



CAPE COD COMMISSION

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Date: September 23, 1999

Applicant: Jacob Atwood & Spring Hill Cranberries, Inc.
393 Commonwealth Avenue
Boston, MA 02115

Project #: TR 90044 & 99004

Project: Norse Pines Cluster Subdivision
East Sandwich, MA

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

Book/Page #s: Book 6579, Page 093
Book 6638, Page 038
Book 2363, Page 123
Book 2741, Page 072
Book 4701, Page 288
Book 4701, Page 290
Book 4759, Page 302
Book 5787, Page 115
Book 10344, Page 115
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 Jacob Atwood and Spring Hill Cranberries, Inc. 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 Norse Pines Cluster Subdivision consisting of 40 lots on 117.01 acres off Route 6A and Spring Hill Road in East Sandwich. This decision is rendered pursuant to a vote of the Commission on September 23, 1999.



PROJECT DESCRIPTION

The proposed project is a 40 lot cluster subdivision with two access roads onto Route 6A and Spring Hill Road in East Sandwich. The total project area is 117.01 acres, of which approximately 69.44 acres are upland. The proposed subdivision lots are each 30,000 square feet or greater and will be served by on-site septic systems and town water. The Commonwealth's railroad right of way (leased to Bay Colony Railroad) is located along one side of the property. The site is generally divided into eastern, central and western upland lobes, surrounded by wetland. Portions of the property are wooded and portions are used for grazing. The project includes 91.03 acres of open space associated with the subdivision (including wetland and upland). The project drains toward, but is not located within, the Sandy Neck Area of Critical Environmental Concern.

PROCEDURAL HISTORY

The Norse Pines subdivision was originally referred to the Cape Cod Commission in 1990. The project was a cluster subdivision of 42 single family lots on 93.47 acres with two access roads from Route 6A and from Spring Hill Rd. in Sandwich. The application was submitted by Spring Hill Cranberries, Inc. and Jacob M. Atwood Esq. for two parcels of land which were combined for purposes of the proposed subdivision. This project met two thresholds, Section 12(c)(3) and 12(c)(7) of the Cape Cod Commission Act -- division of 50 acres or more, and the creation of greater than 30 dwelling units.

This subdivision received preliminary subdivision approval from the Sandwich Planning Board on November 15, 1989. The Cape Cod Commission Act became effective on March 27, 1990. The applicants filed for a definitive subdivision approval with the Sandwich Planning Board on April 4, 1990. The Sandwich Planning Board referred the project to the Cape Cod Commission on May 1, 1990 for review as a Development of Regional Impact as required by the Cape Cod Commission Act.

The Cape Cod Commission held a series of public hearings on the project beginning in June 1990 and concluding on November 26, 1990. Several extensions of the decision deadline were granted during this period. The Cape Cod Commission voted on February 28, 1991 to deny the proposed project by a vote of 13-0-1. The reasons for the denial included, but were not limited to, wetland and wetland buffer alteration, traffic and safety issues surrounding the access to Spring Hill Rd. as well as the adjacent intersection (Quaker Meetinghouse Rd., Spring Hill Rd. and Rt. 6A), affordable housing and inconsistency with local development bylaws and regulations. The Commission also found that the benefits of the proposed project did not outweigh the detriments.

On April 8, 1991, the applicants appealed the Commission's denial of their DRI permit application. The case of Jacob M. Atwood and Spring Hill Cranberries, Inc. vs. Cape Cod Commission was filed in Massachusetts Land Court (Misc. Land Court #160697). The suit asked the Land Court to overturn the Commission's denial and enjoin the Commission from

enforcing the Act against the proposed subdivision. It further asked the court to find that the Commission was without authority to review DRIs and that the Act was unconstitutional. The suit also sought costs and attorney's fees.

On April 19, 1991 the Land Court denied plaintiff's request for a preliminary injunction. On August 7, 1991 the Land Court denied plaintiff's request for summary judgment on constitutional grounds. A trial has not been scheduled on the remaining counts of the complaint including the specifics of the project denial.

In June 1992, the applicant and the Cape Cod Commission staff began discussion of a settlement proposal that might permit a modified project to move forward without going to trial. The Commission staff has met and corresponded with the applicant since that time in an effort to resolve outstanding issues relating to the project. Staff made clear to the applicant from the outset of these negotiations that once the major issues for the denial appeared to have been resolved between the staff and the applicant, the applicant would be required to bring the revised project back to a subcommittee for a public hearing and a new Commission decision.

The applicant filed a revised set of plans for the proposed project on March 16, 1999 along with an amended application to reflect changes in the project acreage and to incorporate a narrative discussing modifications that have been made to the project to address the reasons for the denial. A Cape Cod Commission subcommittee held duly noticed public hearings on the revised plans on May 13, 1999 and July 29, 1999 in the town of Sandwich and received testimony regarding the proposed project. The subcommittee met on August 26, 1999 for the purpose of discussing a draft decision. A hearing before the full Cape Cod Commission was held on September 23, 1999.

The Commission staff and the applicant have agreed to make the substantial correspondence and information generated during the settlement discussions a part of the public record for the project. These submittals, as well as new information submitted in conjunction with the revised subdivision plan, are listed below. In addition, the record includes extensive additional information submitted in conjunction with the prior DRI review (TR 90044) which is listed in the prior Cape Cod Commission decision and not included below.

MATERIALS SUBMITTED FOR THE RECORD

A. CAPE COD COMMISSION

Development of Regional Impact Decision	2/28/91
Letter, to K. E. Alexander & Associates (KEA), Minutes	4/1/91
Letter, to Jacob Atwood, Esq. concerning site work post denial	2/27/92
Letter, to Joel Eigerman (JE), response to Attorney Atwood's letter	3/23/92
Letter, to KEA, comparison of Norse Pines and Landers Sand & Gravel	5/4/92
Letter, from Ed Allard, Commission's Affordable Housing Specialist, to Christopher Whelan, Sandwich Executive Secretary,	6/4/92
Letter, to Nancy Dickson from Greg Guimond, Commission staff	7/2/92
Summary of project issues to date/staff areas of concern	7/22/92
Letter, to JE, discussion of wetlands issues	7/22/92
Letter, to JE, discussion of project issues	8/24/92

Norse Pines Cluster Subdivision
Development of Regional Impact Decision-TR 90044&99004
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Letter, to JE, confirming discussion of project issues	10/20/92
Letter, to JE, discussion of wetlands issues	10/27/92
Letter, to JE, wetlands issues and possible mediation	1/7/93
Letter, from Eric Wodlinger, Choate Hall, wetlands issues, mediation	2/16/93
Summary of Site Assessment by Sabatia	4/16/93
Letter, to JE, consultant's report and possible mitigation strategies	4/27/93
Letter, to JE, discussion of DiGregorio's report on wetlands issues	6/8/93
Letter, to Peggy Hassan concerning her letter	6/29/93
Letter, to JE, response to his letter of 7/9/93	7/22/93
Letter, to Jonathan Leonard, President of Spring Hill Cranberries, concerning his proposal for modifications to the project	10/8/93
Letter, to JE, discussion of project and summary of areas of agreement	1/6/94
Letter, to JE, further clarification of project issues	7/20/94
Letter, to JE, steps to proceed on areas of agreement	9/28/94
Letter, to JE, response to concept plans	9/19/95
Letter, to KEA, discussion of transportation issues and review of DiGregorio's report on the site	11/2/95
Memo, from Sue Pommrehn to Margo Fenn, discussion of traffic	11/7/95
Letter, to KEA, transmittal of Sue Pommrehn's memo on traffic	11/8/95
Letter, to KEA, response to his letter of 10/10/95 and clarifications	3/1/96
Letter, to KEA, clarify points in his last letter	3/25/96
Letter, to JE, discussion with Town, wetlands issues	7/2/96
Letter, to JE, response to his November, 1996 letter, wetlands and open space issues	1/8/97
Letter, to JE, with attachments, transportation issues	1/28/97
Letter, to JE, response to his April, 1997 letter. Review of issues	4/29/97
Report, of Donald Schall, Fugro, on project site	7/8/97
Letter, to JE, response to his last letter. Project issues.	7/18/97
Memo, to JE, discussion of issues at a 1/9/97 meeting	12/4/97
Letter, to JE, discussion of project issues	2/13/98
Letter, to JE, discussion of affordable housing issues	4/23/98
Memo, discussion of sight distance and vehicle queuing	5/7/98
Letter, to JE, discussion of project issues	6/1/98
Letter, to JE, transmittal of letter from Joel Dwyer	6/15/98
Letter, to Crowleys, in response to their letter of concern about project	6/15/98
Letter, to Brodeurs, response to their letter on affordable housing	8/7/98
Memo, to JoAnne Buntich re: meetings with applicant with attachments	6/2/99
Memo, to KEA, re: affordable housing	6/4/99
Memo, to KEA, clarifying items from meetings with applicant	6/14/99
Memo, to Subcommittee transmitting draft decision	9/10/99

