

THE MARTHA'S VINEYARD COMMISSION

BOX 1447
OAK BLUFFS
MASSACHUSETTS
02557

DATE: September 4, 1986

TO: Building Inspector, Town of Tisbury

FROM: Martha's Vineyard Commission

SUBJECT: Development of Regional Impact
RE: Greenhouse Construction

APPLICANT: Thimble Farms
c/o Bencion & Patricia Moskow
Box 491
Vineyard Haven, MA 02568

DECISION OF THE MARTHA'S VINEYARD COMMISSIONSUMMARY

The Martha's Vineyard Commission (The Commission) hereby approves, with certain conditions, the Application of Thimble Farms, c/o Bencion & Patricia Moskow, Box 491, Vineyard Haven, MA 02568 for the construction of a private growing greenhouse in the Town of Tisbury as shown on the Plans Entitled: "Lay-out Plan, Thimble Farms, Vineyard, MA.; April 6, 1986 by V & V Noorland, Inc., P.O. Box 739, Medford, New York, 11763" consisting of eight (8) sheets; and "Fuel Oil Storage System by Kent A. Healy for Thimble Farms, Tisbury, Mass., August 7, 1986" consisting of one (1) sheet; and "Greenhouse Roof Drainage Plan by J.M. Forns & K. Healy for Thimble Farms, Tisbury, Mass., August 7, 1986" consisting of one (1) sheet; and "Sketch of Land in Tisbury, MA., prepared for Bencion Moskow by Vineyard Land Surveying, Revised July 17, 1986" consisting of one (1) sheet; making a total of eleven (11) sheets, (The Plan).

The Decision, with conditions contained herein, is rendered pursuant to the vote of the Commission on September 4, 1986. The Building Inspector of the Town of Tisbury may now grant the necessary development permit for the Applicant's development in accordance with the conditions contained herein, or may approve in accordance with the conditions contained herein and place further conditions thereon, or may disapprove the development application.

FACTS

The proposed development is a Development of Regional Impact as defined by the Commission's Criteria and Standards, Developments of Regional Impact, Section 3.301. The Application was referred to the Commission by the Building Inspector of the Town of Tisbury for action pursuant to M.G.L. Chapter 831, Acts of 1977, as Amended (The Act). The application and notice of public hearing relative thereto are incorporated herein. Martha's Vineyard Commission staff document exhibits are incorporated by reference.

A duly noticed public hearing on the application was conducted by the Commission pursuant to the Act and Massachusetts General Laws, Chapter 30A, Section 2, on August 7, 1986 at 8:00 P.M. at the Commission offices, Olde Stone Building, New York Avenue, Oak Bluffs, Massachusetts. The proposal is for the construction of a private growing greenhouse which has a floor area greater than 3,000 square feet.

Marc Widdiss, Chairman of the Land Use Planning Committee, read the public hearing notice and opened the hearing for testimony at 8:08 P.M.

Mr. Widdiss called upon the Applicant to present the proposal and stated that the Commission voted to re-open the hearing as new plans were submitted.

Mr. Moskow described the location, acreage and specifics of the greenhouse project: Dutch construction (210x207), specific rooms associated with this and produce types to be grown (lettuce, strawberries, herbs and other such produce as is typically grown in a greenhouse). He further stated that the bulk of the produce would be exported, there will be 9 employees and building will be solar heated with oil heat as a backup.

The Applicant then called upon Mr. Joseph Forns to explain the environmental considerations for fuel storage and run off drainage from the greenhouse. Mr. Forns presented the plans and explained that the fuel storage tank would be above ground double wall steel, 4,000 gallon capacity, containment, sump and separator system with a roof shield.

Mr. Forns further discussed Federal and State Regulations for tank storage and spill response procedure. He also presented the greenhouse roof drainage plan.

Questions from Commissioners were answered regarding monopore containment construction and spill response plan.

