

COUNTY OF SUMTER
GUIDELINES FOR ROADWAY AND
DRAINAGE CONSTRUCTION

Authorization:

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SCOPE

The following guidelines are intended to provide requirements for the design and construction of utilities which will come under the subsequent ownership and maintenance of the County of Sumter. By policy and ordinance, Sumter County will not accept utilities, roadways and drainage systems installed on private property unless agreed to by County Council and proper easements are executed. These criteria apply to roadways, parking lots and storm drainage on private property except where may be specially noted. Conformance with these guidelines does not relieve the developer, or his agents, from liability under other Regulations of the County of Sumter or other governmental agencies.

All roadwork installed for eventual acceptance into the County of Sumter’s maintenance and ownership must be executed by competent, licensed contractors, as licensed through the South Carolina Department of Labor, Licensing & Regulation.

FAMILIAR ABBREVIATIONS

Abbreviations used repeatedly in the document are as follows:

- SCDHEC** South Carolina Department of Health & Environmental Control
- SCDOT** South Carolina Department of Transportation
- AWWA** American Water Works Association
- LLR** South Carolina Department of Labor, Licensing & Regulation

CONTENTS

I. Roadway Construction..... Page 4
a. General Design Criteria

- b. Inspection Requirements
- c. Acceptance

- II. Drainage Facilities Page 6**
 - a. General Design Criteria
 - b. Record Drawings
 - c. Acceptance Documents Issued by the City Engineer

- III. Easements, Deeds and Benchmarks Page 7**
 - a. General
 - b. Benchmarks

- IV. Variances Page 8**
 - a. General

Note: See the City of Sumter Zoning and Development Standards Ordinance, Appendix A, Stormwater Management Sediment Control Ordinance

I. Roadway Construction

A. General Design Criteria

1. Rights of Way

Sufficient rights of way shall be provided to accommodate the roadway and necessary shoulder width. Refer to Exhibit 17 of Article 8, Section E of the Ordinance.

2. Roadway Construction

Roadways, curbs and gutters constructed to become part of the County's maintained streets shall meet the design standards of the SCDOT, Standard Specification for Highway Construction, 1986 edition, the Standard Drawings for Road Construction and subsequent sections of this document.

3. Meeting Existing Pavement

Where new pavement meets existing paving, the transitions will be made smooth and even. Streets shall be so constructed that transitions from state roads to County streets are not noticeable.

4. Material and Construction

- a) Rough grading and mucking shall remove all undesirable materials from the area. Should insufficient satisfactory cut material exist to fill excavated areas, suitable sand clay shall be furnished to restore grade.
- b) The stability of the sub-base shall be demonstrated by proof rolling prior to installation of improved base. Proof rolling of the improved base material must also demonstrate its stability prior to application of surface course.
- c) Pavement shall be executed using one of the following three methods:
 1. An 8-inch macadam base course followed by 2 inches of asphalt concrete surface course, compacted.
 2. A 6-inch macadam base course followed by 2 inches of asphalt concrete binder course, then to be followed by 1½ inches of asphalt concrete surface course, compacted. It is intended that the 1½ asphalt concrete surface course will be applied only after 75

percent of housing construction is complete. Phased projects will be treated as a separate project for each phase

3. Base and surface courses as designed and sealed by a Geo-Technical Engineer following soil and compaction tests on the proposed right-of-way. The design should be for a pavement requiring minimum work/repair for 20 years. The County Public Works Director will review the engineered pavement design and make the final determination of its acceptability.

5. Seeding to Prevent Erosion

All developing areas adjacent to new roadways shall be seeded to prevent erosion of soils onto the roadway. Silt fences will be required where grassing is not sufficient or timely to prevent erosion. Should erosion occur, the developer will be responsible to remove the situation.

6. Sidewalks

Sidewalks shall not be required in the unincorporated portions of the County. However, if sidewalks are constructed, they shall be no less than 4-inches thick and 4 ½ feet wide. Where sidewalks cross driveways, the thickness shall be increased to 6-inches. Provisions shall be made for handicapped access to the sidewalks and be barrier free at intersections. Sidewalks shall be composed of concrete or sand cement with a 28 day compressive strength of 3500 psi or better. Subgrade below the sidewalk shall be properly prepared for construction.

7. Special Structures

Special Structures shall be reviewed on a case-by-case basis. No roadway or roadside structure shall interfere with the orderly and safe progression of traffic.