B. APPLICANT

Letter, from Jacob Atwood, concerning Commission's 2/27/92 letter	3/18/92
Letter, from Attorney Joel Eigerman (JE), in response to a meeting on the project with Commission staff	7/31/92
Letter, from JE, in response to latest Commission comments	9/24/92
Letter, from JE, project issues	10/26/92
Letter, from JE, site visit	11/23/92
Letter, from JE, seeking reply to questions	1/13/93
Letter, from JE, arranging site visit	3/11/93
Site photos and a plan of road profiles	4/16/93

Letter, from JE, discussion of site visit of DiGregorio's report on site	5/18/93
Letter, from JE, response to Commission staff's letter of 6/8/93 about wetlands, open space and other project issues	7/12/93
Letter, from JE, project issues and cover letter for information from the Town including Police Dept. accident reports	7/14/93
Letter, from JE, response to Commission's 7/22/93 letter	9/3/93
Letter, from JE, correction of error in his last letter	9/20/93
Letter, from Johnathan Leonard, President, Spring Hill Cranberries	10/14/93
Letter, from JE, concerning letter from J. Leonard and project issues	12/3/93
Letter, from JE, response to Commission's 1/6/94 letter	6/16/94
Letter, from JE, discussion of project issues	8/26/94
Letter, from JE, preliminary open space calculations	12/9/94
Memo, with attachments, from KEA, plans and transportation info.	7/21/95
Letter, from KEA, response to Commission's 9/19/95 letter. Additional discussion of project issues	10/13/95
Letter, from KEA, discussion of open space and transportation issues	2/7/96
Memo, from Hastings-Murphy Associates (H-MA), with attachments. Transportation information and analysis	2/20/96
Letter, from KEA, transportation information	2/27/96
Letter, from KEA, discussion of project issues	3/11/96
Letter, from H-MA, traffic calculations	5/6/96
Memo, from KEA, about items to be discussed with Town.	5/24/96
Letter, from H-MA, transportation issues	6/3/96
Fax, from JE, open space issues	7/15/96
Letter, from JE, discussion of open space and project issues in general	11/27/96
Letter, from JE, review of positions of applicant on issues	4/16/97
Letter, from JE, response to Commission's letter of April 29th	7/1/97
Letter, from JE, with four long attachments, discussion of issues	11/3/97
Letter, from JE, includes Declaration of Covenants, Restrictions and Reservations	11/10/97
Letter, from KEA, discussion of issues and affordable housing	1/20/98
Letter, from JE, about affordable housing	2/2/98
Letter, from KEA, with attachments, discusses curb cut permit. Includes letter from KEA to MassHighway, District #5 office and other letters	2/2/98
Letter, from JE, with several attachments, concerning former McNally parcel and related issues	2/27/98
Letter, from JE, followup to letter of 2/27/98 on McNally parcel	3/4/98
Letter, from KEA, with attachment, on transportation and curb cut	4/13/98
Letter, from KEA, with attachment, on transportation and curb cut	4/15/98
Letter, from KEA, transportation issues	4/24/98
Letter, from JE, project issues	4/27/98
Letter, from JE, project issues	5/4/98
Letter, from JE, project issues	6/19/98
Letter, from KEA, with attachments from H-MA, discussion of transportation issues	7/9/98
Memo, from KEA, project issues and map	7/13/98
Memo, from KEA, transportation issues	8/6/98
Letter, from JE, to JoAnne Miller Buntich, Sandwich Town Planner, on revisions to the project	1/21/99
Letter, from JE to Margo Fenn with attachments including updated application, Plans and proposed covenants	3/16/99

Letter, from JE to Kathy Sferra commenting on draft staff report 4/30/99
 Letter, from KEA to Kathy Sferra with 5/4/99 comments on draft staff rept. 5/5/99
 Letter, from KEA to Kathy Sferra re: project issues 5/10/99
 Letter, from KEA to Kathy Sferra requesting meetings with staff 5/20/99
 Memo, from KEA with summary of 6/7/99 meeting 6/11/99
 Memo, from KEA re: 6/7/99 meeting 6/18/99
 Memo, from KEA re: 6/17/99 meeting 6/18/99
 Memo, from KEA re: Spring Hill Rd. entrance 6/21/99
 Letter, from Jacob Atwood to Ed Allard re: affordable housing 6/21/99
 Letter, from KEA transmitting floodplain map with map 7/14/99
 Memo, from KEA to town staff re: town's comments on project 7/15/99
 Memo, from KEA to Glenn Cannon re traffic issues 7/15/99
 Letter, from JE to JoAnne Buntich re: town's comments on project with
 attached letter dated 1/19/99 7/19/99
 Stormwater Data and proposed landscaping plan 7/29/99
 Memo, from KEA, to Kathy Sferra with comments on draft decision 8/25/99
 Letter, from JE with comments on mitigation schedule 9/8/99

Letter, from JE, to Patricia Daley re: dismissal of litigation 9/22/99

C. GOVERNMENT AGENCIES & PUBLIC COMMENTS

Letter, from Nancy Dickson, concern about fragile site 7/23/92
 Letter, from Peggy Hassan, as resident, concern about project traffic 10/14/92
 Letter, from Peggy Hassan, as Board Member of REPS 7/22/93
 Copy, Memorandum of Understanding between Commission and Town of
 Sandwich relative to DRI reviews 4/25/96
 Letter, to JE, from Marie Blaney, Sandwich Town Planner, with attachments 6/19/96
 Letter, from Crowleys, concerning possible donation of land by Jacob
 Atwood 6/9/98
 Letter, from Sheehans, concern about affordable housing 7/3/98
 Letter, from Brodeurs, concern about affordable housing 7/27/98
 Comments from Sandwich Town Staff on proposed project 5/13/99
 Memo, from Sandwich Town Staff re: suggested revisions to project 6/30/99
 Comments from MHC on proposed project 7/21/99
 Letter from George Dunham to Ed Allard re: affordable housing 7/28/99
 Memo, from Sandwich Town Staff re: drainage and roadways 8/17/99
 Letter, from William Lynch, abutter with concerns about project 7/15/99
 Letter from Nancy Dickson, as resident with concerns about project 8/10/99
 Letter, from JoAnne Buntich, with comments on project phasing 9/1/99
 Letter from Corinne and Duane Bellingham with concerns about project 9/12/99
 Letter from Peter J. Hanlon with concerns about project 9/19/99
 Letter from Marian and Jim Reilly with concerns about project 9/22/99

TESTIMONY

At the May 13, 1999 public hearing Kathy Sferra, Commission staff summarized the history and status of the review of this project, beginning with the original referral back in 1990 when the Commission did not have a Regional Policy Plan. She noted that the Commission voted in 1991 to deny the project. Since that time, Commission staff have been meeting with the applicant to attempt to resolve the issues in the denial with the understanding that the project would return to

a subcommittee for a new hearing if the major problems could be addressed. This hearing is the beginning of that process. The Commission must find consistency with the 1991 Regional Policy Plan, Sandwich bylaws and that the project's benefits outweigh the detriments. Staff believes that substantial progress has been made in addressing the reasons for the denial. Some outstanding issues relating to RPP compliance still need to be addressed.

On behalf of the applicant, Attorney Joel Eigerman noted that progress has been made in resolving the issues in the denial. The subdivision is now 40 lots on 117 acres. Of this 70 acres are upland and 40 are wetland. They believe that the town approvals received to date are still in effect. As a legal matter he believes that the project is not subject to the 1991 RPP, but they believe that the project does comply with the exception of the limited amount of wetland alteration which has been mitigated. He summarized the issues in the denial. 1) Affordable Housing: the RPP requires 4 lots, which the applicant has agreed to provide. 2) Wetland Buffers/Natural Resources/Open Space: The following revisions have been made: the western access road has been redesigned to eliminate alteration of Wetland Area C; the applicant has proposed mitigation including dedication of prime upland open space and restriction on lots to provide wildlife corridors; additional vegetation of the site; limitations on lawn areas and marking of wetland buffer with a fence line. 3) Traffic: the sight distance issues appear to be resolvable; the impacts to 6A are not possible to mitigate. As an alternative they have proposed a cash contribution to transit in the amount of approximately \$44,000. 4) Compliance with Town Regulations: the present plan conforms to the applicable town subdivision rules and regulations except for roadway side slopes which are steeper than allowed. With regard to other issues Mr. Eigerman noted that the 60% open space requirement has been met and the 5 ppm nitrogen loading standard is met. They are willing to contribute to a flushing study, depending on cost.

