



CAPE COD COMMISSION

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Date: April 22, 1999

Applicant: Larry Nickulas, Trustee
Conant Nursery Trust
P.O. Box 507
West Barnstable, MA 02668

Project #: DR97024
Project: Conant Nursery Trust Subdivision, Phase 2
Meetinghouse Way
West Barnstable, MA

Re: Development of Regional Impact
Cape Cod Commission Act, Section 12

Book/Page #: Book 10948, Page 109
Barnstable County Registry of Deeds

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (the Commission) hereby approves with conditions the application of Conant Nursery Trust for a Development of Regional Impact (DRI) permit under Sections 12 and 13 of the Cape Cod Commission Act (Act), c. 716 of the Acts of 1989, as amended, for the Phase 2 subdivision of 22.8 acres of land west of Meetinghouse Way in West Barnstable, MA into twelve residential lots and land designated as permanent open space. Phase 2 includes one lot for an existing historic house and one lot for a portion of the existing greenhouse. This decision is rendered pursuant to a vote of the Commission on April 22, 1999.

PROJECT DESCRIPTION

The project site is at the intersection of Meetinghouse Way/Route 149 and Cedar Street in West Barnstable. The topography of the site is highest in the southern portion, sloping steadily downward to the north. The site is largely wooded, though large portions of it have been used as a nursery and contain greenhouses, loam piles and nursery plantings. The site is located entirely within a Significant Natural Resource Area as identified by the Regional Policy Plan. A potential future public water supply well is sited within town conservation land to the east. The surrounding area is relatively rural in character. Few structures are visible from the roadway, and most of these are historic properties. The site is located within a National Register Historic District and the Old Kings Highway Regional Historic District.

Conant Nursery Trust Subdivision - Phase 2, West Barnstable, MA
April 22, 1999 Decision - #DR97024

The applicant has proposed development of this site in two Phases. Phase 1 involved subdivision of the total 24.9 acre property into three lots, including one lot for an existing historic house at #2175 Meetinghouse Way (Lot 1), one new single family residential lot on Cedar Street (Lot 2), and one large lot of 22.8 acres comprising an existing historic house at #2135 Meetinghouse Way as well as an existing greenhouse (Lot 3). The Commission approved the Phase 1 project on February 26, 1998. The Phase 1 decision required that any further subdivision or development of Lot 3 undergo Development of Regional Impact review. Phase 1 also included permanent restriction of 6.34 acres of open space on Lot 3.

Phase 2 development involves further subdivision of Lot 3 into twelve (12) residential lots and protection of additional permanent open space. The twelve lots include one lot for the existing historic house at #2135 Meetinghouse Way, and one lot for 3,900 square feet of the existing greenhouse. Open space protected in Phase 2 includes 6.06 additional acres on Lot 3, for a total of 12.4 acres on site.

PROCEDURAL HISTORY

The project was referred to the Cape Cod Commission as a discretionary referral by the Barnstable Planning Board on October 21, 1997. The Commission voted to review the project at their October 23, 1997 meeting. Phase 1 of the project was approved by the Commission with conditions and a decision was issued on February 26, 1998. Consistent with Condition G4 of the Commission's Phase 1 decision, the applicant submitted an application for Phase 2 development on July 1, 1998.

A duly noticed public hearing was held on August 20, 1998 in Rooms 11 & 12 of the Superior Court House for the purpose of taking testimony on the proposed project. The hearing was continued to September 15, 1998 in Rooms 11 & 12 of the Superior Court House. The hearing was closed on October 28, 1998 in Rooms 11 & 12 of the Superior Court House. Subcommittee meetings were held on October 7, 1998, December 2, 1998, December 7, 1998, and December 15, 1998 in the Cape Cod Commission Office. At a hearing before the full Cape Cod Commission on December 17, 1998, the applicant agreed to sign an extension agreement and the project was remanded to the subcommittee for further review. A public hearing was held on March 17, 1999 in Rooms 11 & 12 of the Superior Court House. Subcommittee meetings were held on April 2, 1999 and April 12, 1999 in the Cape Cod Commission office.

Materials Submitted for the Record

Town Submittals:

- Letter from Robert P. Schernig, Planning Director, to Sarah Korjeff, CCC re: open space concerns, dated August 20, 1998.

Staff Reports and Correspondence:

- Memo from Sarah Korjeff to subcommittee re: Phase 2 public hearing, dated July 8, 1998.
- Letter from Sarah Korjeff to Larry Nickulas re: application requirements, dated July 7, 1998.
- Staff Report dated August 14, 1998.
- Project Update dated September 11, 1998.
- Memo from Patty Daley, staff counsel, re: RPP protection of adjacent trout farm, dated September 17, 1998.
- Memo from Sarah Korjeff and Gabrielle Belfit to subcommittee re: water resources and open space, dated October 2, 1998.
- Memo from Glenn Cannon, transportation engineer, re: traffic mitigation for two development

scenarios, dated October 13, 1998.

- Letter from Sarah Korjeff to Larry Nickulas re: unresolved issues, dated October 13, 1998.
- Memo from Glenn Cannon, transportation engineer, re: traffic mitigation for new development scenarios, dated December 2, 1998.
- Extension agreement dated December 17, 1998.
- Memo from Gabrielle Belfit to Sarah Korjeff re: scope for Conant hydrogeologic work, dated January 12, 1999.
- Memo from Sarah Korjeff to subcommittee re: public hearing and additional hydrogeological analysis, dated January 29, 1999.
- Memo from Sarah Korjeff to subcommittee re: Project Update describing revised subdivision plan, dated February 19, 1999.
- Extension agreement dated March 2, 1999.
- Staff Report dated March 11, 1999.
- Memo from Elizabeth Taylor, Brewster representative, to Sarah Korjeff re: conditions to address development in sensitive areas, dated March 11, 1999 and March 17, 1999.
- Letter from Sarah Korjeff to Steve Hurley, Division of Fisheries & Wildlife, re: hydrogeological report, dated March 24, 1999.

