



CAPE COD COMMISSION

3225 MAIN STREET
P.O. Box 226
BARNSTABLE, MA 02630
508-362-3828
FAX: 508-362-3136

Date: May 9, 1996

Applicant: Mr. John Pfeffer
155 Bridge Street
Chatham, MA 02633

Project: Cape Cod National Golf
Brewster/Harwich, MA

Project #: TR95022

RE: Development of Regional Impact
Section 3(e), DRI Enabling Regulations

Book/Page: Book 9884, pg. 195
Book 9862, pgs. 195 and 284
Book 2843, pg. 237, parcels 1 and 2
Book 2172, pg. 001
Book 3260, pg. 304, parcel 4
Book 6267, pg. 214
Book 9941, pg. 345
Book 3260, pg. 302, parcel II
Book 3260, pg. 302, parcel I
Book 3260, pg. 302, parcel III
Book 9442, pg. 51
Book 9942, pg. 47
Book 9862, pg. 197, parcels 1 and 2

Certificates: #138410
#76712
#84958
#137395
#135528

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of Mr. John Pfeffer as a Development of Regional Impact for a proposed private golf course in the towns of Brewster and Harwich, MA. This decision is rendered pursuant to a vote of the Commission on May 9, 1996.

Cape Cod National Golf - #TR95022
May 9, 1996 Decision

PROJECT DESCRIPTION

The proposed project consists of the development of an 18-hole private golf course on an approximately 149-acre site. The property straddles the Brewster/Harwich town lines, with approximately 81.2 acres located in Harwich and 67.8 acres in Brewster. The site is bordered by Route 39 to the west, Route 28 to the east, Pleasant Bay Road the south, and Tar Kiln Road approximately 2/10 mile to the north. Pleasant Bay is located directly east of the project site. The site is zoned for residential use with surrounding land use consisting primarily of single family residences and the Wequasset Inn.

The site consists primarily of pitch pine/oak woodland on rolling terrain, with several deep kettle holes found throughout the site. A shrub swamp/abandoned cranberry bog totaling 1.62 acres in size is located in the eastern section of the property and extends eastward beyond the site boundaries. A graded roadway of approximately 1600 feet in length is located in the northern portion of the site at Route 39.

Approximately 98.7 acres of the 149-acre total is proposed to be altered for construction of the golf course. Proposed construction includes a 13,826 s.f. clubhouse and a 12,000 s.f. turf management center. An existing structure on the site, the Nickerson Homestead, is proposed for reuse as a golf employee residence. Two ponds for the storage of irrigation water and stormwater attenuation are proposed to be created from existing kettle holes on the site.

PROCEDURAL HISTORY

On October 13, 1995, Steven Eldredge, Chair of the Brewster Planning Board, referred the proposed project as a Development of Regional Impact under Section 3(e) of the DRI Enabling Regulations. A subsequent referral of the same project was submitted by James Corcoran, Harwich Building Inspector on October 19, 1995. The Commission received the Town of Brewster's referral on October 16, 1995. The Commission conducted public hearings on the project on the following dates: November 29, 1995; December 12, 1995; January 17, 1996; and February 20, 1996. Public meetings were held by the subcommittee on the following dates: January 25, 1996; February 8, 1996; February 20, 1996; February 29, 1996; March 13, 1996, March 28, 1996, April 12, 1996, and May 1, 1996. A hearing officer continued a public hearing on January 10, 1996, and opened and continued a public hearing on April 25, 1996. On March 25, 1996, the Applicant and Cape Cod Commission agreed to extend the 60-day decision period to the close of business on May 24, 1996.

As a result of testimony received at the public hearings, materials submitted by the Applicant for the record, and technical information provided by the Commission staff, the subcommittee voted unanimously on May 1, 1996 to recommend to the full Commission that the proposed Cape Cod National Golf (CCNG) be approved with conditions as a DRI. A final hearing on the project for the purposes of receiving testimony on a draft decision was held before the full Commission on May 9, 1996. At the close of the hearing and the written record on May 9, 1996, the Commission voted unanimously to approve the project with conditions as amended at this hearing as a DRI.

MATERIALS SUBMITTED FOR THE RECORD

A. Materials Submitted by the Applicant:

Abbellire, list of maps	6/27/95
Abbellire, map, groundwater contour and flow direction	9/95
Memo, site characteristics	9/8/95
C/S/Mungeam, site plan, planned wetlands (full sized)	9/26/95
ANR plan, lots 1 and 2 in Harwich	9/29/95
Abbellire, DRI filing, bound volume, I of II	9/29/95
DRI filing, bound volume, II-A of II	9/29/95
DRI filing, bound volume, II-B of II	9/29/95
Memo, local filing	9/29/95
transmittal sheet	9/29/95
transmittal sheet	9/29/95
Coastal Engineering, lot plans	9/29/95
Abbellire, transmittal sheet	9/30/95
copy, fee payment	10/2/95
building and site plans, 14 full sized documents (1 set)	10/17/95
course development plans, 11 full sized documents (3 sets)	10/20/95
transmittal sheets	10/20/95
transmittal sheets	10/28/95
Bound volume, title references for project site	10/23/95
Abbellire, existing conditions map, wetlands buffers, colored (1 full sized)	11/8/95
C/S/Mungeam, letter, dust control methods used during construction	11/9/95
Fugro, results of on-site well pump test	11/10/95
Cullinan Engineering, traffic data, supplemental bound volume	11/10/95
Abbellire, memo, wetland buffers	11/10/95
vista pruning	11/10/95
pathways links	11/10/95
lighting	11/10/95
parking	11/10/95
Cullinan Engineering, to Abbellire, traffic information	11/10/95
Abbellire, memo, response to CCC staff request for additional info.	11/10/95
Steve Mann, to Abbellire, hazardous materials and waste management	11/10/95
Specifications and examples of wall pack lighting	11/10/95
C/S/Mungeam, site photometrics map	11/10/95
Abbellire, course lighting layout	11/10/95
colored maps, 12th-15th holes (4 maps)	11/10/95
reduced sized course layout maps	11/10/95
fax, site visit information	11/16/95
Article, <u>The Country Club</u> , Willowbend golf club	11/29/95
Layout, Kensington Golf club	11/29/95
Newspaper article on buffalo grass	11/29/95
Cullinan Engineering, traffic information	12/7/95
C/S/Mungeam, letter, turf management	12/11/95
Fugro, response to CCC staff, water quality issues	12/11/95

A. Materials Submitted by the Applicant (Continued):

Cullinan Engineering, supplemental traffic data	12/11/95
Abbellire, memo, wetland and habitat resources	12/12/95
bound volume, economic development issues	12/12/95
C/S/Munbeam, letter, to Robert Mant, turf management	12/26/95
Cullinan Engineering, memo, transportation	12/28/95
Lot layout maps of parcels #4 and #5	1/1/96
Abbellire, letter, to Chief Greenwood	1/5/96
Cullinan Engineering, letter, accident data	1/5/96
memo, traffic data	1/5/96
Abbellire, letter, to Cornish/Silva and Munbeam	1/9/96
Abbellire, memo, discussion of various project issue areas	1/9/96
map, private water supply well locations	1/11/96
concept cross-section of underdrain system for Round Cove	1/11/96
map, site in relation to Zones of Contribution to public water supply wells	1/11/96
map, site in relation to Marine Water Recharge areas	1/11/96
drawing and text, illustration of nitrate/nitrogen budget in turf	1/11/96
Abbellire, memo, project contacts	1/13/96
Nitrogen loading, chart, Hyannisport golf course	1/17/96
Nitrogen loading, chart, Eastward Ho! golf course	1/17/96
Coastal Engineering, concept plan, cart paths (full sized)	1/18/96
Map, sand and mineral rights	1/18/96
Fugro, to Abbellire, turf management	1/18/96
Letter, Stephen Cadenelli, turf management	1/18/96
Lot layout map of site along Route 28	1/24/96
Site photo	1/30/96
Fugro, to Abbellire, letter	2/16/96
Abbellire, 12th hole wetland delineation, map (full sized)	2/16/96
Abbellire, revisions to 12th hole buffers (2 full sized maps)	2/19/96
Abbellire, transmittal sheet	2/20/96
site photos	2/20/96
Abbellire, copy of CCC letter of 2/20/96 with comments	2/23/96
Abbellire, letter, discussion of concept plan	2/26/96
Abbellire, fax, discussion of 12th hole	2/27/96
Fugro, to Abbellire, memo, field data for wetland delineation and photos	2/28/96
Abbellire, fax, traffic analysis	3/12/96
Abbellire, memo, outline of alternatives for ACEC	3/12/96
Abbellire, memo, to Leslie Luchonok about ACEC	3/12/96
letter to Leslie Luchonok about ACEC	3/13/96
map of locus, ACEC	3/13/96
colored map of hole #12	3/13/96
copy of USPGA 1996 Rules of Golf concerning recovery of lost golf balls	3/13/96
map, 12th hole wetland delineation, colored (full sized)	3/13/96
Letter, Duncan Berry, to Harwich Historical Commission, site analysis	3/14/96
Abbellire, transmittal sheet, extension agreement	3/22/96
fax, extension agreement	3/22/96

A. Materials Submitted by the Applicant (Continued):

Abbellire, fax, meeting	3/25/96
Steven Cadenelli, comments on turf management plan	3/25/96
Spread sheets, nitrogen loading calculations (2 copies)	3/27/96
Abbellire, response to draft Findings and Conditions	3/28/96
Memo, Applicant's position on open space	4/2/96
Discussion of IBDU fertilizer additive (by fax)	4/5/96
Coastal Engineering, sewage disposal, letter and data	4/8/96
letter to Abbellire, research on denitrifying system	4/8/96
Fugro, letter, nitrogen leaching rate	4/8/96
Abbellire, letter about turf management plan and leaching rate	4/8/96
C/S/M, to Abbellire, comments on draft Findings and Conditions	4/8/96
Revised turf management plan	4/8/96
Abbellire, memo, issues update from 4/8 meeting	4/8/96
Abbellire, memo, additional comments on draft Findings and Conditions	4/9/96
Memo, comments and explanation of Applicant's thinking on Findings and Conditions	4/9/96
Abbellire, layout plan, 12th/13th/14th hole, shows buffers	4/12/96
Letter, from Wequasset Inn to Abbellire, applications to Harwich Historical Commission	4/12/96
Abbellire, transmittal sheet	4/12/96
Articles on nitrate leaching (Snow, Petrovic and Beard)	4/12/96
Abbellire, letter, water resources and open space issues	4/22/96
Fugro, map, groundwater contour and flow direction	4/23/96
Abbellire, transmittal sheet	4/24/96
Draft water resources Findings and Conditions	4/24/96
Letter, from C/S/M on turf management and turf management schedule	4/24/96
Article on Bayberry Hills golf course and nitrogen loading	4/24/96
USGA Environmental Results program information	4/24/96
Article, Yates, on fate of pesticides and fertilizers in turf grass	4/24/96
Article, Starrett and Christians, nitrogen and phosphorus fate in turf	4/24/96
Article, Brauen and Stahnke, leaching of nitrogen from sand putting greens	4/24/96
Article, Branham et al., groundwater contamination from golf courses	4/24/96
Abbellire, transmittal sheet	4/29/96
Comments on draft Findings/Conditions of 4/26/96	4/29/96
Abbellire's draft water resources findings and conditions with changes	4/29/96
Cornish, Silva & Mungeam, Inc., Revised Proposed Graded Golf Routing Plan	5/1/96
Coastal Engineering, Revised Existing Conditions Plans, 3 sheets	5/3/96
Abbellire, Memorandum	5/3/96
Abbellire, plans of altered buffer area	5/3/96
Abbellire, Memorandum	5/6/96
Abbellire, Memorandum w/wetland buffer map	5/7/96
Abbellire, Memorandum	5/8/96
Cape Cod Bank & Trust, letter w/attachments	5/8/96
Fax, Hyannis Golf Club, traffic data	Undated
Article, Robert Trent Jones and turf management	Undated
Map, Abutters with concerns for buffers	Undated
Agriculture Update	Undated

