

## ARTICLE 10

### REQUIRED SITE IMPROVEMENTS BEFORE FINAL PLAT APPROVAL

Prior to the approval of a final plat, an agreement shall be reached between the subdivider or his agent and the county government with regard to the installation of any road improvements or utility construction called for in the subdivision plat. The subdivider shall be required to have installed at his expense the following improvements:

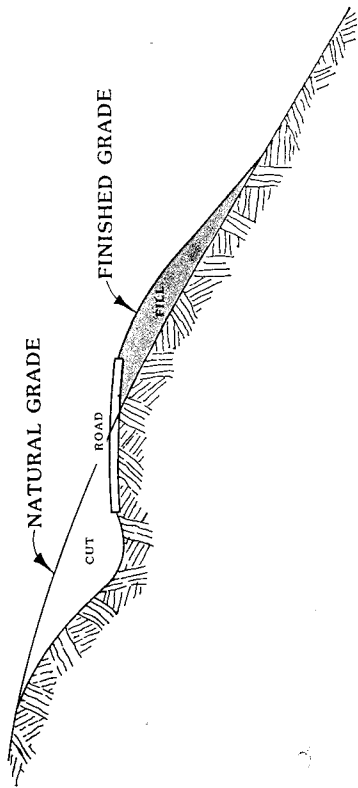
NOTE: The subdivider at his expense, may contract with the county or any Tennessee licensed construction company to install the necessary improvements. Lists of said companies may be obtained from the State of Tennessee or the McMinn County Highway Department.

#### Section 10.01. Monuments.

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

Section 10.02. Grading. All roads, streets and alleys shall be graded by the subdivider to the required cross section. Due to special topographical conditions, deviation from the above will be allowed only with special approval of the Planning Commission. Where roads are constructed under or adjacent to existing electric transmission lines, the nearest edge of the roadway surface shall be a minimum of fifteen (15) feet from any transmission line structure and all grading for the road shall be done in a manner which will not disturb the structure or result in erosion endangering the structure. In the case of electric transmission lines, the clearance from the road to the nearest conductor shall meet the requirements of the National Electrical Safety Code.

- a. Preparation. Before grading is started the entire right-of-way area shall be first cleared of all stumps, roots, brush and other objectionable materials and all trees not intended for preservation.
- b. Cuts. All tree stumps, boulders and other obstructions shall be removed to a depth of two (2) feet below the subgrade. Rock, when encountered, shall be sacrificed to a depth of twelve (12) inches below the subgrade. This provision applies to the roadway and not necessarily to the entire right-of-way width.



**CUT AND FILL CROSS SECTION**

- c. Fill. All suitable material from roadway cuts may be used in the construction of fills, approaches or at other places as needed. Excess materials, including organic materials, soft clays etc., shall be removed from the development site. The fill shall be spread in layers not to exceed twelve (12) inches loose and compacted by a sheep's foot roller. The filling of utility trenches and other places not accessible to a roller shall be mechanically tamped.

**Section 10.03. Installation of Utilities.** After grading is completed and approved and before any base is applied, all of the required underground work -- water mains, sewer lines, gas mains, etc., and all service connections shall be installed completely and approved throughout the subdivision.

**Section 10.04. Required Inspections During Road Construction.** Before road construction begins the developer shall contact the McMinn County Road Superintendent as notification and to discuss pre-construction project specifics. While road construction is taking place, inspections shall be made by the Road Superintendent before, during and after each step or process and prior to the next course or procedure. The road superintendent shall check the width, depth and crown of the road among other things. Weight tickets showing the type, class, and weight of gravel and surfacing material shall be furnished to the road superintendent after the completion of each step.

**Section 10.05. Street or Road Base.** When Hot Mix is applied at the rate of 220 pounds per square yard, or two (2) inches, Mineral Aggregate 303-02 shall be compacted to a minimum of four (4) inches. This does not change the six (6) inch requirement of crushed stone if DBST is used. When the base is completed, the developer must notify the County Commissioner of Highways and allow his office time to inspect the base before proceeding to the installation of the surface course.

**Section 10.06. Surface Course.** If the proposed subdivision takes its access from an existing county road, which has a hot mix surface, then the subdivision roads shall have an asphaltic concrete (hot mix) surface course as further specified. If the proposed subdivision takes its access from an existing county road, which is not surfaced with hot mix, then the subdivision roads may be constructed with either a hot mix surface or with a double bituminous surface as further specified.