Submittals from the Applicant:

- Application form and subdivision plan for Phase 2 Conant Nursery Trust, dated June 4, 1998, received July 1, 1998.
- Letter and support documents from David M. Taylor and William M. Hoyerman, Atlantic Environmental Technologies, Inc., re: groundwater flow direction, dated July 21, 1998.
- Letter from John P. Doyle to Sarah Korjeff re: denitrification systems, dated July 15, 1998.
- Letter from Larry Nickulas to Sarah Korjeff re: information requested, dated July 29, 1998.
- Letter from Toivo A. Lamminen, Jr., and William R. Hoyerman, Atlantic Environmental Technologies, Inc., re: summary of groundwater flow direction, dated September 11, 1998.
- Plan showing location of test wells and groundwater flow direction, dated June 4, 1998, revised August 11, 1998.
- Letter from Larry Nickulas to Sarah Korjeff re: revised plan, dated October 21, 1998.
- Subdivision plan for Phase 2 Conant Nursery Trust, dated October 21, 1998.
- Letter from Larry Nickulas to Sarah Korjeff re: open space plans, dated December 9, 1998.
- Subdivision plan for Phase 2 Conant Nursery Trust, dated December 8, 1998.
- Subdivision plan for Phase 2 Conant Nursery Trust, dated December 8, 1998, revised February 16, 1999.
- Hydrogeological report for Conant Nursery Trust Property by Andrew M. Miller, Head First Inc., dated February 25, 1999.
- Revised hydrogeological report for Conant Nursery Trust Property by Andrew M. Miller, Head First Inc., dated March 21, 1999, received March 29, 1999.
- Letter from Andrew Miller to Gabrielle Belfit re: letter from Mr. Bianchi, dated April 12, 1999.
- Subdivision plan for Phase 2 Conant Nursery Trust, dated December 8, 1998, revised April 14, 1999.

Submittals from Government Agencies:

- Letter from Brona Simon, Massachusetts Historical Commission, to Larry Nicklaus re: recommended archaeological survey, dated July 21, 1998.
- Letter from Steve Hurley, Southeast District Fisheries Manager, Division of Fisheries and Wildlife, re: potential impacts to historic trout hatchery, dated October 20, 1998.
- Letter from Donald Liptack, U.S. Department of Agriculture, to Gabriel Belfit re: Blue Stream Hatchery Water Quality Impacts, dated April 13, 1999.

Submittals from the Public:

- Letter from David Moeller, West parish Church, to Cape Cod Commission re: historic character of the area, dated August 20, 1998.
- Excerpts from Trout Producers Quality Assurance Program, received from Robert Bianchi, October 7, 1998.
- Letter from Robert A. Bianchi to Subcommittee Chairman re: preservation of groundwater, dated December 1, 1998.
- Letter from Wayne A. Miller to Cape Cod Commission re: hydrological report by Andrew Miller, dated March 3, 1999, addendum dated March 16, 1999, both received March 17, 1999.
- Letter from Robert A. Bianchi to Cape Cod Commission re: time to review effects of development on trout farm, dated April 2, 1999.
- Petition submitted by William Fletcher et. al. requesting the hearing April 22, 1999 hearing be postponed and expressing opposition to the project, received April 12, 1999.

The application and notice of the public hearing relative thereto, the Commission's staff reports, correspondence, notes and exhibits, minutes of the hearings and all written submissions received in the course of the proceedings, including materials submitted on file #DR97024, and the Phase 1 decision, are incorporated into the record by reference.

TESTIMONY

At the August 20, 1998 public hearing, Larry Nickulas, applicant, described the proposed Phase 2 project, which would involve 19 new house lots and one lot for an existing historic house. He described test wells and borings taken on site and proposed that four acres of open space be provided off-site. Mr. Nickulas stated that one greenhouse building would be retained on lot 19 as a retail operation. Sarah Korjeff, Commission staff, summarized the staff report. She described the open space requirement and the Barnstable Local Comprehensive Plan's goal to protect 40% to 60% of the open space on site. Gabrielle Belfit, Commission Hydrologist, stated that new information indicated a different direction of groundwater flow and increased her concern regarding downgradient receptors and potential cross-contamination of wells and septic systems. Glenn Cannon, Commission Transportation Engineer, described the traffic impacts of the proposed project, including traffic generation from the greenhouse which had not been used for several years. Wayne Miller, owner of the abutting trout farm, requested that all open space be provided on site to protect against impacts to the trout farm. Dr. Miller reviewed the history of the trout farm and stated concern about impacts from septic systems, pesticides, insecticides and fertilizers. Debbie Fitten, West Barnstable resident, presented a letter from David Moeller suggesting buffer zones and other means to protect the historic setting of the area. Mark Wirtanen, West Barnstable resident, presented a petition asking the town of Barnstable to preserve the property for conservation purposes. James Kinney, West Barnstable resident, noted that denitrifying systems would not prevent damage to ground and surface waters, and suggested wider wildlife corridors, vegetated screening to protect community character, and a smaller project. Dr. Miller described 3 distinct aquifers on the trout farm site.