A. Materials Submitted by the Applicant (Continued): Layout, Augusta golf course

Title references	Undated
Deeds, parcels #4 and #5	Undated
Copy, photo, 16th hole	Undated
Table and diagram, nitrate concentrations	Undated

B. Materials Submitted by the Cape Cod Commission:

Notes, attendance list, preapplication meeting	6/16/95
Memo, fee calculation	9/13/95
Staff Form Q	9/29/95
Memo, Subcommittee update and locus map for site visit	10/13/95
Staff Form Q	10/20/96
Memo, Subcommittee update	10/23/95
Letter, intent to review as a DRI	10/23/95
Letter, additional information needed	10/25/95
Notes, attendance list, site visit	10/27/95
Letter, to Steve Mann, hazardous materials and waste management	11/9/95
Swan Design, site lighting analysis	11/21/95
Staff Report	11/21/95
Public hearing notice	11/29/95
Issues summary	11/29/95
Attendance list	11/29/95
Minutes, public hearing	11/29/95
Public hearing notice	12/12/95
Minutes, public hearing	12/12/95
Staff Form Q	12/18/95
Letter, to William Doherty, Harwich Selectmen	12/21/95
Letter, to Mark Novota, recyclables management	12/21/95
Memo, transportation issues	12/28/95
Memo, to Cullinan Engineering, transportation issues	1/5/96
Minutes, hearing officer	1/10/96
Memo, Subcommittee update	1/11/96
Minutes, public hearing	1/17/96
Memo, Subcommittee update	1/18/96
Memo, Subcommittee update	1/21/96
Memo, wetland buffers	1/23/96
Minutes, public hearing	1/25/96
Notes, course construction	2/2/96
Minutes, public meeting	2/8/96
Memo, Subcommittee update	2/15/96
List of outstanding issues	2/16/96
Public hearing notice	2/20/96
Minutes, public hearing	2/20/96
Letter, to Abbellire	2/22/96
Letter, to Abbellire	2/23/96
Memo, Subcommittee update	2/28/96
Minutes, public hearing	2/29/96

B. Materials Submitted by the Cape Cod Commission (Continued):

Letter, Harwich Selectmen	2/29/96
Memo, Subcommittee update	3/8/96
Draft Conditions	3/11/96
Draft Conservation restriction language	3/11/96
Minutes, public meeting	3/13/96
Sabatia, results of on-site investigation	3/13/96
Memo, to Abbellire and Pfeffer	3/20/96
Sabatia, fax, comments on draft Findings and Conditions	3/21/96
Memo, Subcommittee update	3/25/96
Sabatia, comments on draft Findings and Conditions	3/25/96
Extension agreement for decision period (signed by Applicant)	3/25/96
Findings and Conditions (draft)	3/26/96
Memo, transportation cost estimates	3/27/96
Draft Findings and Conditions	4/5/96
Minutes, public meeting	4/12/96
Minutes, hearing officer	4/25/96
Memo, Mark Robinson, Compact of Cape Cod Conservation Trusts, Inc.	4/25/96
Draft Findings and Conditions	4/26/96
Draft Findings and Conditions	5/1/96
Attendance sheet of public meeting	5/1/96
Map, Rafe/Ralph's Pond	5/1/96
Hearing Notice	5/9/96
Letter from Choate, Hall & Stewart, by facsimile	5/9/96
Attachment A to Sabatia's draft Scope of Work	Undated
Wetland regulations, copy of sections	Undated
Bibliography of sources, Commission water resources office	Undated
List of project contacts (2 lists)	Undated
Site photos, 2 Polaroid instant photos	Undated
Harwich school facility use forms	Undated
Notes, preapplication meeting	Undated
List of abutters with concerns related to buffers and perimeter fencing	Undated
Copy of Cape Cod Commission Act, pages 2 and 3	Undated

C. Materials Submitted by the Towns of Brewster and Harwich:

Town Application Form (Brewster)	10/2/95
Copy, DRI Referral Form	10/15/95
Letter, DRI Referral Form	10/23/95
Letter, Brewster Dept. of Natural Resources	11/29/95
Letter, Brewster Conservation Commission	11/29/95
Letter, flushing study of Round Cove	11/29/95
Letter, Brewster Dept. of Natural Resources	11/30/95
Letter, Harwich Selectmen	12/6/95
Letter, Harwich Selectmen	12/6/95
Letter, Harwich Conservation Commission	12/12/95
Accident data, Harwich Police chief	12/12/95
Letter, Harwich Dept. of Natural Resources	12/14/95

C. Materials Submitted by the Towns of Brewster and Harwich (Continued):

Letter, Harwich Selectmen	12/18/95
Letter, Brewster Selectmen	1/16/96
Letter, Harwich Selectmen	1/18/96
Letter, Brewster Dept. of Natural Resources	1/29/96
Letter, Brewster DPW	2/14/96
Letter, Harwich Selectmen	2/28/96
Fax, Brewster Water Department, estimate of water feed to Evelyn's Drive	4/5/96

D. Materials Submitted by the State:

Letter, Massachusetts Historical Commission	11/6/95
Fax, Fisheries/Wildlife, maps	2/20/96
Fax, from Leslie Luchonock about ACEC and wetlands buffers	3/13/96

E. News Articles:

Cape Codder	6/20/95
Cape Cod Chronicle	8/17/95
Cape Cod Chronicle	10/19/95
Cape Cod Chronicle	10/26/95
Cape Cod Chronicle	11/2/95
Wall Street Journal	11/28/95
Cape Cod Times	11/30/95
Cape Cod Chronicle	12/7/96
Cape Cod Chronicle	12/14/96
Cape Cod Chronicle	1/18/96
Cape Codder	1/23/96
Cape Codder	1/30/96
Cape Cod Chronicle	2/22/96
Cape Codder	2/23/96
Cape Cod Chronicle	3/7/96
2 articles, source unknown	Undated

F. Materials Submitted by the Public (with concerns):

Sam and Joanne Pennington	10/31/95
Sam and Joanne Pennington	11/14/95
Austin and Nancy Knight	11/21/95
Petition, 29 signatures, traffic concerns	11/22/95
Theobald and Borghild Schmitt	11/29/95
Allan McClennen	11/29/95
Oscar Fenster	12/7/95
Nancy J. Forest	12/8/95
Matt Hennigan	12/9/95
Edward Mitchell	12/10/95
Ethel Mitchell	12/10/95
Roberta Hennigan	12/11/95
Donna L'Hommedieu	12/11/95

F. Materials Submitted by the Public (with concerns) (Continued):

Ronald and Kristin Teele	12/11/95
Earl and Beverly Brothers	12/12/95
James D. Bearse	12/12/95
Lynn M. Bearse	12/12/95
William and Stasia Burke	12/12/95
Walter M. Smith, Jr.	12/12/95
Tammie J. Smith	12/12/95
Norma Bowersox	12/13/95
William and Karen Whitten	12/16/95
Bill Waldman	12/30/95
Sam and Joanne Pennington	1/3/96
Sam and Joanne Pennington	1/9/96
Bill Waldman	1/19/96
Bill Waldman	1/29/96
Claude A. Crawford, Jr.	1/29/96
Paul and Sara McAllister	2/1/96
Dick and Barbara Koeppen	2/14/96
Steve B. Wardle/Barbara W. Knowlton	2/15/96
Joseph N. and Marie Charette	4/11/96
Claude A. Crawford, Jr.	4/22/96
Paul E. and Sara C. McAllister	4/29/96

F. Materials Submitted by the Public (in support):

Richard G. Barwise	2/10/96
Ned Webster	2/10/96
John and Barbara Morgan	2/11/96
Elliott K. Slade, Jr.	2/13/96
Michael V. Corrigan	2/13/96
Vance N. Kirby	2/13/96
Lewis F. Horton	2/13/96
O.B. and Alicia Saniler	2/13/96
Peter and Linda Manning	2/13/96
Anthony J. Bednarczyk	2/13/96
Joseph J. Urbanetti	2/13/96
Francis J. Guiliano	2/13/96
Allan and Barbara N. Stanley	2/13/96
Arton and Marey Clough	2/13/96
J. Timothy Corcoran	2/14/96
John J. Kelleher	2/14/96
Richard G. Kahn	2/14/96
Jim Gravel	2/14/96
Phillip K. and Diana Goodwin	2/14/96
Charles P. O'Connor	2/14/96
William J. Wortman	2/14/96
Phil Goodwin	2/14/96

F. Materials Submitted by the Public (in support) Continued:

David P. Wilson	2/14/96
Paul B. Woods	2/14/96
John Adams	2/14/96
James F. Powers	2/14/96
Paul A. Simard	2/14/96
William D. Green	2/14/96
F. Warren McFarlan	2/14/96
Richard E. Saulnier	2/14/96
Russell P. Roushon	2/14/96
David J. Feldman	2/14/96
James A. McNulty	2/14/96
Irwin J. Sitkin	2/14/96
Robert D. Oliver	2/14/96
William W. Stroff	2/15/96
Edward and Pauline Andersen	2/15/96
John F. Kraushaar	2/15/96
Margaret M. McCarthy	2/15/96
Edwin J. Deadrick	2/15/96
Charles and Mary Kessler	2/15/96
Brad Schaaf	2/15/96
Allen R. Campbell	2/15/96
Lorraine and Bob Canavan	2/15/96
John R. Moreton, MD	2/15/96
Herbert and Ellen Rasnick	2/15/96
Louis H. Skinner	2/15/96
Dr. David P. DeMagistris	2/15/96
Dr. Giselle B. Limentani	2/15/96
David C. Van Sickel	2/15/96
Frank and Margaret MacPherson	2/15/96
Bruce S. Phillips	2/15/96
David B. Salerno	2/15/96
Gertrude Howells	2/15/96
Terrence E. Sullivan	2/15/96
Elissa M. Stevens	2/15/96
John Sargent	2/15/96
Stephen R. Hecht	2/15/96
Mark Avery	2/15/96
John J. Kelly, Jr.	2/15/96
David R. Doane	2/15/96
Jonathan D. Seem	2/16/96
James and Lois Vaughan	2/16/96
Oscar Fenster	2/16/96
Albert R. Gramper, Jr.	2/16/96
James P. Holmes	2/16/96
Michael J. Laughlin	2/16/96

