHOT ROCK OR SURGE STONE SUB-GRADE STABILIZATION CAN BE UTILIZED.

**CITY OF SPRING HILL**  
**5' WIDE WALKING TRAIL**

N.T.S.