K.E. Alexander, planner, displayed renderings of the subdivision that showed that with the lawn limits of 5000 sq. ft./lot, most of the lots will be naturally vegetated and the subdivision will have a very "open" feel to it. He presented an enlarged copy of the site plan showing the western entrance. He noted that the applicant will return to the Conservation Commission to amend their Order of Conditions, but he believes that the impacts are reduced. Wetland C has been protected. The impacts to Wetland B are reduced. Wetland A will be filled. A box culvert has been placed under the road, rather than a pipe culvert and additional pipes have been added for wildlife movement. The subcommittee asked questions to clarify aspects of the proposed project.

JoAnne Miller-Buntich, Sandwich Planning Director, read the town's comments with regard to wetlands, drainage, and affordable housing. Kathy Sferra, Ed Eichner, and Glenn Cannon presented the comments in the staff report, noting the remaining issues of concern including stormwater management, nitrogen loading to Scorton Creek/Harbor, transportation mitigation, open space, affordable housing, and community character issues.

In response to a question from the subcommittee, Atty. Eigerman said that the appeal is in Land Court where it enjoys "benign neglect." Jacob Atwood, speaking for both owners, said that he would be willing to put in writing that he would dismiss the case if the issues were resolved.

Jay Schlaikjer asked about nitrogen loading to Scorton Creek. Mr. Eichner explained that staff has completed a "first order" nitrogen analysis which is an estimate. It indicates that there should be a water quality problem, but there is no visual evidence of such a problem in the creek. He said that it is possible that there is underflow of Scorton Creek from some areas within the watershed. It is not likely to be the case at this site due to the proximity of the marsh. Frank Shephard asked if there is any indication of eutrophication in the creek. Mr. Eichner responded that this is difficult to assess since water quality data has not been collected. The creek is closed to shellfishing from elevated coliform levels, but there is no visible evidence of a water quality problem due to excessive nitrogen loading. Since no detailed study has been completed, there may be other factors in the system that are unknown at this time.

Virginia Stack, Sandwich resident, expressed concerns with regard to open space, wildlife corridors, the traffic queuing study and the need for a consistent speed limit on Route 6A.

Bill Lynch, an abutter to the project, spoke at length about his concerns. He said that he is concerned about the pending lawsuit and believes that the litigation will influence the Commission's objectivity with regard to this project. With regard to wildlife habitat he said that the project does not maintain wildlife corridors and the open space is fragmented by roadways. He expressed concern that there is no public access for the conservation land behind Lot 24. He is concerned about the open space that will be located within yard setbacks on the lots. With regard to nitrogen loading, he indicated that Scorton Creek is overloaded with nitrogen and said that this is a key issue. He believes that the project should be reviewed under the 1996 Regional Policy Plan. He noted that Wetland A will be completely filled and believes that this creates a dangerous precedent for the Commission. Finally with regard to transportation he noted concerns about sight distance. He noted that this is a high accident area. Mitigation must respect the scenic and historic character of the roadway. Putting funds toward trolley service will not be effective in reducing traffic along Route 6A.

Mark Bridges, an abutter, said that he was familiar with previous Atwood subdivisions and believes that he does quality work. He asked for clarification on the location of the affordable lots which Mr. Alexander pointed out. He also asked for clarification on the location of the subdivision access road relative to the current driveway.

Staff agreed to meet with the applicant to attempt to resolve outstanding issues prior to the next public hearing.

At the July 29, 1999 public hearing, Kathy Sferra, Commission staff, presented an update based on two meetings with the applicant. Staff has calculated \$10,000 as an appropriate monetary contribution to a flushing study and the applicant has agreed to provide this amount. On stormwater issues, the applicant had just provided additional information that needs to be reviewed. The Subcommittee expressed a concern about removal of dead trees and vegetation in buffers. She noted this had been discussed with and prohibitions on such clearing are agreeable to the applicant. A Conservation Restriction was needed relative to proposed open space which would be held by the Town, a non-profit or Sandwich Conservation Trust. Regarding affordable

housing issues, the applicant agreed to reduce the minimum house size from 1250 to 1100 square feet. The homeowner assessments did not seem to be prohibitive based on a May 20th letter received from the applicant. The Town of Sandwich has been contacted to determine the recipient of the four affordable lots. The applicant has agreed to prepare a landscape plan to address community character concerns. On archeological issues, she noted the applicant had provided at the hearing a letter from MA Historical noting the agency did not have concerns.

On the issue of the pending litigation, she noted that discussions had taken place between the Commission's Counsel and applicant's attorney on this issue. She noted the consensus was that if a Development of Regional Impact approval was granted, it should be adopted as an Agreement for Judgement, thereby resolving the litigation issue.

Glenn Cannon discussed transportation issues including stopping sight distance, vehicle queuing and traffic mitigation contributions. On stopping sight distance, he noted safety would not be degraded. He noted field verification showed an object could be seen at 12 inches off the pavement. He noted that while this is not the ideal situation, it is adequate for the intersection of Spring Hill Road and Quaker Meetinghouse Road given specific site conditions and likely travel speeds. He noted that the railroad tracks act as a speed bump and that the applicant has agreed to install a stop sign at the intersection. On vehicle queuing, he noted the area of concern was near the eastern entrance. He noted field observations show that four vehicles on Route 6A can be stopped at the eastern access without intrusion on the railroad tracks. Mr. Cannon noted observations indicate vehicles would not queue longer than this distance due to a motorist turning left into the subdivision. In the area of traffic mitigation, he noted that this RPP established mitigation based on Level of Service thresholds. He noted the threshold in the 1991 RPP was degradation of service below LOS C. Mr. Cannon said based on his review of the information and correspondence on the project to date, the applicant should contribute a \$23,688 in transportation mitigation monies in addition to trip reduction requirements.

Ms. Sferra noted information relative stormwater management, recipient of affordable lots and screening had just been submitted by the applicant at the hearing. She said transportation mitigation funding was the major remaining issue.

Attorney Eigerman stated that if the remaining \$23,688 was "the last thing left" preventing a resolution of this issue, the applicant would not protest further and would agree to this. He noted there were other remaining issues, but suggested these could be satisfactorily resolved.

Mr. Schlaikjer asked about the flushing study. Ms. Sferra said there was no set time frame for its completion. She noted that the 1991 RPP gave the Commission authority to require a contribution to a flushing study if there was no established nitrogen-loading limit but not to go further, which differs from the current plan. She suggested the Commission staff would likely perform the actual work.

Mr. Schlaikjer said it was important the Subcommittee consider a condition requiring the establishment of a nitrogen load and the installation of de-nitrifying systems depending on what

the study showed. Attorney Eigerman said the applicant was concerned about Mr. Schlaikjer's suggestion that the project be held to the results of a flushing study. He noted this would be an open-ended condition.

Ms. Sferra noted that while all indications are that there was an overload of nitrogen, this was not being observed in the field or the water quality. There is a question about how the system is actually functioning. As such, she suggested the completion of a study would provide important data.

Sue Walker, Sandwich resident, said she was concerned about water quality impacts from the proposed project. She urged the Commission to use caution in permitting the proposed subdivision.

Bill Lynch asked questions through Mr. Ernst of Mr. Cannon regarding traffic mitigation. He asked if any structural mitigation was proposed. Mr. Cannon responded that none was proposed. He noted the mitigation monies would be put in escrow and the Town of Sandwich would be contacted regarding how the monies could be used.

Mr. Lynch questioned the sight distance on Route 6A East. Mr. Cannon responded that the sight distance is at least 275 feet, possibly 300 feet. He said 350 feet was excessive. He noted 325 feet is a recommended sight distance.

Ms. Taylor asked what the depth to groundwater on the site was. Mr. K.E. Alexander, representing the applicant, noted test pits and Soil Conservation Service maps of the site had provided data. He noted that the depth was satisfactory to meet the requirements of Title 5 for septic systems.

Ms. Taylor expressed concern over floodplain elevations. Ms. Sferra noted information submitted by the applicant showed that the floodplain elevation contour line was outside the area of the house lots.

Mr. Ernst asked the Town representatives present if the applicant had addressed their concerns. Ms. Buntich, the Town DRI Liaison, noted that the affordable housing concerns had been addressed. She noted the rest of the concerns of the Town were expressed in a June 30, 1999 letter.

Mr. Shepard responded to the suggestion that the Commission was "under the gun" of litigation. He emphatically said this was not the case. He said a main concern was also that the Town felt comfortable with the project and resolution of issues.

Mr. Shepard asked if the applicant had considered communal septic systems or leach fields. Mr. Alexander responded that Title 5 regulations indicate that dispersed leach fields are better.

The subcommittee closed the hearing and met on August 26, 1999 to discuss a draft decision. The subcommittee voted unanimously to recommend that the Cape Cod Commission approve the project with conditions as provided in the draft decision.

