



County of Greenville

"... At Your Service"

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Land Development Division
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To: All Engineering Community

Re: Subdivision Testing and Inspection Procedure

To avoid any construction delay or inspection interruption, please be advised that a Greenville County Engineer or his/her authorized representative (i.e. inspection staff) will not schedule a proofroll meeting without the following:

- (1) Quality Assurance Certification signed by the Design Engineer for all items on the certification checklist prior to the proof roll
- (2) Compaction test report from a third party testing firm

A Greenville County inspector will conduct a visual site inspection of the storm drainage system, including the curb, to verify that these items comply with the approved plans. Only after verification will a time for proofroll of the subgrade be scheduled.

I would like to reiterate some key points in Article 12 of the Land Development: Testing and Inspection shall include proofrolling, compaction and density testing of base soil, roadway fill areas, backfill within utility trenches, stone base course, and/or asphalt pavement, but may include other material tests as required by the County Engineer or his/her authorized representative.

Periodic (key) inspections by the Engineer shall be required during the course of the project, and shall be conducted jointly with the County representative at critical stages of construction. Inspections shall consist of periodic field visits during various phases of construction for the purposes of investigating present site conditions and activities, as well as documenting all substandard methods, materials, and/or conditions.

A. Proofrolling

1. The proofroll is good for 24 hours. Proofrolling is performed using a fully loaded tandem dump truck weighing not less than 30 tons gross, or equivalent. Any areas that show visible deflection will require repair, and a second proofroll may be required to verify the repairs. Compaction tests by a geotechnical engineering firm may also be required in problem areas as directed by the County Engineer or his/her authorized representative.

B. Compaction Testing

1. Applicability: The grading contractor and utility installation contractor shall be responsible for providing compaction testing and reporting as described below.
2. Compaction Requirements: Testing by a geotechnical engineering firm shall be performed for all backfill over utility installations and fill areas in the road right-of-way. The minimum required compaction shall be 95% Standard Proctor for all trenches and fill areas within the right-of-way.
3. Location & Frequency of Tests Compaction tests shall be taken at both random locations and depths to provide a range of sampling data. The required frequency of testing shall be as follows:
 - a. Sanitary Sewer - Test along the line at 300' intervals, randomly at service connections at the rate of one test per eight services, and at manholes at the rate of one test for every three manholes.
 - b. Water Mains - Test along the line at 300' intervals, and randomly at valve and blow off locations in the roadway at the rate of one for every three valve and blow off locations. Test randomly at service connections at the rate of one test per eight services, and at manholes at the rate of one test for every three manholes.
 - c. Storm Drains - Test along the line at 300' intervals and at all cross lines.
 - d. Other Utilities - Test along the line at 300' intervals and at all road crossings (excluding borings).
 - e. Fill Areas – Fill should be placed, compacted, and tested at no more than 18" intervals. Compaction tests shall be performed at 150' intervals, staggered on the left and right sides of the roadway. If bridging in the fill is required, a Geotechnical Engineer will submit a report detailing their recommendations to the County Engineer or his/her authorized representative.

Note: The Design Engineer or geotechnical testing firm shall determine the location for testing and obtain prior approval from the County Engineer or his/her authorized representative if the proposed testing frequency is less than shown above. Additional testing in problem areas may be required as directed by the County Engineer or his/her authorized representative.

4. Reporting the results of all compaction tests shall be reviewed by the Design Engineer and forwarded to the County Engineer or his/her authorized representative with comments as necessary. A copy of the overall site plan or the appropriate road plan sheets showing the test locations and depth below sub grade elevation shall be submitted with the test results. No roadways shall be paved until the County Engineer or his/her authorized representative has reviewed and approved the compaction tests results for the section of roadway to be paved.

The required Design Engineer and County inspection criteria are located on pages 95-97 of the Land Development Regulations.

If you have any questions, please let me know, I can be reach at (864)467-7004.