F. Materials Submitted by the Public (in support) (Continued):

Hugh G. Moulton	2/16/96
Richard M. Kelleher	2/16/96
Anne Mulvaney	2/16/96
Kevin Mulvaney	2/16/96
John P. Neafsey	2/16/96
Leonard S. Japowicz	2/16/96
Michael J. Hannigan	2/16/96
Richard E. Nelson	2/16/96
Margaret and Richard Towne	2/16/96
Mark V. Simons	2/16/96
Richard and Elizabeth Lucy	2/17/96
Tomas K. and Bridgit E. Myers	2/17/96
Richard E. Phelps	2/17/96
Julie and Bill Seiler	2/18/96
Fred and Pauly Spencer	2/18/96
William L. Healy, MD	2/19/96
Geoffrey A. MacDonald	2/19/96
Donald P. Hearn	2/20/96
Steve Goldman	2/20/96
Donald Wilks	2/20/96
Allan McClennen	2/20/96
Kathleen and Lee Gatewood	2/20/96
Edmund R. Pitcher	2/20/96
Thomas C. McDermott	2/20/96
Peter H. Wade	2/20/96
Roy C. Smith	2/20/96
John and Rosemary Bartolini	2/20/96
Joshua Zuckerman	2/20/96
Robert J. Lax	2/20/96
John J. Schumacher	2/20/96
George J. Georges	2/20/96
Jeff Vinik	2/20/96
Earl and Barbara Lewis	2/20/96
Raymond A. Rivard	2/20/96
Donald and Julie Mayo	2/20/96
Douglas C. Yearley	2/20/96
Daniel P. Corcoran	2/20/96
Dean W. Ervin	2/20/96
Christopher Hunter and Barbara Burke	2/20/96
Dr. John B. Aherns	2/20/96
John P. Moreton	2/20/96
Richard and Rachel Nylan	2/20/96
Hurman F. and Mae Fisher	2/20/96
Louise A. Coombs	2/20/96
Peter F. Wall	2/20/96

F. Materials Submitted by the Public (in support) (Continued):

Robert and Kathleen Riddell	2/20/96
Gordon L. Fosberg	2/20/96
Neil and Jeannine Driscoll	2/20/96
Meg Brogan	2/20/96
Robert F. Woodward	2/20/96
Louis A. Mitchell	2/20/96
Carol O. Blair	2/20/96
Charles F. Pollard	2/20/96
William G. McGagh	2/20/96
Donald L. Mackay	2/20/96
Nancy and Austin Knight	2/20/96
Richard A. Monaghan (2 letters)	2/20/96
James G. Beaton	2/20/96
Harlow Voller (2 letters)	2/20/96
Marge B. Loicks	2/20/96
Stephen and Marilyn Bornemeier	2/21/96
Michael S. Duncan	2/21/96
William and Barbara Wahlquist	2/21/96
J. R. Fennell, Ph. D.	2/21/96
William N. Driscoll	2/21/96
James L. Bast	2/22/96
John J. Boyle	2/22/96
Thomas G. Dignan, Jr. (2 letters)	2/22/96
Brad Schaff	2/22/96
G. Morgan	2/23/96
Neal Holland (2 letters)	2/26/96
Eugene D. Atkinson (2 letters)	2/28/96
Allan Seth Blank	2/29/96
Michael O'Neil Monahan	3/4/96
Austin R. Knight	4/23/96
Mary Z. Olmsted	5/8/96
Robert and Marsha Dishman	Undated
Joe Lewis	Undated
Leonard and Susan Formato	Undated
Norman D. Hammer	Undated
Nello R. Trevisan	Undated
Ronald DiLauro	Undated

The DRI application, public hearing notices, Commission staff notes, exhibits and correspondence, the minutes from all public hearings and meetings, and all written submissions received in the course of the proceedings, including materials submitted on file TR-95022 are incorporated into the record by reference.

TESTIMONY

The subcommittee received the following testimony on the CCNG project at the November 29,

Cape Cod National Golf - #TR95022
May 9, 1996 Decision

1995 public hearing held at the Brewster Town Hall:

Mr. John Pfeffer, President of Cape Cod National Golf (CCNG), made a presentation on the project. Mr. William Burbank of Abbellire made a presentation on the technical aspects of the project and responded to the open space, wetlands, wildlife habitat and historic resources/archeological resource issues in the staff report.

Mr. Lloyd Bristol addressed transportation issues in the staff report. Mr. Joe Salvetti of Fugro East addressed water resource issues in the staff report. Mr. Donald Schall of Fugro addressed natural resources and open space issues in the staff report. Mr. Mark Mungeam of Cornish, Silva and Mungeam addressed issues of community character in the staff report.

Ms. Sharon Rooney presented the Commission staff report and noted items submitted for the record. Comments from the public included Mr. Joseph Tamski, Assembly of Delegates representative from Harwich, who stated he felt the audience did not have a real understanding of the project based on presentations made. Mr. Bill Doherty, Harwich Selectmen, echoed Mr. Tamski's comments. Ms. Christine Durgin, Brewster Selectman and Chair, Board of Assessors, expressed support for the proposed project. Ms. Tina Balog, Brewster Conservation Commission, expressed concern on several project issues including a need for monitoring wells, additional information on the under-drain system, nitrogen loading, turf management, drawdown impacts, provision of open space and vista pruning. Mr. Bruce Anderson, Brewster Assessor, described the anticipated tax impact from the golf course. Mr. Charles Sumner, Brewster Town Administrator, indicated he was supportive of the project. Mr. James Ehrhart, Brewster Chief of Police, expressed support for the project. Mr. George Fleming, Chair, Brewster Selectmen, expressed support for the project.

Mr. Alan McClennen of Brewster stated the other options for use of the parcel should be carefully considered. Mr. Bill Waldron of Harwich noted the issue of water quality impacts was a complex one. Mr. Cliff Crawford expressed concern about the close proximity to residences, impacts to Round Cove, impacts to wildlife movement on the parcel and drawdown impacts from well pumping rates. Ms. Nancy Forest expressed concern about impacts to surrounding private wells. Mr. Doherty, Harwich Selectmen, expressed concern that local boards had not become familiar enough with the project so as to provide comments to the Commission. Mr. Bill Burke and Mr. Mat Hennings questioned the need for perimeter fencing. Mr. Jim Tobin of Brewster expressed support for the project.

Mr. Prince asked for a motion to continue the public hearing and the record. Mr. Mason moved to continue the public hearing and keep the record open to December 12, 1995 at 6:00 pm at the Harwich Middle School. Mr. Olsen seconded the motion. The subcommittee voted all in favor of the motion.

The subcommittee received the following testimony on the CCNG project at the December 12, 1995 public hearing held at the Harwich Fire Station:

Mr. Doherty, Chair of the Harwich Selectmen noted the board had not yet had a formal presentation on the project from the Applicant but indicated this should occur in mid-January, 1996. He noted the board expected to submit formal comments to the Commission after that meeting. Mr. William Burbank of Abbellire gave a synopsis of the proposed project. He

described in detail the relationship between tee time usage by the Wequasset Inn and the anticipated economic impacts. He also addressed the issues of open space, wildlife habitat, and course design. Mr. Brian Silva of Cornish, Silva and Mungeam, course architects, discussed in detail the course design.

Sharon Rooney noted the materials submitted for the record and gave a synopsis of the staff report. Mr. Paul Tilton, a transportation engineer with the Commission, also discussed in detail new traffic data submitted by the Applicant. Mr. Bill Greenwood, Chief of Police in Harwich, commented on the project's anticipated traffic impacts. Mr. Charles Meader, Harwich Golf Commission, said he felt the problems were existing and questioned how the Applicant would mitigate problems on the roadways. Mr. Stephen Chandler, Harwich Conservation Commission, commented on water quality issues. Ms. Sylvia Laffin, Chairman of the Harwich Conservation Commission, expressed concern with the project. Mr. Tom Leach of the Harwich Natural Resources Committee read a letter into the record with detailed comments on water quality impacts.

Mr. Barry Zalany of Harwich expressed concern about the project's traffic impacts. Ms. Roberta Henningan of Brewster questioned the need for perimeter fencing. Mr. Matthew Henningan of Brewster objected to the use of perimeter fencing. Ms. Karen Wasem of Harwich objected to the use of perimeter fencing. Mr. Earl Brothers of Harwich objected to the use of perimeter fencing. Ms. Beverly Brothers of Harwich objected to the use of perimeter fencing. Mr. Sam Pennington of Harwich said he was concerned about truck traffic resulting from deliveries to the Wequasset Inn and CCNG. Ms. Laffin clarified that the Harwich Conservation Commission's recommendation for a four-foot wide bridge at hole #12 was based on golfers walking across the bridge rather than using golf carts. Mr. Bill Burke of Harwich objected to the use of perimeter fencing. Mr. Paul McAllister said he was concerned about the placement of several golf holes in close proximity to nearby homes. Mr. Claude Crawford expressed concern about provision of adequate buffers to residential areas. Chief Greenwood asked for clarification regarding the anticipated usage of the shuttle bus by Wequasset Inn patrons. Mr. George Swanson expressed concern for traffic impacts to Tar Kiln Road and provision of adequate sight distances. Mr. Dick Kevin expressed concern for provision of adequate buffers to residential areas, particularly along Pleasant Bay Court.

Mr. Prince asked for a motion to continue the hearing. Mr. Brock moved to continue the public hearing to January 10, 1996 at 5:00 pm in the Harwich Town Hall. Mr. Wightman seconded the motion. The subcommittee voted all in favor of the motion.

The Subcommittee received the following testimony on the CCNG project at the January 17, 1996 public hearing held at the Harwich Town Hall:

Mr. Burbank made a presentation on the project and addressed the issue of wetland resources. He said studies indicated that 10-15 foot buffers would be productive for wildlife and noted the buffers proposed by the Applicant were larger. He used a large colored map to illustrate areas of buffer the Applicant considered to be historically altered. Mr. Burbank agreed the Applicant's submittal was in conflict with the Regional Policy Plan (RPP) in terms of buffer alteration. He noted the course layout sought to direct areas of golf play to sections of already-altered buffer to minimize impacts to other undisturbed areas.

Mr. Burbank addressed the area of water resources. He said the course would meet or be

significantly less than the 5 parts per million nitrogen loading standard of the RPP except during the 18-month turf grow-in period. Mr. Burbank commented on the area of historic/archeological resources. Mr. Burbank noted the Applicant was willing to consider reducing the number of parking spaces for the clubhouse. Mr. Burbank commented on the issue of wetland buffers. He directed the Subcommittee's attention to a large, colored layout of the course. He said the Applicant had asked the course designers to modify the course layout and buffers.

