

Appendix 1.

Zoning Boundary Description

Note: Latest Zoning Map dated July 1998

as done by EnviroGraphics/Marin Environmental.

The following description represents a chronology of the boundary description and changes to date.

Boundaries

- a. The boundaries of zones are established as shown on the Zoning Map, Town of Bethany, Connecticut dated July 12, 1962 * * * and filed in the office of the Town Clerk, which map is hereby declared to be a part of these regulations.
- b. An extension of the B-I Zone was adopted and became effective on June 1, 1965, to include the area bounded southerly by Fairwood Road, easterly by Amity Road approximately 530 feet, northerly by land now or formerly of Sylvia Humphrey, and westerly by a line parallel to, and 1,000 feet westerly of, the westerly line of Amity Road.

*Zoning Map Revised February 1, 1977.

- c. Proposal to Rezone - On February 1, 1977, the Commission rezoned from Business-Industrial to R-65,000 lots #1 through #25 of Blue Ridge Acres subdivision off Amity Road and also property fronting on Falls Road owned by Johnson and Dorothy S. Parker and by Mrs. Edward H. Hinman. The area rezoned is bounded as follows:

EAST: by two lots on Amity Road, currently owned by G. Thomas and Dominick Vitagliano (one of 14.3 acres between Falls Road and Pleasant Drive, and the other of 3.2 acres between Pleasant Drive and the State Police Barracks);

NORTH: by the State Police Barracks and the town owned Airport property;

WEST: by the Hunters Trail subdivision (Spring Valley) and property owned by the Estate of Sherman P. Woodward; and

SOUTH: by Falls Road.

- d. Proposal to rezone - Effective July 26, 1982, the Commission rezoned from Business - Industrial to R-65,000 the area of Blue Ridge Acres Subdivision off Amity Road bounded as follows:

Commencing on the North line of Falls Road at the Southeast corner of Lot No. 17; thence,

EASTERLY: by a bent line by the East line of Falls Road, 610 feet, more or less;

EAST: By Amity Road, 1,350 feet, more or less;

NORTH: by Pleasant Drive, 500 feet, more or less;

WEST: by lots 14, 15, and 16, 924 feet, more or less;

SOUTH: by a portion of Lot No. 18, 80 feet, more or less;

WEST: again by Lot No. 17, 333.76 feet, more or less.

••Zoning Map Revised July 26, 1982.

- e. Proposal to rezone - Effective February 15, 1988, the Commission rezoned from Residential R65 and R130 and Business and Industrial to R65 on the northwest side of Meyers Road and R130 on the southeast side of Meyers Road.

The subject property is bounded as follows:

Starting at the northwest side of Meyers Road:

WESTERLY: approximately 1,475 feet by AT&T;

NORTHERLY: approximately 750 feet by Roger L. &
Mary Ellen Simon;

EASTERLY: approximately 425 feet by Dorothy Dube;

NORTHERLY: approximately 314.6 feet by Dorothy
Dube;

EASTERLY: approximately 500 feet by Meyers Road;

NORTHERLY: approximately 600 feet by Patricia
Winer and Angelica Harter;

EASTERLY: approximately 200 feet by Patricia
Winer and Angelica Harter;

EASTERLY: approximately 600 feet by the South
Central Connecticut Regional Water
Authority;

SOUTHERLY: approximately 250 feet by the South
Central Connecticut Regional Water
Authority;

EASTERLY: approximately 1,000 feet by the South
Central Connecticut Regional Water
Authority;

SOUTHERLY: approximately 500 feet by the South
Central Connecticut Regional Water
Authority;

WESTERLY: approximately 1,025 feet by Yale
University;

SOUTHERLY: approximately 700 feet by Yale
University; and

WESTERLY: approximately 450 feet by Old Amity Road to the southwest side of Meyers Road.

- f. Proposal to rezone - Effective October 15, 1989, the Commission rezoned from R-65,000 to R-130,000 property of Monument Stables Corporation, located on the southerly side of Beacon Road, Route 42,

The subject property is shown on a reference map entitled "Map for Requested Zone Change; Land of Monument Stables, Inc.; Bethany, Connecticut; Scale 1"=200'; February 10, 1989", prepared by William E. Gilbert Associates.

The subject property is bounded as follows:
Commencing at a point located at the southerly street line of Beacon Road, said point being the intersection of the southerly street line of Beacon Road and the westerly street line of the proposed Horseshoe Hill Road, and the northeasterly property corner of land now or formerly John, Donna and Marta Pelverts;

Thence proceeding southerly along the westerly street line of Horseshoe Hill Road a distance of 340.69 feet more or less to other land of Monument Stables Inc.;

Thence continuing southerly along the westerly property line of other land of Monument Stables Inc., a distance of 351.98 feet more or less to an iron pipe;

Thence proceeding in an easterly direction along the southerly property line of other land of Monument Stables Inc. a distance of 771.85 feet more or less to a stone wall and land of Ernest and Gail Mannel;

Thence proceeding southerly, southeasterly, and easterly along land of Ernest and Gail Mannel a distance of 884.58 feet more or less to land of Henry R. and Helen J. Riley;

Thence proceeding in a southerly direction along a stone wall in part and the westerly property line of land of Henry F. and Helen J. Riley a distance of 509.52 feet more or less to an iron pipe;

Thence proceeding southerly; westerly, southerly again, easterly and southerly again along land of Yale University a distance 2421 feet more or less in all to land of Robert H. Geiss and Klaus F.S. Sauerbier;

Thence proceeding westerly along the northerly property of land of Robert H. Geiss and Klaus F. S. Sauerbier a distance of 370 feet more or less to land of Joseph Jr. and Estelle Fannucci;

Thence proceeding northerly along the easterly property line of Joseph Jr. and Estelle Fannucci a distance of 120 feet more or less;

Thence proceeding westerly 1833 feet more or less along the northerly property lines of Joseph Jr. and Estelle Fannucci, Alfred W. and Lois A. DiMarzio, Cornell J. Bialicki, Ernest Tropan, Joseph and Linda Bagley, William Bernhardt, Peter Radzuinas Jr. and Hershel Schlank to Old Lebanon Road;

Thence proceeding northerly along the easterly street line of Old Lebanon Road a distance of 1150 feet more or less to land of Howard Hurlburt;

Thence proceeding in a northeasterly direction a distance of 1760 feet more or less along land of Howard Hurlburt, Robert W. and Crystal A. Reil, and John, Donna and Marta Pelverts;

Thence proceeding in a northerly direction along the easterly property line of John, Donna and Marta Pelverts a distance of 346 feet more or less to the point of commencement.

Interpretation of Boundaries

- a. For purposes of these regulations and unless otherwise indicated on the Zoning Map by fixed lines or dimensions, the boundaries of zones are either street lines, street lines extended, waterways, or lines drawn parallel to street lines and dimensioned as to depth.
- b. In cases of uncertainty the Commission shall determine the location of the boundaries of zones.

- g. Proposal to rezone - Effective November 20, 2002, the Commission rezoned a portion of land from Business and Industrial Zone to R65 Zone and rezoned a portion of land from R65 Zone to Business and Industrial Zone off Russell Road as follows:

Parcels changed from B&I Zone to R65 Zone

All those two certain parcels, each being a portion of "Parcel C" as shown on a map entitled "Property Survey – Land of Gail H. Sweet – 55 Russell Road, Bethany, Connecticut," Scale 1" = 40' made by Mattson Associates, LLC, Cheshire, Connecticut and dated October 16, 2003, which map is on file with the Bethany Town Clerk, bounded generally:

First Parcel

NORTH: by Russell Road, 26.69 feet;
EAST: by Parcel B, as shown on said map, 100 feet, more or less; and
WEST: in part by a segment of the line shown on said map as "Existing Zone Line – R65 ZONE – B&I ZONE", 80 feet, more or less, and also in part by land now or formerly of Vera L. Maron, 15 feet, more or less.

Second Parcel

NORTH: by a segment of the line shown on said map as "Proposed location of new zone line," 248 feet, more or less;
EAST: in part by land now or formerly of Lawrence A. Corrone, and in part by land now or formerly of William R. Grieger and Timothy Kraus, a total of 803.28 feet;
SOUTH: by land now or formerly of Robert and Carlo B. Camp, as shown on said map, 20 feet, more or less; and
WEST: by a segment of the line shown on said map as "Existing Zone Line – R65 ZONE – B&I ZONE", 769 feet, more or less.

Parcel changed from R65 Zone to B&I Zone

All that certain triangular parcel, being a portion of "Parcel B" as shown on a map entitled "Property Survey – Land of Gail H. Sweet – 55 Russell Road, Bethany, Connecticut," Scale 1" = 40' made by Mattson Associates, LLC, Cheshire, Connecticut and dated October 16, 2003, which map is on file with the Bethany Town Clerk, bounded generally:

EAST: by a segment of the line shown on said map as "Existing Zone Line – R65 ZONE – B&I ZONE", 278 feet, more or less;
SOUTH: by Parcel C, as shown on said map, 91 feet, more or less; and
WEST: by Parcel C, as shown on said map, 290 feet, more or less.

- h. Proposal to rezone - Effective December 10, 2003, the Commission rezoned a portion of land from Business and Industrial Zone to R65 Zone off Cheshire Road as follows:

Commencing at a point on the northerly highway line of Cheshire Road (CT Route No. 42), said point being the southwesterly corner of land now or formerly of Yeshiva of New Haven, Inc. and also being the southeast corner of the herein described parcel of land; thence running along the said northerly highway line of Cheshire Road (CT Route No. 42) the following courses and distances: S 79° 36' 36" W 22.41', on a curve to the left having a radius of 1,186.30' and an arc length of 178.84' and S 59° 19' 44" W 46.30', to a point; thence turning and running N 25° 41' 20" E 509.70' across other land of Antoinette M. Oldakowski, to a point; thence turning and running along said land of Yeshiva of New Haven, Inc. the following courses and distances: S 66° 50' 09" E 162.36', S 28° 12' 10" W 140.24' and S 19° 11' 56" W 210.58', to the point and place of beginning.

Said parcel contains 70,050 S.F. or 1.61 Acres.

Appendix 2.

Best Management Practices

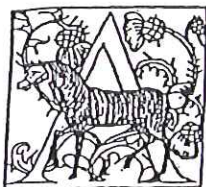
for the

Keeping of Horses in Residential Areas
(source: Cooperative Extension Service)

KEEPING HORSES IN RESIDENTIAL AREAS

By Jim Gibbons
Cooperative Extension
Community Resource
Development Agent

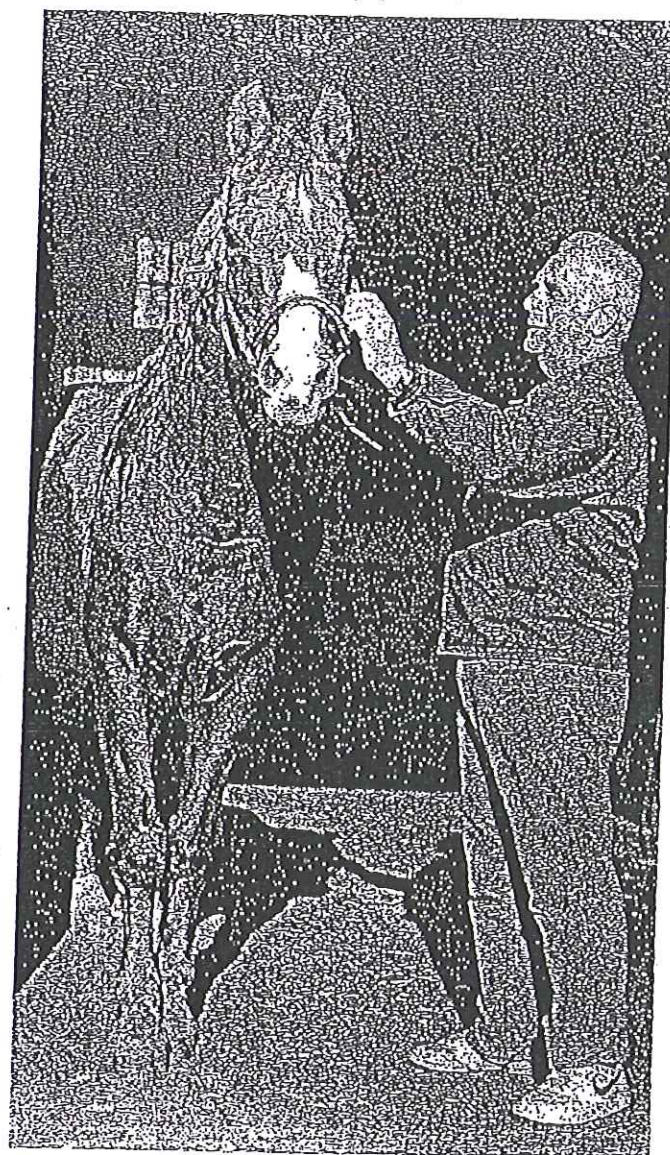
Introduction



According to the American Horse Council and the Animal Science Department of the College of Agriculture at The University of Connecticut there were approximately 46,000 horses in Connecticut in 1985. Connecticut had the largest horse population of any New England state and had more horses per square mile (11) than any other state.

Horses provide economic benefits to the state. The annual contribution to the state's economy by horse owners is approximately \$56 million. Trailer registrations alone contribute \$20,000. Several industrial plants in the state are involved in the manufacture of horse products including: Smith Worthington in Hartford, the oldest continuous saddle maker in the United States; North and Judd in New Britain, the nation's leading manufacturer of saddle and harness hardware and second in the nation in manufacturing bits, stirrups and spurs; and Capewell Manufacturing in Hartford, the world's largest manufacturer of horseshoe nails.

At the turn of the century there were 17 million horses in the U.S. By 1915 that figure peaked at 21 million: most of the horses were on farms and ranches and were used for work. By 1957 horse numbers had drastically declined to 3 million.



Since then there has been a smashing comeback. This comeback has occurred not on the farm, but in suburbia where horses are kept for pleasure instead of work. In the U.S. 80% of the horses are kept for recreation; 20% for breeding, racing, and for working.

In addition to their economic and recreational value, horses also serve educational and therapeutical functions. More than 1,300 Connecticut youngsters are involved in 4-H horse projects under the guidance of 100 adult leaders. Horseback riding is being increasingly used as a form of therapy for handicapped individuals.

As the horse has moved from the farm to built-up areas it has encountered a few people who are not happy to have it as a neighbor. In some instances conflicts have developed when neighbors claim a horse is not cared for properly or is creating a neighborhood nuisance. Poor manage-

ment may cause state and local agencies to establish restrictive regulations that might affect all horse owners. These conflicts can be reduced if a few basic management practices are followed. Good management can protect the horse owner from legal sanctions and will prevent soil erosion and water pollution. Finally, good management is the key to having a healthy horse.

Horse Wastes

A horse drinks 8 to 12 gallons of water a day and sometimes more during warm weather. A 1,000 lb. horse ridden 1 to 3 hours daily will eat 10 to 15 lbs. of hay and 4 to 10 lbs. of grain. Each horse will generate 9 to 10 tons of manure per year. In addition to manure, urine and used bedding should also be considered horse generated wastes. The most common stall bedding is a 6" layer of wood chips, which are replaced daily in a well managed stable. These wastes, if improperly managed, may attract flies or rodents and may generate odors. However, the major concern about horse wastes is as a water contaminant, because of nutrient or coliform bacteria generation. Unmanaged horse wastes can become a part of the ground surface runoff. Nutrient elements or coliform bacteria present in horse wastes may enter wetlands or watercourses

and pollute ponds, lakes or reservoirs or percolate into the groundwater. Nutrients produce plants and algae and damage the water by overfertilization. One pollutant is the nitrate form of nitrogen in horse urine. Excessive nitrate levels in drinking water can be a health problem, especially to infants (Blue Baby Syndrome). Coliform organisms are always present in human and animal waste and indicate that more serious disease-causing bacteria may be present. Bacterial pollutant sources should be kept out of drinking water supplies and water used for recreation.

Existing Regulations Pertaining to Animal Wastes

The Connecticut Public Health Code, enforced by the local health officer, can require that manure be kept covered, stored in watertight pits or chambers and be removed at least once a week during the period from May 1st to October 1st. Also a 100' setback of manure piles from reservoirs and a 50' setback from a tributary to public water supply is mandated by the code.

The health code also states that barns, stables and manure piles which are a breeding place for flies may be declared a public nuisance and can be shut down by the health director.



The Department of Environmental Protection has the authority to regulate any activity where animals are kept in such a manner as to pollute the waters of the state. Serious horse-related pollution problems have resulted in the issuance of formal abatement orders to both horse and property owners. Section 22-279 of the General Statutes states that the Commissioner of Agriculture may quarantine all animals that are kept in unsanitary conditions which endanger the public health or health of the animal.

Connecticut's Inland-Wetlands Act generally excludes agriculture from regulation but one cannot engage in a farming activity that blatantly destroys a wetland or pollutes the waters of the state.

Some local zoning regulations limit the number and types of animals one can keep, limit animals to certain areas, or require minimum lot sizes before animals are allowed. Some municipalities also have ordinances that control the keeping of animals.