8. Islands with Signs and Special Adornments

Islands constructed to act as planters or entryway adornments will not be maintained by the County. Such structures shall remain the responsibility of the developer or homeowner's association for maintenance. Any subsequent damage to road surfaces by plantings in these islands shall be the responsibility of others for repair.

9. Tree Proximity

Trees shall not be planted in close proximity to road surfaces. Shoulders shall be kept clear of trees unless additional right of way is provided for their growth without interference with utilities placed in the roadway shoulders.

B. Acceptance of Roadways by the County of Sumter

Upon satisfactory inspection of roadway construction and receipt of any title changes, deeds or easements for the roadway, Public Works personnel will provide to the Public Works Director a recommendation for acceptance subsequently to be presented to the County Council. The Council acts thereupon to accept the roadway system for operation and maintenance, at its pleasure. The developer shall comply with the bonding requirements of the Ordinance, Section 7,d.8, upon acceptance. The Public Works Director may at the direction of County Council accept all streets and roads into the County system except those that are part of any new major subdivision or site projects.

II. Drainage Facilities

A. General Design Criteria

1. Design Methods

The design and sizing of storm drainage shall be according to the Rational Method, where applicable. Other analysis methods will be accepted upon satisfactory scrutiny by the County Public Works Director. Storm drainage should be based on the 25-year storm event specific to the area of Sumter County.

2. Required Elements and Materials

- a) Sufficient drainage inlets, in size, type and number, must be supplied to sufficiently remove stormwater. Water shall be conveyed by piping composed of SCDOT certified reinforced concrete. Smooth walled polyethylene pipe may be used where storm drains proceed off the roadway.
- b) All gravity drainage pipes shall be bedded with appropriately sized stone.
- c) All roadway crossings and inlet basins must be composed of reinforced concrete or concrete and brick masonry. Inlet boxes shall be equipped with flush mount manhole lids.
- d) Blind boxes are to be avoided unless absolutely critical to the design.
- e) All piping shall be installed using a bedding class commensurate with the soil conditions. Where any piping is provided with less than

one foot of cover under travel ways, special construction techniques must be devised and receive the Public Works Director's approval prior to installation. No metallic piping shall be used unless expressly permitted through the Public Works Director.

f) Discharge points for drainage pipes shall not promote erosion. Headwalls or one man rip rap with geofabric underlayment are required to stabilize soils at terminus of storm drain piping.

3. Open Ditches

Open Ditches will not be allowed for construction. Only if compelling reason is shown for an open ditch to be necessary will its installation be considered.

B. Inspection

The Public Works Director shall be notified when construction begins. Routine random inspections will be made by Public Works personnel to verify the satisfactory nature of construction. When complete, a final inspection shall be performed on all readily observable components. The developer through his contractor shall be responsible for materials and workmanship for twenty-four months after the acceptance date.

C. Record Drawings

Record drawings of the drainage system shall be supplied to the Public Works Director with one reproducible copy and two blueprinted copies. Rim and invert elevations shall be determined from established USGS monuments and horizontal layout shall be determined from an established monument.

D. Acceptance Documents Issued by the Public Works Director

Upon receipt of the required documents and satisfactory inspection by Public Works personnel, the Public Works Director will issue a statement accepting the drainage system for ownership, operation and maintenance. The County of Sumter will not take for ownership or be responsible for the upkeep of any stormwater sedimentation impoundments.

III. Easements, Deeds and Benchmarks

A. General

In all cases, easements or deeds to the County of Sumter shall be prepared and recorded granting the right to enter onto lands where utilities are installed for purpose of maintenance or future construction where such lands are not in public rights of way.

Typical easement widths shall be: 0 to 6 ft. cut - 30 ft. easement
 6 and greater - 40 ft. easement

As part of the acceptance process, all easements or deeds required for the project shall be submitted with previously described documents.

B. Benchmarks

A benchmark shall be permanently established in the subdivision in a location usable to all utility designers, surveyors and contractors. This benchmark will be used throughout construction regardless of any phasing of the project. It shall be established from USGS markers of known elevation. The benchmark's exact location and nature will be indicated on all site and utility plans.

IV. Provision for Variances

Should an individual be unable to meet the requirements of this document, a request for variance to the particular section in question may be requested. Requests will be addressed to the Sumter City-County Planning Commission which will make the informed decision regarding the merit of a variance request as provided for in the Ordinance.