Ms. Sharon Rooney noted the Applicant had requested the application of the flexibility clause with regard to wetland buffer issues, water resources and open space. Ms. Rooney noted the flexibility clause requirements. Ms. Gabrielle Belfit said the proposed CCNG project presented issues of nitrogen loading for public water supplies and the Round Cove Marine Water Recharge Area. Ms. Belfit expressed concern for the Pleasant Bay Area of Critical Environmental Concern (ACEC) and its associated shellfish beds. Ms. Kathy Sferra addressed the unresolved natural resources issues. Mr. Paul Tilton, a transportation planner with the Cape Cod Commission, addressed transportation issues connected to the project. He noted there were several issues yet to be resolved.

Mr. Charles Sumner, Brewster Town Administrator, expressed support for the project. Mr. Charles Meader of the Brewster Golf Commission said the Cranberry Valley golf course was an example of how a cranberry bog could co-exist with a golf course. Ms. Sylvia Laffin of the Harwich Conservation Commission noted the Conservation Commission had described its concerns in a letter and the Applicant had taken steps to address some of these concerns. Susan Meader of Harwich felt the buffers provided by the CCNG project were adequate. Ms. Barbara Keppin asked about buffers to adjacent residences and golf cart paths. Mrs. Sarah McCallister spoke in opposition to the project. Mr. John Dowell spoke in favor of the project.

Mr. Wightman moved the hearing be continued to a date and place to be noticed at a later date. Mr. Brock seconded the motion. The subcommittee voted all in favor of the motion.

The Subcommittee received the following testimony on the CCNG project at the February 20, 1996 public hearing held at the Brewster Town Hall:

Sharon Rooney explained that 139 letters had been received for the record since the February 8, 1996 subcommittee meeting in support of the project and two letters had been received expressing concerns. Ms. Rooney said the staff had prepared a summary of outstanding issues on the project with respect to conformance with the Regional Policy Plan (RPP). She said staff had also developed a list and a plan showing the location of abutters who had expressed concerns with perimeter fencing and/or wooded buffers. She noted that the subcommittee had asked the Applicant to work with the staff to revise grading plans to increase the natural buffer to wetlands. She noted that the subcommittee had also asked the Applicant to look into the possibility of off-site buffer mitigation in consideration of applying the flexibility clause to the wetland buffer standard for the 12th hole. Based on the second site visit, the subcommittee had questions about the wetland delineation and asked that the Commission hire a consultant to review the wetland delineation.

Mr. Burbank said Mr. Pfeffer and the golf course architect had been working on revised grading to areas of the 12th, 13th and 14th holes. Mr. Mario DiGregorio of Sabatia spoke regarding wetland delineation and alteration issues. Mr. Donald Schall discussed wetland delineation issues. Mr. Robert Gray of Sabatia discussed soils testing issues. Mr. Will Joy of Coastal Engineering

discussed coastal bank issues. Mr. Brock asked the Applicant if the perimeter fence was no longer part of the CCNG proposal. Mr. Burbank said that while the Applicant had removed the fence from the current proposal, he was still concerned about retaining the right to erect a fence so as to protect the value of his property.

Mr. John Mitchell, of the Brewster Selectmen, spoke in favor of the project. Mr. Alan McClennen spoke in favor of the project. He read a letter into the record. Mr. Koeppen said he was concerned over the proposed buffers to his home. Ms. Sylvia Laffin, chair of the Harwich Conservation Commission believed that the bog owner's permits for work in and around the 12th, 13th and 14th holes may have expired. She questioned whether any work could take place by the bog owner in these areas and said the Conservation Commission would be contacting the bog owner regarding this work. Mr. Mark Novota of the Wequasset Inn spoke in favor of the project. He characterized the course as an asset to the Inn and community.

Mr. Brock moved to closed the public hearing and keep the record open. Mr. Wightman seconded the motion. The subcommittee voted all in favor of the motion. Hearing ended at 8:38 pm.

At the May 9, 1996 final hearing, the Commission received testimony from subcommittee Chair Richard Prince, who gave a subcommittee report on the project. Executive Director Armando Carbonell described new information received from the Applicant limiting his ability to restrict wetland buffer areas as open space. Instead, the Applicant had agreed to restrict the required 40% open space prior to issuance of a Certificate of Compliance with the areas designated by the Applicant. Herbert Olsen asked if the buffer calculation had been verified. Sharon Rooney replied that it was confirmed at 2.51 acres. Paul Wightman asked for clarification on the timing of payment of the off-site buffer mitigation contribution. Ms. Rooney replied that the contribution is required to be made prior to commencement of construction. Ms. Rooney also noted recent revisions to the draft decision, in particular to condition #WR8 under Water Resources. Ken Mason noted that the revision to the open space restriction condition was a good compromise and that the town of Harwich is supportive of the project. Vicky Bebout asked for clarification on the fencing condition. Mr. Prince replied that the fence is not proposed at this time, but may be needed for security reasons. Sumner Kaufman recommended minor revisions to conditions #WR1 and WR4.

John Pfeffer, project Applicant, stated that he accepted the revision to condition #WR8 recommended by staff, and noted that he had begun design of the fence so that he would know what kind of fence he would be allowed to construct under the Commission's decision. Alix Ritchie noted that she hoped the fence would not be required so that the golf course could be a visual asset to the community. Mr. Pfeffer replied that he will not construct a fence that blocks the views of the course and hopes to implement a caddy program to encourage community support for the course.

Mr. Prince made a motion to close the record and the hearing. Ken Brock seconded the motion and it was approved unanimously. Mr. Prince made a motion to accept the subcommittee report. Mr. Brock seconded the motion and it was approved unanimously. Mr. Prince made a motion to approve the written decision as amended at this hearing for open space and water resource issues. Mr. Brock seconded the motion and it was approved unanimously.

JURISDICTION

The proposed CCNG course qualifies as a Development of Regional Impact under Section 3(e) of the DRI Enabling Regulations, Barnstable County Ordinance 90-12 as..."any private ... outdoor ...recreational development...greater than 40,000 square feet."

FINDINGS

General

G1. The proposed project is a private membership 18-hole golf course to be constructed on an approximately 149 acre site in the towns of Harwich and Brewster. The property straddles the Brewster/Harwich town lines, with approximately 81.2 acres located in Harwich and 67.8 acres in Brewster. The site is bordered by Route 39 to the west, Route 28 to the east, Pleasant Bay Road to the south, and Tar Kiln Road approximately 2/10ths of a mile to the north. Pleasant Bay is located directly east of the project site. The golf course is proposed to be built on 98.73 acres and will include a turf management center, clubhouse and on-site employee housing.

G2. The site is zoned for residential use with surrounding land use consisting primarily of single family residences and the Wequasset Inn.

G3. Access to the site will be via two proposed curb cuts on Route 39, one for parking for the proposed clubhouse and another to the proposed turf management facility and superintendent's residence.

Water Resources

WR1. The project site is located within a Marine Water Recharge Area to Pleasant Bay, with a portion of the site also within the Marine Water Recharge Area to Round Cove.

WR2. Pleasant Bay does not have an identified nitrate-nitrogen loading standard, although it has been identified as the 15th most nitrogen-sensitive embayment on Cape Cod (Cape Cod Commission, 1995). Round Cove has an identified nitrogen loading standard (3,346 kg/year) and an evaluation of nitrogen loading within its watershed has concluded that existing loading is currently above the identified standard (Cape Cod Commission, 1995).

WR3. The project includes a 5000 gallons per day (gpd) septic system to serve the proposed clubhouse and turf management center, and a 4-inch irrigation well to serve the 18-hole course.

WR4. Based on current Harwich and Brewster Water Department mapping, the site is not within an existing or proposed public supply well Zone of Contribution. A portion of the site has been identified by the U.S. Geological Survey as a potential public water supply well site based on its present open space land use (Harris and Stevens, 1994).

WR5. The Applicant is proposing to install a 4-inch irrigation well capable of pumping 65 gallons per minute (gpm), or a maximum of 95,000 gpd. This rate is 5,000 gpd below the State Department of Environment Protection review criteria for a Water Withdrawal Permit under the Massachusetts Water Management Act (MCLc.21G). The Applicant has completed a 48-hour

pump test on the supply well. The aquifer test data indicates that pumping of the irrigation supply well up to 65 gpm does not impact the cranberry bogs or private supply wells under short term conditions.

WR6. The on-site irrigation well will be used in conjunction with two man-made retention ponds. The ponds will be equipped with a geotech liner and will be separated from the water table. The primary storage pond will be located between holes #3 and #15 with a storage capacity of six million gallons including two million gallons in the top four feet of water. The second retention pond will be located at hole #10 with a storage capacity of two and a half to three million gallons.

WR7. The groundwater supply and pond storage facilities will have a combined storage capacity of 6,000,000 gallons. The Applicant's independent review indicated that irrigation up to 200,000 gallons per day may be required under drought conditions. As planned, the combined surface water and irrigation system can sustain this demand for a period of 60 days with the pump withdrawing 65 gpm, 24 hours a day. A more realistic pumping scenario is that a pump would run for 16-18 hours each day to allow the well to recover and the pump to rest. Under these conditions, 200,000 gpd may be sustained for only 45 days without exceeding the 95,000 gpd limit proposed by the Applicant. As a 45-day drought is not uncommon in the summer on Cape Cod, this suggests that the irrigation supplies are minimally adequate. Contingency plans for additional storage, a back-up supply should the pump break down, or a well with greater capacity should be considered by the Applicant. In the event that the 100,000 gpd withdrawal rate is exceeded, the Applicant must file with DEP for a water withdrawal permit.

WR8. A cranberry bog is currently in operation downgradient of the golf course. Only 2.1 acres of the bog system is in production. The cranberry bog is highly dependent on a sustainable supply of water to provide water to the bog for irrigation, winter frost protection, and harvesting operations. The bog owner presently supplies water to the bog by pumping from a shallow on-site reservoir. When fully restored to production, the bog system will include an additional 10,000 square foot tail race recovery reservoir which will intercept the groundwater. Groundwater supply to the proposed tail race recovery and existing reservoirs are supplied from the surrounding watershed which includes the Applicant's property. Care must be taken to ensure that the water supply to the cranberry bog is not diminished.

WR9. Based on the Cape Cod Commission Technical Bulletin #91-001, and 3/27/96 spread sheets submitted by Fugro East, nitrogen loading concentrations are estimated to be 7.5 ppm for the turf establishment period and 5.1 ppm under the long term conditions. The Applicant's submittal on 4/24/96 indicates that the fertilization rates are subject to site-specific turf management decisions where application rates may be more or less than cited in the Fugro spreadsheet. The rates for fertilization loading for establishment conditions are approximately as follows: greens 5.25 lbs/1000 ft², tees 8 lbs/1000 ft², fairways 4.5 lbs/1000 ft² and roughs 3.75 lbs/1000ft² and for long term conditions; greens 4.5 lbs/1000ft², tees 5 lbs/1000 ft², fairways 3.0 lbs/1000 ft² and roughs 2.2 lbs/1000ft². The Applicant may lower the long term concentration by 0.4 ppm, through the use of a denitrifying septic system for the clubhouse wastewater disposal. The Applicant agreed that the clubhouse will not be used while the turf is being established. Exact prediction of nitrogen concentrations are difficult to calculate and verify for the golf course due to variability in climatic conditions, irrigation volumes, fertilizer application rates and nitrogen leaching rates.

