

1. 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.

2. INTRODUCTION AND APPLICATION

2.1 The following specifications for construction of highways must be met for any highway serving two or more, but less than eleven lots or serving any lot with more than two dwelling units.

2.2 Any highway serving eleven or more lots or units must meet the Specifications for Town Highways. Any highway to be transferred to Town ownership and maintenance must meet the Specifications for Town Highways. Any highway serving a subdivision which, considered as a whole, involves eleven or more lots or units must meet the Specifications for Town Highways.

2.3 A Norwich Highway Access Permit is required for Private Highways accessed from a Town highway.

3. DESIGN, LAYOUT AND CONSTRUCTION STANDARDS.

3.1 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.

3.2 Highway Sub-grade and Surface Preparation: The highway shall have a minimum depth of 12 inches of packed gravel.

3.3 Drainage Ditches: Drainage ditches shall be provided where necessary and shall be constructed to prevent infiltration of water into the gravel sub-base 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 6 inches below the gravel sub-base or 18 inches below finished grade to minimize spring break-up. There should be 50 feet of natural vegetation between roads and streams.

3.4 Culverts: Culverts shall be installed during the construction of the highway and prior to highway sub-base 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 as calculated for 25-year storm. Culvert sections shall be properly joined and shall extend at least 2 feet beyond highway surface and shoulder width.

3.4.1 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.

3.5 Grades and Widths: Highway grades and widths shall meet the following standards:

Number of	Minimum	Minimum	Permitted	Maximum	Minimum
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lots to be accessed	width of travel portion	width of shoulder each side	Road Grades	Distance Between Turn-offs	Horizontal Road Curve C.L. Radius
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				

3.5.1 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:

3.5.1.1 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

3.5.1.2 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.

3.5.2 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.

3.5.2.1 Examples of conditions for improving access on Private Highways include but are not limited to:

1. Additional turn-offs
2. Greater width on corners
3. Paving steep grades
4. Fire Protection
 - a. Residential Sprinkler System
 - b. On-site water supply
 - c. Pre-planning with Norwich Fire Department
5. Provisions to assure long term maintenance

3.5.3 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 2' 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.

3.6 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.

3.7 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.

3.8 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).

3.9 Slopes and Banks: Vertical or sharp cut faces, excepting ledge, shall not be permitted. Slopes and banks shall not be greater than 1½ : 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.

3.10 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 centerline radius, shall be 50 feet.

3.11 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.

APPROVED by the Norwich Selectboard on February 11, 2003.