



TOWN OF HOLLIS, NEW HAMPSHIRE

***ROAD STANDARDS SECTION
of
SUBDIVISION REGULATIONS***



(Adopted 10/7/08)

SECTION IV. GENERAL REQUIREMENTS FOR LAND SUBDIVISION

SECTION IV.7. ROAD and DRIVEWAY DESIGN STANDARDS

The purpose of these standards is to ensure safe vehicular and pedestrian travel on streets, whether public or private. Proper design requires the integration of safe roadway layout and grade with minimization of impacts to the existing terrain and the environment. These standards are also intended to be flexible in consideration of various traffic volumes and environmental conditions.

A. Street Arrangement

1. All subdivisions shall have adequate provision for safe and suitable access to a Class V or better road or shall make provisions for the construction and dedication of a Class V or better road in order to obtain safe and suitable access to the subdivision. The arrangement of streets in the subdivision shall provide for the continuation of the principal streets in adjoining subdivisions or for their proper projection when adjoining property is not subdivided. The minimum right-of-way should be 50' in width.

B. Hammerheads and Cul-de-sacs

1. The maximum length of a cul-de-sac (dead-end road) shall be no greater than fifteen hundred linear feet (1,500) as measured from the right-of-way of an adjoining through street to the top of the radius point of the cul-de-sac. The maximum length shall be measured along the center line of the proposed road to the furthest point on the street(s), including cascading cul-de-sacs. Cul-de-sacs shall only be extended if the street connects with a planned or existing through street. Roads must be provided with a turnaround at the closed end. Roads with a hammerhead shall include a two (2) leg minimum with each leg of the hammerhead measuring at least fifty-five (55) feet of driving surface. The turnaround or cul-de-sac must meet the following minimum dimension:
 1. Right-of-way radius (center to outside edge) 150-foot radius
 2. Pavement radius (center to outside edge) 135-foot radius

C. Street Names

1. Road and Street Names - Names of proposed streets will be selected by Department of Public Works staff. Road names will be chosen from historical records of past Hollis residents that lived in the area. The names will be subject to approval by the Hollis Board of Selectmen. The Fire Chief and Police Chief will be consulted to avoid duplication or phonetic resemblance. All extensions of existing streets must bear the name of the original.
2. Private drives containing more than two (2) dwellings will be named to comply with E-911 requirements. These names will be chosen from the historic records of past Hollis residents, however first names will be used with the designation "Way".
3. The Planning Board will inform the applicant of the name chosen prior to final approval of the plat.

D. Bonding

1. Before the final approval of a subdivision by the Planning Board, a bond shall be filed with the Hollis Board of Selectmen by the subdivider or his agent in an amount sufficient to cover the cost of the construction of streets, drainage facilities, curbs and sidewalks, fire protection requirements, and the extension of public water and sewer lines, if applicable. All surety bonds must be satisfactory in form and amount to the Board of Selectmen and Town Counsel. Approval by the Planning Board shall be contingent upon notification that bonding requirements have been satisfied.
2. For a common driveway a bond will be posted prior to a building permit being issued.
3. In circumstances where public health and safety could potentially be compromised, emergency responses by the Department of Public Works crews shall be charged to the owner/developer and shall be added to the bond.

E. Minimum Road Design Standards

The construction of new streets shall only be permitted for subdivisions creating a minimum of four (4) lots total. The total lots shall include any lot containing an existing house, and all proposed back lots. Roads shall be a minimum of two hundred (200) feet in length, excluding hammerheads, and shall be laid out in conformance with the recommendations of the Master Plan and as required by the Subdivision Regulations.