JURISDICTION

In 1990, the proposed Norse Pines Cluster Subdivision qualified as a DRI under section 12(c)(3) of the Cape Cod Commission Act which required review of:

Any development which proposes to divide land of fifty acres or more which was in common ownership as of January first, nineteen hundred and eighty-eight;

And Section 12(c)(7) which requires review of:

Any proposed development, including the expansion of existing developments, that is planned to create or accommodate more than thirty dwelling units.

The project was referred to the Commission by the Sandwich Planning Board on May 1, 1990.

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 Norse Pines Cluster Subdivision be granted a DRI approval with conditions based upon the following findings:

General

G1. The proposed subdivision is being reviewed for consistency with the 1991 Regional Policy Plan in accordance with Barnstable County Ordinance 91-8, Section 5 which states that "DRIs referred to or accepted for review by the Commission prior to September 6, 1991 . . . shall be governed by Minimum Performance Standards in effect on September 6, 1991."

G2. The 117 acre site is proposed to be subdivided into 40 building lots and permanent open space as shown on the plan titled "Norse Pines Cluster Subdivision in East Sandwich" prepared by Baxter & Nye, with revisions through December 14, 1998, and "Norse Pines Plan of Road Profiles" prepared by Baxter & Nye, with revisions through February 15, 1999.

G3. Developments of Regional Impact are required to be consistent with certified Local Comprehensive Plans. The town of Sandwich does not have a certified Local Comprehensive Plan.

G4. Developments of Regional Impact are required to be consistent with adopted Districts of Critical Planning Concern. The proposed project is not located within an adopted District of Critical Planning Concern.

G5. Developments of Regional Impact are required to be consistent with municipal development bylaws. The proposed project is located within residential zoning district R-2 in Sandwich. Based on comments submitted by the town of Sandwich, it appears that the proposed project is consistent with the Town of Sandwich's municipal development bylaws in effect at the time of filing of the proposed plan, however at least one waiver will be required from the Subdivision Rules and Regulations. This waiver will minimize the wetlands impacts of the project.

G6. An appeal of the Commission's prior denial is currently pending before the Land Court. Attorneys for the Commission and the applicant have agreed that if the project is approved with conditions that are acceptable to the applicant, the decision will be filed with the Land Court as an Agreement for Judgement dismissing the pending appeal.

G7. The applicant intends to record a document entitled "Master Declaration of Covenants, Conditions and Restrictions for the Planned Development of Norse Pines in Sandwich, Barnstable County, MA" setting forth requirements with regard to the subdivision. A draft of this document was provided to the Cape Cod Commission during the review of this project. This draft will be revised to be consistent with this DRI decision.

Land Use

LU1. Minimum Performance Standard 1.1.2. in the Regional Policy Plan requires that applicants proposing subdivision of five or more lots submit a cluster development plan for consideration by the Cape Cod Commission. The applicant is proposing to develop a cluster subdivision, therefore the project is in compliance with this requirement.

LU2. Minimum Performance Standard 1.2.1. in the Regional Policy Plan requires that projects adjacent to lands in active agricultural production maintain or provide a thickly vegetated buffer between this agricultural use and new development. This requirement is intended to prevent conflicts between existing agricultural operations and new development. Portions of the proposed project area adjacent to active cranberry bogs. By including the 100' buffer to wetlands within the open space, the proposed project meets this requirement on the majority of the site. Additional landscaping behind lots 37-40, as conditioned in this decision will further supplement this buffer. In addition, the adjacent cranberry bogs were in common ownership with the land proposed for subdivision at the time the initial planning and subsequent review by the Town and the Commission occurred. The bogs are now under different ownership but the new owner (Canning) reviewed the subdivision plans prior to purchase and understands any potential impact it may have on agricultural production.

Water Resources

WR1. The nitrogen loading concentration for the proposed project is between 3.4 and 4.5 ppm depending on the number of bedrooms (3 per house and 5 per house, respectively). Based on this, the project is in compliance with the 5 ppm nitrogen loading standard in the 1991 Regional Policy Plan.

WR2. The proposed subdivision is located within the watershed to Scorton Harbor/Creek. Scorton Harbor/Creek was classified as the second most nitrogen overloaded system on Cape Cod during the Commission's first-order review of embayment nitrogen loading (CCC, 1995). This preliminary review found that annual existing nitrogen loading within the watershed to the Harbor/Creek system is 4.5 kg/acre of watershed or 7,129 g/m² of embayment. For comparison, the highest areal loading rate recommended by the Buzzards Bay Project, and adopted by the Commission in the Nitrogen Loading Technical Bulletin, is 45 g/m². No field studies have been done to date to verify this assessment, therefore it is not known whether this first-order review is indicative of actual conditions in the Harbor/Creek.

WR3. A detailed tidal flushing study has not been completed for the Scorton Harbor/Creek embayment system. As a result, an identified critical nitrogen load has not been developed for this system.

WR4. Minimum Performance Standard 2.1.1.2.C.2 in the 1991 RPP states that development shall not exceed identified coastal nitrogen loading standards and that DRIs with wastewater flows of greater than 2,000 gpd may be required to prepare an analysis to assess the water quality within the coastal embayment of concern. Projected wastewater flows from the site would be between 13,200 and 17,600 gpd (assuming either 3 or 4 bedrooms per unit, respectively). Under the 1996 RPP, project proponents are required to make a monetary contribution toward the development of an identified critical nitrogen loading standard.

WR5. The applicant has agreed to make a contribution in the amount of \$10,000 toward the completion of a flushing study of the Scorton Harbor/Creek embayment system or other efforts to identify nitrogen management strategies for the system watershed.

WR6. The 1991 RPP prohibits direct discharge of new untreated stormwater into marine and fresh surface waters (Minimum Performance Standard 2.1.1.5) and encourages the use of stormwater best management practices. The stormwater management system proposed for the project makes use of silt traps and oil absorbing pillows within catch basins prior to discharge to rock-lined dispersal pools. Overflow from these pools, which will occur during storms larger than 10 yr storms, flows over 50 to 100 ft of vegetated area prior to discharge into nearby wetlands. The applicant has stated that these vegetated overflow areas will be designed to include swales. Direct discharge of stormwater to wetlands occurs at one location near Spring Hill Road. The applicant has stated that the stormwater system will be annually inspected and cleaned if necessary.

WR7. The applicant has proposed to limit lawn area on each lot to 5000 sq. ft. as well as to prohibit clearing of the side and rear yard setback on the subdivision lots to minimize nutrient loading, pesticide application, and maintain wildlife habitat.

Natural Resources and Open Space

NR1. The project site contains a variety of upland and wetland habitat. Surrounding the site are shrub swamps, active and abandoned cranberry bogs, forested swamp, wet meadows, and a freshwater marsh. The area eventually drains through a one-way flood gate located beneath Ploughed Neck Road into Scorton Creek and its associated salt marshes. The salt marshes in the vicinity of the project site are within the Sandy Neck Area of Critical Environmental Concern.

NR2. There are three wetland areas located in the vicinity of Roadway A near the western entrance to the property (near Spring Hill Rd.). These are a vegetated wet swale upgradient of the cranberry bogs (Wetland A - 638 sq. ft.), a mowed wet meadow (Wetland B - 7891 sq. ft.), and a wooded swamp/marsh adjacent to the railroad tracks (Wetland C - 4685 sq. ft.).

NR3. The proposed project received an Order of Conditions from the Sandwich Conservation Commission in 1991. The applicant will be required to return to the Sandwich Conservation Commission with revised plans to seek either an amendment of this Order of Conditions or a new Order of Conditions for the revised project.

NR4. Minimum Performance Standard 2.3.1.1. of the Regional Policy Plan prohibits the alteration of wetlands. Minimum Performance Standard 2.3.1.2. of the Regional Policy Plan requires that a 100' undisturbed buffer be provided to wetlands.

NR5. One of the reasons for the 1991 denial was that the subdivision as originally proposed would have altered approximately 2200 sq. ft. of wetlands (including portions of all three wetlands described above) and associated wetland buffer areas.

NR6. The applicant has proposed a number of natural resource protection and wetland and wildlife enhancement measures to mitigate for the proposed wetland alteration. These enhancements include revegetation of disturbed areas (including those disturbed by current agricultural practices) with native plantings providing wildlife habitat benefits, lawn limitations to reduce tree removal and nutrient loading, provision of sandplain grassland habitat, installation of a culvert for wildlife migration, marking of the 100' buffer with a split rail fence to discourage encroachment by homeowners, creation of building envelopes, protection of specimen trees and provision of an additional area of important open space on the central lobe of the property. In addition, the applicant has modified the proposed roadway design to reduce the amount of wetland alteration to 1308 sq. ft. of wetland, including 638 sq. ft. of wetland A and 670 sq. ft. of Wetland B. Alteration of Wetland C has been eliminated. These revisions have also reduced the amount of wetland buffer alteration that will occur for construction of subdivision roadways.