At the September 15, 1998 public hearing, Sarah Korjeff, Commission staff, summarized new information regarding groundwater flow on the site and recommended all required open space be provided on site to address water resource concerns as well as community character concerns. Larry Nickulas, applicant, questioned the open space requirement of the Regional Policy Plan. Bill Hoyerman, consultant for the applicant, described additional groundwater analysis, noting that groundwater flow on the site is fairly quick. Gabrielle Belfit, Commission

Hydrologist, stated concerns about the configuration of the proposed development because of the new groundwater information. She stated that lots closest to the wetland and trout farm will deliver nitrates at a more rapid rate. She suggested that septic systems be located as far from the wetland as possible and noted that well and septic locations should be configured to avoid cross-contamination. Audrey Loughnane, Town Councilor, noted the proposed well site in the area is a viable future water source for the rest of the town. Robert Bianchi, attorney for the abutting trout farm owner, noted that fewer and larger lots would address the water resource concerns. Dominic Modicamore, Barnstable town planner, stated concern regarding the project density and stated that additional open space should be provided and lots should be larger. Wayne Miller, owner of the abutting trout farm, stated his belief that the property could not support more than 16 lots without any other issues. Ms. Loughnane stated her support for an archaeological survey on the site. Mr. Bianchi stated that additional information was needed to assess impacts to the trout farm. Ms. Belfit agreed to discuss potential impacts with Steve Hurley of the State Division of Fisheries and Wildlife.

At the October 28, 1998 public hearing, Sarah Korjeff, Commission staff, described a revised subdivision plan of 11 lots for the property. She noted the location of well and septic systems and the open space provided on site. Glenn Cannon, Commission Transportation Engineer, described the trip reduction requirement and explained that additional developable land dedicated to open space, above and beyond the open space requirement, could be used to offset trip reduction. Larry Nickulas, applicant, questioned the trip reduction requirement for the greenhouse. Wayne Miller, owner of the abutting trout farm, questioned the percentage of open space provided on site and recommended a site visit to evaluate the location of lots 9 and 10 which are closest to the wetland area. Judy Desrosiers, West Barnstable resident, noted that the septic placement was proposed without test pits.

At the October 7, 1998, December 2, 1998, December 7, 1998, and December 15, 1998 subcommittee meetings, the subcommittee discussed revisions to the proposed subdivision plan, configuration of the lots to protect downgradient water resources, transportation mitigation requirements relating to the greenhouse, and the provision of required open space. The subcommittee discussed draft findings and conditions for Phase 2 of the project and voted to recommend approval of the final plan.

At the March 17, 1999 public hearing, Michael Ford, attorney for the applicant, introduced the project. Andrew Miller, hydrogeologist, reviewed his report on the potential impacts of the Conant project on the adjacent trout farm. Sarah Korjeff summarized the staff report, noting that staff recommends most conditions from the last draft decision be retained. Gabrielle Belfit commented on the report by Mr. Miller and stated her satisfaction that the proposed project poses minimal risk to water resources. Dr. Wayne Miller, owner of the abutting trout farm, submitted written comments and discussed his concerns regarding the hydrogeological report. Dr. Miller stated that he would undertake a study of water quality impacts and provide the information to the subcommittee. Audrey Loughnane, town councilor, clarified the town's requirement for separation between wells and septic systems. Bob Wood, water district commissioner, noted that the Commission has a 5 ppm nitrogen loading standard but the consultant used 10 ppm. Arthur Grohe, West Parish Meetinghouse, encouraged a large buffer between the Meetinghouse and the proposed development. David Moeller, West Parish Meetinghouse, encouraged preservation of the church's historic setting. Mark Wirtanen, West Barnstable resident, stated his support for Dr. Miller's concerns regarding the report. Dominic Modicamore, Associate town planner, described the town's original concerns about the project and stated that the revised plans meet the town's bulk requirements. Deborah Fitten, West

Barnstable Civic Association, encouraged preservation of the rural agricultural character of West Barnstable. Nancy Church, resident, stated concern about losing the character of West Barnstable. David Ross, owner of adjacent cranberry bog, expressed concern regarding impacts to the nearby cranberry bog and vernal pool. Mr. Moeller and others suggested testing under the greenhouse for toxic materials.

At the April 2, 1999 subcommittee meeting, the subcommittee discussed the revised hydrogeological report submitted by the applicant and considered additional conditions which could be placed on the project to further protect natural resources. At the April 12, 1999 subcommittee meeting, the subcommittee discussed the required open space for the project and reviewed a revised draft decision with conditions.

JURISDICTION

The proposed Conant Nursery Trust Subdivision qualifies as a DRI under section 12(e) of the Act, where "a proposed development which does not exceed one of the specific thresholds in the interim standards and criteria set forth in subsection C...may be referred to the commission by a municipal agency, in the municipality where the development is located,...provided that the commission accepts the referral as a development which may have regional impacts..." This project was referred by the Barnstable Planning Board and the Cape Cod Commission voted to accept the referral on October 23, 1997.

FINDINGS

Based on the testimony received at the public hearings, application materials submitted by the project proponent, written material submitted by all interested parties, and supporting technical information provided by staff, the Commission voted that the proposed Conant Nursery Trust Subdivision Phase 2 be granted a DRI approval with conditions based upon the following findings:

General

G1. The proposed subdivision is Phase 2 of a project reviewed as a Development of Regional Impact by the Cape Cod Commission. The Phase 1 subdivision was approved with conditions by the Commission on February 26, 1998.

G2. The 22.8 acre site is proposed to be subdivided into twelve lots and permanent open space as shown on the plan titled "Preliminary Subdivision Plan 'Phase Two' prepared for Conant Nursery Trust, West Barnstable, MA," dated December 8, 1998, revised April 14, 1999.

G3. The project site is located within residential zoning district RF and is located within the town's Well Protection Overlay District. The Phase 2 plan to create eleven new residential lots and one lot for an existing home at #2135 Meetinghouse Way is consistent with local zoning regulations. The applicant proposes to continue to retain and use 3,900 square feet of the existing greenhouse on the proposed Lot #11. The Commission's decision does not restrict the town's interpretation of that existing use or any local permit requirements.