1) Roadways shall be constructed in accordance with the following table:

TABLE OF GEOMETRIC AND OTHER STANDARDS

1.	Minimum right-of-way	50'*
2.	Centerline of right-of-way to be centerline of road	
3.	Minimum width of gravel (bank run + crushed)	28'
4.	Minimum width of pavement	22'
5.	Minimum road grade	0.5%
6.	Maximum road grade	8%
7.	Maximum grade 100' from intersection	3%
8.	Angle of intersection	60-90 degrees
9.	Minimum centerline radii on curves	125'
10.	Minimum gravel base depth	16"
11.	Minimum crushed gravel base	6"
12.	Minimum bituminous paving	4"
	Base or binder course	2 1/2"
	Finish or wearing course	1 1/2"
13.	Minimum road crown	1/4" per foot
14.	Drainage system	Open
15.	Catch basins to have self-cleaning type grate	
16.	Minimum shoulder slopes	2:1
17.	Minimum intersection curve of street line and property lines	20'
	<p>*NOTE: The Planning Board is empowered to require:</p> <ol style="list-style-type: none"> 1. a greater than fifty (50) foot right-of-way; and/or 2. a slope or road maintenance agreement <p>These additional requirements would be imposed by the Planning Board, at its discretion, in order to</p> <ol style="list-style-type: none"> 1. accommodate required grading; 2. maintain adequate clearance from existing structures; and 3. require an alternative road location. 	

2) New streets shall slope away from the edge of the existing travel lane between 2 and 3 percent for a minimum distance of 20 feet to provide a vehicle platform.

F. Cut and Fill-Side Slopes

1. **Roads in Cut and Fill.** Side slopes must be finished grade no steeper than two (2) feet horizontal and one (1) foot vertical (2:1). Ditches on both sides of right-of-way shall be a minimum of twenty-four (24) inches below centerline of finished pavement and graded so as to prevent “ponding” of water. All slopes must be stabilized so as to prevent erosion. Slopes must be stabilized with loam and seed or through the use of “mulch and seed” in acceptable soil types or at the discretion of the Public Works Director or designee. All seeded areas shall have no less than four (4) inches of humus-type soil and be seeded with a mixture that will produce at least one hundred (100) plants per square foot. Any part of the seeded area which fails to produce a uniform stand will be reseeded until all areas are covered with grass.
2. **Limits to Cut and Fill.** To help preserve the natural character of the Hollis landscape, new subdivision streets and driveways shall be logically located with respect to the topography of the site to minimize cuts and fills, and to provide for reasonable grades and safe intersections. New streets and driveways shall not be located where cuts or fills would exceed four (4) feet in depth, as measured from the roadway/driveway centerline to the existing natural grade, for any consecutive distance exceeding one hundred and fifty (150) feet along the length of the street/driveway. Cuts or fills that do exceed four (4) feet shall be limited to one (1) occurrence for every 1,000 feet along the length of the street/driveway. In addition, streets and driveways shall not be located where the natural slope of the land, averaged over any 150 foot length, would need to be changed by more than five (5) percent in order to achieve the maximum grade standard for new streets or driveways, as applicable.

G. Signage

The Department of Public Works shall provide street sign posts and signs for new or extended streets at all new intersections. All costs associated with street signs shall be charged back to the developer.

H. Design Standards for Driveways and Other Accesses to the Public Way

In as much as driveways and entrances are, in effect, intersections, they require certain controls as to size, location and construction in order to provide safe and efficient access to property fronting on the public way, as well as surface drainage in and around said driveway, and for the purpose of such control this regulation is enacted.

Pursuant to the authority vested in the Hollis Planning Board in accordance with the provisions of RSA 236:13 New Hampshire Revised Statutes Annotated, as amended, the Hollis Planning Board adopts the following regulations governing driveways and other accesses to the public way in the Town of Hollis, New Hampshire.

1. **Permit.** Anyone desiring to construct, alter, repair, repave or relocate a driveway in order to obtain access to an existing public way or a proposed street or public way, shall first apply for and obtain a permit from the Public Works Director or his designee. This permit shall provide for the construction, alteration, repair, repaving, or relocation of such driveway in accordance with the specifications provided in the *Guidelines for Driveway Construction*, in Appendix B.

Said permit shall:

- a. Describe the location of the driveway, entrance, exit or approach. The location shall be selected to most adequately protect the safety of the traveling public.
- b. Describe any drainage structures, traffic control devices and channelization islands to be installed.
- c. Establish grades that adequately protect and promote highway drainage and permit a safe and controlled approach to the highway in all seasons of the year.
- d. Include any other terms and specifications necessary for the safety or the traveling public.