NR7. As proposed, the project meets Minimum Performance Standards 2.3.1.1 and 2.3.1.2. with the following exceptions. Roadway A will result in the alteration of 1308 square feet of wetland and associated buffer areas. Roadway B will result in the alteration of a small amount of wetland buffer, but is located a minimum of 50' from wetlands on the site. Construction of stormwater drainage swales will result in a small amount of wetland buffer alteration. Construction of split rail fencing and placement of bounds will occur on the 100' buffer line. Restoration of areas disturbed by agricultural use will result in a beneficial alteration of wetlands and their associated buffers. No other wetland or wetland buffer alteration will occur.

NR8. Based on the modifications to the project that have reduced the wetland impacts and the provision of the mitigation items described in Finding NR6 and conditioned below, the Commission finds that it is appropriate to invoke the Flexibility Clause to allow the small amount of wetland and wetland buffer alteration proposed for this project. The Commission finds that the applicant has endeavored to minimize the amount of wetland alteration to the maximum extent feasible and has mitigated the remaining wetland alteration through measures to enhance the wetlands and wildlife habitat on the site and restore wetland areas that are currently degraded by agricultural practices.

NR9. Minimum Performance Standard 6.1.3. of the 1991 Regional Policy Plan requires that 60% of the upland area of the proposed project be provided as permanent open space. Based on the project area, the applicant is required to provide 41.6 acres of permanent upland open space.

NR10. The applicant is proposing to provide the following areas to meet the Regional Policy Plan requirement: 28.72 acres of upland will be included in the common open space for the cluster subdivision, 14.74 acres of upland will be included in side and rear yard restrictions on the individual residential lots and other restricted areas of wetland buffer. This totals 43.46 acres of open space which exceeds the RPP requirement. In addition, the applicant is providing 2.19 acres of mixed upland and wetland on the McNally property adjacent to the site as mitigation for the proposed wetland alteration.

NR11. In addition to the required upland open space, 45.38 acres of wetlands has been included within the permanent open space. This is not required by the Regional Policy Plan.

NR12. The Regional Policy Plan requires that areas provided to meet the open space requirement must be permanently restricted for this purpose and not used for structures or impervious surface. The 1991 Regional Policy Plan does not prohibit the provision of open space on individual residential lots.

NR13. The open space will be divided into two areas for the purpose of permanent restrictions. The areas that consists of "on lot" open space as shown on the approved plan will be restricted by permanent deed restrictions as specified in the conditions below. The remainder of the open space ("common open space" and the adjacent McNally parcel) will be subject to a Chapter 184, Section 31-33 Conservation Restriction to be held by the town of Sandwich or the Sandwich Conservation Trust (or other nonprofit) and used solely for conservation purposes.

Transportation

TR1. The proponent is proposing to subdivide land and create 40 new dwelling lots. The site is located north of Route 6A and east of Spring Hill Road with access roads from both Route 6A and Spring Hill Road. Route 6A is a scenic highway as designated by the State Legislature in June of 1992 and is located in The Old King's Highway Regional Historic District. Spring Hill Road is a scenic road as defined by the Town of Sandwich.

TR2. The average daily trip generation of the proposed subdivision is 444 daily trips. The estimated peak hour traffic generation from the forty lot subdivision is 47 vehicle trips during the afternoon peak hour. The proposed development will generate 25 new vehicle trips through the Route 6A/Quaker Meeting House Road intersection and 22 vehicle trips through the new easterly subdivision road/Route 6A intersection.

TR3. Based on analysis provide by the applicant, the Route 6A/ Quaker Meetinghouse Road and Route 6A/eastern subdivision roadway intersections are projected to operate below LOS C during the peak hour of traffic generation of the project. The applicant must mitigate these impacts to be in compliance with Regional Policy Plan MPS 4.1.1.1.

TR4. The applicant has agreed to provide nonstructural mitigation to offset the peak hour traffic volume impacts from the project by providing \$12,600 and \$11,088 for a total of \$23,688 for the two intersections. The monetary contributions were calculated using the transit equivalency equation as allowed by Regional Policy Plan MPS 4.1.1.3.

TR5. This project must reduce its expected increase in average daily traffic generation by 20% to comply with Regional Policy Plan MPS 4.1.2.1. Based on the traffic generation figures provided by the applicant, the required reduction is 89 vehicle trips (20% of 444 trips). The proponent has agreed to provide a monetary contribution in the sum of \$ 44,755 to offset the 89 vehicle trips. The monetary contribution was calculated using the transit equivalency equation as allowed by MPS 4.1.1.3.

TR6. It was determined that the stopping sight distance southbound from the proposed subdivision roadway on Spring Hill Road was inadequate based on American Association of State Highway and Transportation Officials (AASHTO) standards. However, the Spring Hill Road subdivision driveway has other safety measures that can substitute for the stopping sight distance. The safety measures at the Spring Hill Road subdivision roadway include the following:

- vehicles from the intersection of Route 6A and Quaker Meeting house Road will most likely not approach the 30 M.P.H. design speed used in the stopping sight distance determination.
- Vehicles exiting from the proposed subdivision roadway have decision sight distance available for vehicles approaching from Quaker Meeting House Road.
- The raised railroad bed which blocks the view of the 6 inch object will also slow traffic down on Spring Hill Road.

- Although the 6 inch object could not be seen from 200 feet, an object 12 inches high could be seen.
- The applicant has agreed to install a stop sign on Spring Hill road at its intersection with Quaker Meeting House Road.

TR7. It was determined that the stopping sight distance from the proposed subdivision roadway on Route 6A was adequate based on American Association of State Highway and Transportation Officials (AASHTO) standards.

TR8. Field investigations have determined that the easterly subdivision roadway access onto Route 6A is approximately 115 feet from the railroad tracks. Based on this, four vehicles on Route 6A could be stopped at the eastern access subdivision roadway without intruding on the railroad tracks. Field observations and analysis by Commission staff in the vicinity of the project demonstrated that no more than three vehicles would be queued for any length of time. At no time did four or more vehicles queue up waiting for a vehicle to turn left into the restaurant. The queuing observations indicate that traffic would **not** queue up on Route 6A due to a motorist attempting a left turn into the easterly subdivision driveway.

TR9. Due to the close proximity of the western subdivision roadway to the Spring Hill Road railway crossing, the proponent approached the Massachusetts Department of Public Utilities relative to upgrades at the intersection. Edger Dupont of the Department of Public Utilities, Transportation Division in a letter dated April 8, 1998 stated that one set of flashing lights and supplemental signage should be added at the crossing. It is the applicant's responsibility to ensure the upgrades recommended by the Department of Public Utilities are completed before residential traffic is allowed on the western Spring Hill Road subdivision roadway.

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 Norse Pines subdivision is required to set aside four lots.

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. The applicant has proposed to provide four lots (Lots 2, 9, 21 and 34) within the proposed subdivision to the town of Sandwich to be used for affordable housing purposes. The provision of these lots will be phased as the project is constructed and as described in this decision.

AH3. Following a review of the site plan and a site visit to the approximate location of the four lots, the Commission has determined the proposed lots acceptable for the provision of affordable homes.

AH4. The units 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 units.

AH5. The Commission has determined that a priority need exists for the purchase of affordable homes by first-time low-income homebuyers in Sandwich and throughout Barnstable County. The Commission has also determined that a priority need exists for the provision of affordable rental units for low income households in Sandwich and throughout Barnstable County. The Commission has further determined that a priority need exists for the provision of two and three bedroom units to rent or own in Sandwich and throughout Barnstable County.

AH6. As noted in finding G7, the applicant is proposing to create a Declaration of Covenants and Restrictions for the proposed subdivision. The applicant has agreed to modify the draft of this document dated 3/15/99 to reflect a minimum house size of no greater than 1100 sq. ft. for houses within the subdivision. This provision is intended to ensure that affordable units can be constructed on the four lots and that such units are as consistent in character, as much as possible, with other houses within the proposed subdivision.

Waste Mangement

WM1. The site is not located in either an existing Zone II or a Potential Public Water Supply Area. As such, standard 4.2.2.3 of the Regional Policy Plan would not apply to this project.

WM2. Subdivision projects typically involve the use of heavy equipment to prepare the site and for building construction. Minimum Performance Standard 4.2.2.1 of the 1991 RPP requires all development and redevelopment to make reasonable efforts to minimize their hazardous waste generation through source reduction, reuse, material substitution and employee education. MPS 4.2.2.2 requires all development and redevelopment to comply with the Massachusetts Hazardous Waste Regulations, 310 CMR 30.00.

WM3. Information submitted as part of the DRI indicates the applicant will be constructing site roads and selling lots which will be built upon by a variety of contractors.