WR10. The project is directly upgradient of twenty-six (26) residential lots (18 existing and 8 developable) that rely upon private wells. Due to the small area of influence of these wells, a non-point source nitrogen loading analysis does not account for the potential of discrete slugs of nitrogen from intensely managed areas migrating off-site and impacting the private wells.

WR11. The Applicant revised the conceptual plans on February 19, 1996. The revised plan indicates that less than one-half an acre in the vicinity of the 14th green falls within the Round Cove Marine Water Recharge Area. The Applicant has proposed a geotech liner beneath the green with an underdrainage system that will ultimately discharge into a low area that is outside the Round Cove MWRA.

WR12. The Regional Policy Plan requires that all development not exceed a 5 ppm nitrate-nitrogen loading standard. The Commission recognizes that there are uncertainties inherent in site conditions and turf management practices proposed for the golf course. The range of conditions may produce nitrogen concentrations in excess of 5 ppm at times during the course operation. Conversely, there will be times when nitrogen concentrations may be below the 5 ppm standard. Due to this variability, the interests protected by this performance standard can be better served through the adoption of a comprehensive groundwater monitoring program and contingency plans for private water supply protection that will demonstrate greater protection of the groundwater resources. The resources that will be protected by the monitoring program include the coastal embayments of Round Cove and Pleasant Bay, as well as downgradient private wells.

Wetlands/Plant and Wildlife Habitat/Open Space and Recreation

WE1. A portion of the site is located within the Pleasant Bay Area of Critical Environmental Concern. The boundary of this area is 100' inland of the 10' contour above sea level or as otherwise described in the Secretary of Environmental Affairs ACEC designation dated 3/20/87 and confirmed by a Memorandum dated 3/13/96 to Kathy Sferra and Bill Burbank from the Director of the ACEC Program.

WE2. Section 2.3.1.1. of the Regional Policy Plan prohibits wetland alteration. The Wetlands Protection Act regulations 310 CMR 10.55(4)(e) require that work within bordering vegetated wetlands within an ACEC not "destroy or otherwise impair" such wetlands. The Applicant has revised the project in order to eliminate the need for wetland alteration (vista pruning). The Applicant has indicated that he may seek an Order of Conditions from the Harwich Conservation Commission for alterations to approximately 1,000 square feet of Bordering Vegetated Wetlands (BVW) and upland buffer for habitat diversity and enhancement, increased flood storage, and improved water quality under the performance standards defined in the Wetlands Protection Act. Any change to the design approved by the Cape Cod Commission would require modification of this decision and new proposals to alter wetlands would require application of the flexibility clause.

WE3. Section 2.3.1.2. of the Regional Policy Plan requires a minimum undisturbed 100' buffer around wetlands and waterbodies. The proposed golf course will alter portions of this 100' buffer for golf course construction. Proposed alteration within the 100' buffer includes removal of vegetation (trees, shrubs, understory), grading, installation of underdrainage, filling and revegetation with grasses and "rough" areas for the 12th, 13th and 14th holes. All buffer areas to be altered will be vegetated upon completion of construction. Functions provided by the buffer on

this site include, but are not limited to, groundwater recharge, sediment reduction, and wildlife habitat.

WE4. The Applicant has submitted a revised conceptual plan dated May 1, 1996 depicting the undisturbed buffers and treelines to be maintained in the vicinity of the 12th, 13th and 14th holes, and several areas of currently unvegetated buffer that will be regraded and revegetated. This proposed restoration work will improve the buffer functions of several disturbed areas of the 100' buffer and mitigate an existing erosion problem. The revised plan also indicates locations where the Applicant proposes to remove understory vegetation within 7-1/2' of the edge of the treeline and plant grass to maintain golf playability for these holes. The balance of the buffer is proposed to remain undisturbed.

WE5. Portions of the proposed golf course (12th, 13th and 14th holes) are located adjacent to active cranberry bogs in separate ownership. Small areas of this 100' buffer have undergone varying degrees of disturbance for agricultural purposes as well as lawn, bog maintenance paths, and two dirt roads. There is currently an active sand borrow pit on the proposed development site and the bog owner has deeded sand rights in other portions of the 100' buffer on the proposed development site.

WE6. The Applicant is proposing off-site mitigation for wetland buffer alteration consisting of a cash contribution of \$17,570.00 to the Compact of Conservation Trusts, Inc. Cape Cod Land Fund as a one time payment for off-site mitigation. These funds will be used toward the acquisition of a parcel(s) of land with wetland resource/habitat values within the Pleasant Bay watershed.

WE7. The Regional Policy Plan requires protection of a 100' undisturbed buffer to wetlands. The proposed project is not in compliance with this standard. A total of 2.51 acres of the 100-foot buffer will be altered as a result of the project. The Applicant is proposing to provide an undisturbed buffer of variable width as shown on the May 1, 1996 revised plan. All areas of the buffer on the site will be vegetated, with some presently altered areas, including the bog owner's sand borrow pit, revegetated and restored. In addition, the Applicant is proposing a donation of funds for the purpose of acquiring and permanently protecting a parcel of land with wetland resource buffer values within the watershed to Pleasant Bay. Given these considerations and the facts presented in the findings #WE4 - 6 above, the interests protected by M.P.S. 2.3.1.2 will be better served by this alternate approach. In addition, the improved buffer functions provided by the restoration of the buffer combined with the cash contribution for off-site mitigation of buffer impacts will not be more detrimental to wetland resources within the watershed than would be the case under M.P.S. 2.3.1.2.

WE8. The site contains a coastal bank as defined by the Regional Policy Plan. This coastal bank is not delineated on the site plan submitted to the Cape Cod Commission. Grading and alteration is proposed on the coastal bank and the limits of the coastal bank should be shown on the final plans.

WE9. The proposed project is located within the Capewide Open Space/Greenbelt Network. As such, Minimum Performance Standard 6.1.1. of the Regional Policy Plan requires that the Applicant maintain a continuous corridor to preserve edge and interior wildlife habitat. The Applicant has designed the golf course to maintain approximately 50 acres of pine-oak woodland, configured to provide travel corridors and significant habitat for wildlife.

WE10. The Association for the Preservation of Cape Cod's Critical Habitat Atlas notes the presence of a vernal pool on a hillside in the southerly corner of the site. Correspondence with the Massachusetts Natural Heritage and Endangered Species Program indicates that this vernal pool is not located on the site but is actually located some distance away on the south side of Pleasant Bay Road.

WE11. The Applicant is not currently proposing any perimeter or security fencing around the site, with the exception of a fence along Route 39 in the vicinity of the golf course clubhouse. The Applicant is concerned that subsequent experience may prove that a fence is necessary to protect against damage from trespassers. Any proposed fencing has the potential to interfere with the movement of wildlife through the wildlife corridors that have been designed on the golf course. The Applicant has agreed that any proposed fence will not preclude wildlife migration through the site.

WE12. "Old" Cove Road is an ancient way which borders the southern property line of the site.

WE13. Minimum Performance Standard 6.1.4. of the Regional Policy Plan requires that 40% of the upland area within commercial development projects be set aside as permanent open space. Golf courses are defined as an allowable use within this open space. Pursuant to this standard, the proposed project is required to provide 59.6 acres of open space.

WE14. The Applicant has proposed to meet this Regional Policy Plan open space requirement by submission of a plan and permanent restriction of 40% of the site prior to issuance of a Certificate of Compliance.

WE15. The Applicant has submitted overall golf course design plans that are based on aerial interpreted topography and include "conceptual" revised plans dated May 1, 1996 depicting proposed work within the 100' buffer to the wetlands on-site.

WE16. Minimum Performance Standard 1.2.1. of the Regional Policy Plan requires that "new development adjacent to lands in active agricultural production shall maintain or provide a thickly vegetated buffer of sufficient width to prevent conflicts between the development and existing agricultural uses." The proposed golf course is immediately adjacent to existing and proposed cranberry bogs. There is the potential for future conflicts between the golf course and use of the bogs for agricultural operations, including trespassing, ball retrieval, water quality impacts, and potential damage to vines. No testimony was received from the bog owner expressing concerns about the proposed golf course. The Applicant does not believe that there is a conflict between the two uses.

Economic Development

ED1. The proposed golf course will result in the creation of fifty new jobs. Nineteen positions will be created as a result of food/beverage service at the clubhouse, including two year-round jobs and seventeen 9-month positions, mainly part-time.

ED2. Seven additional jobs are expected to be created at the Wequasset Inn to service additional business created as a result of the CCNG course construction. That number is expected to increase

to twenty-nine jobs by the year 2000. Approximately 25% of these positions will be part-time. The average annual salary of the new positions at the Wequasset Inn will be \$13,600. Information on projected salaries and benefits for golf course-related jobs was not provided.

ED3. The Applicant proposes to provide on-site housing for the course superintendent, golf professional, greenskeeper, and seasonal employees.

ED4. The DRI application indicates that there is a market for the proposed course based on the current demand for tee times. The targeted market area for the new golf course is east of the Bass River. The application further indicates that no course has been built on the Lower Cape in the past decade while the demand for tee times has increased due to population growth.

ED5. The CCNG course will be a private golf course made up of approximately 250 member families. As a private course, CCNG will not be open to the general public, except where room guests at the Wequasset Inn schedule golf as part of their stay. Information submitted by the Applicant on 12/12/95 indicates Wequasset Inn guests will take up approximately 40% of the shoulder season tee times and 20% of tee times in the peak summer season.

ED6. Information submitted by the Applicant indicates the Wequasset Inn's target population for CCNG course use in the off/shoulder months (May, June, September and October) is primarily for conference-related business from Fortune 500 companies located in the New England region with emphasis on Boston and New York. The Applicant did not provide information on its anticipated 250 member families.

ED7. The golf course is projected to add 2,173 room nights and 15% (\$800,000) to the total business at the Wequasset Inn. A study of the economic impact of golf on the Cape Cod economy by the St. Andrews Corporation Inc. (1994) indicates that golf on Cape Cod is a \$142 million industry, of which 42% is indirect spending by golfers at local businesses. The Applicant estimates that indirect spending as a result of added business at the Wequasset Inn would be \$320,000 at other local retail, restaurant and tourist establishments.

ED8. State and local tax revenues from projected new businesses associated with the CCNG project are projected to be \$65,000 with approximately \$22,000 coming from local rooms tax. Meals tax revenues from the course clubhouse is estimated at \$24,000. No estimates were provided for local real estate tax revenue.

ED9. Information submitted by the Applicant on 1/6/96 indicates any needed services or infrastructure will be completed at the Applicant's expense during the life of the CCNG project.