Permanent house numbers will be assigned by the Department of Public Works at the time the driveway permit is issued.

2. Access Points.

- a. If a property is adjacent to a side road the access to the main road should be via the side road.
- b. Curb cuts shall be limited to one per residential lot, except where the Planning Board has determined that a second cut is warranted. A scale drawing indicating the features necessitating the second access must be submitted for the Planning Board to make a determination. A second curb cut may be granted under the

following conditions:

- 1) A second curb cut is necessary for access to a secondary use or structure, and the physical constraints of the lot, including natural features, unusual lot shape or size, or elevation change necessitates the second access.
 - 2) A second curb cut is necessary to allow for handicapped access for an individual who is a permanent resident of the property.
 - 3) A permit is required from the Department of Public Works for temporary access entrance. A bond in the amount of \$1,500 shall be required to guarantee restoration of the area disturbed by the temporary access.
- c. Street areas and the public right-of-way shall be cleared daily of debris such as mud, stone, construction vehicles and equipment.
 - d. Common driveways are allowed to access up to two (2) lots. The common driveway must measure twenty (20) feet of hard surface, including shoulders. A waiver by the Planning Board is required to access three (3) or more lots with a common driveway. Common driveways must also meet *Town of Hollis Guidelines for Driveway Construction* included in Appendix B.
 - e. The driveway location as indicated on the approved septic plan is the ONLY driveway to be utilized unless a change is authorized in writing by the Public Works Director or designee. (Emphasis Added).
 - f. No more than two (2) driveways to a single commercial or industrial establishment entering on a single highway shall be permitted unless frontage along said highway exceeds five hundred (500) feet.
 - g. At new street intersections, the Town shall not permit more than one (1) access to a single parcel of land unless all-season safe sight distance in both directions along the highway can be obtained.
 - h. To prevent hardships to owners of small parcels of land or special land uses, exceptions to the sight distance requirements should be allowed for individual homes, agricultural land, public works land, highway department land, and temporary accesses for vehicles such as construction vehicles, gravel trucks and log trucks. The road should then be properly signed for "Blind Drive" or "Trucks Entering."
 - i. All new driveways must have an all-season sight distance depending on the speed limit of the area.

3. Design Requirements.

The proposed use and layout will be of such a nature that it will make vehicular or pedestrian traffic no more hazardous than is normal for the area involved. Factors for the Planning Board to consider in this determination include: turning movements in relation to traffic flow, proximity to and relationship to intersections, adequacy of sight distances, location and access of off-street parking and pedestrian traffic. To satisfy these requirements the applicant may be required to improve existing connecting roads at no expense to the Town.

- a. The design of the proposed driveway construction shall conform in all aspects to the *Town of Hollis, NH Driveway Permit: Typical Driveway Sections* schematic reference in Appendix B. It is understood that the applicant shall confer with the Public Works Director, or designee, who shall determine specifications as to sloping, culverts, and other aspects of construction of said driveway only when it deviates from the typical profile and standards. The deviations shall be noted in writing on the Driveway Permit. Upon written application, the Public Works Director, or designee, may waive any of the design requirements when it is shown that strict compliance would cause undue or unnecessary hardship, so long as such waiver shall not result in any injury to the public health or welfare.
- b. Where frontage exceeds five hundred (500) feet, no more than three (3) driveways or approaches will be permitted. For proposed developments with frontage, which exceeds five hundred (500) feet, the construction of internal street systems or service roads outside of the highway right-of-way is necessary to provide greater safety for the development, as well as the highway users.
- c. The maximum width of any driveway shall be fifty (50) feet except that a driveway, entrance, exit, or approach may be flared beyond a width of fifty (50) feet at its junction with the highway to accommodate the turning radius of vehicles expected to use the particular driveway, entrance, exit, or approach. The

maximum width of any one-way entrance or exit driveway to a divided highway or one-way street shall not exceed thirty-five (35) feet measured parallel to the highway or street centerline at the curb or ditchline except that such driveway, entrance, exit, or approach may be flared beyond a width of thirty-five (35) feet at its junction with the highway.

