

SECTION VII. SUBDIVISION DESIGN STANDARDS

E. Fire Protection Regulations

The Planning Board shall consider any written recommendations of the Municipal fire chief regarding fire department access, to include width, vertical clearance, grade, suitability of road or driveway surface, bridges, dead-ends and the ability to pass and turn around once in the driveway, based on New Hampshire State Fire Code, RSA 153:1; NFPA 1, Chapter 18.

In subdivisions of less than five (5) lots, the Planning Board shall have the authority to require a fire protection system as specified in Section VII Subdivision Design Standards; F, 1-16 below.

~~Applications for new subdivisions shall be required to address water supply needs for fire protection. The Fire Chief shall review all proposals to determine whether or not water supply should be addressed for that particular proposal; if so, the following requirements apply:~~

- ~~1. The Fire Chief shall complete an inspection of the proposed site to evaluate the availability of existing water supply in the area.~~
- ~~2. The Fire Chief shall implement all applicable provisions of the National Fire Prevention Association's Standard on Water Supplies for Suburban and Rural Fire Fighting.~~
- ~~3. The Fire Chief shall determine the type, location and spacing of any water supply (such as fire ponds, cisterns, etc.)~~
- ~~4. Following the inspection and evaluation, the Fire Chief will submit his findings in writing to the Planning Board.~~
- ~~5. All proposed developments, whether including the provision of hydrants or other water supply facilities, shall be accessible to firefighting and other emergency equipment.~~

All subdivisions of five (5) or more lots or dwelling units shall comply with the New Hampton Subdivision Fire Regulations relative to firefighting water supply.

1. For a subdivision approval, this section (E) shall not be waived due to the consideration of life safety of residents and emergency personnel, unless a subdivision is protected by an accessible water supply within 2000 feet, with sufficient resource as approved by the Fire Chief.

2. Each subdivision site shall require investigation and analysis by a New Hampshire licensed/registered professional engineer to finalize design. The Planning Board reserves the right to have an independent engineer review the design at the expense of the applicant.
3. The design of the water supply system shall be submitted to the Planning Board and Fire Chief for approval prior to construction. All plans shall be stamped with a New Hampshire licensed/registered professional engineer's stamp, and signed by the engineer who finalized the plan, as appropriate.
4. The installer shall be responsible for any repairs or problems with the water supply system for a period of one (1) year after recording of the subdivision plan by the Planning Board. A bond equal to the cost of installation shall be protected for this period.
5. The water supply system shall be located no more than a 2000 feet hose run from the access driveway of the furthest dwelling. This may require the installation of more than one water supply source depending on the length of the road(s) serving the subdivision. All water supply systems are to be installed and operational prior to the release of the security payment.
6. The water supply system shall be located with direct access from a road built to town specifications, or other Class V Road (or better), with a permanently deeded easement to the Town of New Hampton.
7. The water supply system shall include a dry fire hydrant connection to which a Fire Department pumper may be able to connect with one ten-foot length of suction hose. This dry hydrant shall be accessible at all times of the year, and when in use, the pumper shall not block any street, road, driveway, or any other access way to a building.
8. In a private development, the developer, homeowners' association, or other party shall own the water supply system. The designated party shall be responsible for completely filling and maintaining the system. Access to the water supply shall be maintained twelve (12) months of the year by an agreement with the developer/homeowner's association/property owner or other party.
9. The Town shall not take ownership of a water supply system within a private development.
10. Should the land on which the water supply system is located at some future time be deeded to the Town, the deeded land shall contain an area of no less than twenty-five (25) foot radius for a dry hydrant, and twenty-five (25) feet from any walls of a cistern.
11. Acceptance of a deed for ownership of a water supply system, accessed by a public way shall be at the recommendation of the Fire Chief and with the approval of the Board of Selectmen. The means by which the town accepts a deed for ownership or an easement will be worked out on a case-by-case basis.

12. The Planning Board may also require that the applicant comply with further specifications required by the Fire Chief.