Water Resources

W1. The Conant property is upgradient of several important water resource areas including streams and wetlands used to sustain an adjacent trout farm, a marine recharge area that contributes to Barnstable Harbor, adjacent to an area identified and protected for development

of a future public water supply well, and active cranberry bogs.

W2. The Conant property is adjacent to an area that has been continuously used as a commercial trout farm since the 1800's. The trout farm is supplied by shallow wells that tap into the springs and streams flowing from the underlying groundwater. The source of this surface water, and intercepting wells, flows from groundwater to the south/southwest of the trout farm, including the Conant Nursery Trust property.

W3. West Barnstable Fire District well site #15-75 is located due east of the project site. While the well is currently undeveloped, the town and the Fire District have identified and protected this well site for future development. The area has received DEP approval for the determination of a Zone II area, and has been incorporated into the towns Well Protection Overlay District. West Barnstable currently has no public water and test well investigations have proven this to be an area that produces significant amounts of high quality water. The well site is important locally, but may also be important to the town as a whole to augment or replace well sites lost to contamination in more developed sections of town.

W4. Based on the study of five test wells and two surface water bodies on the site, the estimated groundwater flow direction is to the east/northeast, towards the trout farm property. Information from the borings which penetrated 20 to 30 feet were interpreted from well cuttings from the hollow stem auger for three of the wells, and from split spoon samples for the two new wells added. Materials encountered are typical of the glacial till and undifferentiated glacial lake deposits which include a heterogeneous mix of sand and gravel, silty sand, cobbles, and gravel. Clay was not encountered at the depth of these borings, and therefore it is assumed that infiltrated surface runoff and septic system effluent will travel unimpeded towards the trout farm water supplies. Depth to groundwater averages 20 feet below land surface.

W5. Small lot sizes would make it difficult to install wells and septic systems without compromising water quality to the private wells through septic system short-circuiting or cross contamination. Staff pointed out in public hearings that research by USGS (Persky, 1986) and others (Sobczak, 1998) correlate small lot sizes with reduced water quality where a well and septic system share the same lot. In the absence of adequate open space buffers and consideration of groundwater flow direction, both of which have been addressed in this project, lot sizes less than 1 acre may not be protective of public health.

W6. Typical drinking water quality thresholds do not apply to this project since trout are much more sensitive than people are. Staff recognized that impacts from surface runoff, application of herbicides and pesticides as well as ammonia from septic systems at very low concentration could adversely affect the trout population. Staff could not quantify absolute minimum development thresholds below which no impacts would be realized and sought an outside professional opinion.

W7. Based on comments received from Steve Hurley, Division of Fisheries and Wildlife, Southeast Division Fisheries Manager, on October 20, 1998, development impacts could potentially be catastrophic to the adjacent trout farm, given the right combination of conditions. An increase in impervious surfaces and clearing of vegetation could increase water temperatures, cause greater fluctuations in surface flows and reduce runoff. Septic systems can degrade groundwater by increased temperatures, increased nutrients and contaminants and decreased dissolved oxygen from biological degradation. Trout are also very sensitive to trace

levels of chemicals commonly used by homeowners including chlorine at levels as low as 8 parts per billion (ppb), and chlorpyrifos (Dursban) at 7.1 ppb. To reduce impacts, land development should be minimized in areas that contribute to the hatchery's water supply, and development where surface runoff could enter a hatchery should be minimized or eliminated. Vegetated buffers should be maintained on areas that contribute surface or groundwater to the hatchery. Finally, toxic substances should not be used in areas in proximity to the hatchery water supply.

W8. Per the Phase 1 decision on the project, a maximum of eleven new residential lots with Title 5 systems can be supported on the Conant Property to adequately protect water resources, restrict development from the slopes adjacent to the trout farm, and limit the potential for cross-contamination between private wells and septic systems. A maximum of thirteen new residential lots is possible with the addition of five denitrifying systems, or twelve new lots with four denitrifying systems.

W9. The applicant proposes a total of 11 new residential lots (including the residential lot approved in Phase 1) plus the potential to construct a residence on the lot containing a portion of the existing greenhouse. Denitrifying septic systems are not required for this project.

W10. A total of 11 new lots is preferable to 12 or 13 new lots in that the lesser number of lots would allow for additional separation distance between the wells and septic systems, and additional buffers to limit other water resource impacts. While denitrification systems should compensate for the added development impact from nutrients on the additional lots, additional lawn area and associated lawn chemicals, household chemicals and associated septic system effluent impacts which would result from the greater number of lots should be addressed through other protective measures.

W11. The information provided in the hydrogeological report by Andrew Miller of Head First Inc., dated February 25, 1999 and revised March 21, 1999, demonstrates that only a small percentage of the total volume of water supplying the trout farm originates from the Conant property. The wastewater contributed by the proposed subdivision will be greatly diluted by additional flow from the groundwater sources south and west of the Conant property. The applicant has sited the new development substantially outside of the drainage basins that could contribute to the trout farm. Based on Mr. Miller's report, portions of Lots #9, #10 and #11 are within drainage basins that could contribute surface water to trout farm pens and runs.

W12. Development envelopes for Lots #8, #9, and #10 should be located as far from the rear portions of the lots as possible, leaving the back portion of the lots undeveloped, with native vegetation or other low maintenance groundcover replaced after installation of the well to increase the vegetative buffer between the developed portion of the lot and the wetland. In particular, the development envelope for Lot #10 should keep any development off of the sloped area.

W13. Use of pesticides and fertilizers could impact adjacent sensitive water resources. The addition of a few inches of loam increases the distance through which pesticides must travel and increases the absorption of pesticides prior to percolating into the groundwater. Several inches of supplemental loam should be applied to lawn areas and other areas within each lot's development envelope where pesticides and similar products may be applied.