- d. The angle of the driveway with respect to the pavement edge shall not be less than sixty degrees (60°) with desirable range between sixty degrees (60°) and ninety degrees (90°) except that a smaller angle may be used for entrance driveways along a divided highway, permitting only one-way operation of the driveway.
- e. Return radii for driveways shall not exceed fifty (50) feet, nor be less than fifteen (15) feet.
- f. It is recommended that a minimum of fifteen (15) feet be provided between the right-of-way line and the near edge of any service facility. In any event, this distance should be sufficient so that no vehicles will be serviced on state property or use any portion of the island area.
- g. All mailboxes will be placed as stated in the *Town of Hollis, NH Driveway Permit Application*, Appendix B.
- h. Flat driveway side-slopes (4:1 to 6:1) are required to minimize hazards to vehicles which leave the pavement for any reason. All paved roads shall require an asphalt apron from the town or to the property line, said apron being constructed of a minimum of three (3) inches of asphalt with emulsion applied at the joint with the town road.
- i. All new driveways established to serve structures intended for human occupancy shall have a maximum grade of eight (8) percent. The purpose of the maximum grade requirement is to ensure public safety and accessibility for emergency vehicles. This standard shall not apply to driveways intended to serve non-occupancy structures, such as utility service buildings, and other private ways intended for purposes such as logging, silviculture, agriculture, and recreational access.
- j. Where required, culverts shall be a minimum of fifteen (15) inches in diameter and shall be constructed of reinforced concrete, high density polyethylene or approved equal.
- k. This access shall be at the location the Planning Board determines to be the safest. All-season safe sight distance is defined as a line which encounters no visual obstruction between two (2) points, each at a height of three (3) feet nine (9) inches above the pavement, and ten (10) feet back from the road pavement as to represent the critical line of sight between the operator of a vehicle using the access and the operator of a vehicle approaching from either direction.

Safe sight distance shall be compatible with the maximum speed limit posted on the road.

<i>SPEED LIMIT (mph)</i>	<i>SIGHT DISTANCE (feet)</i>
0-39	200
40-49	300
50 +	400

- l. Parking, loading, or servicing of vehicles shall not take place on the highway right-of-way. No structures including permanent or portable buildings, signs, lights, displays, fences, walls, sanitary facilities, shall be permitted on, over or under the highway right-of-way limits.
- m. At rural intersections, the minimum distance between the nearest edge of the driveway and the crossroad edge of pavement, measure along the edge of pavement, shall be one hundred (100) feet for both the major and minor routes. The Public Works Director, or designee, shall have the authority to increase these distance if, in his opinion, such action is necessary for the protection of traffic.
- n. Driveway configuration should be located to accommodate snow removal at the discretion of the Public Works Director, or designee.

4. Easement and Bond.

- a. The applicant shall, at the discretion of the Public Works Director or designee, be required as a condition of the granting of the Driveway Permit, to provide to the Town of Hollis, its successors or assigns, an easement for the purpose of entering upon the premises of the applicant to control or maintain surface drainage on the property and do all things necessary for, and incidental to, such drainage easement in question.
- b. Furthermore, and where appropriate and necessary, in the opinion of the Public Works Director, or designee, the applicant may be required to provide a bond of a minimum of \$1,500, or an amount necessary as security for the proper construction of any culverts, piping, ditching or other efforts incidental to and necessary for the proper discharge and control of surface drainage in and around the vicinity of the proposed driveway as well as the proper construction of the driveway entrance both on the property of the applicant or on the property of the Town of Hollis.
- c. The purpose of this provision is to control the construction of the driveway to the extent that it may impact any town road and/or town right-of-way. An additional purpose is the extent to which the construction of the driveway on the property of the applicant shall interfere with, impede or in any way affect surface drainage so as to create a need for the Town to regulate the same.
- d. Failure to begin construction within six (6) months of application will render the driveway permit null and void. Failure to complete construction within one (1) calendar year from date of posting of bond shall result in the automatic calling of same unless extended by the Public Works Director, or designee.
- e. Funds may be withdrawn from the bond by the Town of Hollis and applied against the cost of said construction which the Town of Hollis is obliged to complete. No funds shall be expended at any site in excess of the amount of the bond pertaining to said site.

