

**TOWN OF LAFAYETTE**  
**SPECIFICATIONS**  
**FOR**  
**HIGHWAY CONSTRUCTION**

**June 1984**

1. **DEFINITIONS**

**APPROVAL, APPROVED, ACCEPTED OR WORDS OR TERMS OF SIMILAR MEANING:** Written approval of the Highway Superintendent.

**BASE COURSE:** The granular material placed on the subgrade.

**FINAL ACCEPTANCE:** The transfer of the road to the Town of LaFayette .

**FINE GRADE:** Grading to a tolerance of 1/2-inch in 10 feet.

**HIGHWAY SUPERINTENDENT:** The elected LaFayette Town Highway Superintendent or his duly appointed agent.

**N..Y.S.D.O.T. :** New York State Department of Transportation

**PLANNING BOARD:** The LaFayette Town Planning Board appointed by the LaFayette Town Board.

**RIGHT OF WAY:** The total width of property to be deeded to the Town, minimum of 60 feet wide.

**ROAD SECTION:** The entire area disturbed for highway construction, from top of slope to the toe of slope including ditches.

**ROADWAY:** That portion of the highway included between the outside edges of the pavement.

**SUBGRADE:** The bottom of the granular base material.

**SURFACE COURSE:** The pavement on which traffic travels.

**TESTS:** All tests, cores, inspections etc. mentioned in these specifications shall be performed without cost to the Town of LaFayette and written results of the same shall be filed with the Town.

**TOP COURSE:** The granular material placed on the base course.

## 2. PLANS

Plans showing original and finished center line profiles, a typical cross-section, and proposed drainage facilities shall be submitted to the Town Planning Board and the Town Superintendent of Highways before final subdivision plat approval can be given. No construction shall be commenced until such approval has been given.

## 3. CONSTRUCTION

### (a) GENERAL

The roadway shall be graded to subgrade as shown on the approved plans by excavating the areas above the approved grades, including ditch lines and back slopes and by filling the areas below the approved grades. The fill material shall consist of material from the excavated areas after removal of all boulders, topsoil, stumps, roots or other deleterious material, or from approved borrow pits.

### (b) STRIPPING

Prior to the commencement of excavation or filling, stripping shall be conducted to remove all topsoil, stumps, roots, organic matter or other deleterious material for the full width of the right-of-way provided, however, that stripping is not required under fills where the original grade is more than five feet below finished center line grade.

### (c) EXCAVATION

All excavation shall be executed in a workmanlike manner keeping the ditch lines below the cut to provide positive drainage at all times throughout the excavating operation.

### (d) EMBANKMENT

The material for embankment shall come either from the cuts or approved borrow pits. The material shall consist of natural soil free from large boulders, roots, topsoil, or other deleterious material and shall be of such gradation and moisture content that it is capable of being compacted to the required density. The embankment shall be built in a workman like manner. No embankment shall be placed on frozen earth. It should be placed in horizontal layers of such thickness

to allow proper compaction and of such cross-section as to permit proper drainage. Proper compaction is defined as an embankment which does not weave, rut or displace in any manner under three consecutive passes of a ten-wheel (three axle) self-propelled dump truck loaded to the maximum legal load traveling at a maximum speed of five miles per hour. No stones over six inches in maximum dimension will be allowed in the embankment closer than four feet of center line finish grade.

(e) **PREPARATION OF SUBGRADE**

The subgrade shall be constructed to the cross-sections and grades shown on the approved plans. The Highway Superintendent shall be notified at least five days prior to the placing of any granular material above the sub-grade. He or his agent will be present and the entire road-way shall be tested for proper compaction as hereinbefore defined. Any areas in either cut or fill which weave, rut or distort shall be repaired until they do not weave, rut or distort. When the subgrade is satisfactory to the Highway Superintendent, he will issue a written approval. No base course shall be placed above subgrade until this written approval is obtained.

(f) **CULVERTS AND SUBSURFACE-DRAINAGE AND UNDERGROUND UTILITIES**

All underground utilities, culverts and storm sewers, except driveway pipes, shall be installed prior to placing the base course. All culverts crossing the center-line of the roadway shall be of a size 18 inches in diameter or larger. All driveway culverts shall have a minimum diameter of 12 inches. The material for all pipes shall conform to the latest N.Y.S.D.O.T. specifications and shall be installed according to the manufacturer's specifications. Where catch basins or drop inlets or manholes are called for they shall be constructed of concrete or masonry conforming to the latest N.Y.S.D.O.T. specifications and shall be of a size shown on their standard sheets. The frames and grates or covers shall also conform to State specifications. Manufacturer's certificates certifying that all pipe meets these specifications shall be given to the Highway Superintendent before final acceptance of the road. All pipes must be installed so that they have positive drainage as shown on the approved plans.