Hazardous Materials/Waste

HM1. Information submitted on November 10, 1995 to supplement the DRI application indicates a typical 18-hole golf course uses hazardous materials including diesel fuel, gasoline, oil, parts cleaner, carburetor cleaner, antifreeze, batteries, paint, paint thinner, fungicides, herbicides and insecticides. Based on this information, the Cape Cod National Golf course will use an anticipated 8,152 gallons and 523 pounds of hazardous materials annually. This includes 200 pounds of absorbent and 4,000 gallons of gasoline. The project is expected to generate approximately 300 gallons and 200 pounds of hazardous waste a year. It will also generate approximately 15 used

golf cart batteries and used oily rags. It is not expected to generate any waste fungicides, herbicides or insecticides.

HM2. The DRI submittals indicate the Applicant can reduce use of hazardous materials at and generation of hazardous waste from the Cape Cod National Golf course by pursuing waste recycling techniques and substitution of least-toxic products.

HM3. The Applicant confirmed at the December 12, 1995 public hearing that the project will include a 400-gallon above-ground fuel tank to hold fuel for the grounds maintenance equipment.

HM4. Golf-course construction will involve the demolition of one or more of the existing on-site buildings. A 1995 DEP policy requires that lead-based paint removed from surfaces (chips, dust) be managed as hazardous waste. The DEP policy also states that intact lead-based paint coated building components may be disposed of only in a lined landfill.

HM5. A letter from Abbellire, Inc. dated January 7, 1996 indicates that contractors doing interior improvements to wood frame structures will be required to sign an affidavit stating that all lead paint and other hazardous waste will be legally discarded at a licensed facility. The affidavit will also require the contractors to name the disposal facility and its location.

HM6. Abbellire's January 7, 1996 letter also indicates that oil, paint and batteries from golf course operations will be disposed of at the Town of Harwich recycling center/Transfer Station.

HM7. A letter from Cornish, Silva and Mungeam dated November 9, 1995 indicates the golf course construction phase will involve designating on-site staging areas for the stockpiling of fuels, lubricants and other hazardous materials as well as for the refueling and maintenance of construction equipment. The letter also indicates these areas will be outside of natural resource areas, their associated 100-foot buffer areas, and other areas of significant wildlife habitat.

HM8. The November 9, 1995 letter from Cornish, Silva and Mungeam discusses in detail their golf course construction specifications, including those related to noise abatement, dust control and hazardous materials and waste control. These specifications indicate contractors will be apprised of proper hazardous materials and waste containment, handling, storage and disposal protocols according to local, state and federal regulations. There will also be procedures in place to clean up any releases of hazardous materials or waste on site. Cornish, Silva and Mungeam's construction specifications also state that construction equipment, including generators and compressors, will be enclosed or equipped with mufflers, silencers or other equipment to minimize noise. The construction contractor will also be required to limit construction noise in accordance with the federal Environmental Protection Agency and the Department of Housing and Urban Development (HUD) latest standard criteria.

Solid Waste

HM9. The DRI application states the Wequasset Inn will provide food/beverage service to the Cape Cod National Golf course, and will be in charge of seeing that most of the recyclable materials generated by the golf course are properly managed.

HM10. The Wequasset Inn will be expanding its existing recycling program in 1996 to include additional cardboard, glass, metal, plastic and other recyclable products.

HM11. The DRI application states grass clippings from turf management will be composted on site in a 10,000 square foot area between the 4th, 5th and 7th fairways. A letter from Abbellire, Inc. dated January 7, 1996 indicates the composting area will have a PVC-plastic liner underneath it.

HM12. Golf course construction will generate an undetermined amount of construction and demolition waste as well as stumps and brush from land-clearing operations.

Transportation

TR1. The proposed project is expected to generate approximately 60 vehicle trips during the 4 PM to 5 PM peak hour. The Applicant and staff have agreed upon an expected daily generation of 269 vehicle trips per day.

TR2. Based on the expected traffic generation, the Applicant has performed a Traffic Impact Study to determine traffic impacts resulting from the project.

TR3. Minimum Performance Standard 4.1.2.1 requires the Applicant to offset at least 20% of their daily traffic. Based on the expected traffic generation, the Applicant is required to reduce 54 daily vehicle trips (269 daily trips x 20%). The Applicant will meet the 20% trip reduction requirement by implementing the following two measures; (1) providing a shuttle bus service for golfers staying at the Wequasset Inn, and (2) contributing funds towards alternate modes of transportation.

TR4. Minimum Performance Standards 4.1.1.1 and 4.1.1.2 require the Applicant to mitigate any traffic impacts resulting from their project traffic. The Applicant has identified the need to mitigate the intersection of Route 39 at Pleasant Bay Road. This intersection operates at level of service (LOS) D during the Build condition (with project traffic). The intersection also experiences safety problems (14 accidents in three years) during existing conditions.

TR5. The Applicant has submitted concept plans to improve safety and reduce congestion at the Route 39/Pleasant Bay Road intersection. Staff has requested that the Applicant make a contribution of funds towards safety improvements at this intersection.

TR6. Observations by Commission staff have shown the sight distance to be inadequate at the site drive with Route 39. The Applicant intends to remove visual obstructions on their frontage in an effort to improve the sight distance at the proposed site drive.

Historic Preservation/Community Character

HP1. MPS 7.1.3 requires a pre-development investigation when development is proposed on historic or prehistoric archaeological sites identified by the Massachusetts Historical Commission (MHC). MHC has stated that the project area possesses a strong likelihood for containing significant historic and prehistoric archaeological deposits. The MHC has requested an intensive

locational archaeological survey be conducted by the Applicant in order to identify important archaeological resources which may be affected by the project.

HP2. The site plan and supporting studies indicate that there are three clusters of existing structures on the site: Nickerson Homestead (house and barn), Santos (house and outbuilding), and Caretaker's house. These structures may be eligible for listing on the National Register of Historic Places. The MHC has requested that the Applicant provide inventory information on these structures in order to evaluate their historic significance.

HP3. The Applicant indicates that the Nickerson Homestead will be maintained in its current location and reused as a residence and mid-station for the proposed golf course, and that the Caretaker's and Santos' homes are proposed to be demolished. The Santos' barn may be relocated to an undetermined off-site location if feasible. Any renovation work done in conjunction with the reuse of these buildings should be consistent with the building's architectural style, as required in M.P.S. 7.1.1.. In addition, work should preserve the distinguishing, original qualities of the structures, as required by M.P.S. 7.1.2.

HP4. The proposed golf course site is surrounded by existing residential development. Several of the golf holes are located in close proximity to existing residences. Due to concerns expressed by abutters at public hearings for the adequacy of wooded buffers between the limit of golf activity and residential uses, the Applicant revised the project plans to provide additional wooded buffers between the golf course and these uses. These buffers will be retained in their natural state except for pruning of dead or diseased trees, planting or transplanting of native vegetation, cart paths, signage, or security fencing if proposed at a later date.

HP5. MPS 7.2.9 requires in part that parking lots be screened from roads and adjacent residential areas. The Applicant proposed a total of 153 parking spaces for the clubhouse and turf management center. The limit of proposed parking is within 32 feet of the edge of pavement on Route 39. The Applicant agreed to provide a minimum 35-foot wide wooded buffer including proposed landscaping and fencing between the parking lot and the property line in order to adequately buffer the parking and site lighting from adjacent residential uses.

HP6. ODRP 7.2.13 recommends that parking lots be designed to accommodate average usage. Based on estimates submitted by the Applicant for the Hyannis Golf Club, on-site parking demand may approach 68-70 cars without accounting for the proposed shuttle service from the Wequasset Inn. The Applicant agreed to reduce on-site parking by 29 spaces to provide additional wooded buffers between the parking lot and Route 39.

HP7. MPS 7.2.5 states that unnecessarily bright lighting of a building or grounds shall not be permitted. The Applicant submitted plans for parking lot and entry drive lighting to meet the guidelines of Cape Cod Commission Technical Bulletin #95-001. In addition, the Applicant agreed to reduce the footcandle level of the turf management center and clubhouse wall pack lighting to meet the guidelines of Technical Bulletin #95-001.

CONCLUSION

Based upon the findings above, the Commission hereby concludes:

1. The proposed project is consistent with local development bylaws.
2. The proposed project is consistent with the Minimum Performance Standards of the Regional Policy Plan except where indicated in findings #WR12 and WE7. In these cases, the project violates Minimum Performance Standards 2.1.1.1 and 2.3.1.2. Under the flexibility provision in the Regional Policy Plan, the Applicant was able to demonstrate an alternate approach which will not be more detrimental than would be allowable under Sections 2.1.1.1 and 2.3.1.2 of the Regional Policy Plan.
3. The benefits of the proposed project outweigh the detriments resulting from the development. This conclusion is supported by Water Resource finding #WR12 and Economic Development findings #ED1-8 listed above, and Water Resource conditions #WR1-8 described below.

The Commission hereby approves with conditions the Cape Cod National Golf project as a Development of Regional Impact, pursuant to Sections 12 and 13 of the Act, provided the following conditions are met:

CONDITIONS

General

- G1. The plans listed in these conditions shall become the plans of record and any changes shall be approved by the Cape Cod Commission or its designee.
- G2. The Applicant shall obtain a Certificate of Compliance from the Cape Cod Commission or its designee before the local official responsible for issuing Certificates of Occupancy may issue a permanent or temporary Certificate of Occupancy for any portion of the proposed project. The project shall not be opened to the public until issuance of a Certificate of Compliance from the Commission. All conditions attached to this decision, unless otherwise indicated, must be met prior to the issuance of a Certificate of Compliance from the Cape Cod Commission.
- G3. The Applicant shall obtain all necessary State and local permits for the project.
- G4. Any change of use, expansion or change to the golf course deemed by the Regulatory Committee of the Commission to be other than a minor modification consistent with Commission policy on Revisions to Approved DRI's dated October 15, 1992 shall require review and approval by the Cape Cod Commission.
- G5. Prior to any development activity as defined by Section 2(e) of the Cape Cod Commission Act on the 149-acre site, the Applicant shall submit final golf course layout and grading plans at a scale of 1"=40' keyed into an overall grading plan at a scale of 1"=100' for review and approval by Commission staff. Said plans shall be consistent with revised plans prepared by Cornish, Silva & Mungear, Inc. dated May 1, 1996. Final plans for the golf course shall identify the location and

proposed grading of all drainage swales and structures, wetland boundaries, greens and cart paths and wildlife corridors.

Water Resources

WR1. The Applicant shall provide six (6) cluster wells and one (1) upgradient groundwater monitoring wells to monitor water quality and groundwater levels. The locations of the monitoring wells shall be indicated on the final grading plans and shall be confirmed on the ground, including surveyed elevations of the top of the well casing relative to mean sea level, by the project Land Surveyor. Final monitoring well locations shall be approved by the Water Resource Office of the Cape Cod Commission.

WR2. The Applicant shall keep records of actual fertilizer and pesticide application amounts, types and rates and submit an annual turf management report to the towns of Harwich and Brewster and the Cape Cod Commission. Specific turf management practices surrounding turf monitoring wells shall be recorded separately.