5. State Approvals.

It shall be the responsibility of the subdivider or individual lot owner to obtain state approval for proposed driveways and other accesses to the public way which access a Class I, II, or III highway. Such approval shall be in accordance with the provisions of Chapter 236, Section 13, New Hampshire Revised Statutes Annotated, as amended. (Effective July 1, 1981, Routes 111, 111A, 122, 130, Depot Road and West Hollis Road are Class II highways. There are no Class I or III highways in the Town of Hollis.)

I. Monuments

Permanent monuments shall be set at all principal corners and as required at the locations shown on the approved plats. The subdivider or his agent shall be responsible for placing all monuments to be set. No new streets will be accepted by the Town prior to the setting of all required bounds.

J. Drainage Easements

When required for the drainage of an area to be subdivided or otherwise developed, drainage easements shall be of such dimensions as are necessary to permit proper construction, access and maintenance of drainage facilities based on the drainage system of the area. The relationship between the type of drainage system and minimum width of the easement shall be considered and plans shall show the boundaries of proposed easements over or under private property.

K. Conditional Road Acceptance

No road shall be conditionally accepted by the Town of Hollis during the period between November 1st through May 1st. Conditional road acceptance will be subject to the criteria for substantial completion of roadways listed below. The purpose of the conditional road acceptance is to provide winter maintenance (which includes plowing, sanding, salting and road sweeping) to a subdivision prior to the final completion of all improvements. All road repairs and other maintenance required (other than winter maintenance) shall be the responsibility of the owner/developer until the end of the one (1) year maintenance period and after final approval. Roads will only be accepted after a public hearing and approval, in writing, by the Hollis Board of Selectmen.

1. All roadway and utility improvements shall be installed and approved up to and including binder grade (base coat of asphalt).
2. All drainage structures shall be installed, functional and to binder grade to facilitate winter maintenance.
3. All guardrails and required curbing shall be installed and approved.
4. Fire cisterns and public safety items shall be installed and approved.
5. Hammerheads and/or cul-de-sacs need to be accessible and clear of trailers and equipment.
6. Appropriate bonding shall be in place.

L. Final Road Approval

The following items must be completed prior to final approval:

1. Finish coat of asphalt
2. Monumentation which includes granite bounds and iron pins
3. Cleaning of catch basins
4. All incomplete work as required by the approved plan and the Director of Public Works or his designee.

M. Final Road Acceptance

After final approval the road will be bonded and maintained (except for winter maintenance and sweeping) by the developer for one full year before being eligible for town acceptance.

N. Traffic Impact Study

1. Subdivision location may necessitate a traffic impact study. Professional guidance may be requested by the Planning Board in judging acceptability of street site distances, access and egress locations, traffic control and potential traffic problems.

O. Scenic Roads

1. The road design requirements adopted pursuant to this section shall be the same standards for all roads which have been declared by the Town to be "Scenic Roads" according to the provisions of RSA 231:157 and 158 and as listed below. The standards shall protect the features of the scenic road right-of-way that contribute to the scenic character of the road when necessary road improvements are made.

Road Name	Year of Designation
Baxter Road	2003
Farley Road	1987
Federal Hill Road	1972
Flagg Road	1973
Hardy Lane	1973
Hayden Road	1975
Merrill Lane	1989
Nevins Road	1987
North Pepperell Road	1973
Parker Lane	1981
Plain Road	1976
Richardson Road	1972
Rideout Road	1974
Ridge Road	1974
Rocky Pond Road	1991
South Merrimack Road	1973
Van Dyke Road	1972
Wheeler Road	1973
Worcester Road	1973
Wright Road	1974