Where the approved plans call for underdrain, or field conditions require the installation of the same, the underdrain shall be six-inch-diameter perforated pipe meeting the latest

N.Y.S.D.O.T. specifications. The underdrain pipe shall be surrounded by a minimum of six inches of filter material consisting of: one part concrete sand, one part No. 1 stone and one part No.2 stone uniformly mixed together, or material conforming to the latest N.Y.S.D.O.T. specifications.

All exposed ends of pipes 12 inches or larger including driveway pipes shall have end sections installed in conformance with N.Y.S.D.O.T. specifications.

All pipes and drainage structures are to be protected and maintained and, if necessary, shall be cleaned, repaired or replaced before final acceptance at no cost to the Town of LaFayette.

(g) **BASE COURSE**

Before any base course material is placed on the subgrade shall be shaped to the cross-sections shown on the approved plans and rolled with a flat-wheel roller to seal the surface. At any time that the subgrade becomes rutted or out of shape ahead of the placing of the base course, it shall be reshaped and sealed before any base material is placed upon it.

1. **MATERIAL**

The granular material acceptable for this course maybe run-of-bank gravel or processed material complying with the N.Y.S.D.O.T. Specifications Section 304, Type 3, as follows: All particles shall pass a 4-inch square hole; not less than 30 percent by weight shall pass the 1/4-inch sieve; not more than 40 percent by weight shall pass the No. 40 mesh sieve and not more than 10 percent by weight shall pass the No. 200 mesh sieve as determined by washing through the sieve in accordance with A.S.T.M. Designation D422. The particles retained on the 1/4-inch sieve shall have a loss, after four cycles of the Magnesium Sulfate Soundness test, not exceeding 30 percent by weight. The particles passing the No. 40 mesh sieve shall have a maximum Plasticity index of five.

2. **CONSTRUCTION**

The material shall be spread so that no appreciable segregation of particle sizes occurs. The material shall be placed in horizontal layers not exceeding 8 inches in thickness after compaction to a total maximum depth of 14 inches. Compaction may be done with approved vibrating compaction equipment, a flat wheel roller weighing approximately 10 tons or

rubber-tired rollers or equipment if approved by the Highway Superintendent. Each layer shall be compacted to at least 95 percent of the maximum density determined in accordance with A.S.T.M. D1557.

Before the top course is placed on top of the base course, an in-place sample shall be taken under the direction of the Highway Superintendent and tested by an approved testing laboratory to determine that the material passes the Before the top course is placed on top of the base before listed gradation and compaction requirements. A certification of this test shall be given to the Highway Superintendent before final acceptance. Any material not meeting the specifications shall be removed and replaced. No material shall be placed when either fill material or previous layer *is* frozen. In the event that any fill which has already been placed or the subgrade shall become frozen, it shall be scarified and recompacted, or removed, to the approval of the Highway Superintendent.

(g) **TOP COURSE**

1. **MATERIAL**

The material acceptable for this course shall be run of-crusher hard durable limestone complying with the latest N.Y.S.D.O.T. Specification, Section 703 and shall be size designation No. 2.

2. **CONSTRUCTION**

The installation of this course shall take place immediately preceding the installation of the surface course. The base course shall be clean and free of objectionable material. Objectionable base course material shall be removed and replaced with suitable material.

Construction of this course shall be the same as the base course except that the minimum thickness shall be 4 inches. Before the surface course is placed, an in-place sample of the top course shall be taken under the direction of the Highway Superintendent and tested by an approved testing laboratory and a certification of this test shall be filed with the Highway Superintendent before final acceptance

(i) **SURFACE COURSE**

After the top course is completed to a tolerance of 1/2-inch in ten feet as shown on the approved plans and cross-sections and sealed with a flat wheel roller weighing approximately 10 tons and approved by the Highway Superintendent, the surface course shall be applied.

1. **MATERIAL**

The surface course shall consist of a 2-course bituminous concrete plant mix complying with N.Y.S.D.O.T. Specification Section 403, Type 3 Binder and Type 7 Top.

