

ARTICLE IV
Private Road Specifications

§ 81-36. Purpose.

The purpose of this specification is to provide for the public safety, good, necessity and convenience of the residents of Norwich and users of private highways in Norwich and to assist in the implementation of long range plans and objectives of the Town of Norwich as set forth in the Norwich Town Plan and the Subdivision and Zoning Ordinances.

§ 81-37. Introduction and application.

- A. The following specifications for construction of highways must be met for any highway serving two or more, but less than 11 lots or serving any lot with more than two dwelling units.
- B. Any highway serving 11 or more lots or units shall meet the Specifications for Town Highways. Any highway to be transferred to Town ownership and maintenance shall meet the Specifications for Town Highways. Any highway serving a subdivision which, considered as a whole, involves 11 or more lots or units shall meet the Specifications for Town Highways.
- C. A Norwich Highway Access Permit is required for Private Highways accessed from a Town highway.

§ 81-38. Design, layout and construction standards.

- A. Right-of-way. The right-of-way shall be 50 feet in width, with additional easement areas for maintaining slopes, drainage, and sight lines where necessary. The highway shall be built in the center of the right-of-way and shall be sufficiently cleared to permit and facilitate snow removal and proper maintenance of drainage ditches, culverts, slopes and banks, turnoffs and turnarounds.
- B. Highway subgrade and surface preparation. The highway shall have at least a 12-inches thick processed gravel sub-base, with an additional 3 inches (minimum) top course of crushed gravel.
- C. Drainage ditches. Drainage ditches shall be provided where necessary and shall be constructed to reduce erosion, prevent infiltration of water into the gravel subbase and to divert water to vegetated areas, provide velocity controls and energy dissipaters. Accordingly, drainage ditches adjacent to highways are normally to be at least six inches below the gravel subbase or 18 inches below finished grade to minimize spring break-up. There should be 50 feet of natural vegetation between roads and streams. Drainage ditches shall be parabolic (wide "U" shaped) ditches when constructing new or substantially reconstructing ditches wherever lateral space allows. Ditches with gradual side slopes (maximum of 1:2, vertical to horizontal ratio) and a wide bottom (at least 2 feet) are preferred. All ditches shall be turned out to avoid direct outlet into surface waters. There shall be adequate outlet protection at the end of the turnout, either a structural (rock) or vegetative filtering area.
- D. Culverts.
 - (1) Culverts shall be installed during the construction of the highway and prior to high-

way subbase and surface preparation and placement. Backfill in excavations for culverts shall be compacted to prevent or minimize settling in surface, shoulders or slopes. Culverts shall be of adequate size to handle drainage areas and volumes involved. Culverts shall be at least 18 inches in diameter or sized for a rainfall event that has a 2% chance of being exceeded in any one year (50 year return frequency) whichever is greater. Culvert sections shall be properly joined and shall extend at least two feet beyond highway surface and shoulder width.

- (2) Culverts shall be of PVC or similar strength non-corrosive material. Inlet and outlet ditches, boxes and other protection necessary shall be provided to minimize erosion damage at culvert inlet and outlet areas, and to banks, slopes, or ditches. Culverts on access ways, approaches, or driveways entering upon the highway, shall conform to these requirements and standards and shall be of adequate length to permit easy turning on or off the highway. Culvert elevations shall be kept as low as possible.

E. Grades and widths.

- (1) Highway grades and widths shall meet the following standards:

Number of Lots to be Accessed	Minimum Width of Travel Portion (feet)	Minimum Width of Shoulder, Each Side (feet)	Permitted Road Grades	Maximum Distance Between Turnoffs (feet)	Minimum Horizontal Road Curve C.L. Radius (feet)
2 - 3	14	1	12%	500	50
4 - 6	16	2	12%	500	50
7 - 10	18	2	10%	500	50
11 +	Town Highway Specifications				