- a. The Asphaltic Concrete Surface Course (hot mix) shall be constructed with asphaltic concrete to a minimum compacted thickness of two (2) inches. In all cases it shall have not less than an average weight of two hundred twenty (220) pounds per square yard. Bituminous plant-mix base (hot mix) shall be in accordance to the Tennessee Department of Transportation's "Standard Specifications for Road and Bridge Construction" (or any subsequent revisions), March 1, 1981. Materials shall conform to Section 307 (Grading C). When the surface course is completed, the developer must notify the Commissioner of Highways and allow his office time to inspect the surface course in the third and final inspection needed for approval. At the time of notification, the developer is required to provide a job-mix formula to the Commissioner of Highways to ensure that proper materials and standards will be used during construction.

- b. The Double Bituminous Surface, if used, shall be applied in accordance with the following:
1. The first application shall be of AEP at a rate of .30 gallons per square yard. Aggregate shall be No. 8 chips at a rate of 35 pounds per square yard.
  2. The second application shall be RS-2 at a rate of .35 gallons per square yard. Aggregate shall be No. 7 chips at a rate of 30 pounds per square yard.
  3. The final application shall be RS-2 at a rate of .40 gallons per square yard. Aggregate shall be No. 8 chips at a rate of 35 pounds per square yard.

NOTE: Each new road proposed under these regulations shall be inspected by the Planning Commission or its duly qualified and appointed official at three stages during the construction process. The first inspection will occur after grading has been completed, the second after the road base has been constructed, and the third after the Asphaltic Concrete Surface Course has been completed.

**Section 10.07. Storm Drainage.** An adequate drainage system including necessary open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, etc., shall be provided for the proper drainage of all surface water. The size of the culvert shall be determined by the McMinn County Road Superintendent. Cross drains should be provided to accommodate all natural water flow and shall be of sufficient length to permit a full width roadway and the required slopes. The size and location of cross drains shall be determined by the U.S. Soil and Water Conservation Service, but in no case shall they be less than twelve (12) inches in diameter. All storm drainage contained in pipes or culverts under the roadway shall have endwalls, headwalls, or rip-rap with a concrete apron wall where necessary to prevent erosion. The size and location of cross drains shall be determined by a licensed engineer, architect, or surveyor if the Commissioner of Highways determines that the development is of such size as to require it, but in no case shall they be less than twelve (12) inches in diameter. If drainage engineering data is compiled for the development, copies of said data shall be furnished to the Commissioner of Highways.

NOTE: Pipes shall be laid with the spigot end pointing in the direction of the flow and with the ends fitted and matches to provide tight joints and a smooth uniform invert. They shall be placed at a sufficient depth below the roadbed to avoid dangerous pressure of impact, and in no case shall the top of the pipe be less than one (1) foot below the roadbed.

**Section 10.08. Water Supply System.** Water mains properly connected with the community water supply system or with an alternate supply approved by the County Health Officer shall be constructed in such a manner as to serve adequately for both domestic use and fire protection, all lots shown on the subdivision plat.

A public water system shall be provided when the proposed subdivision is within 1,000 feet of an existing system. The appropriate size of the water mains shall be determined by the Planning Commission.

Plats determined by the County Health Department to be unsuitable for fresh water wells shall provide a public water system before the plat is approved by the planning commission.

Fire hydrants shall be installed in all subdivisions whenever a six (6) inch water line is available. No home or building shall be more than five hundred (500) feet measured along the road from a fire hydrant. Fire hydrants shall not be more than one thousand (1,000) feet apart in order to maintain a good fire insurance rating and safety level. Additional hydrants may be required by the local water district involved.

**Section 10.09. Sanitary Sewers.** When the subdivision is located within the service area of a public sewerage system, sanitary sewers shall be installed in such a manner as to serve adequately all lots with connection to the public system.

Where lots cannot be economically connected with a sewerage system, each lot shall be required to pass percolation tests, contain adequate area for the installation of approved septic tank and disposal fields, and be approved in writing by the County Health Officer.

**Section 10.10. Sidewalks.** For the safety of pedestrians and of children at play or on approaches to community facilities (schools, parks, etc.) installation of sidewalks on both sides of the roads shall be required of the developer when considered to be necessary by the Planning Commission.