## 2. CONSTRUCTION

The bituminous concrete plant mix shall be placed with an approved spreader to the thickness shown on the plans or approved by the Town Planning Board. Immediately following placing of the hot mix, it shall be rolled with a flat wheel roller weighing approximately ten tons equipped with a device to keep the rollers wet so that no mix adheres to the rollers. The rolling shall continue until the roller does not leave any ruts or tracks. Bituminous concrete pavement shall have a crown of 1/4 inch per foot. No bituminous concrete paving shall be done over a wet surface or when the temperature is below 50 degrees Fahrenheit. All bituminous concrete pavement shall be cored under the direction of the Highway Superintendent. The cores shall be taken at not more than 500-foot intervals. Any core found to be more than one eighth of an inch short of the specified thickness shall be unacceptable and the area represented by it shall be covered with another layer of bituminous concrete.

### (j) CURBS, CURBS AND GUTTERS, OR GUTTERS

Curbs, curbs and gutters or gutters may be installed if a detailed plan is submitted and approved. All curbs, curbs and gutters or gutters shall have a 6-inch perforated underdrain as hereinbefore specified placed under them and the flow line of the underdrain shall be a minimum of 4 inches below subgrade at the edge of the shoulder,1 and must drain to a positive drainage system.

### (k) GUIDE RAILS

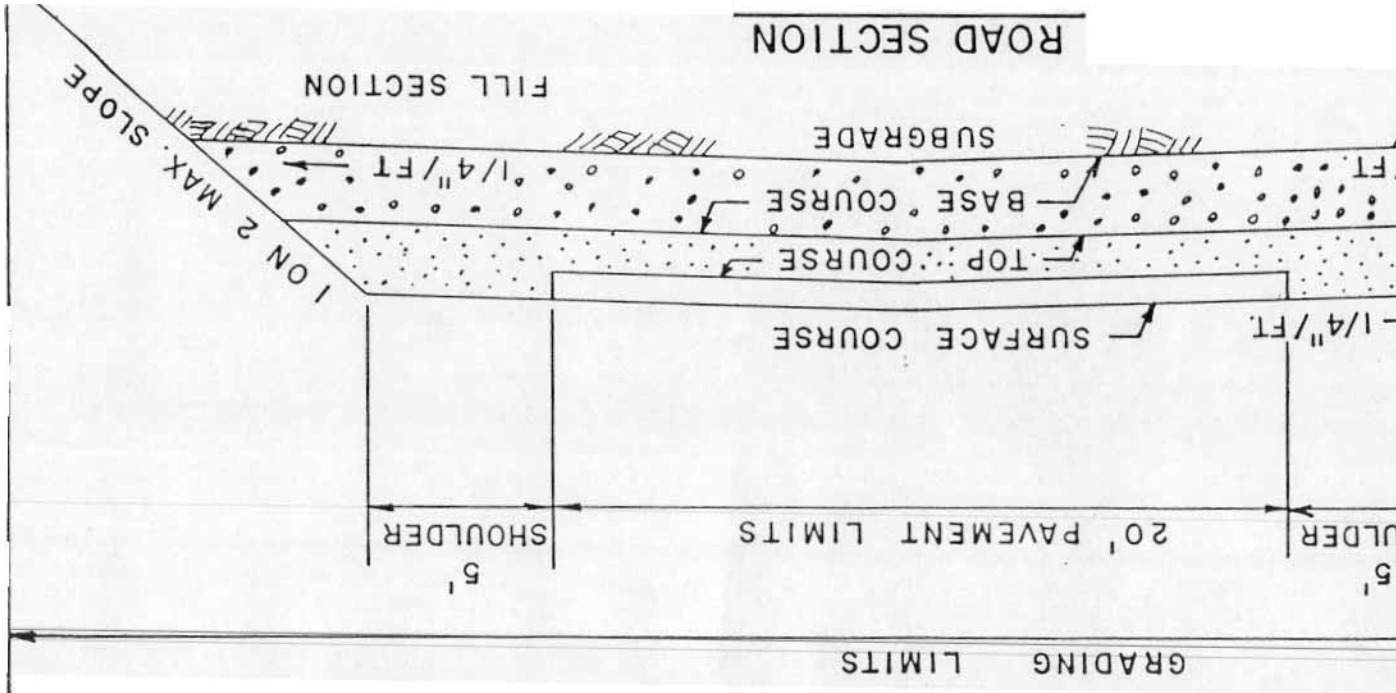
Guide rails shall be installed as required by the N.Y.S.D.O.T. Highway Design Manual Volume 1 or as required by the Town Superintendent of Highways.

The primary warrants to determine the need of guide rails are:

1. Height of drop-off vs. embankment slope
2. Fixed objects
3. Roadside Hazards

All guide rail materials and installation methods shall be in accordance with the latest N.Y.S.D.O.T. standards. Because guide rails are also a roadside hazard, the designer

should review all proposed installations with the intention of eliminating, where possible, the factors that warrant the guide rail installation.



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