WM4. In light of limited landfill space in southeastern Massachusetts, the proponent will be required incorporate plans to either separate out certain construction wastes on-site for recycling or to deliver such wastes co-mingled to a facility for processing and reuse. Such wastes include clean wood, brick, asphalt shingles, sheetrock and cardboard. Tree stumps will be taken to a DEP approved "stump dump" rather than a sanitary landfill. Brush will be chipped for reuse as mulch.

Heritage Preservation/Community Character

HP1. The project site is located within the Old Kings Highway Regional Historic District and is adjacent to Spring Hill Road and Route 6A, both of which are sensitive cultural resource areas.

The Spring Hill Road area has been determined as eligible for listing on the National Register of Historic Places and is also designated as a local scenic road. Route 6A forms the backbone of the Old Kings Highway Historic District and is also designated as a state scenic road.

HP2. In order to protect the important cultural features of these areas consistent with Goal 7.1 and MPS 7.1.2 of the 1991 Regional Policy Plan, the project design has included supplemental planting to limit views to new development from both Spring Hill Road and Route 6A. This includes screening along the rear of Lots #37 to 40 and along portions of Lots #1, 7 and 8.

HP3. Minimum Performance Standard 7.1.3. of the Regional Policy Plan requires the applicant to consult with the Massachusetts Historical Commission (MHC) with regard to potential archaeological resource impacts. MHC has reviewed the proposed plan and determined that the project is unlikely to affect significant archaeological resources.

HP4. 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 Sandwich Old Kings Highway Historic District Committee.

Project Modifications

1. Since the Commission's 1991 denial, negotiations between Commission staff and the applicant has resulted in a number of modifications to the proposed project. The Commission has reviewed these modifications and finds that taken together they constitute significant improvements in the design of the project and the mitigation of remaining impacts. These modifications include:

- The density of the development has been reduced from 42 to 40 lots;
- Roadways A, B, and C have been reconfigured to reduce wetland and wetland buffer impacts; impacts to Wetland C have been eliminated;
- The applicant has agreed to approximately 14 items of mitigation, recommended by the Commission's consultant, for the proposed wetland and wetland buffer mitigation including lawn limitations, revegetation of currently altered areas, additional open space, roadway configuration modifications, sandplain grassland habitat restoration and other habitat enhancements, clearing limits on individual lots, and field demarcation of the 100 buffer on residential lots;
- Lot 24, the area deemed more valuable for wildlife habitat, has been reduced in size from 6.35 acres to 2 acres. Restrictions have been provided on clearing on the lot, with the balance of the land included in the open space;
- The applicant has agreed to transportation mitigation and trip reduction contribution in the amount of \$68,443;
- The applicant has agreed to contribute \$10,000 to a flushing study of Scorton Harbor/Creek;
- The revised plans ensure that no stormwater will be discharged to Wetland C;
- The applicant has agreed to provide additional open space, for a total of 43.46 acres of upland and 45.38 acres of wetland, plus 2.19 acres of mixed upland and wetland, exceeding

- the requirements of the Regional Policy Plan; and
- The applicant has agreed to donate four lots to the town of Sandwich for construction of affordable dwellings.

CONDITIONS

Based on the findings above, the Cape Cod Commission hereby concludes that the benefits of the proposed Norse Pines cluster subdivision outweigh the detriments. This conclusion is supported by the findings that the applicant will provide 91.03 acres of permanent open space on site (including more than 45 acres of wetlands) in excess of the requirements in the Regional Policy Plan, the new development will have vegetated buffers to limit views of the new development from the surrounding roadways; the project will include lawn restrictions, setback restrictions, and additional restrictions on the individual residential lots to limit nutrients and pesticides and enhance wildlife habitat. These benefits outweigh the detriments of forty new residential lots which will contribute additional nitrogen and wastewater to the Scorton Harbor/Creek embayment and result in increased traffic generation from the site. The Commission has reviewed the project against the Minimum Performance Standards in the 1991 Regional Policy Plan and has determined that the project, as conditioned, will comply with all Regional Policy Plan Minimum Performance Standards with the exception of standards 2.3.1.1. and 2.3.1.2. The Commission has found that it is appropriate to apply the Flexibility Clause in the Regional Policy Plan with regard to these two standards in light of the work that the applicant has done to avoid, minimize and mitigate this wetland and wetland buffer alteration as provided in the conditions of this decision. The Commission has also determined that the proposed subdivision is consistent with local zoning in the town of Sandwich.

The Commission hereby approves the Norse Pines Cluster Subdivision, subject to the following conditions:

General:

G1. The applicant, his successors or assigns shall obtain all necessary State and local permits for the project.

G2. The plans as submitted and listed in this decision shall become part of the written decision and any changes shall be approved by the Cape Cod Commission or its designee. This approval for the construction of forty lots is based on the subdivision plan "Norse Pines Cluster Subdivision in East Sandwich" prepared by Baxter & Nye, with revisions through December 14, 1998, and "Norse Pines Plan of Road Profiles" prepared by Baxter & Nye, with revisions through February 15, 1999. These lots have been configured to protect the sensitive resources on the site. The final plan shall include a notation that no further division of land is permitted. Notwithstanding Chapter 41 of the General Laws, including Section 81P, lot lines on the property shall not be altered without approval by the Cape Cod Commission or its designee.

G3. Prior to partial or full release from covenant or conveyance of any of the lots and prior to any development activity as defined by Section 2(e) of the Act, the Applicant shall submit final plans for approval by the Commission staff for their consistency with the conditions in this decision. The applicant shall provide the Cape Cod Commission with a copy of the final Certificate of Action for the proposed subdivision as well as the definitive subdivision plan approved by the Sandwich Planning Board. The applicant shall also provide a copy of the new or amended Order of Conditions and associated plans approved by the Sandwich Conservation Commission. The applicant shall also provide a final copy of the Master Declaration of Covenants, Conditions and Restrictions for review for consistency with this decision. All information shall be provided prior to application for the Phase 1 Certificate of Compliance.

G4. The final plan submitted by the applicant for endorsement by the Sandwich Planning Board shall contain all notations required by conditions G2, NR6, NR10, and NR11 of the Cape Cod Commission's decision.

G5. Prior to any development activity, partial or full release of covenant, conveyance of any building lots, and/or issuance of a building permit for any of the proposed lots, the applicant shall obtain a Certificate of Compliance from the Cape Cod Commission in accordance with the proposed phasing schedule outlined in Condition G6 certifying that all applicable conditions of this decision have been met. The applicant shall provide the Cape Cod Commission with at least 30 days notice prior to application for a Certificate of Compliance.

G6. The following phasing schedule is intended to govern compliance with the conditions in this decision and the issuance of Certificates of Compliance. Upon application for the Phase 2-5 Certificates of Compliance, the applicant shall specify the ten lots to which the partial Certificate of Compliance will apply:

Phase 1	A Phase 1 Partial COC must be issued prior to any development (as defined by the Act) on the project site
Phase 2	Prior to release of the first 10 lots from covenant
Phase 3	Prior to release of the second 10 lots from covenant
Phase 4	Prior to release of the third 10 lots from covenant
Phase 5	Prior to the release of the fourth 10 lots from covenant
Final	After completion of all site work and lot construction

G7. An appeal of the Commission's prior denial is currently pending before the Land Court. Notwithstanding any other condition contained herein, this decision shall not become effective and no development activity may be conducted in reliance upon this decision until the Commission receives documentation from the applicant that the pending Land Court suit is dismissed with prejudice and waiving all rights of appeal, and without costs or attorney's fees to either party.

Water Resources:

WR1. Prior to issuance of a Phase 1 Partial Certificate of Compliance, the applicant shall make a monetary contribution of \$10,000 toward completion of a flushing study of the Scorton Harbor/Creek embayment system or other efforts to identify nitrogen management strategies for the system watershed.

WR2. The stormwater system shall be inspected on at least a yearly basis. At the time of inspection, 1) the streets shall be swept to clear any accumulation of sand, 2) the catch basins shall be cleaned and the oil absorbent pillows replaced, 3) the dispersal pools shall be inspected and cleaned, if necessary, and 4) the vegetation in the pool overflow pathways shall be maintained. Documentation of this inspection shall be provided to the Sandwich Department of Public Works Director and the Conservation Officer.

WR3. Design details for the proposed vegetative swales in the dispersal pool overflow areas shall be reviewed and approved by the Town of Sandwich and the Cape Cod Commission prior to issuance of a Phase 1 Partial Certificate of Compliance.

WR4. An educational pamphlet shall be prepared by the applicant for prospective homeowners about the sensitive natural resources surrounding the subdivision and informing them about 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, as well as the need to maintain both the side yard setbacks and the 100 ft buffer area in an undisturbed state. The pamphlet shall be submitted for approval by Commission staff prior to issuance of a Phase 1 Certificate of Compliance and should be provided to prospective purchasers of lots within the subdivision. A copy of this information shall be provided to the Sandwich Planning and Development Director, Conservation Officer, Department of Public Works Director, and the Board of Health Agent.