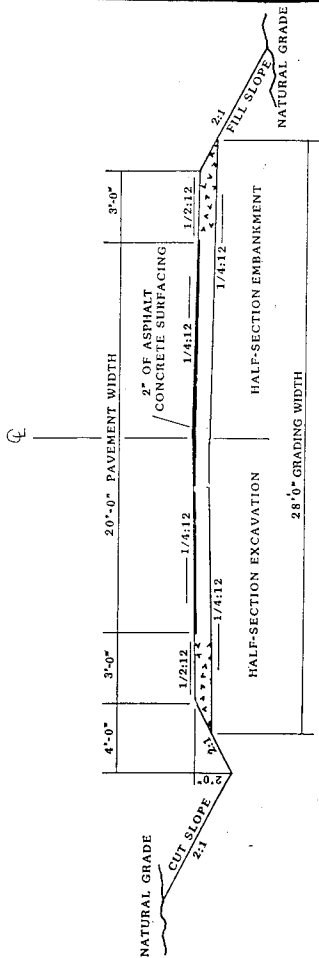
When sidewalks are required the following specifications shall be met: Sidewalks shall be located not less than one (1) foot from the property line to prevent interference or encroachment by fencing, walls, hedges or other planting or structures placed on the property line at a later date. In single family residential areas concrete sidewalks shall be four (4) feet wide and four (4) inches thick. In multi-family or group housing development sidewalks shall be five (5) feet wide and four (4) inches thick. In commercial areas, sidewalks shall be ten (10) feet wide and four (4) inches thick.

**Section 10.11. Curbs and Gutters, or Road Shoulders.** Within McMinn County, the subdivider shall provide one of the illustrated types of concrete or asphalt curbs and gutters, or three (3) foot gravel shoulders on each side of the paved surface. Where curbs and gutters are installed, backfill shall slope as shown in "Typical Tangent Section, Type 2", and shall be higher than the curb to ensure drainage of surface water into the storm drainage system. Where gravel shoulders are installed, the shoulders shall be constructed as shown in "Typical Tangent Section, Type 1."

**Section 10.12. Guarantee in Lieu of Completed Improvements.** No final subdivision plat shall be approved by the Planning Commission or accepted for record by the County Register of Deeds, until one of the following conditions have been met:

- a. All required improvements have been constructed in a satisfactory manner and approved by the Planning Commission, or
- b. The Planning Commission has accepted a surety bond or certified check in an amount equal to the estimated cost of installation of the required improvements, whereby improvements may be made and utilities installed without cost to the city or county in the event of default by the subdivider.

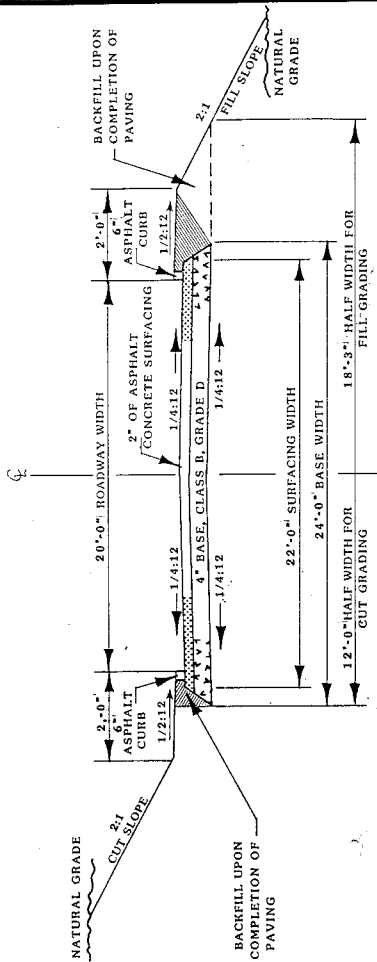
NOTE: The Planning Commission should contact the appropriate official to determine cost estimates of the necessary improvements.



BASE REQUIREMENTS:  
 Hot Mix - 4" Compacted Grade D (303-02)  
 Double Bituminous - 6" Compacted Grade D (303-02)

# TYPICAL TANGENT SECTION

TYPE ONE



NOTE: CONCRETE CURBS MAY BE USED WITH PRIOR APPROVAL OF DESIGN

# TYPICAL TANGENT SECTION

## TYPE TWO