W14. Donald Liptack, of the United States Department of Agriculture Natural Resources Conservation Service, strongly recommended that residential landscaping use low input

sustainable practices that minimize pesticide and fertilizer use to reduce the risk of pesticides and fertilizers leaching into the adjacent trout farm water source.

W15. A homeowner information pamphlet for prospective and new owners would be beneficial in protecting the surrounding sensitive water resources. The pamphlet should discuss the sensitivity of the adjacent trout farm and other unique water resources of the area, as well as provide homeowners with sustainable landscaping and pollution prevention practices that they can adopt. It should also encourage the use of "natural" fertilizers such as those derived from nutrient sources such as feather meal, seed meal, animal by-products and other composted materials.

W16. The applicant stated his willingness to limit the use of fertilizers and to prohibit the use of pesticides in conjunction with any further nursery use of the property prior to development of the subdivision lots.

W17. In order to determine that demolition of the greenhouse will not cause the release of chemicals or pesticides that could threaten water resources in the vicinity of the project, a composite soil sample should be taken from underneath the greenhouse prior to demolition and analyzed for pesticides. Such testing should be done by a qualified professional.

Natural Resources

NR1. The Conant Nursery Trust Phase 1 decision required that the applicant provide a total of 12.4 acres of open space for the original 24.9 acre parcel if all of that open space were deeded to the town or a local land trust or provided for permanent public access.

NR2. For Phase 2, the applicant has proposed on-site open space of 6.06 acres, including: 1) a 100+ ft wide wildlife travel corridor on the south side of Phase 1, Lot 1, contiguous with the open space identified in Phase 1; 2) buffers to Meetinghouse Way in two locations on the southern portion of the parcel, preserving vegetation on the highly visible ridge on the site, and buffering the development just north of the Village Green; and 3) buffers to the wetlands on site, including the majority of the sloped area forming drainage basins which contribute to the wetlands and the adjacent trout farm runs. These areas are all contiguous with open space identified for preservation in Phase 1. Including the open space restricted in Phase 1, there will be a total of 12.4 acres of permanent open space on the property.

NR3. In order to permanently protect the on-site open space, the applicant has agreed to donate the 12.4 acres of open space to the Town of Barnstable Conservation Commission or a land trust for conservation purposes.

NR4. Development envelopes should be required on Lots #1 through #10 to help preserve any specimen trees and native vegetation on the proposed building lots. Development envelopes will also serve to limit the use and leaching of any pesticides and fertilizers to better protect sensitive water resources in the area.

Transportation

T1. The potential traffic from this project is based on a combination of one residential lot as part of Phase 1, eleven residential lots as part of the Phase 2 subdivision, and one off-site affordable housing unit.

T2. The subdivision roadway is located on Route 149, which is classified as a Rural Major

Collector on the Functional Classification Maps. The study area is limited to the roadway network within a one mile radius of the proposed site location.

T3. It was determined that the sight distance both northbound and southbound from the proposed subdivision roadway for Phase 2 was adequate based on American Association of State Highway and Transportation Officials (AASHTO) standards and is expected to operate at an acceptable Level of Service satisfying Minimum Performance Standard (MPS) 4.1.1.6.

T4. The automobile access to the Phase 1 residential lot and the affordable housing unit are separate from the access to the subdivision.

T5. Projected peak hour traffic impacts from the eleven residential lots in the Phase 2 subdivision are below the thresholds of Minimum Performance Standard 4.1.1.1 requiring traffic analysis and mitigation.

T6. The entire project consisting of the Phase 1 lot, the affordable housing lot and the eleven residential lots in the Phase 2 subdivision are subject to the Regional Policy Plan trip reduction requirements (Minimum Performance Standard 4.1.2.1.).

T7. As stated in the Phase 1 decision for the Conant Nursery Trust and confirmed by the subcommittee for Phase 2, continued use of the existing greenhouse is exempt from further Commission review. Therefor, traffic generated by the existing greenhouse is not included in the Phase 2 review.

T8. The average daily trip generation of the proposed Phase 2 subdivision is 159 daily trips.

T9. Minimum Performance Standard 4.1.2.2 states that to partially or entirely satisfy the requirements of MPS 4.1.2.1, a DRI may make a monetary commitment to alternatives to automobile transportation or credit shall be allowed for any in-kind strategies that reduce automobile traffic.

T10. The monetary commitment to alternatives to automobile transportation to satisfy MPS 4.1.2.1 was calculated to be \$57,600. The in-kind strategies discussed by the proponent include provision of vacant developable land to be set aside in a permanent conservation trust. The amount of vacant developable land necessary to satisfy MPS 4.1.2.1 was calculated to be 2.6 residential lots.

Heritage Preservation/Community Character

HP1. The project site is located within the West Barnstable National Register Historic District. Lot #12 contains an existing historic house listed as a contributing structure within the National Register Historic District.

HP2. The applicant has proposed a vegetated buffer of approximately 80 feet in width between the Route 149/Meetinghouse Road layout and the proposed edge of Lot #1, the lot closest to Route 149. This buffer, in combination with the open space provided in Phase 1 of the project, will preserve the vegetation and rural character of the area immediately surrounding the village green. The majority of the proposed new residential lots will not be readily visible from Route 149 because of the existing historic house and greenhouse, and the arrangement of the Phase 2 open space.

HP3. The project site is located within the Old Kings Highway Regional Historic District. Any proposed exterior alterations or new construction on the site is subject to review by the Barnstable Old Kings Highway Historic District Committee.

HP4. The Massachusetts Historical Commission (MHC), in a letter dated July 21, 1998, stated that the property is considered to be sensitive for containing significant archaeological deposits associated with the historical period use of the property since the 17th century, as well as the ancient Native American occupation of the area. MHC recommended an intensive (locational) archaeological survey be conducted prior to any further development on the site.