Natural Resources:

NR1. The approved plan depicts the location of permanent concrete bounds as well as a split rail type fence to mark the approximate location of the 100' buffer to wetlands on individual lots. Said bounds and fence shall be installed on each lot as shown prior to approval of the Partial Certificate of Compliance that includes that lot. This condition affects lots 1, 2, 4-7, 14-30, 35, and 37-40 as numbered on the approved plan. No disturbance (including removal of vegetation, disposal of brush, or any other activity) is permitted within this 100' buffer area.

NR2. No development or disturbance shall be permitted within any wetlands or the 100' buffer to wetlands on the property consistent with Minimum Performance Standards 2.3.1.1 and 2.3.1.2. The only exceptions to this requirement are the following: construction of roadway A and roadway B and associated improvements (including drainage) specifically as shown on the approved plan; restoration of vegetation as required by this decision, and construction of split

rail fencing and bounds on the 100' buffer line as required by this decision. The total amount of wetland alteration permitted by this decision shall be no greater than 1308 sq. ft. as shown on the approved plan.

NR3. Prior to requesting a Phase 1 Partial Certificate of Compliance, the applicant shall provide the Cape Cod Commission with final permanent deed restriction language restricting the "on lot" open space including the 20' side yard setbacks on each lot and expanded rear yard setbacks as shown on the subdivision plan (either 30' or the 100' wetland setback, whichever is greater) which shall be of a form and content acceptable to the Cape Cod Commission or its designee. Prior to obtaining a Phase 2 Partial Certificate of Compliance from the Cape Cod Commission, the restriction and plan showing the areas to be restricted shall be recorded at the Barnstable County Registry of Deeds and proof of recording shall be provided to the Cape Cod Commission.

NR4. Prior to requesting a Phase 1 Partial Certificate of Compliance, the applicant shall provide the Cape Cod Commission with a draft Chapter 184, Section 31-33 Conservation Restriction for the common open space and the McNally parcel and a final plan showing the location of this open space. In addition, the applicant shall provide a letter from the intended holder of the conservation restriction confirming that they have agreed to hold the conservation restriction. The conservation restriction shall provide that the areas be maintained as permanent open space and be used solely for conservation purposes. The restriction and plan shall be of a form and content acceptable to the Cape Cod Commission or its designee. Prior to obtaining a Phase 2 Partial Certificate of Compliance from the Cape Cod Commission, the restriction and plan shall be recorded at the Barnstable County Registry of Deeds and proof of recording shall be provided to the Cape Cod Commission.

NR5. All open space shall be maintained for conservation purposes in perpetuity. No structures (including accessory structures) or impervious surfaces may be located within the open space. Outside of wetland buffer areas (where no disturbance is permitted) the removal of vegetation within open space areas is limited to the minimum necessary to remove dead, damaged or diseased trees or shrubs that are a hazard to structures or roadways. These requirements shall be incorporated into the open space deed restriction and conservation restriction for the proposed subdivision.

NR6. The final plan shall be revised to contain a notation specifying that the driveway for Lot 24 shall be located outside of the 100' wetland buffer. The final plan shall also include a development envelope on this lot of no greater than 0.8 acres, with a prohibition on clearing areas outside of this building envelope.

NR7. Areas within the 100' buffer impacted by grazing, mowing and other agricultural practices at the rear of lots 3-7 and 13-23 shall be re-established with native shrubs and groundcover with the areas allowed to return to native plant material. This plant material shall be supplemented as necessary to ensure revegetation with native species. This includes the disturbed area between Roadway "B" and the wetlands. No further agricultural disturbance shall be permitted in this

area. This work shall be completed not later than the application for the Partial Certificate of Compliance which includes Lots 3-7 and 13-23. The area adjacent to Roadway B shall be restored in conjunction with construction of this roadway.

NR8. Prior to application for a Phase 1 Partial Certificate of Compliance the applicant shall remove trash and other debris from Wetland C at the western entrance to the property.

NR9. Prior to application for a Phase 1 Partial Certificate of Compliance, the applicant shall install sediment and erosion controls as required by the Sandwich Conservation Commission. Commission staff shall conduct a site visit and verify the adequacy of these sediment and erosion controls. Sediment and erosion controls may be installed in phases, as approved by Commission staff, in which case their placement shall be approved prior to each applicable Partial Certificate of Compliance.

NR10. The final plan shall contain a notation that no more than 5000 sq. ft. of lawn area shall be maintained on each subdivision lots. This restriction shall also be incorporated as a permanent restriction in the Declaration of Covenants and Restrictions.

NR11. The applicant shall install construction fencing to protect the tupelo trees on Lots 9 and 10 during construction. The final plan shall contain a notation indicating that these trees are to be protected before, during and after construction as part of the undisturbed side yard open space on these lots. A vegetative easement, of a form and content satisfactory to the Commission or its designee, shall be recorded at the Registry of Deeds protecting this area. Said recording shall occur prior to application for the Partial Certificate of Compliance that includes these two lots.

NR12. The applicant shall install sediment and erosion controls and shall create a berm and/or plant vegetation designed to control ongoing sedimentation from the roadway into Wetland C.

NR13. The applicant shall install at least two dry box or pipe culverts beneath Roadway A near the western subdivision entrance in order to encourage the movement of wildlife between Wetland C and Wetland B and the adjacent cranberry bogs.

NR14. The applicant shall remove the Scotch pines from two small "tree farm" areas on the site and these areas shall be restored to open meadow and grassland to increase habitat diversity. These pines are located in the open space area to the west of Lot 40 and on Lots 38-39. Side yards shall be planted with grassland species as described in the revised application. This work shall be done prior to the application for a Partial Certificate of Compliance that includes these lots and shall be coordinated with the landscaping plan for Lots 37-40.

NR15. The applicant shall remove red cedar and oak trees and restore a small sandplain grassland in the vicinity of the Roadway D cul-de-sac. This work shall be completed at the time this roadway cul-de-sac is constructed and prior to the application for a Partial Certificate of Compliance that includes Lot 24.

NR16. The applicant shall be responsible for submitting a habitat monitoring report conducted by a professional wildlife biologist or botanist describing the status of habitat enhancements required by this decision on an annual basis beginning the year the roadway is constructed and concluding with the issuance of a Final Certificate of Compliance. The applicant shall be responsible for implementing suggestions in the report where follow up activities are necessary to ensure that the conditions of this decision are met.

Transportation:

T1. The applicant shall make a monetary contribution of \$23,688 to comply with MPS 4.1.1.1. in accordance with the phasing schedule below. These funds 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 the planning, design or implementation of transportation improvements in the Town of Sandwich. Any funds remaining after 10 years shall be turned over to the Cape Cod Regional Transit Authority or similar transportation agency for public transportation.

T2. The applicant shall make a monetary contribution of \$44,755 to comply with MPS 4.1.2.1. in accordance with the phasing schedule below. These funds 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 the planning, design or implementation methods to reduce automobile travel in the Town of Sandwich. Any funds remaining after 10 years shall be turned over to the Cape Cod Regional Transit Authority or similar transportation agency for public transportation.

T3. The applicant shall contribute the sum of \$17,110.75 (1/4 of the total required by Conditions T1 and T2) prior to application for each of the Phase 3 and 4 Partial Certificates of Compliance and \$31,224.50 (the remaining amount) prior to the Phase 5 Partial Certificate of Compliance.

T4. Prior to receiving a Phase 2 Partial Certificate of Compliance, the applicant shall install a stop sign on Spring Hill Road at its intersection with Quaker Meeting House Road or shall return to the Cape Cod Commission with a request for a modification and address the need for additional mitigation with regard to sight distance at the Spring Hill Road/Western Subdivision road intersection.

T5. Prior to receiving a Phase 2 Partial Certificate of Compliance, the applicant shall work diligently with the Department of Public Utilities to have installed flashing lights and supplemental signage at the Spring Hill Road railway crossing or shall provide documentation to the Cape Cod Commission that such lights and supplemental signage were not permitted by the Department of Public Utilities.

Waste Management

WM1. Prior to application for a Phase 1 Partial Certificate of Compliance, the applicant shall submit for Commission review and approval plans, which show an area or areas for equipment fueling and limited on-site maintenance. As development proceeds, should this area(s) need to be relocated, the applicant shall submit an updated plan for Commission review and approval in accordance with the Commission's procedure for DRI Modifications.

WM2. Prior to application for a Phase 1 Partial Certificate of Compliance, the applicant shall submit a narrative which describes the steps to be used to inform construction contractors of their obligation to make reasonable efforts to minimize their hazardous waste generation through source reduction, reuse, material substitution and employee education in accordance with MPS 4.2.2.1, of their obligation to utilize the area(s) designated for equipment fueling/limited maintenance in condition WM1 and showing compliance with condition WM4 of this decision.