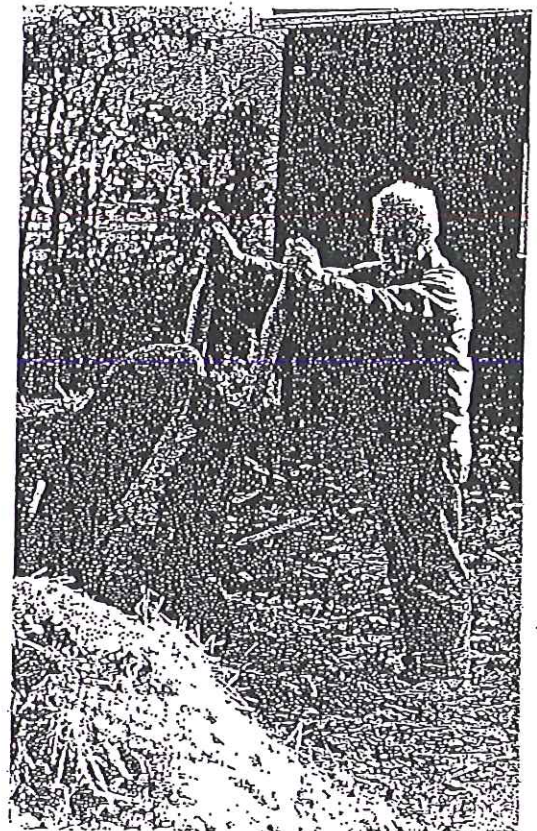
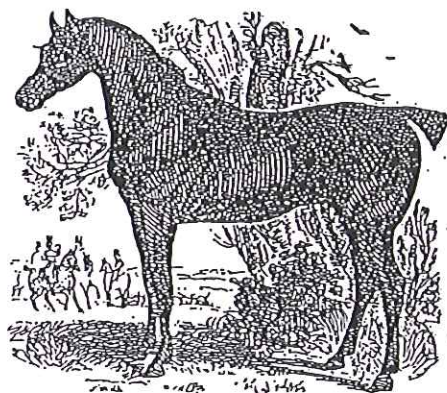
Site Planning and Waste Management

Before purchasing a horse, the land where the horse will be kept should be examined. Areas that are poorly drained, contain steep slopes or

are excessively rocky should be avoided as they present conditions that could adversely affect the horse. Ideal sites are level and well drained, requiring little or no landscaping for fence and barn construction. However, even the best land and facilities can be ruined by poor management, particularly waste management. Large acreage and expensive barns do not guarantee a successful operation, but good management will. Probably the most famous horses in the world, the Lipizzaner Stallions of the Spanish Riding School of Vienna, are kept in a major city with no adverse effects because they are properly managed.

Generally, horse wastes are stockpiled before final disposal. Some suggestions for storage and disposal to reduce problems are listed below:

- 1) Keep manure away from wetlands, wells, water bodies and watercourses and avoid manure piles.
- 2) Manure storage areas should be easily accessible by man and farm equipment to facilitate proper removal.
- 3) Spread manure whenever possible as piles can breed diseases. The recommended application rate on pasture is 10 tons of manure per acre in the fall after the pasture season and before the ground freezes. Avoid spreading manure on pastures during



the grazing season for internal parasite control.

- 4) Periodically cover manure with lime to reduce odor. Cover manure with plastic sheets or a roof to keep moisture out and minimize runoff.
- 5) As horse manure quickly breaks down to inoffensive organic material with some nutrients, people find it valuable for fertilizer. It also improves friability of soil. Placing an ad in your local paper for free manure could result in a quick disappearance of your manure pile. Some horse owners sell manure to neighbors, landscapers, or nurseries.

FREE: Horse Manure.
We will help load it
onto your truck. 38
Standard Lane, New-
ville. 666-0000

- 6) As flies breed where decaying organic material accumulates, manure piles should be removed and if possible spread thinly on fields to kill fly eggs and maggots by drying. In cases of heavy fly infestation, apply insecticides at 10 to 14 day intervals to reduce the fly population. Spray when larvae are first seen for better control. The latest pesticide information is available through your county Cooperative Extension Service.
- 7) In densely built-up areas it may be necessary to daily bag manure during the summer months and take it to a suitable disposal area. In other areas weekly removal of manure in pastures and paddocks is suggested.
- 8) Large operations should have a complete manure management system.
- 9) Avoid keeping horses on hills. Especially avoid slopes where manure might move downhill toward homes, watercourses or public rights-of-way.

Soil Erosion And Management Practices

Soil erosion caused by horses is directly related to the system of management used by the owner. At one extreme are management practices where horses are kept in the stall most of the time with appropriate exercise directed by a human. At the other extreme are horses who are continually kept outdoors. The more time a horse spends on



the land, the more potential exists for overgrazing and destruction of the ground cover. When the ground is not stabilized by vegetative cover, soil particles can be easily moved by rain and wind. These soil particles may eventually find their way into watercourses or wetlands and pollute these areas through siltation, which can kill fish, wildlife and flora and destroy a stream's ability to carry water and prevent floods. Many horses used for recreation spend most of their time in a stall with limited "turn out" time. This type of management helps to reduce ground cover destruction and is especially suitable in areas with limited acreage.

With this management plan in mind, let us consider "turn out" areas as they relate to soil erosion. Turnout areas fall into two categories, paddocks and pastures. Paddocks are well fenced, rather small holding areas ranging in size from 1000sq. ft. to 1/4 acre per horse. Paddocks are heavily used and due to their small size are usually bare of ground cover. Hence, it is important that paddocks be located in areas that are level and contain well-drained soils. In some locations it may be necessary to install diversion ditches, berms or curtain drains to divert water away from these exposed areas. In heavy rain, hay bales might be used as temporary silt screens to prevent paddock soil from entering adjacent streams or wetlands. Of all types of horse-keeping areas, paddocks are the areas which should be located furthest away from water bodies. Animal access to streams should be avoided or limited as horses will push soil into the watercourse when they go to drink. Bridges should be provided where horses must cross streams.

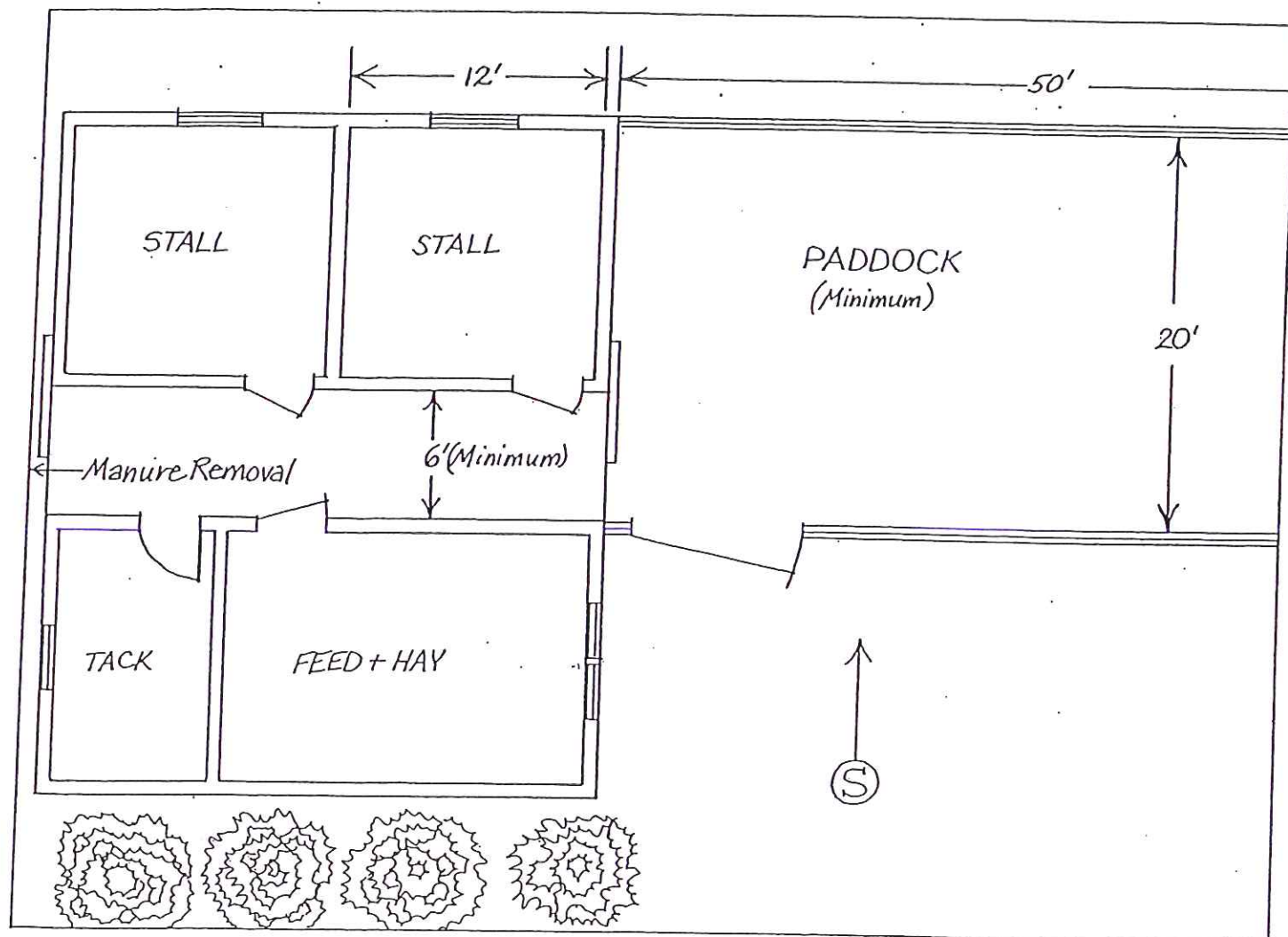
Pastures are used to provide feed for the horse. If using improved pasture, 1 to 1-1/2 acres per horse should be provided, depending on the quality of the pasture. This area should be divided into thirds and the horse rotated to a new section every 3 weeks or when the grass has been grazed off. This system of rotational grazing helps prevent overgrazing and thus reduces soil erosion. Whichever system of horse management you prefer, carefully analyze its impact on the land and water. Choose a management plan that will not cause soil erosion and water pollution. If you are to be a good neighbor these practices are as important as how you feed and water your horse.

Other Management Suggestions

- 1) Keep animals off septic systems as they can punch through grass to expose septage.
- 2) Exposed areas should be set back from roads, side yards and neighbors.
- 3) Screen paddocks and barns. Good landscaping

ing creates a good impression. Buffer areas along property lines. Evergreens provide a year-round buffer that reduces noise, odor and dust.

- 4) Clear area of trees that horses might bite. They can girdle the tree by chewing off bark and the tree may eventually fall on the horse, house, or a neighbor. If horses gnaw the bark off trees check their diet for fiber deficiencies. If trees are desired in pastures or paddocks put fencing around the tree trunks to protect them from being girdled.
- 5) Fill or avoid low areas; puddles breed flies and attract rodents.
- 6) Clean up paddock area to reduce odors and parasites.
- 7) Horses require 50 to 60 sq. ft. of shade in warm weather. In some cases artificial shade such as a overhang or a three sided shed will have to be provided.
- 8) Remove any wild black cherry trees from keeping areas as they can be poisonous to horses.



Fences

It has been said that good fences make good neighbors. This is particularly true when one has animals. Connecticut state law requires that animals must be confined on the property of their owner or keeper and that fences must be maintained so as to properly enclose animals. Any damage caused by a wandering horse is the legal responsibility of the horse owner.

Fences keep horses in and people and predators out. They also separate stallions and mares, restrict animal access to lush spring pastures or help in rotating animals on pastures.

Fence costs have risen sharply, as a result many people put up poorly-made fences or postpone making needed repairs. Some owners don't pay attention to their fence until part of it is on the ground and the horse is consuming the neighbor's lawn and shrubs.

Fence Materials

Barbed wire should never be used to confine horses as it can cause severe injuries.

Wood, — plank, board, split rail, rail, etc. — is safest for horses. Wood fencing is expensive to put up and maintain, but it is effective and attractive if properly cared for.

A very common fence in Connecticut is the post and rail fence made with red cedar posts and native hardwood rails. Railroad ties are also used as posts. Posts should not be more than 10 feet apart.

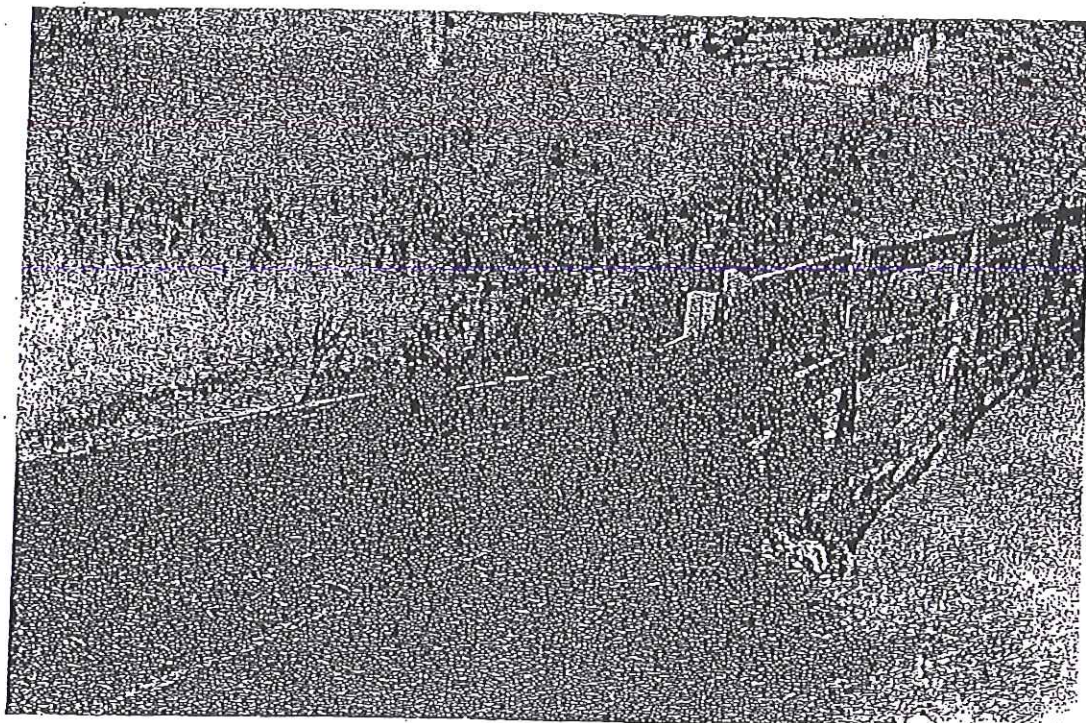
Metal fences include woven wire, chain link, cable, barless wire and plain wire. One of the most common fences used for horses is woven wire with 4" openings usually installed at a height of 48". This type of fencing has a long life with reasonable initial cost and maintenance requirements that are less than wood.

If you are introducing a horse to an area with wire fence, tie strips of ribbon or cloth every 4 feet on the top strand to help the horse see the wire so it will not run into the fence.

If electric fencing is desired it is important to use only approved safe systems. *Horses must be trained to avoid an electric fence* as some animals don't naturally respect them. Electric fencing is often used in conjunction with some other type of fencing.

Shelter

In the Northeast rapid changes in weather demand that shelter be provided for animals. Shelters do not have to be elaborate. In many cases existing structures can be converted into



barns. A three-sided shed open to the south, well bedded and free from drafts and rain is in most cases the ideal shelter.

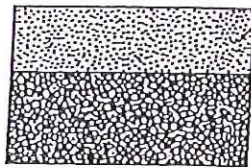
Flooring in barns is important in keeping stalls dry and clean and preventing injury to horses. Brick, concrete, wood and asphalt are all used. A most satisfactory base for a stall is 8"-12" of free-draining sand and gravel, set on a level, well-drained site. This base is then covered with 6" of fine sand, silt or clay found in sand washing tailings purchased from sand washing operations. This material compacts to a desired density, gives a good "cushion" and has enough vertical permeability to allow excess urine to

drain off. In addition, this material is free from stones and is inexpensive. The one disadvantage is that the silt will have to be restored every two years or so, as cleaning gradually removes it. Many horsemen desire a hard aisle surface paved with asphalt, roughed concrete or paving brick. This makes for ease of cleaning and permanence. These surfaces, however, can be slippery to flat-shod horses. It may therefore be desirable to cover hard aisle surfaces with rubber floor mats.

Enclosed stables must be properly ventilated and free from drafts. This helps reduce odors and is necessary for the good health of the horse. Daily cleaning of stalls is the most important chore needed to keep neighbors and animals happy. Top-quality stable management calls for performance horses to be fed a grain ration three times a day, the stall thoroughly cleaned after the first feeding, and manure removed after each of the other two feedings.