Affordable Housing

AH1. Minimum Performance Standard 5.1.3 of the Regional Policy Plan requires any residential Development of Regional Impact to set aside at least 10% of the lots for affordable housing. In this instance, the Conant project would be obligated to set aside one lot.

AH2. The applicant has agreed to comply with MPS 5.1.3, through one of the means allowed by Regional Policy Plan MPS 5.1.2. For a cash contribution, the contribution is determined based on the cost of land in the town, the estimated per square foot cost of construction of a two to three bedroom unit, and the affordable sales price for an income-eligible household.

AH3. The unit created will be subject to the Commission's forty year Affordable Housing Deed Restriction. The intent of the restriction is to preserve the long term affordability of the unit in order to provide housing opportunities for future low-income homebuyers. Consistent with that stated purpose the Commission has established sale price and rent limits for the housing unit.

AH4. The Commission has determined that a priority need exists for the purchase of affordable homes by first-time low-income homebuyers in Barnstable and throughout Barnstable County.

AH5. The Commission has determined that a priority need exists for the provision of affordable rental units for low income households in Barnstable and throughout Barnstable County.

AH6. The Commission has determined that a priority need exists for the provision of two and three bedroom units to rent or own in Barnstable and throughout Barnstable County.

CONDITIONS

Based on the findings above, the Cape Cod Commission hereby concludes that the benefits of the proposed Phase 2 project outweigh the detriments. This conclusion is supported by the findings that the applicant will provide 12.4 acres of permanent open space on site, donated to the Town of Barnstable or the local land trust for conservation purposes; the new development will have vegetated buffers to limit views of the new development from the surrounding historic district; the project will include development envelopes and additional restrictions on the individual residential lots to limit impacts from pesticides, household chemicals and other septic system nutrients; the project will provide one affordable unit in the town of Barnstable; and the project will preserve the existing historic house on site. These benefits outweigh the detriments of eleven new residential lots which will contribute additional nitrogen and wastewater within a Well Protection District and adjacent to a sensitive trout farm, and the increased traffic generation from the site. The Commission has reviewed the project against the

Minimum Performance Standards in the 1996 Regional Policy Plan and has determined that the project, as conditioned, will comply with all Regional Policy Plan Minimum Performance Standards. The Commission has also determined that the proposed subdivision is consistent with local zoning and is consistent with the Barnstable Local Comprehensive Plan.

The Commission hereby approves Phase 2 of the proposed Conant Nursery Trust Subdivision, subject to the following conditions:

General:

G1. Phase 2 shall include subdivision of the previously established Lot 3 into 12 residential lots and permanent open space as designated on the plan titled "Preliminary Subdivision Plan 'Phase Two' Prepared for Conant Nursery Trust, West Barnstable, MA.," and dated December 8, 1998, revised April 14, 1999. Lot #12 shall include the existing historic house at #2135 Meetinghouse Way, and Lot #11 shall include 3,900 square feet of the existing greenhouse on the project site.

G2. Prior to any Phase 2 development activity, conveyance of any building lots, or issuance of a building permit for any of the new lots (Lots #1 through #11) proposed in Phase 2, the applicant shall obtain a Certificate of Compliance for Phase 2 from the Cape Cod Commission certifying that all conditions of this decision have been met. The applicant shall provide the Cape Cod Commission with at least 30 days notice prior to applying for a Certificate of Compliance.

G3. As provided for in the Phase 1 decision, continued use and operation of the nursery may continue without a Certificate of Compliance for Phase 2, provided such use is consistent with the following: The nursery shall not be operated in those areas designated as Phase 1 open space, shall not involve removal of those specimen trees identified for preservation along Route 149 in conjunction with the Phase 1 decision, and shall not include clearing of lots, open space, or roadway right of way. Site disturbance associated with the nursery shall be minimized. Nursery plantings outside of the Phase 1 open space may be removed or relocated, but undergrowth and mature vegetation which are native to the site shall not be removed. Efforts shall be made to maintain the vegetated nature of the property in areas outside of the roadway layout and designated building envelopes, to reduce the potential for surface run-off within drainage basins that could contribute surface water to the abutting trout farm pens and runs. Efforts shall also be made to limit views to new development on the site from Route 149 by maintaining wide "fence lines" of vegetation along field edges behind the historic homes and greenhouse. No other development activity shall occur without a Certificate of Compliance.

G4. As required in the Phase 1 decision, prior to any Phase 1 development activity on Lot 2, located on Cedar Street, or issuance of a Building Permit for this lot, the applicant shall obtain a Partial Certificate of Compliance for Phase 1 from the Cape Cod Commission certifying that the required conditions of that decision have been met. Prior to issuance of a Certificate of Occupancy for said Lot 2, the applicant shall receive a Final Certificate of Compliance for Phase 1 from the Cape Cod Commission certifying that the remaining required conditions of that decision have been met.

Water Resources:

W1. Prior to issuance of a Certificate of Compliance, the applicant shall make a monetary contribution of \$644.00 to a flushing study or other nitrogen management strategy for Barnstable Harbor to cover impacts from both Phase 1 and Phase 2 of the development.

W2. Development shall occur as shown on the plan titled "Preliminary Subdivision Plan 'Phase Two' Prepared for Conant Nursery Trust, West Barnstable, MA.," and dated December 8, 1998, revised April 14, 1999, with well and septic locations to be modified as minimally as possible. Reserve leaching areas shall be located as close as possible to existing leaching facilities. A final well and septic system plan shall be submitted to the Commission staff for review and approval prior to issuance of a Certificate of Compliance.