Russell Smith, Staff of MVC, stated that he examined the plans and his concerns were addressed regarding physical layout, construction, storage facility and drainage. Further, Mr. Smith presented information regarding depth to groundwater in this area, the direction of flow of groundwater and surface drainage. He further showed maps delineating zones of contribution of neighboring municipal wells and discussed the efficiency of monitoring wells for point and non-point sources of pollution.

Rick Hopkins, Staff of MVC, further reviewed the applicants proposal. Mr. Hopkins reviewed the number of fuel deliveries, volume of on-site storage, and fuel consumption per day based on the worst weather scenario. He

stated that given a temperature of 18 degrees and wind between 10-15 mph, the applicant will consume 720 gallons of fuel per day. With a 500 gallon tank and one worst weather day, two (2) deliveries of fuel for that day would be required. With worst weather continuing for five (5) days, eight (8) deliveries of fuel would be required for a 500 gallon storage tank. Mr. Hopkins further reviewed the same data for a 2,500 and 4,000 gallon storage tank. A 2,500 gallon storage tank would require two (2) deliveries; a 4,000 gallon storage tank would require zero (0) deliveries; both for 5 worst weather days. Mr. Hopkins further disclosed that oil spill risk is in the transporting of fuel and as the number of deliveries increases, so then does the risk of an oil spill. Based on the number of trips and volume of on-site storage, 4,000 gallons is a reasonable volume.

Rick Hopkins further reviewed alternative energy sources and comparisons of fuel costs. He showed that the cost efficiency of fuel is much greater than propane and that there are more heating units per unit volume (BTU'S) from fuel oil than from propane.

Further, Mr. Hopkins reviewed definitions of hydroponics, macronutrients, micronutrients, and nutrient application. He further compared the loading rates of precipitation characteristics and chemical constituents regarding pounds per acre per year on land and nutrient solution spread out over cultivated fields (pounds per gallon). He further researched hydroponic solution components through similar operators, State Departments and Universities in Massachusetts, Maine and Connecticut.

Commissioners questioned Mr. Moskow on Agricultural Tax Assessment and the economic benefits this project would provide for the Island. Mr. Moskow responded that there would be nine (9) employees, export benefit, year round

agriculture and that he had no intention of subdividing the land.

Discussion further focused on the present number of acres in cultivation, hydroponics and fertilizer disposal.

Mr. Moskow stated that his facility could be for demonstration purposes with the schools and therefore would provide an educational benefit.

Mr. Widdiss called upon Town Boards for testimony. Mr. Walter Renear, Tisbury Planning Board, discussed the Town's zoning by-law and protection of the ground water resource. Mr. Renear handed out maps regarding water supply, recharge and flow direction, shellfish and wildlife habitat areas and further stated that the area for the proposal was a high risk area and should be protected for the public interest.

Steve Kenney, Oak Bluffs Water Department and Jim Moreis, Oak Bluffs Water Commissioner stated that the Applicant used proper precautions and foresaw little problem with the proposal.

Mr. Widdiss then called for proponents. Catherine Mathiesen and Donna Tompkins spoke in favor of the project regarding continued agriculture use.

Mr. Widdiss, then called for opponents. Kay Mayhew, League of Women Voters, Karen Stoll and Byron Hartley spoke against the proposal regarding water and access.

Mr. Widdiss, then read correspondence received from: Tisbury Board of Health, Tisbury Lagoon Association, League of Women Voters, Byron Hartley, Tisbury Conservation Commission, Department of Food and Agriculture. Mr. Widdiss made reference to a letter received from SP Engineering that each Commissioner had a copy of.

There being no further testimony, the hearing was closed at 9:56 P.M.