- (2) The Planning Commission may consider granting a waiver permitting portions of the highway to be narrower or steeper than the above standards. In granting the waiver, the Planning Commission shall be required to:
 - (a) Find that due to special circumstances of a particular site, a wider or less steep road will adversely affect significant natural or scenic resources, or the rural character, and
 - (b) Find that provisions can be made for a narrower or steeper road to provide access for vehicles using or servicing the highway or area and with the concurrence of the fire and Police Chiefs including emergency equipment.
- (3) The Commission may require reasonable conditions similar to those described in the following paragraph that will, in its judgment, and with the concurrence of the police and Fire Chiefs as it relates to emergency vehicles, provide access substantially the same as with the wider or less steep road. Examples of conditions for improving access on Private Highways include but are not limited to:

- (a) Additional turn-offs.
 - (b) Greater width on corners.
 - (c) Paving steep grades.
 - (d) Fire protection.
 - [1] Residential sprinkler system.
 - [2] On-site water supply.
 - [3] Pre-planning with Norwich Fire Department.
 - (e) Provisions to assure long term maintenance.
- (4) Road grades. Applications for roads where any portion of a finished grade exceeds the permitted grade shall include a road profile and site plans with two feet contours, erosion control measures, and sight distances for the entire length of the proposed road unless determined by the Planning Commission that this information is only required for a specific portion. A recorded maintenance agreement among lot owners and emergency off road parking may also be required.
- F. Turnarounds. Turnarounds on dead end highways shall accommodate equipment and vehicles using or servicing the highway and area including emergency equipment. Drainage should be provided to prevent impounding of water.
- G. Turnoffs. Turnoffs with adequate grade, surface, drainage ditches and culverts shall be provided to permit safe passing under summer and winter conditions, and shall be dimensioned and constructed to enable effective and efficient snow removal.
- H. Driveways and approaches. Driveways and approach roads entering upon a private highway shall be constructed to the same specifications as a driveway entering upon a Town highway (see Norwich Driveway Access Specifications Ordinance).
- I. Slopes and banks. Vertical or sharp cut faces, excepting ledge, shall not be permitted. Slopes and banks shall not be greater than 1 1/2: 1 (length to height). When the slope or bank exceeds four feet in vertical height then the slopes and banks shall not be greater than 2:1. Soil stability of a bank shall be a design consideration, and slope or bank shall be designed and constructed to prevent instability, slides, washes, or other disturbances to the slope or bank surface or sub-surface. Banks shall not interfere with snow removal. After construction and final grading banks will be seeded to minimize surface erosion. Cribbing or riprap shall be provided where needed.
- J. Alignment and curves. Highways shall be aligned and constructed to provide visibility, curves and accesses required for safe travel and maintenance under both summer and winter conditions. The minimum horizontal curve, measured at the center line radius, shall be 50 feet.
- K. Erosion control. The applicant may be required to prepare and implement stormwater management and/or sedimentation and erosion control plans and associated analyses to ensure that site improvements, including excavation, road and driveway construction and site

clearing and grading, will not unduly impact neighboring properties or surface waters. Such plans, if required, shall be prepared by a licensed Vermont engineer, be based upon Best Management Practices (BMPs) for managing stormwater and controlling erosion, as defined by the Vermont Agency of Natural Resources, the U.S. Department of Agriculture Natural Resource Conservation Service, and shall include provisions for the inspection and long-term maintenance of stormwater management and erosion control facilities.

81 Attachment 1

Town of Norwich

Designation of Scenic Roads

The following roads in the Town of Norwich have been designated as scenic roads in accordance with Chapter 81, Article II, of the Town Code:

Name of Road	Nomination Date	Location
Bragg Hill Road (TH 52)	9-19-1989	From its point of origin at the intersection with Beaver Meadow Road (TH 2) to the point where it ends by intersecting with TH 35
Bragg Hill Road (TH 35)	9-19-1989	From the point where it joins the end of TH 52 to the point where it intersects with Tucker Hill Road (TH 34)
Goodrich Four Corners Road (TH 24)	8-13-1990	From a point 300 feet north of the intersection of Town Farm Road (TH 22) to the point where Blood Hill Road (TH 25) joins Goodrich Four Corners Road
Jericho Street (TH 56)	7-29-1991	From the Hartford Town line to the point where the road ends at its intersection with Newton Lane. (This designation includes both the Class 3 and Class 4 sections of this road.)
Tucker Hill Road (TH 34)	9-19-1989	From its point of origin at the intersection with Beaver Meadow Road (TH 2) to its end