W3. Development envelopes for Lots #8, #9, and #10 shall be located as far from the rear portions of the lots as possible, leaving the back portion of the lots undeveloped, with native vegetation or other low maintenance groundcover replaced after installation of the well to increase the vegetative buffer between the developed portion of the lot and the wetland. In particular, the development envelope for Lot #10 shall keep any development off of the sloped area. Such development envelopes shall be designated prior to issuance of a Certificate of Compliance.

W4. A minimum of 6 inches of loam shall be applied within the development envelopes on Lots #1 through #10 on all lawn areas and other areas where pesticides and similar products might be applied. Such loam shall be applied prior to issuance of a Certificate of Occupancy to these lots. Plantings within the development envelopes shall follow sustainable landscape practices including low maintenance groundcovers and native vegetation which needs little watering or application of fertilizers or pesticides.

W5. Road Drainage shall be conveyed to the recharge basin, as shown on the plan that will be constructed as a vegetated dry detention basin. Design shall provide for a reduction in stormwater velocity and sediment deposition prior to infiltration. Final design of the catch basin design shall be submitted to the Commission staff for review and approval prior to issuance of a Certificate of Compliance. Catch basins shall be cleaned on an annual basis to remove sediment and grease.

W6. A homeowner pamphlet shall be prepared by the applicant that educates the homeowner about the unique water resources surrounding the subdivision and informs them on sustainable landscaping and pollution prevention practices for home and lawn care, including encouraging the use of "natural" fertilizers such as those derived from nutrient sources such as feather meal, seed meal, animal by-products and other composted materials. The pamphlet shall be submitted for approval by Commission water resources staff prior to issuance of a Certificate of Compliance.

W7. Prior to demolition of the greenhouse, a composite soil sample shall be taken and analyzed for pesticides and organic compounds to insure that demolition will not cause the release of chemicals or pesticides that could threaten water resources in the vicinity of the project. One composite soil sample shall be obtained from underneath the planting table or work areas. The sample shall be taken from a maximum of six points, spaced ten feet apart at a depth not to exceed six inches. The composite sample shall be well mixed in a stainless steel bowl with a stainless steel spoon prior to submittal for analysis. Pesticides shall be analyzed by SW 846/EPA Method 8080. The action level for soil cleanup is referenced in 310 CMR 40. The Massachusetts Contingency Plan action level for chlorpyrifos (Dursban) is 10 mg/l in soil and 100 ppb in groundwater. If necessary, confirmation of clean up levels shall be determined through a second composite soil sample after the soils have been removed and properly disposed of off-site. Such testing shall be done by a qualified professional and shall be

reviewed by Commission water resources staff prior to issuance of a Certificate of Compliance.

W8. The applicant shall place a covenant on every parcel of land within the subdivision prohibiting the use of chemical fertilizers and pesticides in regards to landscaping and other uses of the lots. Such covenant shall be written in a manner and form approved by Commission staff and Commission Counsel prior to issuance of a Certificate of Compliance.

Natural Resources:

NR1. As required by MPS 2.5.1.3 of the RPP, the applicant shall provide 12.4 acres of permanently protected open space as shown on the plan titled "Preliminary Subdivision Plan 'Phase Two' Prepared for Conant Nursery Trust, West Barnstable, MA," and dated December 8, 1998, revised April 14, 1999. Prior to receiving a Certificate of Compliance for Phase 2, the applicant shall convey the 12.4 acres of open space to the Barnstable Land Trust or the Town of Barnstable Conservation Commission to be held as permanent open space with public access; or permanently protect the open space by recording a permanent Massachusetts General Laws Chapter 184 Sections 31-33 conservation restriction allowing for public access and accompanying plan in a form and content acceptable to Commission counsel to be recorded at the Registry of Deeds or Land Court Division of the Registry.

NR2. Prior to receiving a Certificate of Compliance for Phase 2, the applicant shall clearly mark the boundaries of the permanent open space with bounds and/or a low fence to ensure there is no disturbance of these areas. No disturbance of any area within 100 feet of the wetland boundary shall occur, consistent with Minimum Performance Standard 2.3.1.2.

NR3. Prior to receiving a Certificate of Compliance for Phase 2, the applicant shall describe development envelopes on Lots #1 through #10 and design the development to protect remaining specimen trees and limit grading and clearing of vegetation on the site. Such development envelopes shall not exceed 15,000 square feet on each lot and shall be submitted for approval by Commission staff and filed with the Barnstable Building Commissioner. Development envelopes for Lots #8, #9, and #10 shall be designed as required in Water Resource condition #W3 above, and all development envelopes shall be designed to address issues raised in the Heritage Preservation/Community Character conditions below. Wells may be located outside of the development envelopes, and areas disturbed and subsequently revegetated during well installation will not be counted as part of the development envelope.

NR4. As required in the Phase 1 decision, prior to receiving a Partial Certificate of Compliance, the applicant and the Commission staff shall identify and mark on a plan those native specimen trees within 40 feet of Meetinghouse Way which shall not be removed during any future development of the site.

Transportation:

T1. Prior to receiving a Certificate of Compliance for Phase 2, the applicant shall contribute either a monetary commitment to alternatives to automobile transportation in the sum of \$57,600 or provide 3 developable residential lots within the study area or a combination of monetary commitment and developable lots within the study area to meet the project's trip reduction requirements (MPS 4.1.2.1 and 4.1.2.2). The monetary commitment shall be placed in an escrow account held by the County of Barnstable and will be expended upon the recommendation of the Cape Cod Commission Executive Director to support alternatives to automobile transportation in the Town of Barnstable. Any funds remaining after 10 years shall be turned over to the Cape Cod Regional Transit Authority or similar transportation agency for public transportation. Any vacant lots proposed to meet this condition must be determined

buildable by the Barnstable Building Inspector. The developable vacant lots shall be in excess of the open space requirements under the Regional Policy Plan and shall be placed under a permanent conservation restriction consistent with MGL Chapter 184 Sections 31-33 and approved by Commission counsel.