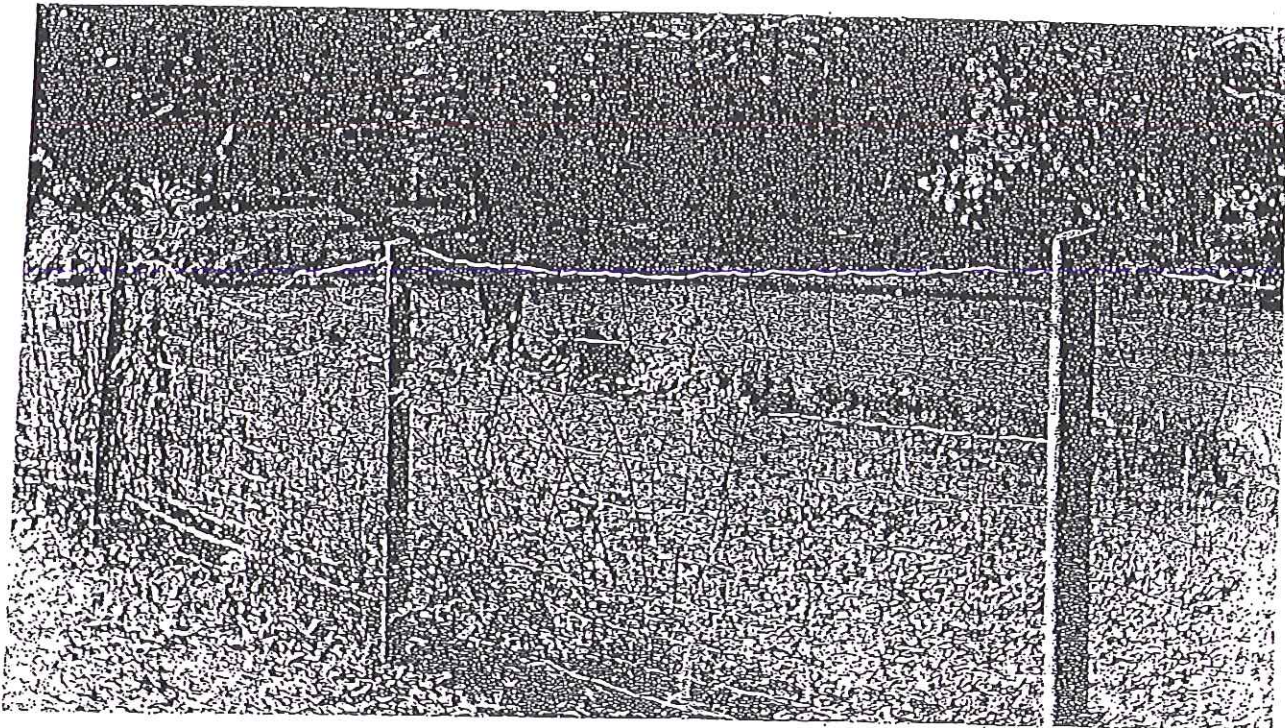
A good barn design with attractive fencing does much to make a horse acceptable in a suburban area. Build a barn large enough to not only shelter animals, but to provide storage for bulky feeds and equipment as well. As a rule of thumb, devote 1/3 of your barn space for animal shelter, 1/3 for roughage and bedding and 1/3 for alleyway and feed grain. Feed should be stored out of the reach of horses. Keep feed in rodent-free containers. One rat will eat 27 pounds of feed a year. A 30 gallon metal trash can will hold

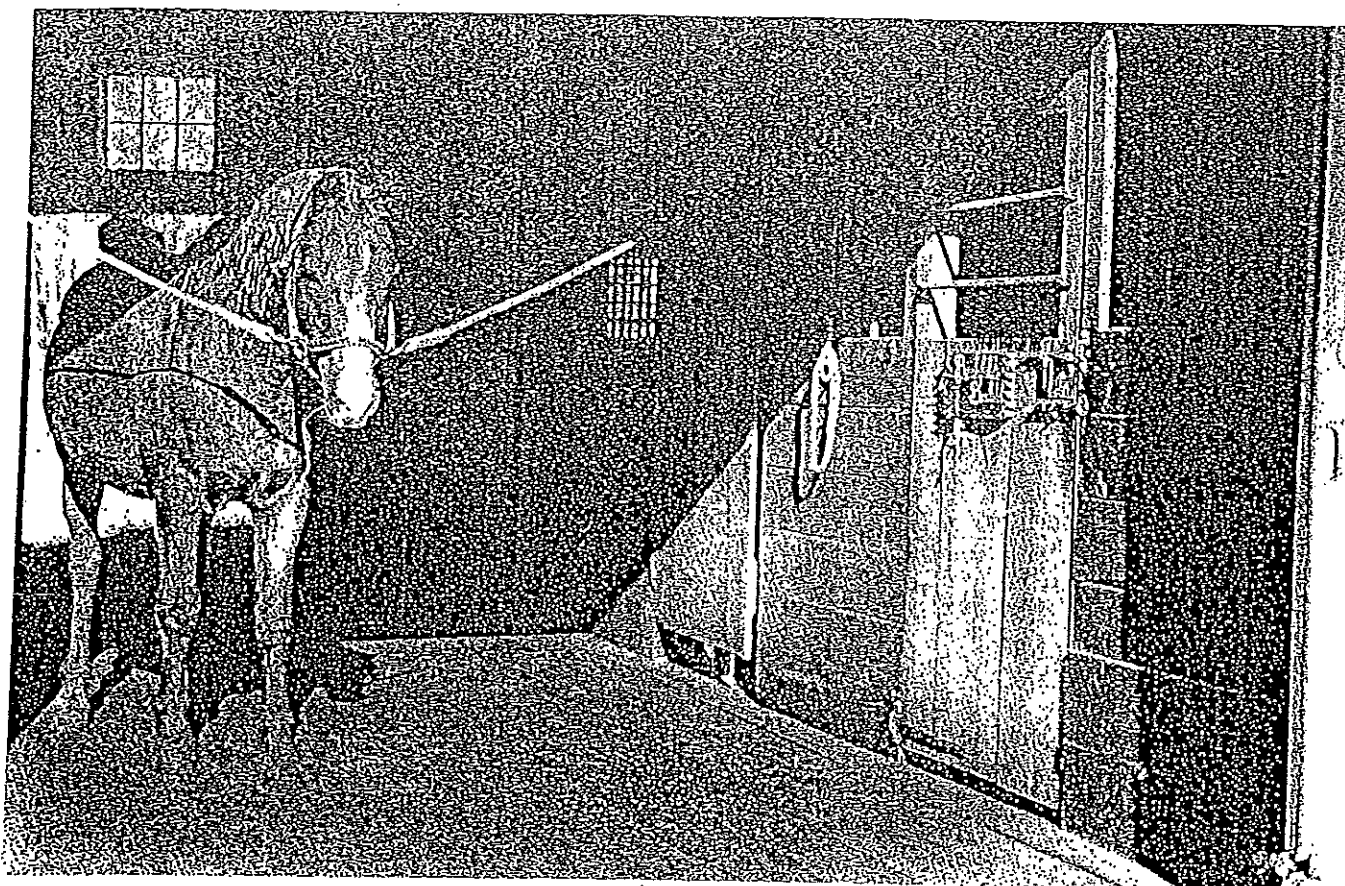
A BASE FOR A STALL:



6" OF FINE SAND,
CLAY OR SILT
8"-12" OF
FREE-DRAINING
SAND AND
GRAVEL

ON A LEVEL,
WELL-DRAINED SITE





a 100 pound sack of feed and makes an excellent rodent-proof container. A cat can also help reduce rodent population.

Don't build barns in wet, rocky or steep slope areas. Build in areas that are reasonably high and well drained yet level enough to easily place building and exercise areas. A site with a gentle south or southwest slope is ideal. Barns built in wet areas tend to attract rats as they prefer to live close to food, shelter and water.

Use the soil survey of your area to help plan your animal operation and conservation measures. The Soil Conservation Service can assist you with conservation and site planning.

Land Requirements

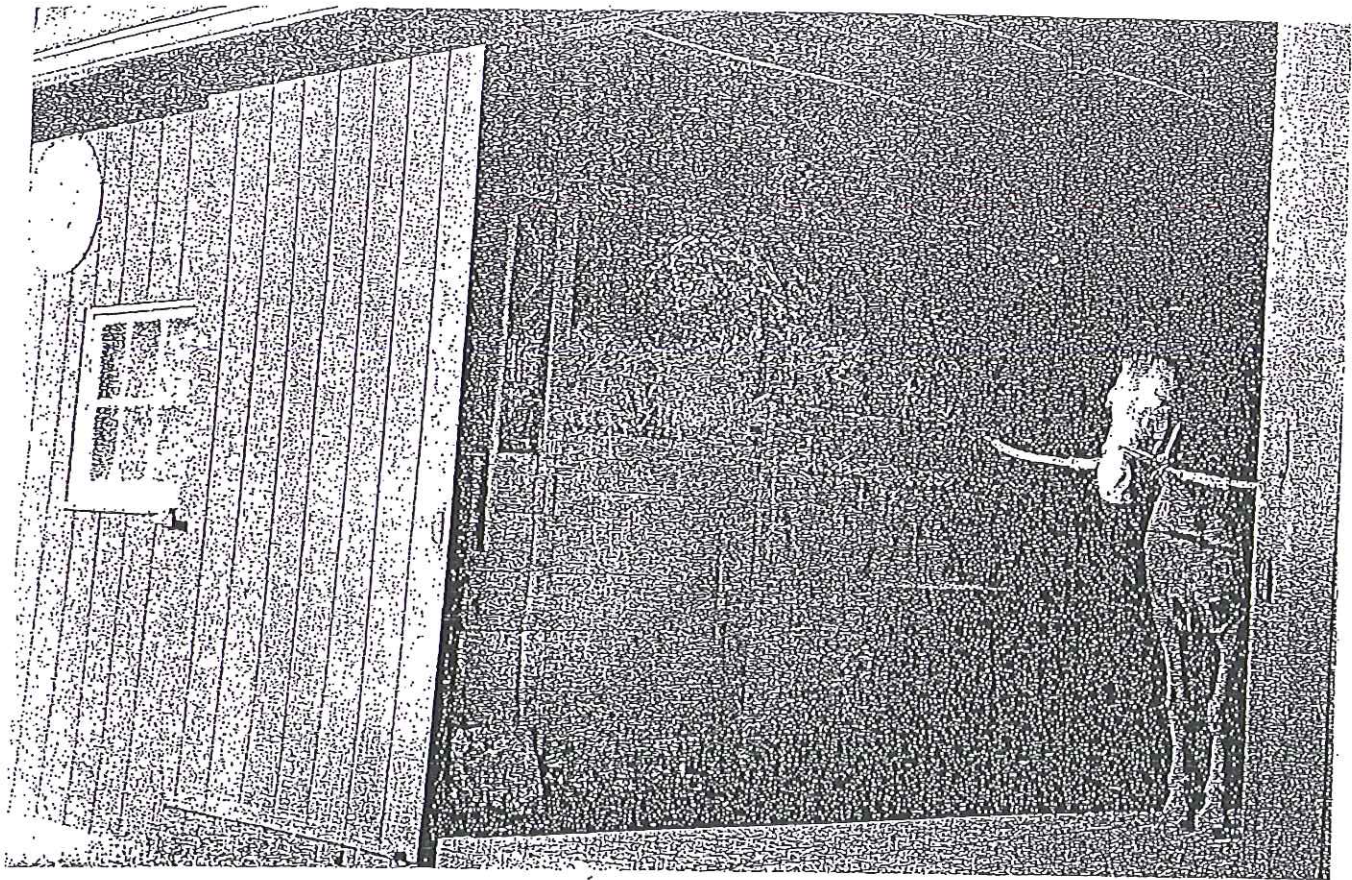
One of the most common misconceptions regarding horses is the amount of land needed to keep them in a safe and healthy manner.

Many zoning regulations have established land requirements for keeping horses that are excessive

and arbitrary when compared to what livestock experts suggest. Some zoning regulations require 2, 3 or even 5 acres before a horse will be allowed. These requirements are much greater than the keeping area of 1,000 sq. ft. often cited by those familiar with horses.

Most horses are kept in stalls, in fully enclosed barns or in three-sided sheds surrounded by a fenced exercise area. Stalls range in size from 8'x8' for a pony to 16'x16' for a stallion or 16'x20' or larger for foaling mares. The average horse needs a 10'x10' or 12'x12' stall. Stalls should be able to safely accommodate the horse and its attendant. A minimum ceiling height of 8' should be provided for the horse while at least 12' is needed for a horse and rider.

Many horses are fed a purchased feed of grain and hay and hence do not need large pastures for their basic supply of food. A paddock of 1,000 sq. ft. will serve most hobby or 4-H horse keeping operations. If competitive riding is planned, The National Horse Show Association recommends 110'x220' for indoor horse show rings and 120'x240' for outdoor rings.



Pasture

Fields can be used either as exercise areas or as pasture. The function of a pasture is to produce nutritious feed for the horse. Pastures are frequently overgrazed, reducing yields and encouraging weed growth.

As horses move around the weed infested lot looking for edible plants, the sod is churned-up, further reducing grass growth. To avoid these conditions, feedlots and exercise areas should be separated from improved pastures.

There are basically two types of pasture: permanent and improved cropland. Permanent pasture is land left unplowed or unseeded for many years and is usually located on wet, rocky or steep sites. Cropland is tillable land that is more productive than permanent pastures when it is limed, fertilized and seeded. In most areas of Connecticut, lime is needed to correct soil acidity and fertilizer must be applied periodically. Before making these improvements to your pasture, obtain a soil test kit from your nearest Extension Service office.

How Much Pasture

As a general rule provide 1 acre of improved pasture per animal unit to provide grazing through the growing season in Connecticut. An animal unit equals 1 horse or cow or 5 to 7 sheep or goats. It must be emphasized, however, that a horse does not necessarily require 1 acre of land. This standard only applies when pasturing is used as a management system to provide feed.

Use Rotational Grazing

A system of alternate grazing produces more feed than continuous grazing on the same field. Divide the acre into thirds and rotate animal every 3 weeks or more frequently if grass is grazed off.

Avoid grazing when soils are wet and soft as the soil becomes packed and poor pasture results. Grasses should reach 5 inches before grazing is begun. Cut at least once a season to control weeds. Cutting once in June and again in August results in even better weed control. Remove

animals from pasture in late September to mid-October so a fall growth of 3" is achieved before winter.

Whenever a horse is introduced to fresh green grass after long periods of stabling or confinement in paddocks, care should be taken to provide short initial grazing sessions to minimize the chances of the horse getting colic.

Riding Horses On Public Highways

As more people are using public highways to exercise their horse, it is important that they know the laws pertaining to this activity.

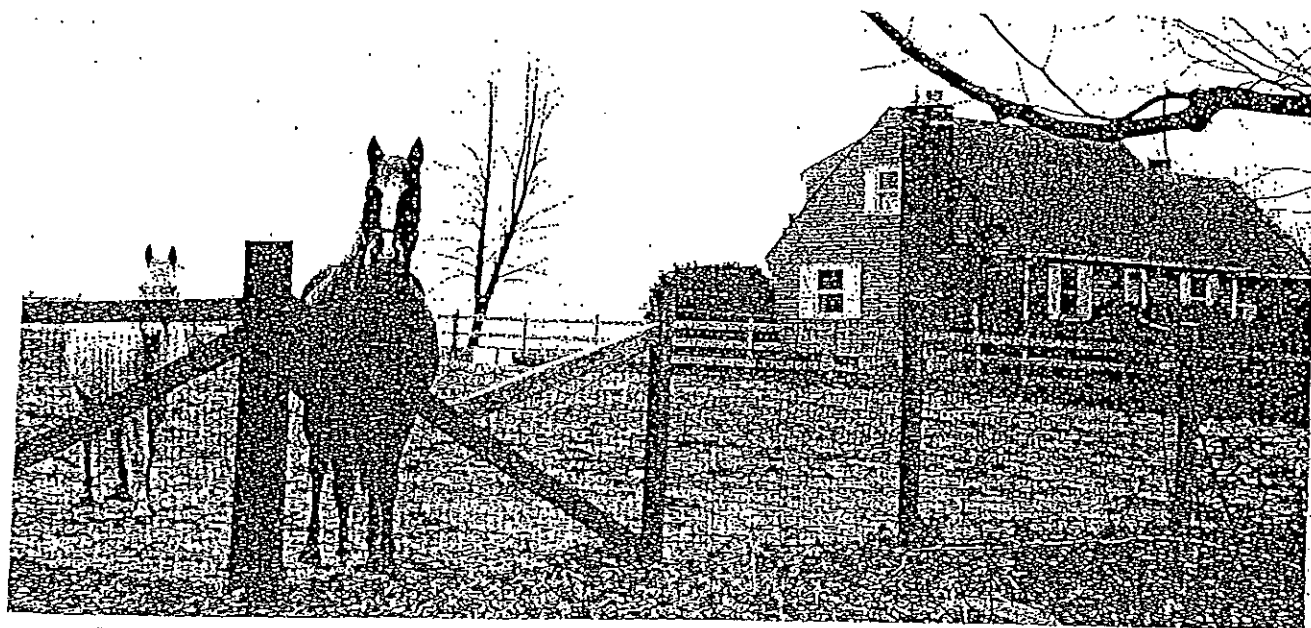
According to Section 14-293a of the Connecticut General Statutes, any person riding a horse on a public highway shall conform to the regulations governing highway use, traffic control and highway safety. In municipalities with charters, laws can be established to regulate the driving or leading of animals through the streets and to provide for the removal of any offensive manure found in the streets.

Connecticut has also passed a law protecting the horse and rider from motorists who frighten the animal by honking horns, speeding or other thoughtless behavior. Such drivers could be cited for a motor vehicle violation.