13. Water supply systems:

A. Dry hydrants located in ponds, lakes, or rivers shall conform to the National Fire Protection Standard 1142, with the following clarifications:

- i. Suction strainer shall not have a gravel covering.
- ii. Suction strainer shall be below normal freeze depth of the pond, lake, or river.
- iii. Fire Department suction connection shall be determined by the Fire Chief.
- iv. Suction connection height shall be determined by the Fire Chief.
- v. The suction connection shall be protected by posts that are 5-inch diameter concrete filled steel pipe, 8 feet long, and embedded in the ground in a concrete base 4 feet below grade. The post locations shall be 4 feet apart from each other and 3 feet away from the suction connection towards roads.

B. In those areas not within a 2,000-foot hose run of an accessible pond, lake, or river (as determined by the Fire Chief) a fire protection cistern shall be installed.

- i. The cistern shall have a minimum capacity of 30,000 gallons of water.
- ii. The cistern shall be an underground, steel-reinforced, concrete tank. A minimum of 2 ½ inches of concrete must be maintained over all reinforcing steel. The Fire Chief has the authority to approve other materials for the tank construction.
- iii. Cast-in-place concrete shall achieve a 28-day strength of 3000 psi. Concrete shall be placed with a maximum of 4-inch slump, and vibrated in a professional manner.
- iv. A Slump and Strength Test shall be performed by an independent testing agency, with the results sent to the Planning Board and the Fire Chief before final acceptance of the cistern.
- v. Concrete shall be mixed, placed, and cured without the use of calcium chloride. Winter placement and curing shall follow the accepted American Concrete Institute Codes.
- vi. The base shall be designed so that the cistern will not float when empty.
- vii. Perimeter of cistern at floor/wall joint shall be sealed with an 8-inch PVC water stop.
- viii. Bedding for the cistern shall be a thickness of 12 inches minimum, and bedding material shall be ¾ to 1 ½ inch crushed, washed stone, and compacted. No filler to be used under stone.
- ix. The entire cistern shall be completed and inspected, with roof panels in place prior to any backfilling.
- x. Backfill for the cistern shall be screened gravel with no stone larger than 1½ inches, and shall be compacted to 95% American Society for Testing and Material Schedule #1557. Backfill over the cistern shall be 4 feet in thickness.
- xi. All construction, backfill, and grading material shall be in accordance with proper construction practices, and acceptable to the Planning Board, Building Inspector, and Fire Chief. After backfilling, the cistern shall be protected by a fence or large stones.
- xii. The suction riser pipe shall be 6-inch steel, Schedule 40. The suction pipe shall attach to a 4' x 4' x 1/4" anti-vortex plate 6 inches off the bottom of the cistern.
- xiii. Bottom of suction pipe to pumper connection shall not exceed 14 feet of vertical distance.
- xiv. Suction pipe height and specifications shall be determined by the Fire Chief.

- xv. The suction connection shall be protected by posts that are suitable to the Fire Chief.
- xvi. The fill pipe shall be a 4-inch steel pipe Schedule 40 to terminate with 4-inch Storz Connection with 90-degree elbow with a protective cap. The elbow will be 36 inches above final grade.
- xvii. Vent pipe shall be 4-inch Schedule 40 steel or PVC pipe with bug screen. The end of the pipe shall be no closer than 36 inches to finish grade.
- xviii. All piping shall be ASTM Schedule 40 PVC pipe must have glued joints.
- xix. The cistern shall be provided with an acceptable standard sized manhole with an approved locking mechanism. The lock will be supplied by the Fire Department.
- xx. The installer shall be responsible for completely filling the cistern after cistern is accepted by the Selectmen or their designee, and Fire Chief.

14. Both the Planning Board and the Fire Chief shall approve the design of the water supply system. Any changes in the water supply system plans must be submitted in writing, to the Planning Board and the Fire Chief and shall include specific reasons for the changes. All work and material require the approval of the Fire Chief, who shall make a final inspection of the water supply system after installation.

15. Any Industrial and Commercial building Fire Protection system shall meet National/State Fire Protection Codes whichever is more restrictive.

16. If all homes in a subdivision contain domestic sprinkler systems, the water supply requirement shall be waived.