B458P235
FINDINGS AND CONDITIONS

The Commission has considered the Application and the information presented at the public hearing, and based upon such consideration, makes the following findings pursuant to Section 14 of the Act:

- A. The Commission finds that the probable benefits of the proposed development, subject to the conditions set forth herein, will exceed the probable detriments of the proposal in light of the considerations set forth in Section 15 of the Act.
- B. The Commission finds that the proposed development will not interfere substantially or unreasonably with the achievement of the objectives of any general plan of the Town or of Dukes County.
- C. The Commission finds that the development proposal will be more beneficial than detrimental when compared to alternative manners of development or development occurring in alternative locations.
- D. Pursuant to Section 15 of the Act, the Commission has reviewed the Applicant's proposal regarding the supply of housing for Island residents. The Commission finds that the economic benefit of this development will not occur at the expense of housing. There will be no additional burden on housing as the Applicant is providing housing for his employees.

FOR PURPOSES OF THIS DECISION, THE APPLICANT SHALL MEAN THE OWNER AND OR OPERATOR OF THE GREENHOUSE.

The Commission has considered the question of the potential impact of this proposal on the environment and on other persons or property pursuant to Section 15 of the Act and has therefore set the following conditions:

1. IN VIEW OF FACTS PRESENTED AT THE PUBLIC HEARING REGARDING THE HIGHER RISK OF OIL SPILLS IN TRANSPORTING FUEL BASED ON THE NUMBER OF DELIVERIES REQUIRED BY THE VOLUME OF THE STORAGE TANK, THE APPLICANT SHALL CONSTRUCT AND INSTALL THE FUEL STORAGE TANK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SUBMITTED. THE FUEL STORAGE TANK SHALL HAVE A MAXIMUM CAPACITY OF 4,000 GALLONS.
2. THE CONSTRUCTION OF THE CONCRETE CONTAINMENT STRUCTURE SHALL BE SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER. THE APPLICANT SHALL CONSTRUCT A CONCRETE PAD UNDER THE FUEL STORAGE AREA FOR THE CONTAINMENT OF A SPILL, SUBJECT TO THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER AND SUBSEQUENT REVIEW BY THE STAFF OF THE MARTHA'S VINEYARD COMMISSION. THE APPLICANT SHALL SUBMIT PLANS OF SAID CONCRETE PAD TO THE MARTHA'S VINEYARD COMMISSION BEFORE WORK COMMENCES TO BE REVIEWED AND APPROVED BY THE LAND USE PLANNING COMMITTEE AND STAFF OF THE MARTHA'S VINEYARD COMMISSION. THE CONSTRUCTION OF THE CONCRETE PAD SHALL BE SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER. UPON COMPLETION OF CONSTRUCTION OF THE CONCRETE PAD, THE APPLICANT SHALL SUBMIT "AS BUILT" PLANS OF THE CONCRETE PAD CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER TO THE BUILDING INSPECTOR AND TOWN CLERK OF THE TOWN OF TISBURY, AND TO THE MARTHA'S VINEYARD COMMISSION.
3. THE APPLICANT SHALL EQUIP THE FUEL STORAGE SYSTEM WITH AN APPROPRIATE ALARM SYSTEM, SPECIFICATIONS TO BE SUBMITTED TO THE MARTHA'S VINEYARD COMMISSION AND THE TISBURY FIRE CHIEF BEFORE THE PERMITS ARE GRANTED, AND WITH FIRE EXTINGUISHING EQUIPMENT TO BE APPROVED BY THE TOWN'S FIRE CHIEF