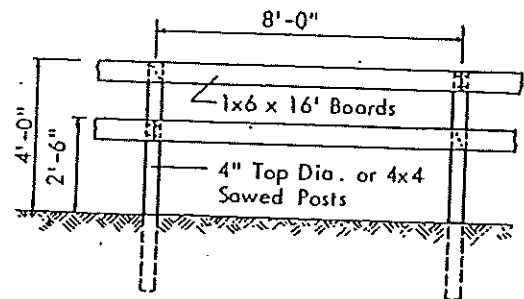
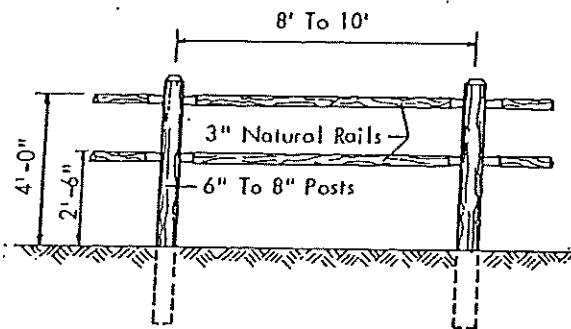
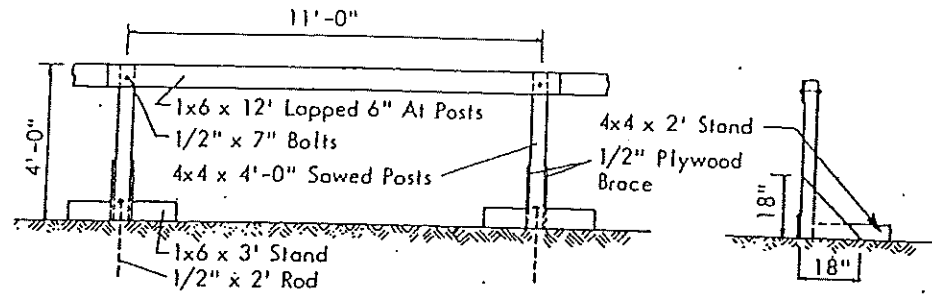


HELPFUL HINTS TO MAKE YOUR HORSE A GOOD "NEIGH"BOR

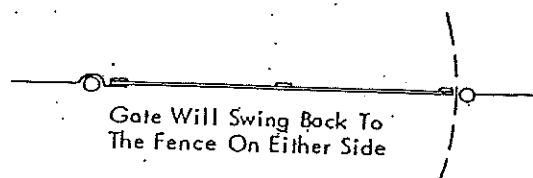
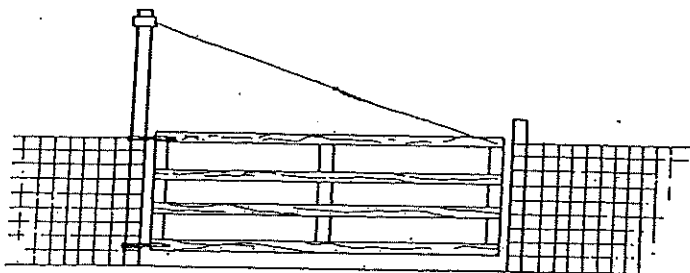
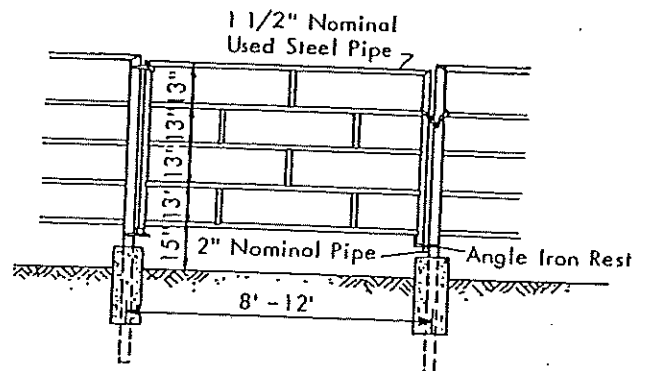
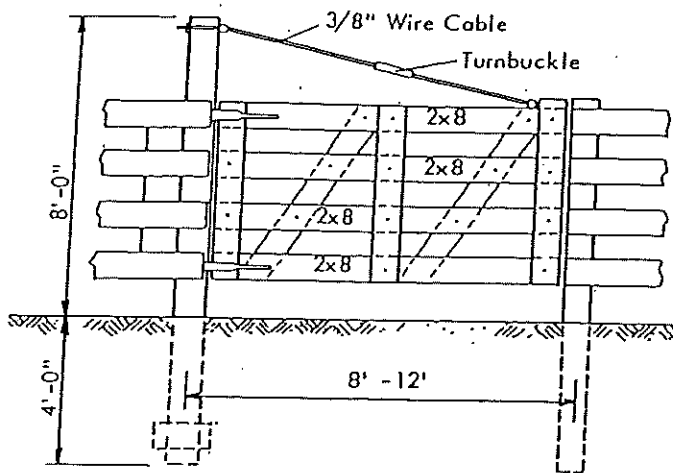
- Before you build a barn or fence, put in an electrical hookup, dig a well, etc., contact your local building inspector to see what permits are needed.
- Comply with local zoning laws and pertinent state statutes. See "State Regulations Pertaining To Keeping Animals And Farming" by C. James Gibbons, The University of Connecticut Cooperative Extension Service, 1984.
- Let your neighbors know what you intend to do. Talk over proposed plans for barns and fences and ask for their opinions when your operation might affect them or their property.
- Become involved in public policy issues related to farming and keeping animals.
- Cruelty to animals is the quickest way to call attention to your place. Know proper horse management and have your veterinarian or certified animal scientist periodically visit your horse.
- Don't ride on other people's property without their permission.
- Remind other horse owners of potential problems. Constructive criticism, well taken, can help avoid larger problems later on.
- Know what you are getting into. Ask yourself if you can truly afford to keep animals and properly maintain the areas where they will be kept. Contact your Extension agent and ask for farm planning assistance.



FENCES

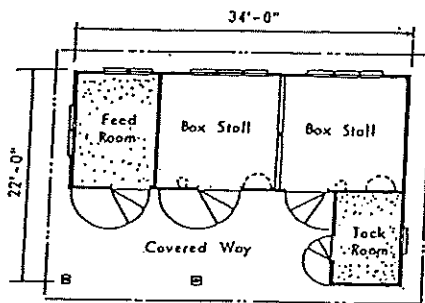
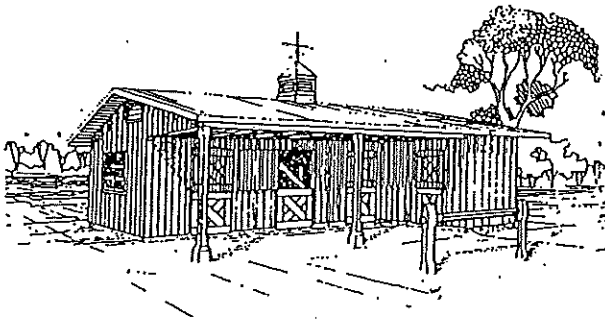


GATES

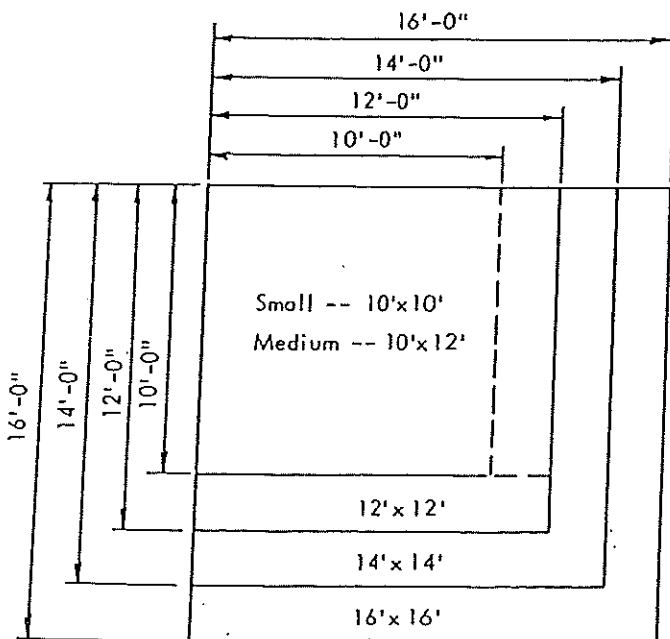


Two-Stall Barn USDA 5838

Two 12' x 12' box stalls with clay floors, a 6' x 8' tack room, and an 8' x 12' feed room are features of this 22' x 34' horse-barn. There is a useful covered way, and Dutch doors provide entry to the stalls. The barn may be expanded to house more horses.

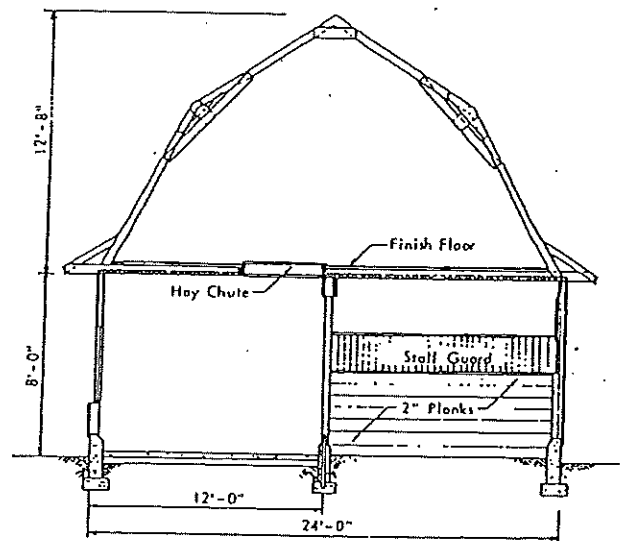
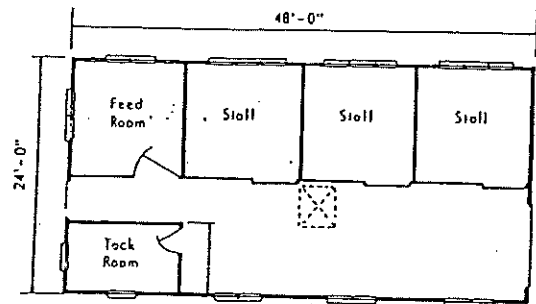


Box stall sizes



Three-Stall 1½ Story, Barn USDA 6024

This plan features three stalls, a feed room, a tack room and a 12' x 36' working alley. There is ample overhead storage for hay and bedding. The barn is 24' x 48'.



The drawings are taken from the Midwest Plan Service publication No. 15, *Horse Handbook; Housing and Equipment*. Copies of the *Handbook* may be obtained for \$5.00 (including postage and handling) from the Department of Agricultural Engineering, U-15, 1376 Storrs Rd., The University of Connecticut, Storrs, CT 06268.

Appendix 3.

Bethany Residential Driveway Specifications

I. Common to all Residential Driveways and Common Driveways

- A. Constructed and maintained in such a way that the condition of the driveway shall not hinder the passage and operation of emergency apparatus in any weather or traffic conditions. NFPA shall be used on driveway design as a guide to determine these specs for each individual site.
- B. Driveway Entrance.
 - 1. A minimum radius of 25 ft. measured at the inside curb for 90° intersections.
 - a) Connecting the public road with any common or single driveway.
 - b) Connecting a common driveway with another common driveway.
 - c) Connecting a common driveway with a single driveway.
 - 2. The radius shall increase from the 25 ft. radius proportionally for every decrease in the angle at the intersection. For example:
 - a) 80° driveway angle shall have a 35 ft. radius measured at the inside curb.
 - b) 70° driveway angle shall have a 45 ft. radius measured at the inside curb.
 - 3. Free of obstacles at the driveway entrance (Utility poles, trees, ledge, mail and paper boxes, certain types of storm drains, etc.).
 - 4. Paved 20 ft. from the public road.
- C. House numbers.
 - 1. Placed in such a way as to guide emergency vehicles to the proper address.
 - a) Public road and the common driveway.
 - b) Common driveway and a single driveway.
 - c) Common driveway and common driveway when there are multiple common driveways.
 - 2. Minimum of 3 inches on both sides.
 - 3. Reflective.
 - 4. Pre and post construction.
- D. Bridges.
 - 1. Support the weight of fire apparatus.
 - 2. The same travel width as the driveway.
 - 3. DOT approved guard rails.
 - 4. DOT approved reflectors.
- E. 10% slope or greater.
 - 1. Paved (that portion of).
- F. Driveway construction.
 - 1. Base and surface shall support the weight of fire apparatus.

II. Single Dwelling Driveway

- A. Less than 100 ft.
 - 1. 10 ft. wide.
 - 2. 14 ft. height clearance.

Bethany Residential Driveway Specifications

10/16/98

- B. Greater than or equal to 100 ft.
 - 1. 14 ft. wide.
 - 2. 14 ft. height clearance.
- C. Greater than or equal to 500 ft.
 - 1. 14 ft. wide.
 - 2. 14 ft. height clearance.
 - 3. Turnoff every 500 ft. (large enough to accommodate fire apparatus) and portions thereof.
- D. Turns.
 - 1. A minimum of 25 ft. radius at the inside of the curb.
 - 2. A minimum of 50 ft. radius at the outside of the curb.
 - 3. Minimum of 14 ft. wide.
- E. Steep slopes on either side (10% or more).
 - 1. 14 ft. wide.

III. Two and Three Dwellings per Common Driveway

- A. Any length.
 - 1. 14 ft. wide.
 - 2. 14 ft. height clearance.
 - 3. Maintenance contract.
 - 4. Individual driveways shall be 14 ft. wide and have a clearance of 14 ft. in height.
- B. Turns.
 - 1. A minimum of 25 ft. radius at the inside of the curb.
 - 2. A minimum of 50 ft. radius at the outside of the curb.
 - 3. A minimum of 20 ft. wide.

Appendix 4.

Bethany Water Source Specifications

(As most recently amended)

BETHANY FIRE DEPARTMENT
WATER SOURCE SPECIFICATIONS

02/20/2014

BETHANY, CONNECTICUT

BETHANY VOLUNTEER FIRE DEPARTMENT

WATER SOURCE SPECIFICATIONS

Revised 02/20/2014



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Purpose

It is the purpose of this document is to establish a standard that requires a property owner to provide a water source, or providing a monetary contribution of 7,500 dollars per residential building lot toward the installation of a cistern prior to the issuance of certificate of occupancy.

The objective of the firefighting water supply provisions contained in the building and standard regulations are to ensure that there is sufficient water available for firefighters to effectively control a fire in the building and assist in protecting building occupants, contents and the building itself. Higher risk buildings have a larger fire flow requirement that exceed the scheme capacity and is calculated by a licensed fire protection engineer.

I. Definitions

- A. Approved: Accepted by the authority having jurisdiction.
- B. Authority Having Jurisdiction: The organization, office or individual responsible for approving" equipment, an installation or procedure. In the context of the regulation the authority having jurisdiction shall be the Planning and Zoning Board, BVFD, FMO and the Code Enforcement Office.
- C. Cistern: is a large, watertight concrete, fiberglass, or reinforced polyethylene plastic tank installed in the ground and shall be a minimum of thirty thousand (30,000) usable gallons, and not less than the minimum as determined by NFPA 1141, 1142 and reference standards of those publications for the required minimum fire flow.
- D. Dry Hydrant: A permanent piping system, normally a drafting source that provides access to a water source other than a municipal or community-type water system.
- E. ISO Insurance Services Office is a for profit cooperation that is used to rate community fire defenses. ISO then sells that data to the insurance industry for the purposes of establishing insurance rates
- F. Municipal-Type Water System: A system having water pipes serving hydrants and designed to furnish, over and above domestic consumption, a minimum flow of 1000 gallons per minute and 20 pounds per square inch residual pressure for a 2 hour duration.
- G. Protected Property/Easement: Property protected by a water source that is minimally adequate in volume and duration and by a fire department capable of using this water source to suppress a possible fire within a property.
- H. Vehicle Pad: A level, hard surfaced area adjacent to a hydrant that is large enough and configured so as to allow a fire truck to be connected to the dry hydrant.
- I. Water Source: A body of water that is a man-made or a natural and that has sufficient water to suppress a possible fire within a property.

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- J. NFPA: National Fire Protection Association they develop, publish, and disseminate more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks.

II. General Requirements of a Water Source

A. Administration:

- a) The minimum development of any water source supply for the purpose of fire protection shall follow this procedure and all applicable NFPA and ISO requirements. All Fire protection facilities that are constructed shall be sized and constructed in accordance with current NFPA and ISO gridlines.
- b) The developer/owner shall provide the Planning and Zoning Board the design documentation for review as part of the regular site plan and or subdivision plan approval process.
- c) Design Documentation and Review:
 - i. A site plan/subdivision plan shall be provided for review that includes all of the information required by the Planning and Zoning Board and the information listed below.
 - ii. A plan which shows the location of the water source and delineates the protected property or properties within the specified travel distance of 2,000 feet. The furthestmost house shall not be more than 3,000 feet from the water source.
 - iii. The location of the proposed hydrant(s) shall be shown.
 - iv. A vehicle pad shall be shown if a hydrant is being proposed.
- d) A design package for the type of water source to be used shall be submitted for review to the Planning and Zoning Board as part of the site plan application. All designs and calculations shall be stamped by a Licensed Civil Engineer. The design package shall include the following information:
 - i. The design and construction methods to be employed in creating the water source.
 - ii. The calculations used to determine the capacity of the water source.
 - iii. The design calculations used to determine the size of the cistern.
 - iv. If a natural existing water supply is used, data establishing the normal water level and the low level on a 50-year drought shall be supplied.

B. Location:

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- A. Residential Zones: No more than 2,000 feet from any building lot and or greater then a total of 3,000 feet of travel distance from a water source (not including the access way to rear lots or any building lots on common drives or private roads). The location must be by the FMO and the BVFD Water Source Officer prior to the commencement of installation.
- B. Commercial and Industrial Zones - The number and placement of water sources shall be determined by a certified fire protection engineer using NFPA and ISO publications, and approved by the FMO and the BVFD Water Source Officer prior to the commencement of installation.
- C. All water sources and hydrants shall be located at least 100 feet from any structure.
- C. Fire Department Access:
 - a) The access apron shall be at least 50 feet long and 15 feet deep, with the deepest point at the hydrant and meet NFPA.
 - b) Where a fire department apparatus turnaround is required, it shall be provided such that the pumper apparatus operating at the water source does not obstruct a vehicle turning around.
 - c) The fire department apparatus access road and or apron (at least 20 feet in width) shall be provided to the hydrant.
 - d) All roadway, emergency access entrances and driveways will be engineered to carry a minimum of 80,000 pounds.
 - e) The access road will be shaped to allow fire apparatus traveling in either direction easy access, and the ability to pass in a safe manner.
 - f) Approved fire lane signs and pavement markings shall be provided 10 feet on each side of the dry hydrant and a reflective dry hydrant sign provided behind and above the hydrant per NFPA.
- D. Ownership and Bounding:
 - a) All required water sources shall be bonded as part of the overall bonding requirement which shall be recommended by the Planning and Zoning Board and approved by the Board of Selectmen.
 - b) Maintenance bond(s) shall be posted for water sources, cisterns and buried tanks and shall be held for a period of 2 years. The bond will be released by the Board of

BETHANY FIRE DEPARTMENT

WATER SOURCE SPECIFICATIONS

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Selectmen upon recommendation by the Planning and Zoning Board and inspection and approval of the system by the BVFD, and the FMO and acceptance of the water source.