WM3. In accordance with MPS 4.2.2.2, prior to issuance of a Phase 1 Partial Certificate of Compliance, the applicant shall submit documentation that construction contractors shall operate in conformance with MPS 4.2.2.2.

WM4. All on-site maintenance of construction equipment shall be limited to greasing of fittings and joints. Major repairs or servicing of equipment on site is prohibited.

Affordable Housing:

AH1. The applicant shall contribute 1 affordable housing lot to the Town of Sandwich prior to application for each of the Phase 3, 4, and 5 Certificates of Compliance. The final affordable housing lot shall be provided immediately after the covenant release for the final ten lots and in no case later than issuance of the fifth building permit for the final group of ten lots. These lots shall be deeded to the Town of Sandwich to be used solely for affordable housing purposes in accordance with the conditions of this decision.

AH2. Prior to application for a Phase 1 Partial Certificate of Compliance, the applicant shall provide a letter from the Sandwich Board of Selectmen committing to the development of the four affordable housing units no later than two years from the date that the final lot is conveyed to the town of Sandwich. In the event that the town is unable to meet this deadline, it may request an extension from the Commission. In the event that an extension is not requested by the town, or if the town fails to develop the four lots within the two year period, the four lots shall be conveyed, at no expense, to the Commission. This requirement will be enforced through a Cape Cod Commission approved deed restriction. The letter provided by the town shall specify that the affordable units created by this section shall consist of either two or three bedrooms and, at the time of transfer, shall be subject to the Commission's income and purchase price limits, as well as, the Commission's definition of a first-time homebuyer. Further, the affordable units will be subject to the Commission's forty-year deed restriction. The affordable housing units created through this section shall be purchased by an eligible household through a lottery process

established by the Commission. Preference shall be given to Barnstable County residents with regard to the purchase of the affordable housing unit created by the section.

Heritage Preservation/Community Character:

HP1. Prior to application for a Phase 1 Partial Certificate of Compliance, the applicant shall submit a final planting plan for Lots #1, 7, 8, 37, 38, 39, and 40 for review and approval by Commission staff based on a site visit. This plan shall be generally consistent with plantings originally depicted on the Planting Plan, Sheet 2 of 9 and Sheet 5 of 9, received July 29, 1999 except where modified based on the site visit. All plantings shall be native species consistent with Technical Bulletin 96-001, "Designing the Future to Honor the Past" and shall be consistent with wetland and wildlife habitat protection goals.

HP2. In conjunction with the construction of subdivision road "C" and prior to application for a Partial Certificate of Compliance for release from covenant of Lots #1,7 and 8, the applicant shall install landscaping on Lots #1, 7, and 8 as shown on the approved plan. Prior to application for a Partial Certificate of Compliance for release from covenant of Lots #37, 38, 39, and 40, the applicant shall install landscaping on Lots #37 through 40 as shown on the approved plan.

The Commission hereby grants Jacob Atwood Esq. and Spring Hill Cranberries, Inc., applicants for the Norse Pines Subdivision, a DRI Approval with Conditions.

Thomas Broidrick

Tom Broidrick, Chair

10/7/99
Date

Commonwealth of Massachusetts
Barnstable, ss.

Subscribed and sworn to before me this

7th day of Oct 1999



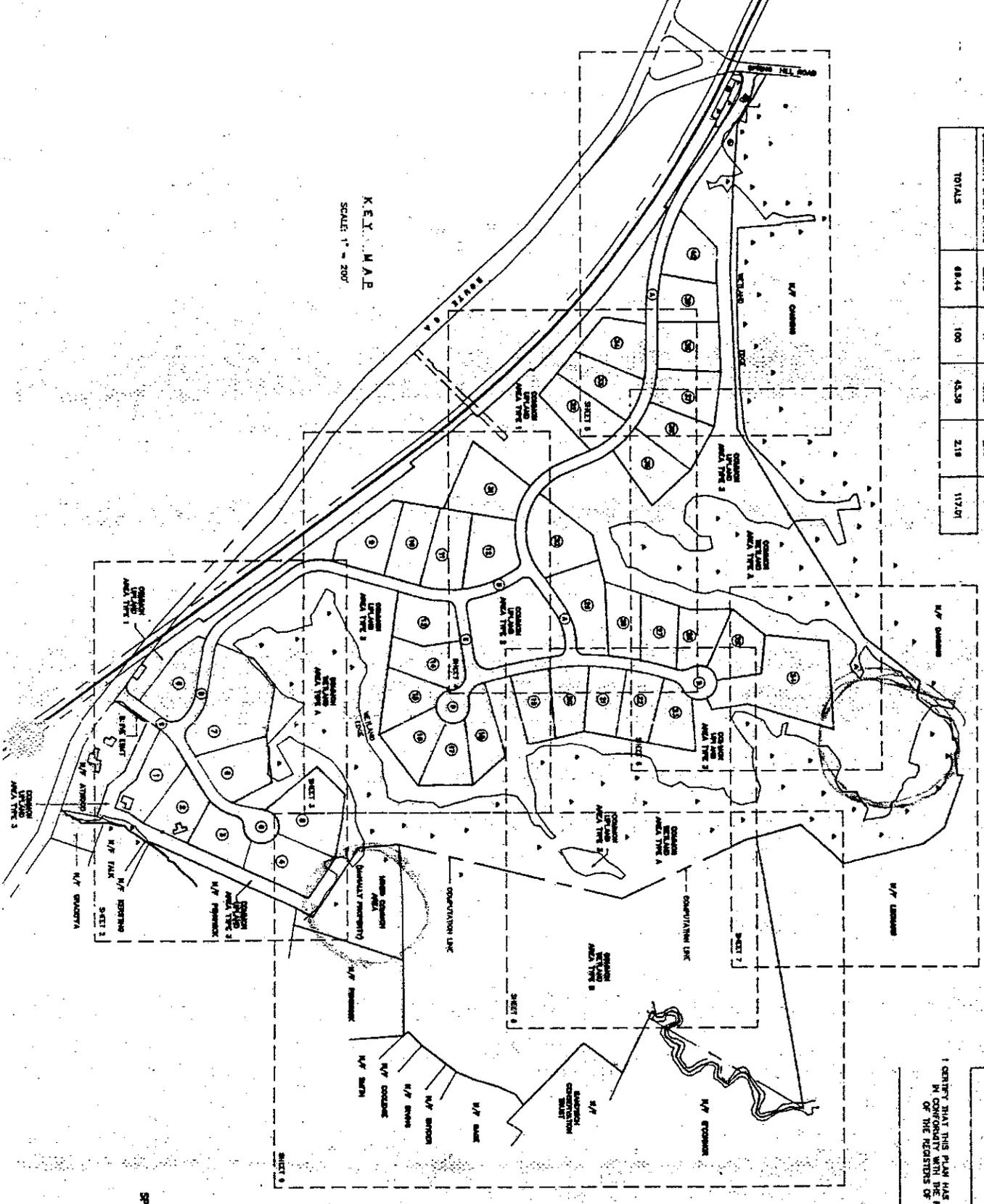
My commission expires:

Katharine L. Peters
Name, Notary Public

LAND USE SUMMARY

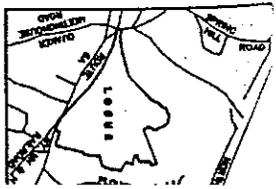
DESCRIPTION	UPLAND	PERCENT OF UPLAND	ADDITIONAL WETLAND ACRES	NET UPLAND
LOTS	34.61	30	0.17	-
ROAD RIGHT OF WAY	6.11	5	0.03	-
COMMUNITY OPEN SPACE	26.72	41	45.18	2.18
TOTALS	67.44	100	45.38	2.18

NO.	DATE	REVISION BLOCK	DESCRIPTION	DRAFT	P.E.	FILE
1	7-28-88		DRIVEWAY EASEMENT (1,2)	JNE	-	JNE
			EXTEND BUFFER FENCE (5-8)	JNE	-	JNE



KEY MAP
SCALE: 1" = 200'

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND OF THE RECORDS OF DEEDS.



LOCATION MAP
SCALE: 1" = 100'
EAST SANDWICH, MASSACHUSETTS
SPRING HILL ROAD

"NORSE PINES"
CLUSTER SUBDIVISION
EAST SANDWICH, MASSACHUSETTS
FOR
SPRING HILL CHANGEBLUES, INC. & JACOB M. ATKWOOD, ET AL.
NOTE: PERSONS ABOVE
DECEASED 11/1/1988
SCALE AS NOTED
BATES & YEE, INC.
815 MAIN STREET
OSTERVILLE, MASS. 02665
(508) 428-8131