- AND REVIEWED BY THE MARTHA'S VINEYARD COMMISSIONS STAFF. THE APPLICANT SHALL PLACE GRAVEL ON THE GROUND SURROUNDING THE CONCRETE CONTAINMENT STRUCTURE AT A WIDTH TO BE DETERMINED BY THE TISBURY FIRE CHIEF. IF THE TISBURY FIRE CHIEF DETERMINES THAT A STEEL LADDER IS REQUIRED FOR ACCESS TO THE CONTAINMENT STRUCTURE UNDER EMERGENCY CONDITIONS, THE APPLICANT SHALL INSTALL SUCH LADDER AS SPECIFIED BY THE FIRE CHIEF.
4. THE APPLICANT SHALL INSTALL A CONCRETE FILLED BARRIER TO PREVENT VEHICLE IMPACT DURING THE TRANSFER OF FUEL. THE APPLICANT SHALL SUBMIT SPECIFICATION OF SAID BARRIER TO THE LAND USE PLANNING COMMITTEE AND STAFF OF MARTHA'S VINEYARD COMMISSION FOR APPROVAL BEFORE WORK COMMENCES.
 5. THE APPLICANT SHALL COMPLY WITH M.G.L. CHAPTER 21E.
 6. IF SPECIFICATIONS AND LOCATIONS OF THE APPLICANT'S THREE (3) EXISTING WELLS ARE DETERMINED, BY THE STAFF OF THE MARTHA'S VINEYARD COMMISSION TO BE APPROPRIATE, THE APPLICANT SHALL CAUSE THESE WELLS TO BE TESTED FOR HYDROCARBONS AND NUTRIENT LEVELS BY A CERTIFIED LABORATORY EVERY SIX MONTHS, AT APPLICANT'S EXPENSE, AND THE APPLICANT SHALL PROVIDE LABORATORY TEST RESULTS TO THE TOWN'S BOARD OF HEALTH AND THE MARTHA'S VINEYARD COMMISSION. IF THE STAFF SHALL REQUIRE MODIFICATION TO THESE WELLS TO PERMIT PROPER GROUNDWATER QUALITY TESTING, THE APPLICANT WILL MODIFY THESE 3 EXISTING WELLS TO MEET THE STAFF'S REQUIREMENTS FOR TESTING, AS SOON AS POSSIBLE. IN ORDER TO ESTABLISH A DATA BASE, THE APPLICANT SHALL INSTALL A FOURTH WELL WITHIN THREE (3) MONTHS OF THE ISSUANCE OF THE BUILDING PERMIT FOR THE GREENHOUSE. SPECIFICATIONS AND LOCATION OF

THIS WELL SHALL BE DETERMINED BY THE STAFF OF THE MARTHA'S VINEYARD COMMISSION AND TESTING OF THE FOURTH WELL SHALL BE CONDUCTED IN THE SAME MANNER AS PROVIDED FOR WITH THE THREE EXISTING WELLS.

7. THE APPLICANT SHALL CONSTRUCT THE FLOOR OF THE GREENHOUSE WITH IMPERVIOUS MATERIAL WITH DRAINS LEADING TO A CATCH SYSTEM. A REGISTERED PROFESSIONAL ENGINEER SHALL DESIGN THE SPECIFICATIONS OF THE FLOOR, DRAINS AND CATCH SYSTEM. THE APPLICANT SHALL SUBMIT SUCH DESIGN SPECIFICATION PLAN TO THE MARTHA'S VINEYARD COMMISSION FOR REVIEW AND APPROVAL BY THE LAND USE PLANNING COMMITTEE AND THE STAFF OF THE MARTHA'S VINEYARD COMMISSION PRIOR TO OBTAINING A BUILDING PERMIT. UPON COMPLETION OF CONSTRUCTION OF THE FLOOR OF THE GREENHOUSE, THE APPLICANT SHALL SUBMIT "AS BUILT" PLANS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER THAT THE FLOOR AS BUILT IS IN ACCORDANCE WITH THE PROPOSED PLANS, AND SUBMIT SAID CERTIFIED PLANS TO THE BUILDING INSPECTOR AND CLERK OF THE TOWN OF TISBURY AND TO THE MARTHA'S VINEYARD COMMISSION.