- c) The Association, owner or developer shall own and maintain the water source until, if and when, the roadway and infrastructure is accepted by vote of the town legislative body and Planning and Zoning.
- d) The single property owner/developer shall own and maintain the water source and provide the Town of Bethany with a written easement that allows for fire suppression and testing use of the water source, unless such a water source becomes part of a future development that includes it as an adequate water supply, it shall be maintained by the Town of Bethany.
- e) If the water source is located within a development that has an Association form of ownership i.e., Condominium or Homeowners Association etc., the responsibility for maintenance of the water source shall remain with the Condominium/Homeowners Association unless an agreement can be made with the Town of Bethany.
- f) The BVFD shall be responsible for refilling the cistern after fire suppression, testing and training uses, unless the cistern is determined to be in failure and until it is repaired.
- g) The single property owner/developer or Condominium and or Homeowners Association form of ownership shall maintain year round access to the water source and vehicle pad which shall include snow removal unless the roadway and infrastructure is maintained by the Town of Bethany.

III. Acceptance Requirements

- A. Drawings: Four sets of "As Built" drawing shall be provided to the BVFD and the FMO describing the installed water source in its entirety. At a minimum the drawing(s) shall include the following information:
 - i. Location of the water source, access ports, system size, and piping arrangement. Including the size of all inlets, outlets, inspection ports, etc
 - ii. The hydrant manufacturer including address & phone number, model, and type installed.
 - iii. The strainer manufacturer, address and phone number, size, and type of the intake and/or strainer.
 - iv. The cisterns manufacturer, address and phone number, dimensions, capacity, location (including depth below ground level) of the tank (if used).

BETHANY FIRE DEPARTMENT

WATER SOURCE SPECIFICATIONS

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- B. Any other devices or procedures included in the Hydrant setup such as supporting devices, valves, drains, silt dams, tanks, pumps, cisterns, hatchways, piping, etc.
- C. Owner's Manuals and all other documentation shall be provided to the BVFD, and the FMO.
- D. Any device or procedure pertinent to the operation and maintenance of the water source shall be provided to the BVFD, and the FMO.
- E. A "No Parking Fire Hydrant" sign and post shall be installed. The sign shall be of equal quality as posted on Bethany's roadways.
- F. Inspection and Acceptance Testing:
 - a. The water source shall be inspected by the Code Enforcement Office, its designee or the authority having jurisdiction during its construction/installation. An inspection schedule shall be established for each specific project.
 - b. A successful flow test of 1,000gpm for $\frac{3}{4}$ of the water sources rated capacity shall be conducted by the BVFD or their designee prior to approval of the system.
 - c. A licensed engineer shall sign-off that the water source has been built using current specifications as referenced in this regulation and applicable within NFPA and ISO.

IV. Water Sources

- A. Ponds or Lakes as Water Sources:
 - a) A pond or lake, whether it is a manmade or natural, shall meet the specifications as set by the US Department of Agriculture, Soil Conservation Service unless privately owned in its entirety without public easement or a flow exiting the body does not exist.
 - b) The water source must be available 365 days a year. The minimum capacity shall be 250,000 gallons of useable water. The FMO and BVFD will need certification of the water capacity available during a 50-year drought cycle. The certification must be provided by a licensed geological engineer or hydrologist.
 - c) A dry hydrant shall be installed that meets the design standard of this Regulation, NFPA, and ISO. All work shall be inspected by the Code Enforcement Office, its designee or the authority having jurisdiction during its construction/installation. An inspection schedule shall be established for each specific project.

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- d) The lift from the water source to the hydrant shall not exceed 15 feet and total head loss will not exceed 20 feet.
- e) The pipe connecting the water intake with the dry hydrant shall be at least 4 1/2 feet deep to prevent freezing. The pipe shall be installed level from the water intake to the 45° riser to the hydrant. The pipe shall have a minimum of a 6-inch diameter or larger to meet the minimum flow requirements stated in Inspection and Testing. All piping will be a minimum of schedule 40 PVC or equivalent.
- f) The water intake shall be one of the following:
 - i. Galley type: The galley shall be deep enough to provide for year round water source, including the 50-year drought level. The galley shall be installed to prevent silting. The galley shall be installed on a cement pad or equivalent to prevent settling. The galley shall be installed to prevent objects such as stones, fish, frogs and plant debris from entering the intake.
 - ii. Strainer type: The strainer shall be corrosion resistant screen with a clapper end cap. The strainer shall be deep enough to provide for year round water source and shall be surrounded by 2 feet of water in all directions, including the 50 year drought cycle.

B. Cisterns:

- a) Will be fiberglass, concrete with liner or other non-permeable materials, of a sound engineering design to be trouble free and designed to last a minimum of 30 years.
- b) The water source must be available 365 days a year. The minimum capacity shall be 30,000 gallons. Depending on the development layout/configuration, additional gallon requirements may be imposed at the discretion of the FMO upon review of the fire flow requirements as determined by a certified fire protection engineer of record.
- c) The tanks must be buried so that the top is 4 1/2 feet deep to prevent freezing and that the bottom is no more than 20 feet from the centerline of the dry hydrant head.
- d) The tanks must be contiguous, not partitioned.
- e) The tanks shall provide for one 22 inch diameter "Access way" with a ladder, one Dry Hydrant connection, one fill connection and a vent. A 48-inch diameter riser pipe with concrete cover shall be installed over the access way.
- f) The water intake shall be placed 6 inches from the bottom of the tank.

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- g) The pipe connecting the water intake with the dry hydrant shall have a minimum of a 6-inch diameter schedule 40 PVC or equivalent. Situations may exist which dictate that a larger diameter pipe shall be installed in order to satisfy the flow requirement as required stated in Inspection and Testing.
- h) The vent shall be a schedule 40 PVC pipe, two 90 degree elbows with a perforated cap.
- i) The fill connection shall be a 6-inch schedule 40 PVC pipe with one 90-degree elbow. The fill connection shall consist of two 2 1/2 inch female national standard threads and plug.
- j) The vent and fill pipes shall be painted green.
- k) All connections must be airtight.
- l) The tanks shall be initially filled to capacity with clean water.
- m) An over flow protection shall be incorporated.
- n) Run-off from the surrounding terrain shall not enter the tanks
- o) A tank full indicator or visual hatch shall be installed that will allow anyone filling or inspecting the tank too easily know that the tank is filled.
- p) Tanks shall be installed and tested according to the manufacturer instructions.

C. Municipal/Public Water Supplies:

- a) Extensions of municipal water service for the Town of Bethany may be allowed if approved by the Board of Selectmen and or its proprietor and shall fully meet the design and installation requirements of the governing Water Department.
- b) The water source must be available 365 days a year. The minimum capacity shall be 250gpm for 2 hours. Depending on the development layout/configuration, additional gallon requirements may be imposed at the discretion of the FMO upon review of the fire flow requirements as determined by a certified fire protection engineer of record.

D. Community Water Systems:

BETHANY FIRE DEPARTMENT

WATER SOURCE SPECIFICATIONS

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- a) If a community water system is used within a subdivision to provide the fire suppression water requirement, the system shall be designed and constructed to meet NFPA standard #24 (Standard for the Installation of Private Fire Service Mains). The design and flow capacities of the complete system shall also meet the criteria of the American Water Works Association for the size subdivision being supplied.
- b) The water source must be available 365 days a year. The minimum capacity shall be 250gpm for 2 hours. Depending on the development layout/configuration, additional gallon requirements may be imposed at the discretion of the FMO upon review of the fire flow requirements as determined by a certified fire protection engineer of record.

V. Fire Department Connection

A. *The fire department connection shall consist of the following:*

- a) A dry type hydrant painted yellow with a 6 inch female coupling using National Standard Threads, and plug.
- b) Two 45-degree elbows and connecting pipe constructed of schedule 40 PVC pipe with airtight fittings.
- c) Support framework, bars or form to relieve horizontal and vertical strain on the dry hydrant. This may be combined as part of the barricades as described in paragraph II. D.
- d) The dry hydrant must incorporate a Post-Indicating valve (PIV) when the water level may rise within 4 1/2 feet of the surface. The valve size must match the size of the supply pipe.
- e) The hydrant must be elevated 2 feet from the center of the hydrant to the ground. The hydrant must face the access lot.
- f) The hydrant shall be protected with at least two barricades painted green or brown. These barricades must be placed in such a way as not to interfere with the operation of hydrant and fire apparatus. The barricades may be constructed of (but not limited to) 4-inch steel cement filled tubes, fence, guard rails, boulders, Upright Yews, or Eastern Red Cedar.
- g) The hydrant must be close enough to the access lot to allow fire apparatus using 10 feet of 6-inch suction hose to complete the connection.

Appendix 5.

Bethany Planning and Zoning Commission
General land use application requirements

(As most recently amended)

Application Requirements, General

The following list of items is provided for general guidance to applicants. These items are in addition to any specific application requirements found in the applicable Section(s) of these Regulations. They must be submitted in order for the application to be deemed complete by the Commission prior to any Commission action.

1. Application form as provided by the Commission. This form must be completely filled out.
2. A proper fee as determined by local ordinance, must be paid to the Commission prior to any Commission action.
3. Survey of property. May be required to be A-2 degree of accuracy. Survey must show all property in question and all abutting property as required by these regulations unless otherwise indicated by the Commission.
4. Plans of the proposed project. The Commission may require these plans to be completed. Sealed and signed by the appropriate professional. These plans may include but are not limited to:

- Architectural Plans
- Engineering Plans
- Grading Plans
- Cross Sectional Plans
- Future Development Plans
- Surveys and Survey Plans
- Water Supply Watershed Plans
- View Shed Plans (telecomm. Applications)
- Others

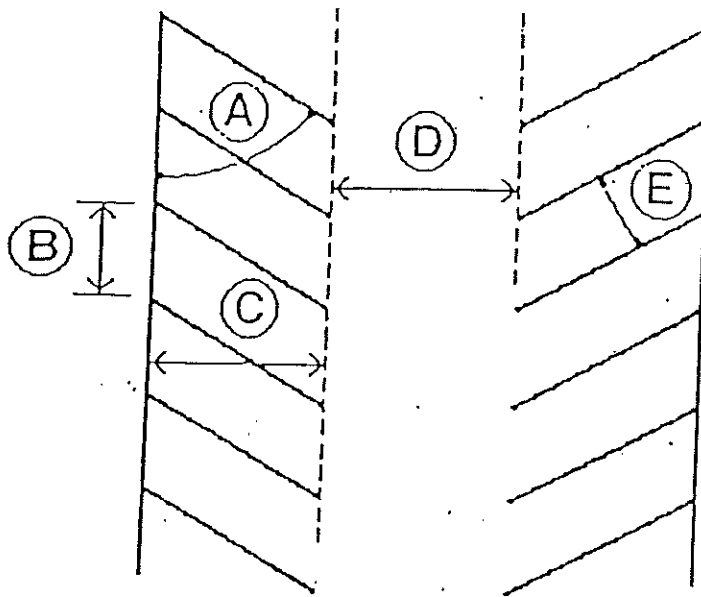
5. The Commission may also request studies from various professionals/experts which address relevant issues which are pertinent to the proposal. These may include but are not limited to:

- Traffic Studies
- Hydrology Studies
- Groundwater Level Studies
- Parking Studies
- Traffic Circulation Studies
- Needs Assessments
- Others

Appendix 6.

Bethany Planning and Zoning Commission Schematic Parking Diagrams

(As most recently amended)



(A)	Parking Angle	0°	45°	60°	90°
(B)	Curb Length per Space	23'	13'	10'	9'
(C)	Space Depth	9'	18'	19'	18'
(D)	Access Aisle Width	15'	15'	18'	25'
(E)	Space Width	9'	9'	9'	9'

Figure 6.1: Minimum Dimensions for Parking Areas

Appendix 7

Recommended Plantings for the
Business and Industrial Zones

RECOMMENDED PLANTINGS FOR THE BUSINESS & INDUSTRIAL ZONES

Bethany is located within Climate Zone 5 / 6. This means that plants chosen should be able to withstand winter temperatures as cold as -20' F. Here is a preliminary list of RECOMMENDED plants for consideration. In rating a plant's "Deer Resistance", please note that nothing is deer resistant in our region! The rating of Excellent, Good, Fair and Poor was arrived at via comments and recommendations from the sources listed below.

CANOPY TREES:

	Average Height	Average Width	Hardiness Zones	Deer Resistant ?	Salt Tolerant
Trident Maple	20' - 30'	20' - 30'	4 - 8	Good	
Red Maple	40' - 50'	30' - 40'	3 - 9	Good	
Silver Maple	50' - 70'	35' - 50'	3 - 9	Good	
Sugar Maple	60' - 75'	40' - 50'	4 - 8	Good	
Birch (any type)	30' - 70'	25' - 60'	4 - 9	Excellent	Yes
European Hornbeam	40' - 60'	30' - 40'	4 - 7	Excellent	
American Beech	50' - 70'	50' - 70'	3 - 9	Good	
Amur Chokecherry	35' - 45'	20' - 25'	2 - 6	Fair	Yes
Green or White Ash	50' - 60'	25' - 30'	3 - 9	Excellent	Yes
Honeylocust	70' - 100'	50' - 70'	3 - 8	Good	
Southern Magnolia	50' - 80'	30' - 50'	6 - 10	Excellent	Yes
Shumard, Red or White Oak	60' - 100'	50' - 80'	4 - 9	Fair	Yes
Littleleaf Linden	60' - 70'	30' - 50'	3 - 7	Fair	
Horse Chestnut	75' - 90'	50' - 70'	4 - 8	Fair	Yes

Also consider:

Buckeye, Red cedar, Apple, Cottonwood, White Spruce, Colorado Spruce, White Pine, Douglas Fir

UNDERSTORY / ORNAMENTAL TREES:

	Average Height	Average Width	Hardiness Zones	Deer Resistant ?	Salt Tolerant
Amur Maple	15' - 18'	18' - 20'	2 - 6	Good	
Japanese Maple	15' - 20'	10' - 15'	5 - 8	Good	
Paperbark Maple	20' - 30'	15' - 30'	4 - 8	Good	
Downy Serviceberry	15' - 25'	20' - 30'	4 - 9	Fair	
Redbud	20' - 30'	25' - 35'	3 - 9	Fair	
Flowering Dogwood	20' - 25'	20' - 25'	5 - 9	Fair	
Kousa Dogwood	30' - 30'	20' - 30'	5 - 8	Excellent	
Star Magnolia	15' - 20'	10' - 15'	4 - 9	Excellent	Yes
Saucer Magnolia	20' - 30'	20' - 30'	5 - 9	Excellent	Yes
Japanese Flowering Crabapple	15' - 25'	15' - 25'	3 - 8	Fair	
Witch Hazel	20' - 30'	15' - 20'	3 - 8	Fair	Yes
Purple-Leaf Plum	15' - 30'	15' - 25'	4 - 8	Poor	Yes
Kwanzan (Japanese) Cherry	30' - 40'	30' - 40'	5 - 8	Good	
Bradford Pear	30' - 50'	20' - 35'	4 - 8	OK	

Also consider:

Beach plum, Black cherry, Choke Cherry, Sassafras

SHRUBS:

	Average Height	Average Width	Hardiness Zones	Deer Resistant ?	Salt Tolerant
Azalea	3' - 8'	3' - 8'	4 - 7	Fair - Poor	
Butterfly Bush	4' - 8'	3' - 6'	5 - 9	Excellent	
Boxwood (any type)	1' - 6'	2' - 6'	5 - 9	Excellent	
Cotoneaster	2' - 3'	5' - 8'	6 - 9	Fair - Poor	
Forsythia	8' - 10'	7' - 10'	6 - 9	Good	Yes
Large Fothergilla	6' - 10'	5' - 9'	4 - 8	Fair	
Hydrangea (almost any type)	3' - 5'	3' - 10'	3 - 9	Fair	Yes
Holly (almost any type)	3' - 6'	3' - 10'	4 - 9	Good	
Inkberry	4' - 6'	4' - 6'	3 - 9	Good	
Winterberry	6' - 10'	6' - 10'	3 - 9	Good	Yes
Juniper (almost any type)	1' - 6'	3' - 6'	3 - 8	Good - Fair	
Mountain Laurel (any type)	7' - 15'	7' - 15'	4 - 9	Good	
Northern Bayberry	5' - 12'	5' - 12'	2 - 6	Good	Yes
Andromeda	9' - 12'	6' - 8'	5 - 8	Excellent	
Rhododendron (any type)	6' - 10'	5' - 8'	4 - 8	Fair - Poor	
Spirea (any type)	3' - 8'	3' - 6'	2 - 8	Good	
Lilac (any type)	4' - 15'	4' - 12'	3 - 7	Fair - Poor	
Viburnum (any type)	4' - 15'	4' - 18'	3 - 8	Fair	

Also consider:

Sweet Pepper Bush, Sweet Fern, Panic Grass, Blueberry, Rugosa Rose

GROUND COVER:

Bearberry
Spring Heath
Edging Candytuft
Shrubby Cinquefoil
Snowberry
Lilly-of-the-Valley
Lavender
Hens-and-Chicks
Myrtle

DUE TO THEIR INVASIVE NATURE, PLEASE TRY TO AVOID PLANTING THE FOLLOWING:

Barberry	Norway Maple
Bittersweet	Plane Tree Maple
Burning Bush	Russian or Autumn Olive
Honeysuckle	Privet
Multiflora Rose	

Acknowledgements:

Drzewucki, Jr., Vincent. 1998. *Gardening in Deer Country*. The Brick Tower Press, New York, NY 10128

Kellum, Jo (Writer & Illustrator). 2001. *Landscaping 1-2-3*. Meredith Books, Des Moines, IA 50309

Seaton, Nancy. 2003 Curator of Lily Pool Terrace & Magnolia Collection. Brooklyn Botanic Garden Brooklyn, NY 11225

Appendix 8
Private Road, Street,
Accessway Acknowledgement

(See Regulations, Section 13.4.F)

(Private Road, Street, Accessway)

Acknowledgment

I/We affirm, understand, and acknowledge as follows:

1. The private road/accessway abutting my/our property located at _____ is not a public highway;
2. The road/accessway will not be offered for acceptance by the Town as a public highway unless and until it has been constructed to Town Road Specifications at no cost to the Town;
3. A licensed, professional engineer shall certify the construction of the road/accessway; and
4. A one-year maintenance bond shall be provided to the Town at the time of the road's acceptance.