T2. As required in the Phase 1 decision, prior to receiving a Final Certificate of Compliance for Phase 1 of the project, the applicant shall increase the sight distance by 15 feet on the westbound approach to the proposed Phase I driveway on Cedar Street. The applicant shall either remove vegetation in front of the stone wall or shall relocate the proposed driveway 15 feet to the west of the driveway shown on the "Sketch Plan of Site for Conant Nursery Trust, Lot 2," dated February 6, 1998. A combination of these two measures that increases sight distance by 15 feet is also acceptable. The increase in sight distance will satisfy Minimum Performance Standards 4.1.1.5 and 4.1.1.7

Heritage Preservation/Community Character:

HP1. As required in the decision for Phase 1 of the project and as required in conditions relating to Natural Resources, the applicant shall provide a permanent vegetated buffer to the Village Green along Meetinghouse Way as shown on the plan titled "Preliminary Subdivision Plan 'Phase Two' Prepared for Conant Nursery Trust, West Barnstable, MA.," and dated December 8, 1998, revised April 14, 1999, designating this area as permanent open space. The applicant shall also design development envelopes on all residential lots to ensure adequate depth of vegetation between the roadway and any new development to limit impacts on the character of the surrounding historic district.

HP2. Prior to issuance of a Certificate of Compliance, the applicant shall complete an intensive (locational) archaeological survey (950 CMR 70) in compliance with M.G.L. Chapter 9, Sections 26-27C, and Implementing Regulations (950 CMR 71) in areas deemed likely to possess archaeological significance by the Massachusetts Historical Commission. The survey results shall be considered in the location of new structures on Lots 1 through 12 to determine whether the development can avoid adverse impacts to archaeological resources. Location of site preparation work and new structures shall be reviewed by the Massachusetts Historical Commission for impacts to archaeological sites based on the survey results and shall be approved by the Cape Cod Commission or its designee prior to commencing site preparation or development work.

Affordable Housing:

AH1. Prior to issuance of a Certificate of Compliance, and prior to partial or full release of covenant and/or conveyance of any building lots within the subdivision, the applicant shall provide one housing unit or lot on-site, or one unit or lot off-site, in the town of Barnstable, consistent with Section 5.1.3 of the Regional Policy Plan. Further, an eligible household must have been selected by the Commission prior to partial or full release of covenant and/or conveyance of any building lots within the subdivision. This standard may also be met through the provision of a cash contribution. The amount of the monetary contribution shall be determined by the Commission's Affordable Housing Specialist at the time of the contribution. The staff has determined that for this project a cash contribution would range from \$40,000 to \$50,000.

AH2. If compliance with this standard is sought through the provision of an off-site unit, the applicant shall be required to demonstrate that the unit complies with local sanitary codes, as well as any other condition(s) concerning habitability deemed appropriate by the Commission. Further, the provision of an off-site unit which will result in displacement of the existing

occupant shall be considered unacceptable; unless that occupant is selling the unit or the applicant can demonstrate that the unit has been on the market prior to this project becoming subject to Commission review.

AH3. If compliance with this standard is sought through the provision of an on-site lot, that lot shall be subject to the review and approved by the Commission. If compliance is sought through the provision of an off-site lot, the applicant shall be required to demonstrate that the lot can support the development of the affordable housing unit, as well as any other condition(s) deemed appropriate by the Commission. If the applicant chooses to sell the on-site or off-site lot, the sale prices of the lot shall be determined by the Commission.

AH4. If the applicant chooses to provide a cash contribution, those funds shall be committed to an entity designated by the Barnstable Town Council. If the Council is unable to identify an appropriate body, the Commission shall make that determination. The funds shall be used to support the creation of at least one affordable housing unit, as approved by the Commission, in the town of Barnstable.

AH5. The affordable housing unit resulting from this section is to be occupied by an income eligible households as determined by the Commission. At this time the income eligibility limits are as follows:

Household Size:	Income Limit:
one	\$26,800
two	\$30,650
three	\$34,500
four	\$38,300
five	\$41,400

AH6. The affordable unit created by this section shall consist of either two or three bedrooms to own or rent.

AH7. The affordable unit created by this section shall be subject to the purchase price and rent limits established by the Commission. For homeownership, the sale price limits are as follows:

	Single Family
Two Bedrooms	\$73,000
Three Bedrooms	\$78,000
Four Bedrooms	\$84,000

For rental, the rent limits, inclusive of utilities, are as follows:

Two Bedrooms	\$678
Three Bedrooms	\$775
Four Bedrooms	\$845

AH8. The affordable unit created by this section shall remain affordable year-round through the use of the Cape Cod Commission Affordable Housing Deed Restriction. These restrictions shall be made known to the prospective household prior to the conveyance of the affordable housing unit or lot in the case of homeownership.

AH9. Preference shall be given to Barnstable County residents with regard the purchase or rental occupancy of the affordable housing unit created by the section.

AH10. The affordable housing unit created through this section shall be purchased or rented by an eligible household through a lottery process to be conducted by the Commission.

AH11. Sale of the affordable units created by this section shall be restricted to income eligible first-time homebuyers.

The Commission hereby grants Conant Nursery Trust Subdivision Phase 2 a DRI Approval with Conditions.

Herbert Olsen

Herbert Olsen, Chair

4/22/99

Date

Commonwealth of Massachusetts
Barnstable, ss.

Subscribed and sworn to before me this *22nd* day of *April* 19*99*

Katharine L. Peters

My commission expires:



Name, Notary Public