WR3. The Applicant shall complete testing of private drinking well water on the following sixteen (16) existing home sites on Evelyn's Drive and the Wiedhaus abutter prior to the start of construction:

<u>Map</u>	<u>Parcel #</u>	<u>Street Address</u>
53	022-008	11 Evelyn's Drive
53	022-009	42 Evelyn's Drive
53	022-010	68 Evelyn's Drive
53	022-013	76 Evelyn's Drive
53	022-014	88 Evelyn's Drive
53	022-015	98 Evelyn's Drive
53	022-018	138 Evelyn's Drive
53	022-019	152 Evelyn's Drive
53	022-020	164 Evelyn's Drive
53	022-022	143 Evelyn's Drive
53	022-024	113 Evelyn's Drive
53	022-026	34 Evelyn's Drive
118	W7-000	5 Evelyn's Drive
118	W3-A	12 Evelyn's Drive
118	W4-A	18 Evelyn's Drive
118	W6-028	24 Evelyn's Drive

Results of each test shall be provided to each homeowner, the Boards of Health in Brewster and Harwich, and the Cape Cod Commission. The Applicant shall include testing of private drinking well water for any of the following remaining nine (9) lots on Evelyn's Drive as new homes are constructed:

<u>Map</u>	<u>Parcel#</u>
53	022-012
53	022-016
53	022-017

53 022-021
 53 022-023
 53 022-025
 118 W1-A
 118 W2-A
 118 W6-029

WR4. If subsequent private well analysis exceeds 4 ppm nitrate-nitrogen, the Applicant shall provide funding to extend public water service and connect affected home(s) on Evelyn's Drive to town water at the discretion of the home owner(s).

WR5. The groundwater monitoring program to monitor downgradient non-point source impacts to coastal waters and private well impacts from turf management practices shall include installation of six (6) new cluster wells, consisting of shallow and deep monitoring wells, and one existing upgradient monitoring well. Background water quality sampling shall be conducted on all installed wells. Water level measurements shall be measured prior to obtaining water quality samples. Results of each test shall be provided to the Boards of Health in Brewster and Harwich and the Cape Cod Commission.

WR6. Flow measurements and water quality samples shall be taken from the underdrain coming from the 14th green. The Applicant shall also conduct groundwater level monitoring and water quality analysis for the upgradient well and all six (6) shallow and deep cluster wells and water quality analysis for all private wells according to the following schedule:

a. Monitoring Well Sampling Schedule

<u>Time</u>	<u>Private Wells</u>	<u>Upgradient and Cluster Wells</u>
-------------	----------------------	-------------------------------------

Year 0	1x/year	1x/year
Years 1+2	1x/year	2x/year
Years 3-5	1x/year	1x/year

Years 5+	Subsequent requirements for sampling will be based on a review of data and based on agreement among the Towns of Harwich and Brewster and the Cape Cod Commission.	
----------	--	--

Starting from the date of issuance of a partial or final Certificate of Compliance from the Commission, the results of the monitoring and turf management report shall be reviewed annually at a meeting of Commission staff, the Applicant's representatives, golf superintendent, and Town of Brewster and Harwich officials to determine the adequacy of monitoring.

b. Sampling Specifications

All monitoring wells and private wells shall be monitored for the following constituents: pH, conductivity, nitrate-nitrogen, nitrite-nitrogen and ammonia-nitrogen. One (1) groundwater monitoring well, as specified by Commission staff prior to issuance of a Certificate of Compliance, shall also be tested annually for the EPA Broad Spectrum Pesticide Scan. Appropriate sampling protocol, containers, storage methods and chain-of-custody reporting requirements shall be used.

c. Monitoring Well Installation

Monitoring wells shall be constructed with 2" PVC with 10 foot screens and .001 slot size. Shallow wells in each cluster shall be placed with half of the screen above and half below the ambient water table. Deep wells in each cluster shall be similarly installed with a 5 foot, .001 slotted well screen set approximately 20 feet below the groundwater table. Wells shall be properly developed following installation and fitted with dedicated sampling equipment.

WR7. The Applicant shall monitor water withdrawals and surface water levels as follows:

- a. Total daily withdrawal rates shall be recorded from the irrigation well. Water withdrawal shall be reported to the Cape Cod Commission annually. Total annual water withdrawal may not exceed 19.9 million gallons and no more than 8.55 million gallons over the three-month summer period.
- b. Surface water levels shall be monitored at sites downgradient of the irrigation well. Stages established at FES 1, FES 2 and FES 3 may be used. Surface water level measurements shall be reported monthly as long as the irrigation well is in operation. Surface water levels data shall be included in the annual report to the Cape Cod Commission. Additionally, existing groundwater monitoring wells in the vicinity of the irrigation well shall be measured during the months of June through August to supplement information on potential water level impacts from groundwater withdrawal.

WR8. The clubhouse shall not be open to the public while turf is being established. If water quality analysis exceeds 5 ppm total nitrogen in any on-site monitoring well, the well shall be resampled and analysis repeated. If the second analysis confirms the initial reading, mitigating measures shall be taken to reduce nitrogen loading as follows:

- if 5 ppm total nitrogen is exceeded in monitoring wells that are downgradient of the clubhouse septic system, the Applicant shall install a denitrifying septic system;
- if 5 ppm total nitrogen is exceeded in monitoring wells representing managed turf areas, fertilizer application rates shall be reduced upgradient from the affected wells in an amount that is proportional to that amount of the concentration exceeding 5 ppm.

If the pesticide scan detects a compound in excess of a Groundwater I Reportable Concentration, in reference to 310 CMR 40, the Massachusetts Contingency Plan (MCP) Oil and Hazardous Materials List, the Applicant shall notify the Cape Cod Commission and DEP in accordance with the MCP.

Actions to be taken to reduce nitrogen loading and pesticide leaching shall be based upon agreement among the Towns of Harwich, Brewster and the Cape Cod Commission.

WR9. The Applicant shall provide a contingency plan for a backup irrigation well prior to issuance of a Certificate of Compliance.

Wetlands/Plant and Wildlife Habitat/Open Space and Recreation

WE1. This approval is conditioned on the Applicant applying for and receiving an Order of Conditions from the Harwich Conservation Commission or Massachusetts Department of Environmental Protection permitting the golf course project. A copy of the applicable decision(s) shall be provided to the Cape Cod Commission prior to commencement of any development activity, as defined by Section 2(e) of the Cape Cod Commission Act, on the site.

The Applicant has indicated that he may seek permission for work along the fairway and green of the 12th hole which may include a wetland meadow, graded connection of Bordering Vegetated Wetland, transplanting of existing indigenous shrub materials, and/or an elevated boardwalk approach for golfer access/egress to the 12th green. If the Harwich Conservation Commission and/or the Massachusetts Department of Environmental Protection permit said work with appropriate conditions, the Applicant shall submit this plan modification to the Cape Cod Commission for approval, consistent with General Conditions #G1 and G4.

WE2. The wetlands, including the existing bogs and bordering vegetated wetland areas and undisturbed wetland buffers shall be designated "environmentally-sensitive areas" which are to be out of bounds, or lateral hazards, in accordance with the U.S. Golf Association 1996 Rules of Golf. Balls shall not be retrieved from these areas. This requirement shall be made clear to players through signage and printing of rules on scorecards.

WE3. The final plans submitted by the Applicant shall show the limit of grading and tree clearing no closer to the wetlands edge than shown on the revised conceptual plan dated May 1, 1996. There shall be no more than a 7-1/2' area between the tree line and the undisturbed buffer where understory vegetation may be removed and replanted with grass in order to maintain golf playability. All areas beyond this limit of work shall be maintained as undisturbed wetland buffer. No development activity as defined by Section 2(e) of the Cape Cod Commission Act shall occur within these undisturbed buffer areas.

WE4. With the exception of the current stipulation easement, no stockpiling of sand or other materials shall be permitted within "environmentally-sensitive areas" described in condition #WE2 above. The location of any sand borrow areas shall be shown on the final plans required by this decision.

WE5. The coastal bank shall be delineated and shown on the site plan submitted to the Cape Cod Commission. The Applicant shall submit a narrative for approval by Cape Cod Commission staff explaining how Minimum Performance Standard 2.2.2.4 will be met by the proposed project, in conjunction with the sediment and erosion control plan required by condition #WE9b below.

WE6. Any perimeter fencing shall be no higher than 6' above grade and shall maintain ground clearance which shall not preclude wildlife movement through and across the site as designed by a wildlife biologist in consultation with Commission staff. Any perimeter fence not meeting these standards shall require approval by the Cape Cod Commission.

WE7. The 'Old' Cove Road ancient way shall be maintained as a cart path and shall not be blocked by the proposed development unless the public rights in this ancient way are expunged in accordance with applicable law.

WE8. In order to facilitate timely and coordinated review between the Cape Cod Commission and local boards, the Applicant has submitted to the Cape Cod Commission a copy of all plans and accompanying narrative filed with the Harwich Conservation Commission (10/13/95). Any additional required filings, or modifications to, shall be submitted to the Cape Cod Commission on the date of the filing/modification with the applicable local agency.

WE9. The Applicant shall submit the following final plans for review and approval by the Cape Cod Commission or its designee after approval by local boards and prior to commencement of any development activity:

9a. A 1"=20' plan, based on field survey, depicting proposed work associated with the 12th and 14th greens, agreed-upon wetland boundaries, proposed contours, proposed boardwalk or access path, and vegetative/fencing measures to be taken to limit golf ball retrieval from wetlands. Any work proposed to maintain the height of vegetation in wetland areas, if any, shall be described.

9b. An erosion and sedimentation control plan, which shall also depict the proposed location of stump and construction debris staging areas, if any, and composting areas outside of the 100' buffer to wetlands and all erosion and sedimentation control measures required by the Harwich Conservation Commission. In addition, erosion and sediment controls shall be placed where there are slopes in excess of 10% or to break up long gradual slopes at 500' intervals.

9c. A construction schedule for construction of the golf course. The construction schedule shall provide for initial construction of the 12th, 13th and 14th greens and creation of the ponds during the first half of project construction. The Applicant shall provide the Cape Cod Commission and appropriate local permitting agencies with a monthly report on progress, and any changes in the construction schedule.

WE10. Prior to the issuance of a partial or final Certificate of Compliance, the Applicant shall submit a plan to the Commission depicting 40% of the site (59.6 acres) to be designated as permanent open space. Said plan shall be incorporated by reference in an Open Space Deed Restriction. Prior to issuance of a partial or final Certificate of Compliance, the Applicant shall record at the Barnstable County Registry of Deeds and/or Land Court a fully executed permanent Open Space Deed Restriction and accompanying plan in a form and content acceptable to Commission counsel.

WE11. Prior to issuance of a temporary or final Certificate of Compliance, the Applicant shall document that he has retained the services of a wildlife biologist/botanist who will observe and monitor the construction in the vicinity of wetlands, buffer revegetation, and wildlife corridors. Following completion of construction, on-site monitoring shall occur by a wildlife biologist/botanist and shall include a minimum of two (2) site visits per year for two (2) years from the date of issuance of a Certificate of Compliance (conducted in the Spring and Fall), and a field report identifying recommendations for improvements to wildlife habitat. These field reports shall be submitted to the Cape Cod Commission and appropriate local permitting agencies.