Date: _____

Appendix 9
Aquifer Protection Area Regulations
And Map Area
For
Bethany, Connecticut

Effective October 1, 2006

Amended March 5, 2008, Effective May 1, 2008

Amended April 6, 2011, Effective April 15, 2011

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Aquifer Protection Area Regulations Bethany, CT

SECTION 1. Title and Authority

- (a) Aquifers are an essential natural resource and a major source of public drinking water for the State of Connecticut. Use of groundwater will increase as the population grows and opportunities for new surface water supplies diminish due to the rising cost of land and increasingly intense development. At the same time, numerous drinking water wells have been contaminated by certain land use activities, and others are now threatened. To address this problem, Connecticut has established the Aquifer Protection Area Program (Connecticut General Statutes §22a-354a to §22a-354bb) to identify critical water supply aquifers and to protect them from pollution by managing land use. Protection requires coordinated responsibilities shared by the state, municipality and water companies to ensure a plentiful supply of public drinking water for present and future generations. It is therefore the purpose of these regulations to protect aquifer protection areas within the Town of Bethany by making provisions for:
- (1) implementing regulations consistent with state regulations and An Act Concerning Aquifer Protection Areas, Connecticut General Statutes §22a-354a to §22a-354bb ("the Act");
 - (2) delineating aquifer protection areas on the city/town zoning or inland wetland and watercourse areas maps;
 - (3) regulating land use activity within the aquifer protection area including: prohibiting certain new activities; registering existing regulated activities; and issuing permits for new regulated activities at registered facilities; and
 - (4) administering and enforcing these regulations.
- (b) These regulations shall be known as the Aquifer Protection Area Regulations (the "APA Regulations") of the Town of Bethany.
- (c) These regulations were adopted and may be amended, from time to time, in accordance with the provisions of §22a-354p of An Act Concerning Aquifer Protection Areas, the Connecticut General Statutes §22a-354a to §22a-354bb and the Regulations of Connecticut State Agencies §22a-354i-1 through §22a-354i-10.
- (d) The Planning & Zoning Commission of the Town of Bethany is established as the Aquifer Protection Agency (the "Agency") in accordance with the "Ordinance for the Establishment of an Aquifer Protection Agency," (the "APA Ordinance") effective January 26, 2006 (?), and shall implement the purposes and provisions of the APA Ordinance and the Act.

- (e) The Agency shall administer all provisions of the Act and shall approve or deny registrations, issue permits, issue permits with terms, conditions, limitations or modifications, or deny permits for all regulated activities in aquifer protection areas in the Town of Bethany pursuant to the Act.

SECTION 2. Definitions

- (a) As used in these regulations, the following definitions apply:

- (1) "Affected water company" means "affected water company" as defined in §22a-354h of the Connecticut General Statutes;
- (2) "Agency" means the board or commission authorized by the municipality under §22a-354o of the Connecticut General Statutes;
- (3) "Agriculture" means "agriculture" as defined in the §1-1(q) of the Connecticut General Statutes;
- (4) "Applicant" means, as appropriate in context, a person who applies for an exemption under §22a-354i-6 of the Regulations of Connecticut State Agencies, a permit under §22a-354i-8 of the Regulations of Connecticut State Agencies or a permit under Section 9 of the APA Regulations;
- (5) "Application" means, as appropriate in context, an application for an exemption under §22a-354i-6 of the Regulations of Connecticut State Agencies, an application for a permit under §22a-354i-8 of the Regulations of Connecticut State Agencies or an application for a permit under Section 9 of the APA Regulations;
- (6) "Aquifer protection area" means "aquifer protection area" as defined in §22a-354h of the Connecticut General Statutes and any extension of such area approved by the Commissioner pursuant to §22a-354i-4 of the Regulations of Connecticut State Agencies;
- (7) "Area of contribution" means "area of contribution" as defined in §22a-354h of the Connecticut General Statutes and as mapped in accordance with §22a-354b-1 of the Regulations of Connecticut State Agencies;
- (8) "Bulk storage facility" means property where oil or petroleum liquids are received by tank vessel, pipeline, railroad car or tank vehicle for the purpose of storage for wholesale distribution;
- (9) "Certified Hazardous Materials Manager" means a hazardous materials manager certified by the Institute of Hazardous Materials Management and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable laws and identify appropriate pollution prevention practices for such activities;

- (10) "Commissioner" means the commissioner of environmental protection, or his or her agent;
- (11) "Domestic sewage" means "domestic sewage" as defined in §22a-430-3(a) the Regulations of Connecticut State Agencies;
- (12) "Facility" means property where a regulated activity is conducted by any person, including without limitation any buildings located on the property that are owned or leased by that person; and includes contiguous land owned, leased, or for which there is an option to purchase by that person;
- (13) "Floor drain" means any opening in a floor or surface which opening or surface receives materials spilled or deposited thereon;
- (14) "Hazardous material" means (A) any hazardous substance as defined in 40 CFR 302.4 and listed therein at Table 302.4, excluding mixtures with a total concentration of less than 1% hazardous substances based on volume, (B) any hazardous waste as defined in §22a-449(c)-101 of the Regulations of Connecticut State Agencies, (C) any pesticide as defined in §22a-47 of the Connecticut General Statutes, or (D) any oil or petroleum as defined in §22a-448 of the Connecticut General Statutes;
- (15) "Hazardous waste" means "hazardous waste" as defined in §22a-449(c)-101 of the Regulations of Connecticut State Agencies;
- (16) "Industrial laundry" means a facility for washing clothes, cloth or other fabric used in industrial operations;
- (17) "Infiltration device" means any discharge device installed below or above the ground surface that is designed to discharge liquid to the ground;
- (18) "Inland wetland and watercourse areas map" means a map pursuant to §22a-42a of the Connecticut General Statutes;
- (19) "ISO 14001 environmental management system certification" means a current ISO 14001 environmental management system certification issued by an ISO 14001 environmental management system registrar that is accredited by the American National Standards Institute (ANSI) - American Society for Quality (ASQ) National Accreditation Board (ANAB);
- (20) "Level A mapping" means the lines as shown on Level A maps approved or prepared by the Commissioner pursuant to §22a-354c, §22a-354d or §22a-354z of the Connecticut General Statutes encompassing the area of contribution and recharge areas;
- (21) "Lubricating oil" means oil that contains less than 1% chlorinated solvents and is used for the sole purpose of lubricating, cutting, grinding, machining, stamping or quenching metals;

- (22) "Municipality" means "municipality" as defined in §22a-354h of the Connecticut General Statutes;
- (23) "Owner" means the owner or lessee of the facility in question;
- (24) "De-icing chemical" means sodium chloride, calcium chloride, or calcium magnesium acetate;
- (25) "Person" means any individual, firm, partnership, association, syndicate, company, trust, corporation, limited liability company, municipality, agency, political or administrative subdivision of the state, or other legal entity of any kind;
- (26) "Pollution" means "pollution" as defined in §22a-423 of the Connecticut General Statutes;
- (27) "Pollution prevention" means the use of processes and materials so as to reduce or minimize the amount of hazardous materials used or the quantity and concentration of pollutants in waste generated;
- (28) "Professional engineer" means a professional engineer licensed in accordance with chapter 391 of the Connecticut General Statutes, and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities;
- (29) "Publicly Owned Treatment Works" means "publicly owned treatment works" as defined in §22a-430-3 of the Regulations of Connecticut State Agencies;
- (30) "Public service company" means "public service company" as defined in §16-1 of the Connecticut General Statutes;
- (31) "Public supply well" means "public supply well" as defined in §19-13-B51b of the Regulations of Connecticut State Agencies;
- (32) "Recharge area" means "recharge area" as defined in §22a-354h of the Connecticut General Statutes and as mapped in accordance with §22a-354b-1 of the Regulations of Connecticut State Agencies;
- (33) "Registered regulated activity" means a regulated activity which has been registered under §22a-354i-7 of the Regulations of Connecticut State Agencies or Section 8 of the APA Regulations, and is conducted at the facility identified in such registration;
- (34) "Registrant" means a person, who or which, has submitted a registration for an existing regulated activity under §22a-354i-7 of the Regulations of Connecticut State Agencies or Section 4 of the APA Regulations;
- (35) "Regulated activity" means any of the following activities, which are located or conducted, wholly or partially, in an aquifer protection area, except as provided for in

§22a-354i-5(c) and §22a-354i-6 of the Regulations of Connecticut State Agencies, or Section 4 of the APA Regulations:

- (A) underground storage or transmission of oil or petroleum, to the extent such activity is not pre-empted by federal law, or hazardous material, except for (i) an underground storage tank that contains number two (2) fuel oil and is located more than five hundred (500) feet from a public supply well subject to regulation under §22a-354c or §22a-354z of the Connecticut General Statutes, or (ii) underground electrical facilities such as transformers, breakers, or cables containing oil for cooling or insulation purposes which are owned and operated by a public service company,
- (B) oil or petroleum dispensing for the purpose of retail, wholesale or fleet use,
- (C) on-site storage of hazardous materials for the purpose of wholesale sale,
- (D) repair or maintenance of vehicles or internal combustion engines of vehicles, involving the use, storage or disposal of hazardous materials, including solvents, lubricants, paints, brake fluids, transmission fluids or the generation of hazardous wastes,
- (E) salvage operations of metal or vehicle parts,
- (F) wastewater discharges to ground water other than domestic sewage and stormwater, except for discharges from the following that have received a permit from the Commissioner pursuant to section 22a-430 of the Connecticut General Statutes: (i) a pump and treat system for ground water remediation, (ii) a potable water treatment system, (iii) heat pump system, (iv) non-contact cooling water system, (v) swimming pools,
- (G) car or truck washing, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (H) production or refining of chemicals, including without limitation hazardous materials or asphalt,
- (I) clothes or cloth cleaning service which involves the use, storage or disposal of hazardous materials including without limitation dry-cleaning solvents,
- (J) industrial laundry activity that involves the cleaning of clothes or cloth contaminated by hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (K) generation of electrical power by means of fossil fuels, except for (i) generation of electrical power by an emergency engine as defined by §22a-174-22(a)(2) of the Regulations of Connecticut State Agencies, or (ii) generation of electrical power by means of natural gas or propane,

- (L) production of electronic boards, electrical components, or other electrical equipment involving the use, storage or disposal of any hazardous material or involving metal plating, degreasing of parts or equipment, or etching operations,
- (M) embalming or crematory services which involve the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (N) furniture stripping operations which involve the use, storage or disposal of hazardous materials,
- (O) furniture finishing operations which involve the use, storage or disposal of hazardous materials, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (P) storage, treatment or disposal of hazardous waste subject to a permit under §22a-449(c)-100 to §22a-449(c)-110, inclusive, of the Regulations of Connecticut State Agencies,
- (Q) biological or chemical testing, analysis or research which involves the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works, and provided that on-site testing of a public supply well by a public water utility is not a regulated activity,
- (R) pest control services which involve storage, mixing or loading of pesticides or other hazardous materials,
- (S) photographic finishing which involves the use, storage or disposal of hazardous materials, unless all waste water from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (T) production or fabrication of metal products which involves the use, storage or disposal of hazardous materials including (i) metal cleaning or degreasing with industrial solvents, (ii) metal plating, or (iii) metal etching,
- (U) printing, plate making, lithography, photoengraving, or gravure, which involves the use, storage or disposal of hazardous materials,
- (V) accumulation or storage of waste oil, anti-freeze or spent lead-acid batteries which are subject to a general permit issued under §22a-208(i) and §22a-454(e)(1) of the Connecticut General Statutes,
- (W) production of rubber, resin cements, elastomers or plastic, which involves the use, storage or disposal of hazardous materials,
- (X) storage of de-icing chemicals, unless such storage takes place within a weather-

tight water-proof structure for the purpose of retail sale or for the purpose of de-icing parking areas or access roads to parking areas,

- (Y) accumulation, storage, handling, recycling, disposal, reduction, processing, burning, transfer or composting of solid waste which is subject to a permit issued by the Commissioner pursuant to §22a-207b, §22a-208a, and §22a-208c of the Connecticut General Statute, except for a potable water treatment sludge disposal area,
 - (Z) dying, coating or printing of textiles, or tanning or finishing of leather, which activity involves the use, storage or disposal of hazardous materials,
 - (AA) production of wood veneer, plywood, reconstituted wood or pressure-treated wood, which involves the use, storage or disposal of hazardous material, and
 - (BB) pulp production processes that involve bleaching;
- (36) "Release" means "release" as defined in §22a-133k-1 of the Regulations of Connecticut State Agencies;
 - (37) "State aquifer protection regulations" means §22a-354i-1 to §22a-354i-10, inclusive, of the Regulations of Connecticut State Agencies;
 - (38) "Storage" means the holding or possession of any hazardous material;
 - (39) "Storage tank" means a stationary device which is designed to store hazardous materials, and is constructed of non-earthen materials including without limitation concrete, steel, fiberglass or plastic;
 - (40) "Topographic feature" means an object, whether natural or man-made, located on the earth surface and of sufficient size that it appears on a 1:24,000 scale topographic quadrangle map drawn by the United States Geological Survey;
 - (41) "Underground" when referring to a storage tank or storage tank component means that ten percent or more of the volumetric capacity of such tank or component is below the surface of the ground and that portion which is below the surface of the ground is not fully visible for inspection;
 - (42) "Vehicle" or "vehicles" means a "vessel" as defined by §15-170 of the Connecticut General Statutes, and any vehicle propelled or drawn by any non-muscular power, including without limitation an automobile, aircraft, all-terrain vehicle, tractor, lawn mower or snowmobile;
 - (43) "Waters" means "waters" as defined in §22a-423 of the Connecticut General Statutes;
 - (44) "Well field" means "well field" as defined in §22a-354h of the Connecticut General Statutes; and

- (45) "Zoning district map" means any map showing zoning districts prepared in accordance with maps adopted pursuant to §8-3 of the Connecticut General Statutes.

SECTION 3. Delineation of Aquifer Protection Area Boundaries

- (a) The zoning, planning, or planning and zoning commission shall delineate the aquifer protection areas on the Town of Bethany zoning district map or, if zoning district maps do not exist, the inland wetland and watercourse areas map adopted pursuant to §22a-42a the Connecticut General Statutes. Such delineation shall consist of the combined areas of contribution and recharge areas as shown on Level A maps approved or prepared by the Commissioner.
- (1) Such boundaries shall be delineated within one hundred twenty (120) days after being notified by the Commissioner that an aquifer protection area is located partially or entirely within the Town of Bethany.
- (2) Notice of such delineation shall be published in a newspaper having substantial circulation in the affected area. Such notice shall include at least the following:
- (A) a map or detailed description of the subject aquifer protection area; and
- (B) the name, telephone number, and address of a representative of the Agency who may be reached for further information.
- (b) In order to clarify the location of an aquifer protection area boundary, the Agency may apply to the Commissioner to extend such boundary to coincide with the nearest property line, municipal boundary or topographic feature pursuant to §22a-354i-4 of the Regulations of Connecticut State Agencies. Such extension shall, at a minimum, fully encompass the aquifer protection areas bounded by the approved level A mapping but shall not exceed the distance necessary to clarify the location of the aquifer protection area or to facilitate the administration of regulations pertaining thereto. An aquifer protection area boundary may not be extended without prior written approval of the Commissioner.
- (1) Any request by the Agency to the Commissioner for extension of an aquifer protection area boundary shall include at least the following:
- (A) A map to scale delineating (i) the aquifer protection area boundary mapped under section 3(a) of the APA regulations and (ii) the proposed extension of the aquifer protection area boundary;
- (B) A certification by the chairperson or duly authorized agent of the Agency that notice of such request has been provided to all owners of property within the proposed extended aquifer protection area and all affected water companies in accordance with the following:
- (i) Such notice shall include at least the following:
- (aa) A map showing the aquifer protection area boundaries and the

proposed extension of such boundaries,

- (bb) the name, address, and telephone number of a representative of the Agency who may be contacted for further information, and
- (cc) a statement that any person may, not later than thirty (30) days after said notification, submit to the Agency written comments on such proposed boundary extension;

(ii) Such notice shall be effectuated by the following:

- (aa) Delivery of notice by certified mail to those individuals and entities identified in subsection (b)(1)(B) of this section, or
- (bb) the publication of a notice in a newspaper having substantial circulation in the affected area; and posting of notice near the proposed boundaries of the subject aquifer protection area of at least four signs each of which shall be at least four square feet in size (2' x 2'); and

(iii) a summary of comments received by such Agency regarding the proposed boundary extension and the Agency's response.

(2) Not later than sixty (60) days after receiving the Commissioner's written approval of a request to extend an aquifer protection area boundary, the Agency shall cause such boundary to be delineated in accordance with subsection (a) of this section.

- (c) No person may challenge the boundaries of the aquifer protection area under the APA Regulations unless such challenge is based solely on a failure by the Agency to properly delineate the boundaries in accordance with §22a-354n of the Connecticut General Statutes.
- (d) A map of the location and boundaries of the aquifer protection areas, or regulated areas, shall be available for inspection in the Office of the City/Town Clerk or the Agency.
- (e) If the Level A mapping is amended in accordance with §22a-354b-1(i) or §22a-354b-1(j) of the Regulations of Connecticut State Agencies, the Agency shall cause the amended aquifer protection area boundary to be delineated in accordance with subsections (a) or (b) of this section.

SECTION 4. Prohibited and Regulated Activities

The following regulated activities are not prohibited in aquifer protection areas:

- (a) All regulated activities are prohibited in aquifer protection areas, except as specified in subsection (b) of this section.
- (b) The following regulated activities are not prohibited in aquifer protection areas:
 - 1) A registered regulated activity which is conducted in compliance with

Section 22a-354i-9 of the Regulations of Connecticut State Agencies or section 12 of the APA Regulations; and

- 2) A regulated activity which has received a permit issued pursuant to Section 22a-354i-8 of the Regulations of Connecticut State Agencies or Section 9 of the APA Regulations.
- 3) A regulated activity which is on any municipally owned site undergoing remedial action pursuant to 40 CFR 271 at the time the applicable aquifer protection area is designated on a municipal zoning district map or inland wetland map, provided:
(1) no such regulated activity substantially commenced or was in active operation for the five-year period preceding the date that the applicable aquifer protection area is designated on a municipal zoning district map or inland wetland map, and (2) any person who engages in such regulated activity within the ten-year period commencing on the date that such applicable aquifer protection area is designated on a municipal zoning district map or inland wetland map registers such regulated activity on a form prescribed by the Commissioner of Environmental Protection and in accordance with the provisions of Section 22a-354i-7 of the Regulations of Connecticut State Agencies.

(c) The following are not regulated activities:

- (1) Any activity conducted at a residence without compensation;
- (2) any activity involving the use or storage of no more than two and one-half (2.5) gallons of each type of hazardous material on-site at any one time, provided the total of all hazardous materials on-site does not exceed fifty-five (55) gallons at any one time;
- (3) any agricultural activity regulated pursuant to §22a-354m(d) of the Connecticut General Statutes;
- (4) any activity provided all the following conditions are satisfied:
 - (A) such activity takes place solely within an enclosed building in an area with an impermeable floor,
 - (B) such activity involves no more than 10% of the floor area in the building where the activity takes place,
 - (C) any hazardous material used in connection with such activity is stored in such building at all times,
 - (D) all waste waters generated by such activity are lawfully disposed through a connection to a publicly owned treatment works, and
 - (E) such activity does not involve (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with

such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than one hundred and ten (110) gallons of hazardous materials;

- (5) any activity solely involving the use of lubricating oil provided all the following conditions are satisfied:
 - (A) such activity does not involve cleaning of metals with chlorinated solvents at the facility,
 - (B) such activity takes place solely within an enclosed building in an area with an impermeable floor,
 - (C) any hazardous material used in connection with such activity is stored in such building at all times, and
 - (D) such activity does not involve: (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than one hundred ten (110) gallons of such lubricating oil and associated hazardous waste; and
- (6) any activity involving the dispensing of oil or petroleum from an above-ground storage tank or tanks with an aggregate volume of two thousand (2000) gallons or less provided all the following conditions are satisfied:
 - (A) such dispensing activity takes place solely on a paved surface which is covered by a roof,
 - (B) the above-ground storage tank(s) is a double-walled tank with overfill alarms, and
 - (C) all associated piping is either above ground, or has secondary containment.
- (d) Determination of a non-regulated activity
 - (1) Any person proposing to carry out a non-regulated activity, as set forth in section 4(c) of these regulations, in an aquifer protection area shall, prior to commencement of such activity, notify the Agency or its duly authorized agent on a form provided by the Agency. Such form shall provide sufficient information to enable the Agency or its duly authorized agent to properly determine that the proposed activity is a regulated activity or a non-regulated activity within the aquifer protection area.
 - (2) If such activity is determined to be a non-regulated activity, then no further action under the APA Regulations is necessary.

SECTION 5. Activities Regulated by the State

- (a) The Commissioner shall exclusively regulate activities within aquifer protection areas that are specified in §22a-354p(g) of the Connecticut General Statutes. The Agency shall regulate all other regulated activities.
- (b) Any person conducting regulated activities that are within the authority of the Commissioner shall submit a registration or obtain a permit or exemption from the Commissioner prior to engaging in such activity. The Commissioner shall process applications for those regulated activities.

The Agency may submit an advisory decision to the Commissioner for consideration on any permit regulated under this section in accordance with the Connecticut General Statutes §22a-354p(g).

SECTION 6. Application for an Exemption from Prohibition or Regulation

- (a) The owner or operator of a regulated activity may seek an exemption from the Commissioner pursuant to §22a-354i-6 of the Regulations of Connecticut State Agencies. Any person seeking an exemption from the Commissioner shall concurrently submit a copy of the application for an exemption to the Agency and any affected water company.
- (b) The Agency may submit written comments to the Commissioner on any exemption regulated under this section in accordance with §22a-354i-6(c) of the Regulations of Connecticut State Agencies within sixty (60) days of the agency receipt of copy of the application.

SECTION 7. General Registration, Permit Application and Transfer Procedures

- (a) All applications for permits and registrations shall contain sufficient information for a fair and informed determination of the issues. The Agency may request additional information from the applicant for this purpose.
- (b) The day of receipt of a registration, permit application or transfer form shall be the day of the next regularly scheduled meeting of the Agency, immediately following the day of submission of the application to the Agency or its duly authorized agent, or thirty-five days after such submission, whichever is sooner.
- (c) At any time during the review period, the Agency may require the applicant or registrant to provide additional information about the regulated activity. Requests for additional information shall not stay the time limitations for registrations and permits as set forth in sections 8 and 9 of the APA Regulations.
- (d) All permit applications and registrations shall be open for public inspection.
- (e) Incomplete permit applications and registrations may be denied without prejudice.
- (f) No permit or registration issued under sections 8 or 9 of the APA Regulations shall be

assigned or transferred except with written approval by the Agency.

- (g) The agency shall notify the town clerk of any adjoining municipality of the pendency of any application, petition, appeal, request or plan concerning any project on any site in which: (1) any portion of the property affected by a decision of such agency is within five-hundred feet of the boundary of the adjoining municipality; (2) a significant portion of the traffic to the completed project on the site will use streets within the adjoining municipality to enter or exit the site; (3) a significant portion of the sewer or water drainage from the project on the site will flow through and significantly impact the drainage or sewerage system with the adjoining municipality; or (4) water runoff from the improved site will impact streets or other municipal or private property within the adjoining municipality. Such notice shall be made by certified mail, return receipt requested, and shall be mailed within seven days of the date of receipt of the application, petition, request or plan. Such adjoining municipality may, through a representative, appear and be heard at any hearing on any such application, petition, appeal, request or plan.

SECTION 8. Registration Requirements

- (a) Any person engaged in a regulated activity which substantially commenced, or was in active operation within the past five (5) years, or with respect to which a municipal building permit was issued, either (A) before the effective date of the state aquifer protection regulations, or (B) before the date an applicable aquifer protection area is designated on a municipal zoning district map or inland wetland and watercourse areas map, whichever occurs later, or for any municipally owned site undergoing remedial action pursuant to 40 CFR 271, any person who engages in a regulated activity within the ten (10) year period commencing on the date the applicable aquifer protection area is designated on a municipal zoning district map or inland wetlands map, shall register the activity in accordance with this section unless such person has pending an application for an exemption pursuant to §22a-354i-6 of the Regulations of Connecticut State Agencies.
- (1) The Commissioner shall process registrations for those regulated activities specified in §22a-354p(g) of the Connecticut General Statutes. The Agency shall process registrations for all other regulated activities.
 - (2) If the regulated activity is not specified in §22a-354p(g) of the Connecticut General Statutes, the person engaged in such activity shall submit a registration to the Agency not later than one hundred eighty (180) days after adoption of regulations pursuant to §22a-354p of the Connecticut General Statutes, or the designation the aquifer protection area pursuant to §22a-354i-2 of the Regulations of Connecticut State Agencies, whichever occurs later. Any municipally owned site undergoing remedial action pursuant to 40 CFR 271, the person engaged in such regulated activity shall submit a registration with the ten (10) year period commencing on the date the applicable aquifer protection area is designated on a municipal zoning map or inland wetland map. Any person submitting a registration pursuant to the requirements of this subsection shall simultaneously file a copy of the registration with the Commissioner, Commissioner of Public Health and the affected water company.
- (b) All registrations shall be provided on a form prescribed by the Agency and shall be accompanied by the correct registration fee in accordance with section 18 of the APA Regulations. Such registration forms may be obtained from the Bethany Town Clerk or the Agency. Such registration forms shall include at least the following information in writing or on maps or drawings:
- (1) The name, business telephone number, street address and mailing address of the:
 - (A) Registrant; if the registrant is a corporation or limited partnership, the full name of the facility and such corporation or limited partnership as registered with the Connecticut Secretary of State, and any officer or governing or managing body of any partnership, association, firm or corporation,

- (B) owner of such facility if different than the registrant, and
- (C) manager or operator overseeing the operations of such facility;
- (2) the location of such facility, using street address or other appropriate method of location, and a map showing the property boundaries of the facility on a 1:24,000 scale United States Geological Survey topographic quadrangle base;
- (3) an identification of the regulated activity or activities conducted at the facility, as described in 2(a)(35) of the APA Regulations, which regulated activity or activities shall consist of any regulated activity which substantially commenced, was in active operation, or with respect to which a municipal building permit was issued within the past five years; and
- (4) a certification by the registrant that the subject regulated activity is in compliance with the best management practices set forth in section 12(a) of the APA Regulations, as follows, signed after satisfying the statements set forth in the following certification:

"I have personally examined and am familiar with the information submitted in this registration and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or certification may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."
- (c) When deemed necessary to protect a public supply well subject to regulation under §22a-354c or §22a-354z of the Connecticut General Statutes, the Agency may:
 - (1) require, by written notice, any registrant to submit for review and written approval a storm water management plan prepared in accordance with section 12(b) of the APA Regulations. If so required, the storm water management plan shall be implemented by the registrant immediately upon its approval; or
 - (2) require, by written notice, any registrant to submit for review and written approval the materials management plan prepared in accordance with section 12(a) of the APA Regulations. If so required, the materials management plan shall be implemented by the registrant immediately upon its approval.
- (d) If the Agency determines that a registration is incomplete, it shall reject the registration and notify the registrant of what additional information is required and the date by which it shall be submitted.
- (e) If the registration is determined to be complete, and the regulated activity is eligible for registration, the Agency shall send written notification of such registration to the registrant. Such registration shall be determined to be complete and eligible if the

registrant has not otherwise received a notice of rejection from the Agency, not later than one hundred and eighty (180) days after the date the registration is received by the Agency.

- (f) The following general provisions shall be included in the issuance of all registrations:
 - (1) The Agency has relied in whole or in part on information provided by the registrant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the registration may be modified, suspended or revoked;
 - (2) all registrations issued by the Agency are subject to and do not derogate any present or future rights or powers of the Commissioner, Agency, or municipality, and convey no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity;
 - (3) a complete registration shall expire five (5) years from the date of receipt of such registration by the Agency;
 - (4) the registrant shall apply to the Agency to renew the registration on a form prescribed by the Agency for a facility prior to expiration of such registration; and
 - (5) if a registered regulated activity is out of business or inactive when registration renewal is required, a five (5) year allowance shall be in effect from the date the registration expires. If the registrant has not applied to renew the registration within five (5) years of the date the registration expires, the facility is no longer eligible for registration.
- (g) If a regulated activity which is eligible for registration in accordance with subsection (a) of this section fails to be registered or if the registrant of an active registered activity fails to apply for renewal prior to expiration, the Commissioner or municipal aquifer protection agency, as appropriate, may accept a late registration at their discretion, subject to the limitations in subsection (f)(5) of this section.
- (h) Any person wishing to assume the benefits under a registration for regulated activities shall apply to transfer such registration on a form prescribed by the Agency and submitted to the Agency.

SECTION 9. Permit Requirements

- (a) Any person may apply for a permit to add a regulated activity to a facility where a registered regulated activity occurs.

- (b) The Agency shall process permit applications for those registrants that have registered pursuant to section 8 of the APA Regulations. The Commissioner shall process permit applications for regulated activities specified in §22a-354p(g) of the Connecticut General Statutes and for those registrants that have registered pursuant to §22a-354i-7(b)(1) of the Regulations of Connecticut State Agencies.
- (c) Action shall be taken on permit applications within sixty-five (65) days after the completion of a public hearing or in the absence of a public hearing within sixty-five (65) days from the date of receipt of the application. The applicant may consent to one or more extensions of either of these time frames, provided the total extension of all such periods is sixty-five (65) days or less.
- (d) An application for a permit shall be made on a form prescribed by the Agency and shall be accompanied by the correct application fee in accordance with section 18 of the APA Regulations. Such permit application forms may be obtained from the Bethany Town Clerk or the Agency. Simultaneously with filing an application, the applicant shall send a copy of the application to the Commissioner, the Commissioner of Public Health and the affected water company. An application shall include the following information:
 - (1) The information as required for a registration under section 8(b) of the APA Regulations shall be provided for the proposed regulated activity;
 - (2) a confirmation and certification that the existing and proposed activity:
 - (A) remains and shall remain in compliance with section 12(a) of the APA Regulations,
 - (B) shall not increase the number of underground storage tanks used for storage of hazardous materials, and
 - (C) remains and shall remain in compliance with all local, state, and federal environmental laws;
 - (3) a materials management plan in accordance with section 12(a) of the APA Regulations;
 - (4) a storm water management plan in accordance with section 12(b) of the APA Regulations;
 - (5) the following environmental compliance information with respect to environmental violations which occurred at the facility where the regulated activities are conducted, within the five years immediately preceding the date of the application:
 - (A) any criminal conviction involving a violation of any environmental protection law,

- (B) any civil penalty imposed in any state or federal judicial proceeding, or any penalty exceeding five thousand dollars imposed in any administrative proceeding, and
- (C) any judicial or administrative orders issued regarding any such violation together with the dates, case or docket numbers, or other information which identifies the proceeding. For any such proceeding initiated by the state or federal government, the Agency may require submission of a copy of any official document associated with the proceeding, the final judgment or order;
- (6) any additional information deemed necessary by the Agency regarding potential threats to the ground water and proposed safeguards; and
- (7) the following certification signed by the applicant and the individual responsible for preparing the application, after satisfying the statements set forth in the certification:

"I have personally examined and am familiar with the information submitted in this document and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."

- (e) The Commissioner, any affected water company or the Commissioner of Public Health may, not later than thirty (30) days after receiving a copy of an application for a permit under this section, submit to the Agency written comments on such application. The Agency shall give due consideration to any such comments, and shall provide a copy of the decision to the Commissioner, the affected water company and the Commissioner of Public Health.
- (f) To carry out the purposes of the Act, the Agency may grant an application as filed, grant it upon such terms, conditions, limitations or modifications necessary, or deny it. The Agency shall state upon the record the reason for its decision.
- (g) The Agency may hold a public hearing on an application for a permit in accordance with section 10 of the APA regulations.
- (h) The Agency shall not issue a permit unless a complete application has been received and the applicant demonstrates to the Agency's satisfaction that all requirements of this section of the APA regulations have been satisfied and all of the following standards and criteria have been met:
 - (1) the proposed regulated activity shall take place at a facility where a registered regulated activity occurs;

- (2) the proposed regulated activity shall not increase the number, or storage capacity of underground storage tanks used for hazardous materials except for the replacement of an existing underground storage tank in accordance with section 12(a)(3) of the APA Regulations;
 - (3) the materials management plan and storm water management plan have been satisfactorily prepared in accordance with sections 12(a) and 12(b) of the APA Regulations;
 - (4) the applicant has submitted a confirmation and certification that all regulated activities remain and shall remain in compliance with all local, state and federal environmental laws in accordance with subsection (d)(2) of this section;
 - (5) the applicant's compliance record does not indicate (A) that any noncompliance resulted from indifference to or disregard for the legal requirements, (B) an unwillingness or inability to devote the resources necessary to comply and remain in compliance, or (C) that instances of noncompliance have led to serious environmental harm, harm to human health or safety, or a substantial risk of such harm;
 - (6) the proposed regulated activity shall be conducted in accordance with section 12 of the APA Regulations;
 - (7) the existing regulated activity is being conducted in accordance with section 12 of the APA Regulations; and
 - (8) the certification required under subsection (d)(7) of this section has been signed by the applicant and the individual responsible for preparing the application.
- (i) The Agency may impose reasonable conditions or limitations on any permit issued under this section to assure protection of the ground water, including, but not limited to the following:
- (1) best management practices in addition to those set forth in section 12 of the APA Regulations; and
 - (2) ground water monitoring.
- (j) The following general provisions shall be included in the issuance of all permits:
- (1) the Agency has relied in whole or in part on information provided by the applicant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the permit may be modified, suspended or revoked;
 - (2) all permits issued by the Agency are subject to and do not derogate any present or future rights or powers of the Commissioner, Agency, or

municipality, and convey no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity;

- (3) the permit shall expire ten (10) years from the date of issuance of such permit by the Agency; and
- (4) a person shall apply to the Agency to renew the permit on a form prescribed by the Agency prior to expiration of such permit. Such renewal shall be granted upon request by the Agency unless a substantial change in the permitted activity is proposed, or enforcement action with regard to the regulated activity has been taken, in which case, a new permit application shall be submitted and reviewed in accordance with the provisions of this section.
- (5) The Agency shall notify the applicant or permittee within fifteen (15) days of the date of the decision by certified mail, return receipt requested, and the Agency shall cause notice of its order in issuance or denial of a permit to be published in a newspaper having a general circulation in the municipality in which the aquifer protection area is located.
- (k) A permittee may request a modification of a permit from the Agency. Such request shall be on a form prescribed by the Agency, and shall include the facts and reasons supporting the request. The Agency may require the permittee to submit a new application for a permit or renewal in lieu of a modification request.
- (l) A person wishing to assume the benefits under a permit for regulated activities shall apply to transfer such permit on a form prescribed by the Agency and submitted to the Agency.

SECTION 10. Public Hearings Regarding Permit Applications

- (a) If the Agency decides to hold a public hearing regarding an application for a permit to conduct a regulated activity within an aquifer protection area, such hearing shall commence no later than sixty-five (65) days after the receipt of such application.
- (b) Notice of the hearing shall be published at least twice at intervals of not less than two (2) days, the first not more than fifteen (15) days and not fewer than ten (10) days, and the last not less than two (2) days before the date set for the hearing in a newspaper having a general circulation in each city/town where the affected aquifer, or any part thereof, is located.
- (c) The Agency shall send to any affected water company, at least ten (10) days before the hearing, a copy of the notice by certified mail, return receipt requested. Any affected water company may, through a representative, appear and be heard at any such hearing.

- (d) All applications, maps and documents relating thereto shall be open for public inspection.
- (e) At such hearing any person or persons may appear and be heard.
- (f) The hearing shall be completed within thirty-five (35) days of its commencement.
- (g) In reaching its decision on any application after a public hearing, the Agency shall base its decision on the record of that hearing. Documentary evidence or other material not in the hearing record shall not be considered by the Agency in its decision. The applicant may consent to an extension of the time frames in Subsections (a) or (f) of this Section, provided the total extension of all such periods, including any extensions provided in Section 9(c), totals sixty-five (65) days or less.
- (h) The applicant or permittee shall be notified of the Agency's decision in accordance with section 9(k) of the APA Regulations.

SECTION 11. Bond and Insurance Relevant to Permit Applicants

- (a) An applicant may be required to file a bond as a condition of the permit.
- (b) Any bond or surety shall be conditioned on compliance with all provisions of these regulations and the terms, conditions and limitations established in the permit.

SECTION 12. Best Management Practices

- (a) Every regulated activity shall be conducted in accordance with the following:
 - (1) hazardous materials may be stored above ground within an aquifer protection area only in accordance with the following conditions:
 - (A) hazardous material shall be stored in a building or under a roof that minimizes storm water entry to the hazardous material storage area, except that a roof is not required for a bulk storage facility as defined in section 2 of the APA Regulations,
 - (B) floors within a building or under a roof where hazardous material may be stored shall be constructed or treated to protect the surface of the floor from deterioration due to spillage of any such material,
 - (C) a structure which may be used for storage or transfer of hazardous material shall be protected from storm water run-on, and ground water intrusion,
 - (D) hazardous material shall be stored within an impermeable containment area which is capable of containing at least the volume of the largest container of such hazardous material present in such area, or 10% of the total volume of all such containers in such area, whichever is larger,

without overflow of released hazardous material from the containment area,

- (E) hazardous material shall not be stored with other hazardous materials that are incompatible and may create a hazard of fire, explosion or generation of toxic substances,
 - (F) hazardous material shall be stored only in a container that has been certified to meet state or federal specifications for containers suitable for the transport or storage of such material,
 - (G) hazardous material shall be stored only in an area that is secured against un-authorized entry by the public, and
 - (H) the requirements of this subdivision are intended to supplement, and not to supersede, any other applicable requirements of federal, state, or local law, including applicable requirements of the Resource Conservation and Recovery Act of 1976;
- (2) no person shall increase the number of underground storage tanks used to store hazardous materials;
 - (3) an underground storage tank used to store hazardous materials shall not be replaced with a larger tank unless (A) there is no more than a 25% increase in volume of the larger replacement tank, and (B) the larger replacement tank is a double-walled tank with co-axial piping, both meeting new installation component standards pursuant to §22a-449(d)-1(e) and §22a-449(d)-102 of the Regulations of Connecticut State Agencies, and with interstitial monitoring;
 - (4) no person shall use, maintain or install floor drains, dry wells or other infiltration devices or appurtenances which allow the release of waste waters to the ground, unless such release is permitted by the Commissioner in accordance with §22a-430 or §22a-430b of the Connecticut General Statutes; and
 - (5) a materials management plan shall be developed and implemented in accordance with the following:
 - (A) a materials management plan shall contain, at a minimum, the following information with respect to the subject regulated activity:
 - (i) a pollution prevention assessment consisting of a detailed evaluation of alternatives to the use of hazardous materials or processes and practices that would reduce or eliminate the use of hazardous materials, and implementation of such alternatives where possible and feasible,

- (ii) a description of any operations or practices which may pose a threat of pollution to the aquifer, which shall include the following:
 - (aa) a process flow diagram identifying where hazardous materials are stored, disposed and used, and where hazardous wastes are generated and subsequently stored and disposed,
 - (bb) an inventory of all hazardous materials which are likely to be or will be manufactured, produced, stored, utilized or otherwise handled, and
 - (cc) a description of waste, including waste waters generated, and a description of how such wastes are handled, stored and disposed,
 - (iii) the name, street address, mailing address, title and telephone number of the individual(s) responsible for implementing the materials management plan and the individual(s) who should be contacted in an emergency,
 - (iv) a record-keeping system to account for the types, quantities, and disposition of hazardous materials which are manufactured, produced, utilized, stored, or otherwise handled or which are discharged or emitted; such record-keeping system shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency, and
 - (v) an emergency response plan for responding to a release of hazardous materials. Such plan shall describe how each such release could result in pollution to the underlying aquifer and shall set forth the methods used or to be used to prevent and abate any such a release;
- (B) when a materials management plan is required under either section 8(c) or 9(d) of the APA Regulations, such materials management plan shall be completed and certified by a professional engineer or a certified hazardous materials manager, or, if the facility where the regulated activity is conducted has received and maintained an ISO 14001 environmental management system certification, then the registrant may complete and certify the materials management plan; and
- (C) the materials management plan shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency.

- (b) The development and implementation of a storm water management plan required for regulated activities in accordance with sections 8(c) and 9(d) of the APA Regulations, shall be as follows: A storm water management plan shall assure that storm water run-off generated by the subject regulated activity is (i) managed in a manner so as to prevent pollution of ground water, and (ii) shall comply with all of the requirements for the General Permit of the Discharge of Storm Water associated with a Commercial Activity issued pursuant to §22a-430b of the Connecticut General Statutes.

SECTION 13. Other State, Federal and Local Laws

- (a) Nothing in these regulations shall obviate the requirement for the applicant to obtain any other assents, permits or licenses required by law or regulation by the Town of Bethany, State of Connecticut and the Government of the United States including any approval required by the Connecticut Department of Environmental Protection and the U.S. Army Corps of Engineers and the United States Environmental Protection Agency. Obtaining such assents, permits or licenses are the sole responsibility of the applicant.
- (b) No person shall conduct any regulated activity within an aquifer protection area which requires zoning or subdivision approval without first having obtained a valid certificate of zoning or subdivision approval, special permit, special exception or variance, or other documentation establishing that the proposal complies with the Town of Bethany zoning or subdivision regulations.

SECTION 14. Enforcement

- (a) The Agency may appoint a duly authorized agent to act in its behalf with the authority to issue notices of violation or cease and desist orders.
- (b) If the Agency or its duly authorized agent finds that any person is conducting or maintaining any activity, facility or condition which violates any provision of these regulations, the Agency or its duly authorized agent may:
 - (1) Issue a notice of violation.
 - (A) The notice of violation shall state the nature of the violation, the jurisdiction of the Agency, and the necessary action required to correct the violation including without limitation halting the activity in the aquifer protection area.
 - (B) The Agency may request that the person appear at the next regularly scheduled meeting of the Agency to discuss the unauthorized activity, and/or provide a written reply to the notice or file an application for the necessary permit or registration. Failure to carry out the action(s) directed in a notice of violation may result in issuance of an order under subsection (2) of this section or other enforcement proceedings as provided by law.

- (2) Issue a written order.
 - (A) Such order shall be issued by certified mail, return receipt requested to such person conducting such activity or maintaining such facility or condition to cease such activity immediately or to correct such facility or condition. The Agency shall send a copy of such order to any affected water company by certified mail, return receipt requested.
 - (B) Within ten (10) days of the issuance of such order the Agency shall hold a hearing to provide the person an opportunity to be heard and show cause why the order should not remain in effect. Any affected water company may testify at the hearing. The Agency shall consider the facts presented at the hearing and, within ten (10) days of the completion of the hearing, notify the person by certified mail, return receipt requested, that the original order remains in effect, that a revised order is in effect, or that the order has been withdrawn.
- (3) Suspend or revoke registration or permit.
 - (A) The Agency may suspend or revoke a registration or a permit if it finds, after a hearing, that the registrant or permittee has not complied with the terms, conditions or limitations set forth in the registration or the permit. Prior to revoking or suspending any registration or permit, the Agency shall issue notice to the registrant or the permittee, personally or by certified mail, return receipt requested, setting forth the facts or conduct that warrants the intended action.
 - (B) The Agency shall hold a hearing to provide the registrant or permittee an opportunity to show that it is in compliance with its registration or permit. The Agency shall notify the registrant or permittee of its decision by certified mail within fifteen (15) days of the date of its decision. The Agency shall publish notice of a suspension or revocation in a newspaper having general circulation in the Town of Bethany.
- (c) An order issued pursuant to subsection (b)(2) shall be effective upon issuance, shall remain in effect until the Agency affirms, revises, or withdraws the order, and shall not delay or bar an action pursuant to subsection (b)(3) of this section.
- (d) A court may assess criminal and or civil penalties to any person who commits, takes part in, or assists in any violation of any provision of the APA regulations in accordance with §22a-354s(b) and §22a-354s(c) of the Connecticut General Statutes.

SECTION 15. Amendments

- (a) These regulations may be amended, changed or repealed in accordance with §22a-354p(b) of the Connecticut General Statutes.

- (b) If a complete application is filed with the Agency which is in conformance with the APA regulations as of the date of its filing, the permit issued shall not be required to comply with any changes in regulations taking effect on or after the date that the filing date. The provisions of this section shall not apply to the establishment, amendment, or change of the boundaries of the aquifer protection area or to any changes in the APA Regulations necessary to make the regulations consistent with chapter 446i of the Connecticut General Statutes as of the date of the Agency's decision.

SECTION 16. Appeals

- (a) Appeal of the Agency's regulation, order, decision or action shall be made in accordance with §22a-354q of the Connecticut General Statutes.

SECTION 17. Conflict and Severance

- (a) If there is a conflict between the provisions of the APA Regulations, the provision that imposes the most stringent standards shall govern. The invalidity of any word, clause, sentence, section, part, subsection, subdivision or provision of these regulations shall not affect the validity of any other part that can be given effect without such valid part or parts.
- (b) If there is a conflict between the provisions of the APA Regulations and the Act, the provisions of the Act shall govern.

SECTION 18. Registration and Permit Application Fees

- (a) All fees required by these regulations shall be submitted to the Agency by certified check or money order payable to the Town of Bethany at the time the registration or permit application is filed with the Agency.
- (b) No registration or permit application shall be granted or approved by the Agency unless the correct registration/application fee is paid in full or unless a waiver has been granted by the Agency pursuant to subsection (f) of this section.
- (c) The registration or permit application fee is nonrefundable.
- (d) Registration or permit application fees shall be based on a fee schedule adopted by the Agency.
- (e) Boards, commissions, councils and departments of the Town of Bethany are exempt from all fee requirements.
- (f) The registrant or applicant may petition the Agency to waive, reduce or allow delayed payment of the fee. Such petitions shall be in writing and shall state fully

the facts and circumstances the Agency should consider in its determination under this section. The Agency may waive all or part of the application fee if the Agency determines that:

- (1) the activity applied for would clearly result in a substantial public benefit to the environment or to the public health and safety and the registrant or applicant would reasonably be deterred from initiating the activity solely or primarily as a result of the amount of the registration or permit application fee; or
- (2) the amount of the registration or permit application fee is clearly excessive in relation to the cost to the City/Town for reviewing and processing the application.

(g) Extra Assessments

In the event that additional expenses, including but not limited to outside consultants, experts, or legal advisors are incurred in processing the registration or permit application the applicant/registrant may be assessed an additional fee not to exceed actual cost.

For the purpose of this assessment, an "outside consultant" means a professional who is not an employee of the Town of Bethany including but not limited to engineering, environmental, hydrogeology and hazardous materials management professionals.

- (h) The Agency shall state upon its record the basis for all actions under this section.

SECTION 19. Effective Date of Regulations

The APA Regulations, APA boundaries and amendments thereto, shall become effective upon (1) the Commissioner's determination that such regulations are reasonably related to the purpose of ground water protection and not inconsistent with the Regulations of Connecticut State Agencies §22a-354i-1 through §22a-354i-10 and (2) filing in the Office of the City/Town Clerk.

APPENDIX 10

DIGITAL MAPPING DATA SUBMISSION REQUIREMENTS

1. Submission of a hardcopy map format, without digital data, will be subject to additional fees.
2. All digital mapping data must be delivered in one of the following formats: (To be verified by Town Engineer of GIS Consultant).
 - a) AutoCAD dwg.
 - b) AutoCAD dxf.
 - c) Arc/Info shape file
 - d) Arc/Info export file (eOO)
 - e) ArcGIS personal geodatabase
3. If delivered as a series of tiled CADD files, the features that cross sheet boundaries must precisely match at the join lines.
4. Line features in CADD files will employ line styles for graphically differentiating features, such as dashed lines for unpaved roads. Continuous lines that have been broken to appear like dashed lines are not acceptable.
5. All text in CADD files will be in separate layers. Map features under test should not be erased in order to make the text clearer, such as contour lines and their associated elevation value text.
6. Features must be thematically organized in the CADD or GIS data structure. For example, there must be separate CADD layers for buildings, roads, road centerlines, surface water, wetlands, etc. Having all these features in a single CADD layer or GIS file will not be accepted.
7. The submission of data must also include documentation on the method used to gather the data along with an estimation of the horizontal and vertical accuracy and date of data capture.
8. All features represented in a digitally submitted AutoCAD or GIS drawings must be registered to the CT State Plane Coordinate System using NAD 1983 datum.
9. The fee for any revision to the GIS mapping as a result of an approved subdivision plan shall be paid by the applicant. No map shall be deemed complete and ready for recording with the Town Clerk unless this fee has been received from the applicant.

APPENDIX 11

LAND USE-RELATED APPLICATIONS

FEE SCHEDULE

ARTICLE I. LAND USE-RELATED APPLICATIONS
§ 129-1. Fee schedule established.

Pursuant to Section 8-1c of the Connecticut General Statutes, the following schedule of fees shall pertain to the processing of applications by the Planning and Zoning Commission, the Zoning Board of Appeals, and the Inland Wetlands and Watercourses Commission, and the Zoning Enforcement Officer; and such fees shall be paid at the time the application is filed:

- A. Zoning permit for zoning approval of construction:
 - 1. Residence or residential property:
 - a. New construction:
 - (1) By ZEO: One hundred twenty five dollars (\$125)
 - (2) By Commission: One hundred fifty dollars (\$150)
 - b. Addition:
 - (1) By ZEO: Seventy five dollars (\$75)
 - (2) by Commission One hundred dollars (\$100)
 - c. Modification to existing, valid permit:
 - (1) By ZEO: Fifty dollars (\$50)
 - (2) By Commission: One hundred dollars (\$100)
 - d. Site Plan Review:
 - (1) By ZEO: One hundred seventy five dollars (\$175)
 - (2) By Commission: Two hundred dollars (\$200)
 - 2. Business or business property:
 - a. New construction:
 - (1) By ZEO: Two hundred twenty five dollars (\$225)
 - (2) By Commission: Two hundred fifty dollars (\$250)
 - b. Addition:
 - (1) By ZEO: One hundred twenty five dollars (\$125)
 - (2) By Commission: One hundred fifty dollars (\$150)
 - c. Modification to existing, valid permit:
 - (1) By ZEO: One hundred twenty five dollars (\$125)
 - (2) By Commission: One hundred fifty dollars (\$150)
 - d. Site Plan Review:
 - (1) By ZEO: Three hundred twenty five (\$325)
 - (2) By Commission: Three hundred fifty dollars (\$350)
 - e. Change of use:
 - (1) By ZEO: One hundred twenty five dollars (\$125)
 - (2) By Commission: One hundred fifty dollars (\$150)

- B. Special Exception permit, with required public hearing: Three hundred fifty dollars (\$350)
- C. Subdivision:
1. Per lot fee for subdivision without public hearing: Three hundred dollars (\$300)
 2. Per lot fee for subdivision or re-subdivision with public hearing: Three hundred fifty dollars (\$350)
 3. Special Exception rear lot; application fee, with public hearing: Three hundred fifty dollars (\$350)
 4. Per lot fee for special exception rear lot: One hundred fifty dollars (\$150)
 5. New road review fee, per 100 feet or any portion thereof: One hundred dollars (\$100)
- D. Zoning change:
1. Text change (each): Five hundred fifty dollars: (\$550)
 2. Map change (each): Five hundred seventy five dollars: (\$575)
- E. Home occupation, professional office, or roadside stand permit: Seventy five dollars (\$75)
- F. Certificate of Zoning Compliance:
1. Residential: Fifty dollars (\$50)
 2. Business: Seventy five dollars (\$75)
- G. Sign Permit: Fifty dollars (\$50)
- H. Temporary sign or other permit: Fifty dollars (\$50)
- I. Hearing petition: Three hundred fifty dollars (\$350)
- J. Earth removal:
1. Administrative permit: Three hundred dollars (\$300)
 2. Special Exception permit with public hearing: Five hundred fifty dollars (\$550)
- K. Flood Hazard Area permit: Two hundred fifty dollars (\$250)
- L. Hearing fee, if not included above: Three hundred fifty dollars (\$350)
- M. Zoning Board of Appeals applications with public hearing: Three hundred fifty dollars (\$350)
- N. Inland Wetlands and Watercourses Commission applications
(NOT ADDRESSED IN THIS DOCUMENT)