8. IN LIGHT OF THE INFORMATION OBTAINED BY THE MARTHA'S VINEYARD COMMISSION'S STAFF FROM SIMILAR OPERATIONS, THE EXPECTED NUTRIENT CONTENT OF SPENT HYDROPONIC SOLUTIONS WILL NOT EXCEED LEGAL STANDARDS. HOWEVER, THE COMMISSION FEELS THAT THE TOWN SHOULD HAVE THE RIGHT TO INVESTIGATE AND VERIFY TESTING OF SAID SOLUTION AND THEREFORE SETS THE FOLLOWING CONDITION:

THE APPLICANT SHALL NOT DISPOSE OF ANY SPENT NUTRIENT SOLUTION OUTSIDE THE GREENHOUSE ON AREAS DEVOID OF VEGETATION. THE TOWN OF TISBURY, OR ITS APPOINTED OFFICER AND THE MARTHA'S VINEYARD COMMISSION STAFF MAY AT

any other development permits which may be required together with any other development permits required by law.

The Commission approves the Town of Tisbury Officials granting applicable development permits.

The Decision is written consistent with the vote of the Commission: September 4, 1986.

Any party aggrieved by a determination of the Commission may appeal to the Superior Court within twenty days after the Commission has sent the development Applicant written notice, by certified mail, of its Decision and has filed a copy with the Town Clerk of the Town in which the proposed development is located.

Michael M. Lynch

~~John G. Early, Chairman~~
Michael Lynch, Vice Chairman

10/16/86

DATE

Norman Friedman

Notary

NORMAN FRIEDMAN
NOTARY PUBLIC
My commission expires Nov 2, 1990

10/16/86

DATE

11

Edgartown, Mass. October 17, 1986
at 12 o'clock and 56 minutes PM
Received and entered with Dukes County Deeds
book 458 Page 230

Attest:

Dorothy W. King

Register

REASONABLE TIMES, OBTAIN SAMPLES OF SPENT SOLUTION FOR TESTING. IF THE RESULTS OF THE TESTING ARE BEYOND THE LIMITS RECOGNIZED BY THE DEPARTMENT OF FOOD AND AGRICULTURE AND OR DEQE AS ACCEPTABLE, THEN THE TOWN MAY NOTIFY THE MARTHA'S VINEYARD COMMISSION AND REQUEST A MODIFICATION OF THIS CONDITION. THE APPLICANT SHALL ALSO SUBMIT ANNUAL TEST RESULTS OF A REPRESENTATIVE SAMPLE OF THE SPENT SOLUTION TO THE TOWN AND THE MARTHA'S VINEYARD COMMISSION.

9. THE APPLICANT SHALL COMPLY WITH M.G.L. CHAPTER 111F (HAZARDOUS SUBSTANCES DISCLOSURE BY EMPLOYERS); M.G.L. CHAPTER 132B (MASSACHUSETTS PESTICIDE CONTROL ACT); 15 U.S.C. SEC.2601 ET SEQ., 40 CFR 761 (TOXIC SUBSTANCE CONTROL ACT); 42 U.S.C. SEC. 6901 (RESOURCE CONSERVATION AND RECOVERY ACT OF 1976); 42 U.S.C. 9601 (SUPERFUND COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT OF 1980); M.G.L. CHAPTER 21E (MASSACHUSETTS SUPERFUND); 7 U.S.C. SEC.136 (FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT).
10. THE APPLICANT SHALL MAKE HIS GREENHOUSE AVAILABLE TO EDUCATIONAL VISITORS AND GROUPS AT REASONABLE TIMES AND SHALL PROVIDE THE MARTHA'S VINEYARD COMMISSION WITH AN ANNUAL LIST OF EDUCATIONAL VISITORS THE APPLICANT ACCOMMODATED DURING EACH YEAR.
11. ANY FURTHER SUBDIVISION OR DEVELOPMENT OF THE APPLICANT'S LAND SHALL BE REFERRED TO THE MARTHA'S VINEYARD COMMISSION FOR REVIEW AND APPROVAL.

The Applicant must, consistent with the Decision, apply to the appropriate Town of Tisbury Officers or Boards for