WE12. Prior to the commencement of site work, the Applicant shall place a visible construction fence or its equivalent that will delineate in the field the limit of work for the proposed project. This fencing shall be placed at the limit of work between the wetlands and the 12th, 13th, and 14th holes, around the perimeter of the upland peninsula containing the 12th green (including the access dike area). In addition, the centerline and edges of fairways as shown on the final plan shall be staked in the field and reviewed for compliance with the final plans by Commission staff prior to construction.

WE13. Following completion of staking of fairways as described in condition #WE12 above, the Applicant's representative and the Cape Cod Commission staff shall walk the site and staff shall make recommendations with regard to specimen trees and snags to be retained along the edges of fairways and in wildlife corridor areas.

WE 14. As mitigation for wetland buffer impacts, the Applicant shall contribute the sum of \$17,570.00 to the Compact of Cape Cod Conservation Trust's, Inc. Cape Cod Land Fund. These funds shall be used toward the acquisition of one or more parcels of land with wetland resource values within the Pleasant Bay watershed. Documentation of the donation of these funds to the Compact of Cape Cod Conservation Trust shall be provided to the Cape Cod Commission prior to the commencement of construction of the golf course. The Commission or its designee shall approve the location of the parcel(s) to be purchased with documentation of the expenditure of the funds provided to the Commission.

Hazardous Materials/Waste

HM1. Prior to issuance of a Certificate of Compliance from the Cape Cod Commission, the Applicant shall:

- a.) notify the DEP as a Very Small Quantity Generator (VSQG) for the purposes of any hazardous waste generated from this project.
- b.) develop and implement a plan designed to train employees about how to prevent releases of hazardous materials or wastes.
- c.) register with the Barnstable County Department of Health and the Environment's hazardous materials program.
- d.) submit for Commission staff review and approval a narrative which describes how any C&D debris coated with lead-based paint will be managed in accordance with the state Hazardous Waste Regulations.
- e.) submit for Commission staff review and approval a plan which designates staging areas on-site for the stockpiling of fuels, lubricants and other hazardous materials as well as for the refueling and maintenance of construction equipment used during construction. These designated areas shall be outside of any wetland buffer areas or buffer areas to adjacent homes and shall be constructed of an impervious surface with berms to provide for spill containment.
- f.) use an above-ground, double-walled fuel storage tank to hold fuel for on-site maintenance equipment as approved by the Brewster Fire Department.
- g.) provide documentation of the Fire Department's approval of the fuel storage tank design and installation.

HM2. The Applicant shall submit a copy of the plans developed for Conditions #HM1b and HM1e, above, to the Brewster and Harwich Fire Departments.

HM3. The Applicant or lessee shall store all recyclable waste generated by the golf course on-site at either the Clubhouse or Turf Management Complex. The Applicant shall also provide documentation that these materials will be properly recycled through an agreement with the Wequasset Inn or other appropriate entity.

HM4. The Applicant shall:

- a.) designate an area on site for the composting of landscaping wastes (leaves and grass clippings). The area designated for composting shall be outside of any wetland buffer areas or buffer areas to adjacent homes and shall be lined with a PVC-plastic liner.
- b.) perform all composting operations in accordance with the proposed state regulations governing composting activities (310 CMR 20.00).

HM5. The Applicant shall provide for recycling of construction and demolition waste generated by the project.

HM6. No stumps shall be buried on the project site. Stumps and brush generated from land-clearing operations shall be chipped for reuse on site or sent to a designated off-site facility for processing.

Transportation

TR1. The Applicant shall reserve a minimum of 20% of available tee-times for Wequasset Inn customers during peak summer months. Prior to issuance of a Certificate of Compliance, the Applicant shall submit documentation that the Wequasset Inn agrees to provide a shuttle bus service to transport these customers to/from the golf course. This measure will meet 12% of the 20% trip reduction requirement of Minimum Performance Standard (MPS) 4.1.2.1.

TR2. The Applicant shall contribute a one-time payment of \$9,490.00 to be held in a designated escrow fund by the Commission which shall be dedicated to the purposes of providing alternate modes of transportation in the town(s) of Harwich and/or Brewster. This fund shall either be divided equally between the towns of Harwich and Brewster or requested jointly by both towns. This contribution will meet the remaining 8% of the 20% trip reduction requirement of Minimum Performance Standard 4.1.2.1. Monies not expended within ten (10) years of the date of deposit shall revert to the Cape Cod Regional Transit Authority for general transit service expenses in the Towns of Harwich and Brewster. The escrow fund shall be of a form and content satisfactory to Commission counsel.

TR3. The Applicant shall contribute a one-time payment of \$2,000.00 to be held in a designated escrow fund towards safety improvements at the intersection of Route 39 at Pleasant Bay Road. These funds may be used by the Town of Harwich to improve safety and reduce congestion in the vicinity of this intersection. Specific measures to improve safety and reduce congestion will be determined at a later date by the Applicant, CCC, and the Town of Harwich. Monies not expended within ten (10) years of the date of deposit shall revert to the Cape Cod Regional Transit Authority for general transit service expenses in the Town of Harwich. The escrow fund shall be of a form and content satisfactory to Commission counsel.

TR4. Prior to issuance of a Certificate of Compliance by the Commission, the Applicant shall submit a concept plan (or narrative) demonstrating that adequate sight distance, based on AASHTO standards, has been met at the site drive with Route 39.

Historic Preservation/Community Character

HP1. Prior to any construction activity including site preparation work or excavation on any portion of the project site deemed likely to possess archaeological significance by the Massachusetts Historical Commission, 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). The goal of the survey shall be to locate and identify archaeological sites which may be affected by the proposed development. If archaeological sites are identified in project impact areas, the Applicant shall consult with the Cape Cod Commission and the Massachusetts Historical Commission regarding ways to avoid or mitigate any adverse effects to significant archaeological resources. The scope of the investigation shall be determined in conjunction with the staff of the State Archaeologist at MHC.

HP2. No demolition, relocation or substantial alteration of the Nickerson Homestead (house and barn), Santos (house and outbuilding), and Caretaker's house shall occur prior to submission of inventory information and a determination by the Massachusetts Historical Commission (MHC) regarding the historical significance of these structures. Based on MHC's determination of historical significance and the opinion of the Harwich Historical Commission, the Applicant shall consult with Commission staff to determine the appropriate means of incorporating these structures into the design plans for the project or otherwise mitigating impacts to these structures. Prior to issuance of a Certificate of Compliance, Commission staff shall approve proposed plans for alteration, relocation or demolition of these buildings.

HP3. Prior to any development activity as defined by Section 2(e) of the Cape Cod Commission Act, the Applicant shall submit a final golf course layout plan for review and approval by Commission staff. Such plan shall include the dimensions of wooded perimeter buffers, as distinguished from wetland buffer requirements listed in the Wetlands, Plant and Wildlife Habitat/Open Space conditions above, between the limit of golf play and the property line according to revised plans prepared by Cornish, Silva & Mungeam, Inc. dated May 1, 1996. Within said buffers, no development activity shall occur with the exception of the following: pruning of dead or diseased trees; planting/transplanting of native vegetation to enhance existing buffers; cart paths as identified on Proposed Cart Path Plan prepared by Cornish, Silva, and Mungeam dated May 1, 1996; signage; or security fencing if proposed at a later date. Prior to the commencement of site work, the Applicant shall place in the field an orange construction fence or its equivalent which delineates the limit of work between golf course construction and the property line. In addition, the centerline and edges of fairways as shown on the final layout plan shall be staked in the field and reviewed by Commission staff for compliance with final plans prior to commencing site work.

HP4. Prior to issuance of a building permit for the clubhouse and/or turf management center, the Applicant shall submit final landscape and layout plans for these facilities for approval by Commission staff. The final landscape plan shall include the quantity and sizes of all plant materials to be installed based on the Design Development Plans for the Cape Cod National Golf

Inc. prepared by Abbellire Inc. dated September 26, 1995, sheet 5 of 14, and final plan submitted to the Brewster Development Plan Review Committee. Contingent upon approval by the Brewster Development Plan Review Committee and the Brewster Zoning Board of Appeals, the final layout plan for the clubhouse shall include a reduction in parking spaces to provide a minimum 35-foot wooded buffer including proposed landscaping and fencing between the limit of parking and the property line adjacent to Route 39.

HP5. Prior to issuance of a Certificate of Compliance, all site/landscape improvements for the clubhouse and turf management center shall be in all material respects completed according to the final landscape plan as described in condition #HP4 above. Any substantial deviations from the approved landscape plan shall require approval by the Regulatory Committee of the Cape Cod Commission.

HP6. If all required site and/or landscape improvements are not completed at the time a Certificate of Compliance is sought from the Commission, any work related to site and/or landscape improvements which is incomplete shall be subject to a performance guarantee of form and content satisfactory to Commission counsel. The amount of the performance guarantee shall equal 110% of that portion of the work, including labor and materials, which remains incomplete with the amount approved by Commission staff. The guarantee shall be payable to the Cape Cod Commission with the work approved by Commission staff prior to the release of the performance guarantee. Upon acceptance of the performance guarantee by the Commission, the Cape Cod Commission shall issue a partial Certificate of Compliance authorizing the Building Inspector(s) to issue a temporary occupancy permit. Documentation of a performance guarantee held by the Town of Brewster in a form, content and monetary value satisfactory to Commission counsel for incomplete work as described above shall satisfy this requirement.

HP7. Parking lot and entry drive lighting shall be installed according to the General Clubhouse and Turf Management Center Site Lighting Plan for the Cape Cod National Golf Inc. prepared by Abbellire, Inc. dated September 26, 1995. Total cutoff of all light from parking lot and entry drive luminaires shall occur within the property lines of the parcel to be developed. All parking lot luminaires shall have fixtures with a total cutoff of all light at less than 90 degrees and a beam cutoff less than 75 degrees.

HP8. Parking lot luminaires shall maintain a maximum initial footcandle reading of 4.27 Fc measured on the ground beneath the light source. Prior to issuance of a Certificate of Compliance for the clubhouse and/or turf management center, footcandle readings of installed luminaires shall be performed by Commission staff to verify this initial reading.

HP9. Wall pack lighting for the clubhouse and turf management center shall have a 45 degree cutoff and shall have a maximum initial footcandle reading of 8.0 Fc measured on the ground beneath the light source. Prior to issuance of a Certificate of Compliance for the clubhouse and/or turf management center, footcandle readings of installed luminaires shall be performed by Commission staff to verify this initial reading.

HP10. All signs shall be illuminated by an overhead external light source directed down and toward the sign. Internally lit or flashing signs shall not be permitted.

The Cape Cod Commission hereby approves with conditions the Development of Regional Impact application of Mr. John Pfeffer pursuant to Section 13 of the Act for the proposed Cape Cod National Golf Course in the towns of Brewster and Harwich, MA.

Sumner Kaufman

Sumner Kaufman, Chair

5/13/96

Date

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss.

Subscribed and sworn to before me this 13th day of May 1996.

Katharine G. Peters

NAME, Notary

My Commission Expires: